



UNITED STATES DEPARTMENT OF COMMERCE  
Economic Development Administration  
Washington, DC 20230

August 5, 2016

**Via email**

Paul Eckert  
City Manager  
City of Mount Shasta  
305 North Mt. Shasta Boulevard  
Mount Shasta, CA 96067  
[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)

Dear Mr. Eckert:

This letter is in further response to your Freedom of Information Act (5 U.S.C. § 552) ("FOIA") request that was received by email on February 11, 2016 by the Economic Development Administration ("EDA").

Per your request, you seek electronic copies of the following records:

"[A]ll documents and correspondence including agreements, letters, phone logs, notes and emails for the period of November 1, 2015 to February 11, 2016 at 1200 in connection with the City of Mount Shasta EDA Award No. 07-79-0700 – Upgrade of the Mount Shasta Wastewater Treatment Plant."

On March 11, 2016, EDA, as an interim response to your request, disclosed 1,381 pages of documents.

EDA is now **releasing** 591 pages in our **final response**. Note that any redactions in this set of documents are being made pursuant to FOIA Exemption (b)(6). Exemption (b)(6) is intended to protect against the disclosure of information which, under the circumstances presented, would constitute an unwarranted invasion of personal privacy. Privacy interests cognizable under FOIA can exist, for example, in such personally identifying information such as a person's home address, date of birth, social security number, personal email address or personal cell phone number.

EDA is also **withholding** documents under FOIA Exemption (b)(5). Exemption (b)(5) is broad, protecting from disclosure communications subject to statutory privileges and those commonly

recognized by case law. The three primary privileges incorporated into this exemption are the deliberative process privilege, the attorney work-product privilege and the attorney-client privilege. The purposes of the deliberative process privilege are, among other things, to: (1) encourage open, frank discussions on matters of policy between subordinates and superiors; (2) protect against premature disclosure of proposed policies before they are actually adopted; and (3) protect against public confusion that might result from disclosure of reasons and rationales that were not in fact ultimately the grounds for the agency's action. The attorney work-product privilege protects documents prepared by an attorney, an agent of the attorney or by a non-attorney at the request of an attorney in contemplation of foreseeable litigation. Finally, the attorney-client privilege covers confidential communications between an attorney and his/her client relating to a legal matter for which the client has sought professional advice. Attached to this letter ("*Attachment I*") is a chart which lists the documents that are subject to the (b)(5) exemption and are not being disclosed, and for each document, provides the nature of the document, date of the document, the names of those who generated and received the record, the subject of the document as well as the specific legal basis for non-disclosure.

You have the right to file an administrative appeal within 90 days of the date of this letter. By filing an appeal, you preserve your rights under FOIA and give the agency a chance to review and reconsider your request and the agency's decision.

If you would like to discuss our response before filing an appeal to attempt to resolve your dispute without going through the appeals process, you may contact our FOIA Public Liaison Stephen D. Kong for assistance at:

1401 Constitution Ave. NW, Suite 72023 Washington, DC 20230  
202-482-4687  
[Skong@eda.gov](mailto:Skong@eda.gov)

If you are unable to resolve your FOIA dispute through our FOIA Public Liaison, the Office of Government Information Services (OGIS), the Federal FOIA Ombudsman's office, offers mediation services to help resolve disputes between FOIA requesters and Federal agencies. The contact information for OGIS is:

Office of Government Information Services  
National Archives and Records Administration  
8601 Adelphi Road-OGIS  
College Park, MD 20740-6001



ogis@nara.gov  
ogis.archives.gov  
202-741-5770  
877-684-6448

Again, pursuant to 15 CFR § 4.10, you have the right to appeal an adverse determination with respect to your FOIA request (as described under 15 CFR § 4.7(b)) by filing either a written or electronic appeal with the Assistant General Counsel for Litigation, Employment and Oversight. A written or electronic appeal must be received within 90 calendar days of the date of this response letter by the Office of Assistant General Counsel for Litigation, Employment and Oversight, Room 5875, U.S. Department of Commerce, 14th and Constitution Avenue, N.W., Washington, D.C. 20230.

Your appeal may also be sent by e-mail to FOIAAppeals@doc.gov, by facsimile to (202) 482-2552, or via FOIAonline (if you have a FOIAonline account) at <https://foiaonline.regulations.gov/foia/action/public/home>. The appeal must include a copy of the original request, the response to the request and a statement of the reason why withheld records should be made available and why denial of the records was in error. The submission, whether by e-mail, facsimile or FOIAonline, is not complete without the required attachments. The appeal letter, the envelope, the e-mail subject line, and the fax cover sheet should all be clearly marked "Freedom of Information Act Appeal." The email, FOIAonline, and fax machine in the Office of the Assistant General Counsel for Litigation, Employment and Oversight are monitored only on working days during normal business hours (8:30 a.m. to 5:00 p.m., Eastern Time, Monday through Friday). FOIA appeals posted to the e-mail box, fax machine, FOIAonline, or Office after normal business hours will be deemed received on the next normal business day.

Please contact my office at (202) 482-4687 if you have any questions or concerns.

Sincerely,



Stephen D. Kong  
Freedom of Information Act Officer

## ATTACHMENT 1: DOCUMENTS SUBJECT TO EXEMPTION (b)(5)

\*\*\* The "Basis for Non-Disclosure" for each item is not exclusive and does not constitute a waiver of any other basis for non-disclosure raised now or in the future.

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Emails (3)	February 11, 2016	To/from Shannon FitzGerald and Stephen Kong (attorney), cc'ing Len Smith, Jamie Lipsey (attorney), Katherine Chekouras (attorney), Stan Good, Ta'Shima Oliphant	Mt. Shasta FOIA Request	Deliberative Process Privilege Attorney-Client Privilege
Memo	February 11, 2016	To EDA Senior Management from Stephen Kong (attorney)	EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Email (including attachment which is being disclosed)	February 10, 2016	To Katherine Chekouras (attorney) and Shannon FitzGerald from Stan Good	Mt Shasta Termination letter scan	Attorney-Client Privilege
Email (including 5 attachments which are being disclosed)	February 8, 2016	From Shannon FitzGerald to Jamie Lipsey (attorney), cc'ing Len Smith, Katherine Chekouras (attorney) and Stan Good	Confidential Attorney Client Privilege -- response	Deliberative Process Privilege Attorney-Client Privilege
Memo	February 5, 2016	To DOC OGC Senior Management from	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
		Stephen Kong (attorney)		
Memo	February 5, 2016	To EDA Senior Management from Stephen Kong (attorney)	EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Email (including attachment which is not being disclosed)	February 5, 2016	To Breeelyn Pete from Stephen Kong (attorney)	FW: City of Mt. Shasta (CA) Award	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege
Email	February 5, 2016	From Stephen Kong (attorney) to Angela Martinez, Breeelyn Pete and Jamie Lipsey (attorney)	City of Mt. Shasta SRO Award	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege
Emails (6)	February 4-5, 2016	To/from Stephen Kong (attorney), Angela Martinez, Angela Ewell-Madison, cc'ing Jamie Lipsey (attorney)	RE: City of Mt. Shasta (CA) Award	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege
Email (including attachment which is not being disclosed)	February 4, 2016	From Stephen Kong (attorney) to Angela Martinez and Angela Ewell-Madison, cc'ing Jamie Lipsey (attorney)	City of Mt. Shasta (CA) Award	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege
Emails (8) (including attachment which is not being disclosed)	February 4, 2016	To/from Shannon FitzGerald, Stephen Kong (attorney), Len Smith, Stan Good, Katherine Chekouras	RE: Confidential: Pre-decisional/Attorney Client Privilege -- process	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Emails (2) (including attachment which is not being disclosed)	February 4, 2016	To/from Jamie Lipsey (attorney) and Stephen Kong (attorney)	Re: New termination letter for Mt. Shasta	Deliberative Process Privilege Attorney Work-Product Privilege
Email (including attachment which is not being disclosed)	February 4, 2016	To Jamie Lipsey (attorney) from Stephen Kong (attorney)	New termination letter for Mt. Shasta	Deliberative Process Privilege Attorney Work-Product Privilege
Email	February 3, 2016	From Shannon FitzGerald to Stephen Kong (attorney) and Jamie Lipsey (attorney), cc'ing Len Smith, Katherine Chekouras (attorney) and Stan Good	Confidential: Pre-decisional/Attorney Client Privilege – process	Deliberative Process Privilege Attorney-Client Privilege
Notes	February 3, 2016	Shannon FitzGerald	Documenting call with Stephen Kong (attorney) and Jamie Lipsey (attorney)	Attorney-Client Privilege
Email	February 2, 2016	From Katherine Chekouras (attorney) to Jamie Lipsey (attorney)	Meeting on Mt. Shasta project	Deliberative Process Privilege Attorney Work-Product Privilege
Emails (3)	February 1, 2016	To/From Jamie Lipsey (attorney) and Shannon FitzGerald	Mt. Shasta call	Attorney-Client Privilege
Memo	January 29, 2016	To DOC OGC Senior Management from	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Memo	January 29, 2016	Stephen Kong (attorney) To EDA Senior Management from Stephen Kong (attorney)	EDA Office of Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Emails (2)	January 29, 2016	To/From Shannon FitzGerald and Stephen Kong (attorney)	Call today Postponed	Attorney-Client Privilege
Emails (2)	January 27, 2016	To/from Stephen Kong (attorney) and Jamie Lipsey (attorney)	Meeting on Mt. Shasta project	Deliberative Process Privilege Attorney Work-Product Privilege
Emails (5) (attachment being disclosed)	January 25, 2016	To/from Shannon Fitzgerald, Jamie Lipsey (attorney) and Stephen Kong (attorney), cc'ing Len Smith and Stan Good	Mount Shasta WWTP Grant	Deliberative Process Privilege Attorney-Client Privilege
Memo	January 22, 2016	To DOC OGC Senior Management from Stephen Kong (attorney)	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	January 22, 2016	To EDA Senior Management from Stephen Kong (attorney)	Office of EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	January 16, 2016	To DOC OGC Senior Management from Stephen Kong (attorney)	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Memo	January 15, 2016	To EDA Senior Management from Stephen Kong (attorney)	Office of EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Email (including attachment which is not being disclosed)	January 15, 2016	To Stephen Kong (attorney) from Jamie Lipsey (attorney)	FW: Meeting on Mt. Shasta, CA project	Deliberative Process Privilege Attorney Work-Product Privilege
Emails (6) (including 6 attachments which are not being disclosed)	January 12-15, 2016	To/from Stephen Kong (attorney), Jamie Lipsey (attorney), Russ Craig (attorney), Katherine Chekouras (attorney), Nathaniel Keller (attorney) and Jeffrey Roberson (attorney)	Meeting on Mt. Shasta, CO project	Deliberative Process Privilege Attorney-Client Privilege Attorney Work-Product Privilege
Emails (2)	January 12, 2016	To/from Jamie Lipsey (attorney), Stephen Kong (attorney) and Katherine Chekouras (attorney)	Meeting with Russ and Nat	Deliberative Process Privilege Attorney Work Product Privilege
Emails (2)	January 12, 2016	To/from Jamie Lipsey (attorney) and Stephen Kong (attorney)	Tentative meeting on SRO NEPA issue	Deliberative Process Privilege Attorney Work-Product Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Emails (3) (including attachment which is not being disclosed)	January 11-12, 2016	To/from Shannon FitzGerald and Stephen Kong (attorney), cc'ing Len Smith, Jamie Lipsey (attorney) and Stan Good	CONFIDENTIAL Attorney-Client Privilege, Pre-Decisional memo re: Mt Shasta DEIS	Deliberative Process Privilege Attorney-Client Privilege
Memo	January 8, 2016	To DOC OGC Senior Management from Stephen Kong (attorney)	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	January 8, 2016	To EDA Senior Management from Stephen Kong (attorney)	Office of EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Email (including 2 attachments, 1 of which is not being disclosed)	January 8, 2016	To Stephen Kong (attorney) and Len Smith from Shannon FitzGerald, cc'ing Jamie Lipsey (attorney) and Stan Good	CONFIDENTIAL —Deliberative process, Attorney-Client Privilege, Mt. Shasta NEPA determination	Deliberative Process Privilege Attorney-Client Privilege
Emails (3)	January 7-8, 2016	To/From Jamie Lipsey (attorney) and Shannon FitzGerald	Synthesis of Mt. Shasta comments	Attorney-Client Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Email (including attachment which is not being disclosed)	January 6, 2016	To Stephen Kong (attorney) from Jamie Lipsey (attorney)	RE: Confidential: Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney-Client Privilege
Email (including 3 attachments which are not being disclosed)	January 5, 2016	To Stephen Kong (attorney) from Jamie Lipsey (attorney)	RE: Confidential: Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney Work-Product Privilege
Emails (2) (including 2 attachments which are not being disclosed)	December 31, 2015	To/from Jamie Lipsey (attorney) and Shannon FitzGerald, cc'ing Kris Skrinde	Confidential: Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney-Client Privilege
Email (including attachment which is not being disclosed)	December 29, 2015	To Jamie Lipsey (attorney) from Stephen Kong (attorney)	RE: Confidential: Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney-Client Privilege
Email (including 2 attachments which are not being disclosed)	December 29, 2015	To Stephen Kong (attorney) from Jamie Lipsey (attorney)	FW: Confidential : Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney Work-Product Privilege
Emails (2) (including attachment which is not being disclosed)	December 23, 2015	To/from Stephen Kong (attorney), Jamie Lipsey (attorney) and Shannon FitzGerald, cc'ing Len Smith, Kris Skrinde and Stan Good	Confidential: Pre-decisional/Attorney Client Privilege — NOI to prepare DEIS for Mt. Shasta	Deliberative Process Privilege Attorney-Client Privilege
Emails (4)	December 23, 2015	To/from Stephen Kong (attorney) and Bill O'Connor (attorney),	RE: FOIA Fan Out for SRO 16-08 (Frank Toriello)	Deliberative Process Privilege Attorney Work-Product Privilege



Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Memo	December 18, 2015	cc'ing Ta'Shima Oliphant To DOC OGC Senior Management from Stephen Kong (attorney)	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	December 18, 2015	To EDA Senior Management from Stephen Kong (attorney)	Office of EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	December 11, 2015	To DOC OGC Senior Management from Stephen Kong (attorney)	EDA/OCC Weekly Report	Attorney-Client Privilege Attorney Work-Product Privilege
Memo	December 11, 2015	To EDA Senior Management from Stephen Kong (attorney)	Office of EDA Chief Counsel Weekly Activity Report	Attorney-Client Privilege Attorney Work-Product Privilege
Emails (4) (including 1 attachment which is not being disclosed)	December 9-10, 2015	To/from Shannon FitzGerald, Stephen Kong (attorney) and Jamie Lipsey (attorney), cc'ing Len Smith, Kris Skrinde and Stan Good	Attorney client privilege – Confidential re: NEPA	Deliberative Process Privilege Attorney-Client Privilege
Emails (2)	December 3, 2015	To Ta'Shima Oliphant and Karen Healer (attorney) from Shannon FitzGerald, cc'ing Stephen Kong	HQ 16-08 FOIA Request from Frank Toriello	Deliberative Process Privilege Attorney-Client Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Emails (6)	December 2-3, 2015	(attorney) and Kris Skrinde To/from Stephen Kong (attorney) and Shannon Fitzgerald, cc'ing Kris Skrinde	RE: Interim release of Documents for FOIA Request Submitted to EDA (FOIA File No. SRO 15-06) RE: MOUNT SHASTA GRANT/CRYSTAL GEYSER WATER CO	Deliberative Process Privilege Attorney-Client Privilege
Emails (5) (including 2 attachments which are being disclosed)	December 2, 2015	To/from Shannon Fitzgerald and Stephen Kong (attorney), cc'ing Kris Skrinde	FW: Interim release of Documents for FOIA Request Submitted to EDA (FOIA File No. SRO 15-06) RE: MOUNT SHASTA GRANT/CRYSTAL GEYSER WATER CO	Deliberative Process Privilege Attorney-Client Privilege
Email (including 8 attachments which are being disclosed)	December 2, 2015	From Shannon Fitzgerald to Stephen Kong (attorney), cc'ing Kris Skrinde	FW: Interim release of Documents for FOIA Request Submitted to EDA (FOIA File No. SRO 15-06) RE: MOUNT SHASTA GRANT/CRYSTAL GEYSER WATER CO	Deliberative Process Privilege Attorney-Client Privilege
Emails (2)	December 1, 2015	To/from Shannon Fitzgerald and Stephen Kong (attorney)	Mt. Shasta FOIA request	Attorney-Client Privilege
Email	December 1, 2015	To Len Smith, Kris Skrinde, Shannon Fitzgerald, Angela Ewell-Madison, Barbara Smith, Eartha Ball, Stephen Kong (attorney), Mara Campbell (attorney) and Bill O'Connor (attorney), cc'ing Jamie Lipsey (attorney) and Karen Healer (attorney)	FOIA Fan Out for SRO 16-08 (Frank Tortello)	Deliberative Process Privilege Attorney-Client Privilege

Nature of Document(s)	Date(s)	Description (e.g., to/from/cc'ed on email)	Subject	Basis for Non-Disclosure***
Email (including 1 attachment that is not being disclosed)	November 25, 2015	From Shannon Fitzgerald to Stephen Kong (attorney)	NEPA public notice commenters – Mt. Shasta project rescope	Attorney-Client Privilege
Email	November 25, 2015	From Shannon Fitzgerald to Stephen Kong (attorney)	FW: Please help save Mt Shasta	Attorney-Client Privilege
Email (attachment being disclosed)	November 13, 2015	From Shannon Fitzgerald to Stephen Kong (attorney)	attorney-client privilege, missing attachment	Deliberative Process Privilege Attorney-Client Privilege
Emails (3)	November 13-16, 2015	To/from Shannon Fitzgerald and Stephen Kong (attorney)	Attorney Client Privilege – NEPA Public Notice/FOIA question	Deliberative Process Privilege Attorney-Client Privilege
Draft Amended Environmental Analysis (attachment to email which has been disclosed)	October 13, 2015	Shannon Fitzgerald to Len Smith	Proposed Re-scope for wastewater treatment system improvements—City of Mt. Shasta, California, Amended EA	Deliberative Process Privilege
ED-506 Draft Decision Document (attachment to email which has been disclosed)	October 13, 2015	N/A	Scope Change for the City of Mount Shasta, CA,	Deliberative Process Privilege
Investment Review Committee Record, Seattle Regional Office (attachment to	April 15, 2015	N/A	City of Mount Shasta, California Sewer Infrastructure Improvements EDA Award No. 07-79-07000	Deliberative Process Privilege

<i>Nature of Document(s)</i>	<i>Date(s)</i>	<i>Description (e.g., to/from/cc'ed on email)</i>	<i>Subject</i>	<i>Basis for Non-Disclosure***</i>
email which has been disclosed)				

**FitzGerald, Shannon**

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**From:** Paul Reuter <preuter@paceengineering.us>  
**Sent:** Friday, September 18, 2015 11:04 AM  
**To:** Good, Stan; FitzGerald, Shannon  
**Subject:** Fwd: EDA-Funded Wastewater Treatment Plan Improvements - Project Description  
**Attachments:** ATT00001.htm; Applicant Certification Clause Form with Attachments.pdf; ATT00002.htm; 1972 WWTP EIR.pdf; ATT00003.htm; EDA-PER\_Report-w-Attachments.pdf; ATT00004.htm

Stan and Shannon,  
I sent the attachments to the City yesterday. You should be receiving them from the City by early next week.

Sent from my iPhone

Begin forwarded message:

**From:** "Paul Reuter" <preuter@paceengineering.us>  
**To:** "Rod Bryan" <rbryan@mtshastaca.gov>, "Muriel Howarth Terrell" <mterrell@mtshastaca.gov>  
**Cc:** "Paul Eckert" <eckert@mtshastaca.gov>  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Rod,

Along with the two Applicant Certification attachments you prepared (attached), please send the following attachments to Stan Good and Shannon FitzGerald at EDA. Stan mentioned they had to come from the City on your letterhead, but I suggest e-mailing and asking if they needed hard copies as well.

1. Applicant Certification documents
2. Preliminary Engineering Report (PER)
3. Environmental Narrative

Thanks.

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)<<mailto:preuter@paceengineering.us>>

Ph: 530-244-0202

From: Rod Bryan [<mailto:rbryan@mtshastaca.gov>]  
Sent: Friday, September 04, 2015 11:24 AM  
To: Paul Reuter; Muriel Howarth Terrell

Cc: Paul Eckert  
Subject: RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Paul Reuter,

Here is the Applicant Certification Clause with attachments. Please let me know if you need the hard copies as well. Also, If you need to modify anything, I have attached the original Word docs.

Thanks,  
Rod

From: Paul Reuter [mailto:preuter@paceengineering.us]  
Sent: Thursday, August 27, 2015 10:00 AM  
To: Rod Bryan <rbryan@mtshastaca.gov<mailto:rbryan@mtshastaca.gov>>; Muriel Howarth Terrell <mterrell@mtshastaca.gov<mailto:mterrell@mtshastaca.gov>>  
Cc: Paul Eckert <eckert@mtshastaca.gov<mailto:eckert@mtshastaca.gov>>  
Subject: FW: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Rod and Muriel,  
We will work with Enplan on the Enviro Narrative and PER. Can you guys fill out the Applicant Certification Clause?

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
preuter@paceengineering.us<mailto:preuter@paceengineering.us>

Ph: 530-244-0202

From: FitzGerald, Shannon [mailto:SFitzGerald@eda.gov]  
Sent: Monday, August 24, 2015 6:13 PM  
To: Paul Eckert (eckert@ci.mt-shasta.ca.us<mailto:eckert@ci.mt-shasta.ca.us>); Paul Reuter  
Cc: Rod Bryan (RBryan@mtshastaca.gov<mailto:RBryan@mtshastaca.gov>); Muriel Howarth Terrell (Mterrell@mtshastaca.gov<mailto:Mterrell@mtshastaca.gov>); Matson, Malinda  
Subject: RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Paul and Paul,

We received the information. Thanks. What Stan and I need before we can amend the scope of work is an Environmental Narrative, Applicant Certification Clause and Engineering Report filled out for the proposed wastewater treatment plant project. I've attached all three templates.

Thanks in advance for getting those to us. -Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration

915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)<<mailto:sfitzgerald@eda.gov>>

From: Paul Reuter [<mailto:preuter@paceengineering.us>]  
Sent: Thursday, August 20, 2015 3:10 PM  
To: Good, Stan; FitzGerald, Shannon  
Cc: Paul Eckert ([Eckert@mtshastaca.gov](mailto:Eckert@mtshastaca.gov)<<mailto:Eckert@mtshastaca.gov>>); Rod Bryan ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)<<mailto:RBryan@mtshastaca.gov>>); Muriel Howarth Terrell ([MTerrell@mtshastaca.gov](mailto:MTerrell@mtshastaca.gov)<<mailto:MTerrell@mtshastaca.gov>>)  
Subject: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hello Shannon and Stan,  
Attached is a project description for the EDA-Funded WWTP Improvements for the City of Mt. Shasta. It includes a project cost estimate, schedule and figures showing proposed improvements.  
Feel free to contact me if you have questions or desire additional information.  
Thank you.

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)<<mailto:preuter@paceengineering.us>>

Ph: 530-244-0202

## FitzGerald, Shannon

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**From:** Good, Stan  
**Sent:** Monday, September 21, 2015 7:44 AM  
**To:** FitzGerald, Shannon  
**Subject:** FW: Environmental Narrative Documents  
**Attachments:** Env Narrative DRAFT 9-10-15\_complete.pdf; Applicant Certification Clause Form with Attachments.pdf; 1972 WWTP EIR.PDF; EDA-PER\_Report-w-Attachments.pdf

I specifically asked them to forward to you. Must not have your email address.

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)  
Join EDA's mailing list today to get the latest agency news and grant opportunity information!

**From:** Rod Bryan [<mailto:rbryan@mtshasta.gov>]  
**Sent:** Monday, September 21, 2015 6:15 AM  
**To:** Good, Stan  
**Cc:** Paul Eckert; Paul Reuter <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)> ([preuter@paceengineering.us](mailto:preuter@paceengineering.us))  
**Subject:** Environmental Narrative Documents

Stan,  
Please see the attached requested documents. I can send hard copies as well if you need them.  
If you need anything else, please let me know.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526



# ENVIRONMENTAL NARRATIVE

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CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT  
EDA-FUNDED FILTRATION AND DISINFECTION IMPROVEMENTS PROJECT  
SISKIYOU COUNTY, CALIFORNIA

September 2015

*Prepared for:*

City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

*and*

U.S. Department of Commerce  
Economic Development Administration  
915 Second Ave., Room 1890  
Seattle, WA 98174

*Prepared by:*

ENPLAN  
3179 Bechelli Lane, Suite 100  
Redding, CA 96002  
(530) 221-0440

# ENVIRONMENTAL NARRATIVE

## City of Mt. Shasta Wastewater Treatment Plant EDA-Funded Filtration and Disinfection Improvements Project

### A. INTRODUCTION

The City of Mt. Shasta owns and operates a wastewater treatment plant (WWTP) located within Township 40N, Range 4W, Section 28, Siskiyou County, California (Figure 1). Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades in the past several years. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. For clarification and filtration, the lagoon effluent is pumped to a dissolved air flotation thickener that polishes and clarifies water prior to filtration. Polished water flows into a rapid sand filtration system to remove suspended solids. Filtered effluent is then disinfected with gaseous chlorine before being discharged offsite.

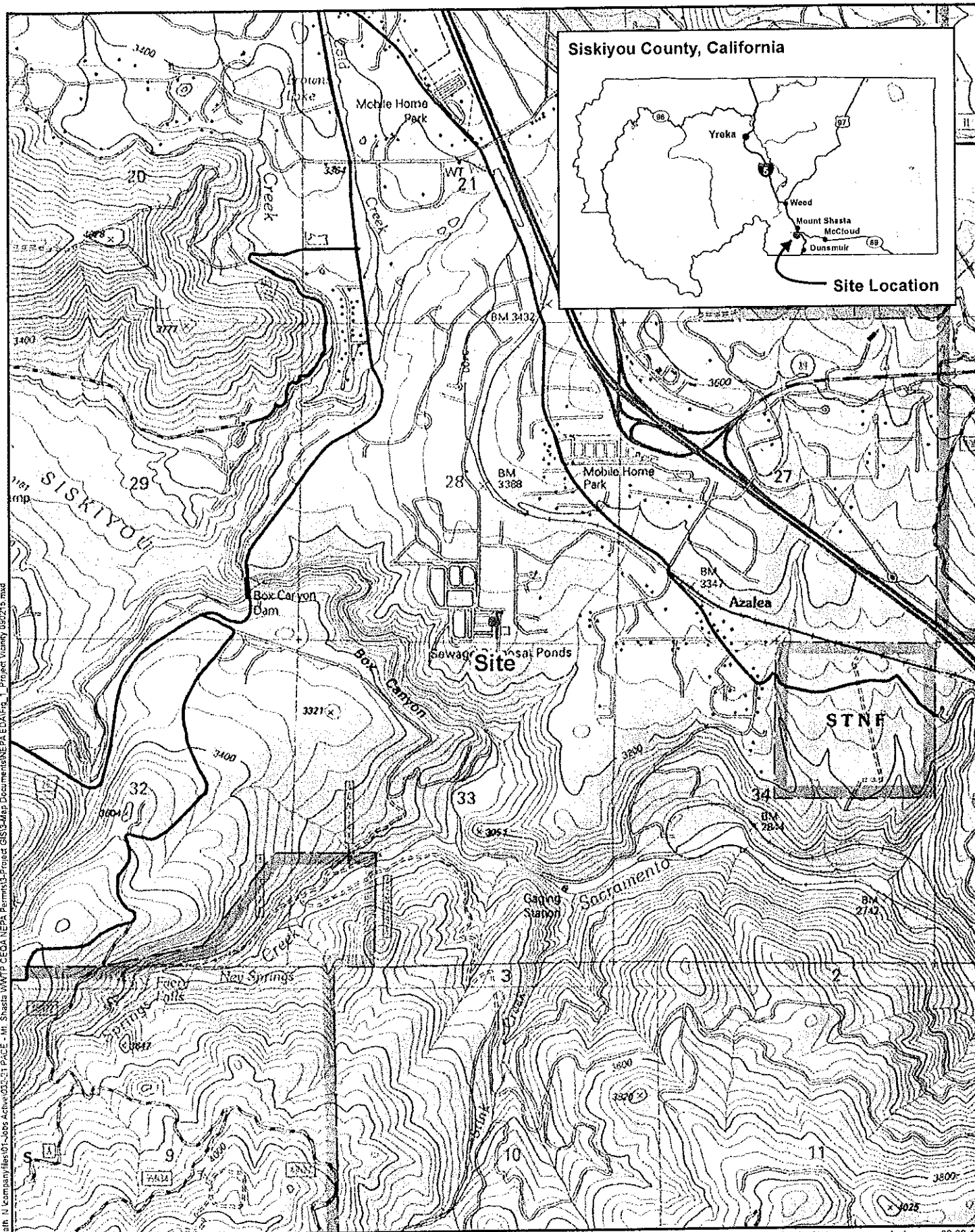
On October 4, 2012, the Central Valley RWQCB adopted Waste Discharge Requirements (WDR) Order No. R5 2012-0086 for the WWTP and concurrently issued Time Schedule Order (TSO) No. R5-2012-0087. The TSO included a compliance schedule to bring ammonia, copper, zinc, biological oxygen demand (BOD5), total suspended solids (TSS), and pH levels into compliance. In addition, the TSO required a compliance schedule for Title 22 Disinfection Requirements. The TSO required that a preliminary engineering report be developed to determine a method of compliance.

PACE Engineering, Inc.'s 2015 Engineering Report and Feasibility Study evaluated several treatment alternatives to meet these new effluent requirements. With respect to filtration, the study concluded that use of effluent filtration would adequately remove metals from the effluent; the current treatment system does not have adequate filtration capacity to remove metals during all existing flow conditions, as required by the Central Valley RWQCB. With respect to disinfection, the study concluded that the current gas chlorination system should be replaced by ultraviolet (UV) disinfection.

Implementation of the proposed action would allow the City to meet the requirements for removing copper and zinc from the waste stream, which become effective in 2017 (before other needed treatment plant improvements can be fully implemented).

### B. BENEFICIARIES

The purpose of the proposed action is to assist the City of Mt. Shasta in upgrading its Wastewater Treatment Plant (WWTP) in an effort to comply with requirements for wastewater discharge set by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB). Beneficiaries of the proposed project include existing residential, commercial, industrial, church, school, government, and other users, as well as future users, located within the approximate 11,714-acre service area of the WWTP.



Path: U:\Company\file01-Jobs\Arch\011-01-PAE - Mt. Shasta WWTP CEQA\NEPA\Bumk13-Process\GIS\Map Documents\NEPA\EDA\Fig. 1 - Project Vicinity 08/02/15.mxd

Figure 1  
**Project Vicinity**

All depictions are approximate. Not a survey product. 09.02.15



## **C. PROJECT DESCRIPTION**

### **1. Proposed Construction**

The City of Mt. Shasta is proposing to construct new filtration and disinfection facilities on a ±0.2-acre site just southwest of its existing operations building, within the footprint of the abandoned intermittent sand filters (see Figure 2). The new facilities would be housed in a single enclosed building, which would serve to reduce exposure to the environment and minimize the potential for algal growth. In addition, approximately 540 feet of new piping would be constructed to connect the new facility with the existing dissolved air flotation thickener pump station to the north and the existing effluent pipeline to the south. The filtration and disinfection systems would include the components and processes described below.

Effluent would travel from the existing oxidation lagoons to the new filtration facilities for final removal of total suspended solids. The 2015 Engineering Report and Feasibility Study identified use of travelling bridge filters as the most likely method of filtration. However, as part of the preliminary design effort for the current project, other filtration technologies would be evaluated, such as disk- or cloth-filtration technology. The final filtration technology selection would not affect the location or function of this process. In fact, if another technology is selected (other than travelling bridge), the project footprint would be much smaller.

To achieve disinfection, the filtered effluent would be directed to one of two UV channels. Each of the UV channels would contain three banks of UV lamps. The UV lamps discharge electromagnetic energy that penetrates the cell walls of pathogenic organisms and destroys the organisms' ability to reproduce. After disinfection, effluent would be discharged from the WWTP to one of the three approved discharge locations.

The project would be constructed over a period of approximately 12 months. Construction equipment would likely include a compactor, excavator, dozer, backhoe, loader, dump truck, and grader. The construction staging area would be located entirely within the existing footprint of the WWTP (see site photos in Attachment A). Total land disturbance would be approximately ±0.5 acres. The construction contract would be awarded prior to September 2016, with construction completed by September 1, 2017.

### **2. Alternatives to the Proposed Action**

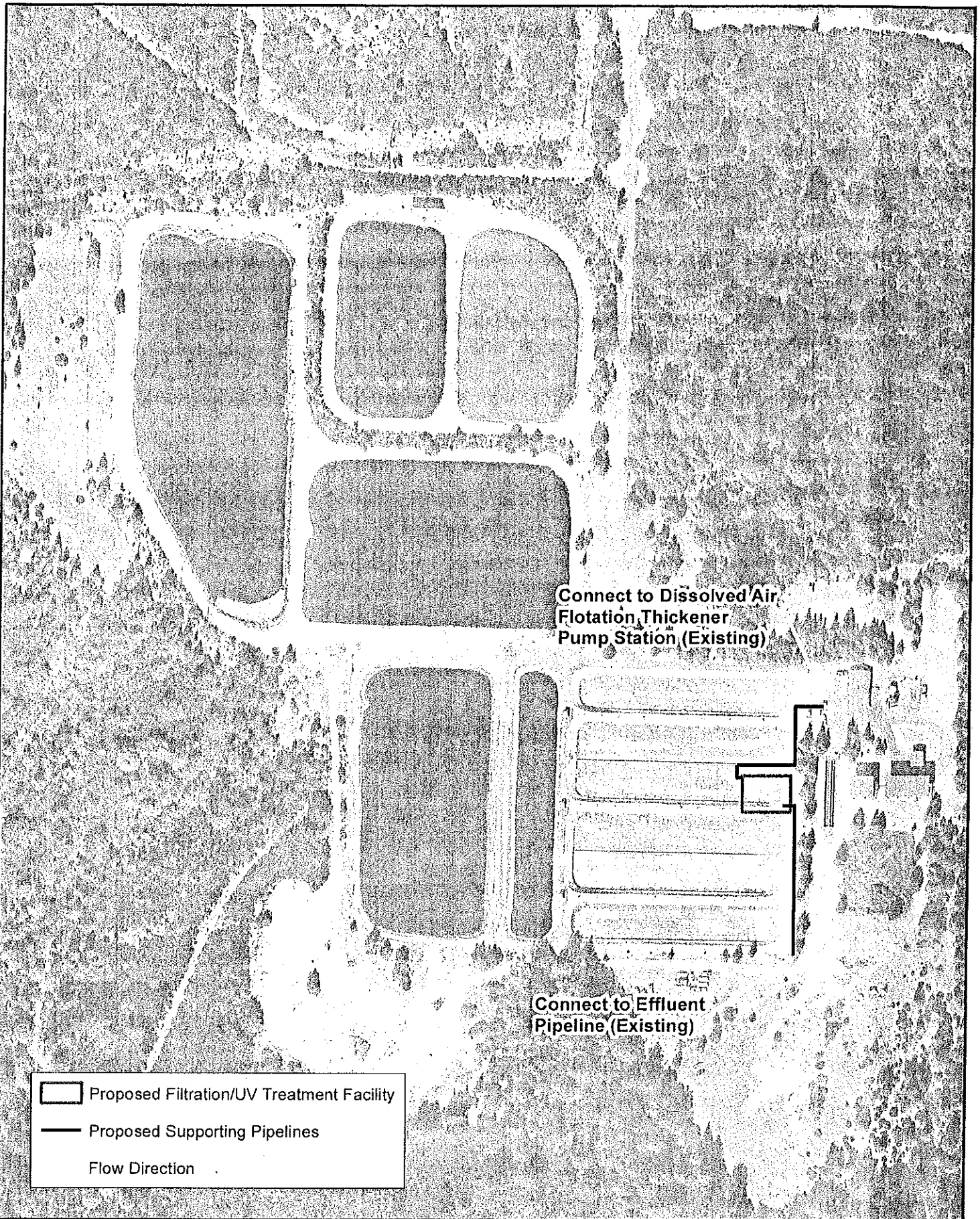
Project alternatives addressed in this narrative include no action, expansion of the existing rapid sand filtration and gaseous chlorine disinfection systems, as well as disinfection through use of sodium hypochlorite, ozone, and UV systems. Alternative filtration systems are also considered, but in less detail because the choice of filtration systems has minimal bearing on environmental effects.

#### The No-Action Alternative

Under the No-Action Alternative, no improvements to the existing filtration or disinfection facilities would be made and the City would not meet the new effluent standards mandated by the Central Valley RWQCB.

The No-Action Alternative is not feasible because the City is required to implement improvements to its existing filtration and disinfection facilities in order to comply with Central Valley RWQCB permit requirements. If the City does not comply, fines would be levied and a cease and desist order would be issued.

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Connect to Dissolved Air Flotation Thickener Pump Station (Existing)

Connect to Effluent Pipeline (Existing)

- Proposed Filtration/UV Treatment Facility
- Proposed Supporting Pipelines
- Flow Direction



Figure 2  
Project Location

All depictions are approximate. Not a survey product. 09.10.15



#### Alternative Filtration Systems

Adequate filtration could be achieved through several different types of treatment, including expansion of the existing rapid sand filtration system, use of a travelling bridge system, or use of disk- or cloth filtration systems. The existing rapid sand filters are housed in an open structure consisting of a roof with no walls. Because the current filtration equipment contains numerous exposed small pipelines, pumps, and instrumentation that freezes during the winter months, adequate filtration cannot be achieved during the winter. The structure is not large enough to accommodate additional like facilities that would be needed to treat wintertime flows. Therefore, if the City were to expand the existing rapid sand filtration system, a substantial upgrade of the existing structure would be required. This would entail expansion of the building footprint, addition of insulated walls and a ceiling, and provision of a heated interior. These improvements would be expensive and provide no benefits that could not be achieved through use of alternative technologies. For these reasons, expansion of the existing rapid sand filtration system was dropped from consideration as a project alternative.

As noted above, the 2015 Engineering Report and Feasibility Study identified use of travelling bridge filters as the most likely method of filtration. However, as part of the preliminary design effort for the current project, other filtration technologies will be evaluated, such as disk- or cloth-filtration technology. All of these filtration alternatives would meet the new NDES requirements, and none involves processes posing risks to human health or the environment. The final filtration technology selection would not affect the location or function of this process. Therefore, use of a travelling bridge filter is considered as the worst-case environmental scenario in that it has the largest physical footprint. Although filtration alternatives will be considered by the project engineer with respect to costs and ease of operation, the alternative do not differ significantly from an environmental perspective and are therefore not further considered in this Environmental Narrative.

#### Alternative Disinfection – Chlorine Gas

The City's existing gaseous chlorination facility has posed operational challenges in recent years. Use of chlorination for effluent disinfection can result in the formation of byproduct methane compounds; The City's new NPDES permit requires that all chlorine and regulated methane byproducts be removed from the waste stream prior to discharge to the Sacramento River. Sulfur dioxide gas is used for this purpose. Any glitches in the controls or equipment used in this process can lead to positive residuals in the effluent and subsequent fines by the Central Valley RWQCB. The City has had fines for positive chlorine residuals in recent years. Further, gas chlorination poses the threat of a chlorine gas leak into the environment, and is unsafe for WWTP staff. Similarly, due to the terrorism threat after 9/11, the federal Department of Homeland Security expressed concern with municipal facilities using chlorine gas.

As with the rapid sand filtration system, continued use of chlorine gas for disinfection would necessitate expansion of the existing housing, addition of insulated walls and a ceiling, and provision of a heated interior. These improvements would be expensive, and the continued/increased use of gas chlorine would remain a safety concern for WWTP staff and the public. The potential for disinfection byproducts detectable in the discharged effluent would remain high; and as a result, the City would continue to be subject to violation notices and fines from the Central Valley RWQCB. For these reasons, continued use of chlorine gas for disinfection was dropped from consideration.

#### Alternative Disinfection - Sodium Hypochlorite

Sodium hypochlorite, commonly known as bleach, is frequently used in wastewater treatment plants. Many of the safety concerns related to the transport and storage of gaseous chlorine



are eliminated by using sodium hypochlorite. Although sodium hypochlorite is more expensive than gaseous chlorine, it is still less expensive than other disinfection options. However, as with gaseous chlorine, the use of sodium hypochlorite can form disinfection byproducts. Additionally, the WWTP's existing chlorine injection equipment would need to be replaced with storage tanks with secondary containment and metering pumps if sodium hypochlorite is to be used for disinfection. This disinfection alternative was not chosen because disinfection byproducts would still be produced, which could lead to discharge violations. Further, sodium hypochlorite systems do not have sufficient ability to adapt to anticipated future discharge requirements of the Central Valley RWQCB.

#### Alternative Disinfection - Ozone

Ozone is more effective than chlorine in inactivating most viruses, spores, cysts and oocysts, and no disinfectant neutralization is required. Although ozone does not form disinfection byproducts, ozone does have the potential to form aldehydes and aldo- and keto-acids. In addition, if bromide is present in the waste stream, certain brominated byproducts can be formed. These byproducts are a concern in terms of future NPDES compliance, as future discharge requirements will likely include pharmaceuticals.

The short life of ozone requires that it be generated onsite. There are several methods used to generate ozone, including electrolysis, photochemical reaction, and radiochemical reaction by electrical discharge. Although the efficiency of ozone generators has improved in recent years, the process still requires a considerable amount of energy and is relatively expensive.

In order to convert to ozone disinfection, construction of a new ozone contact reactor would be required. Because ozone is a toxic gas, off-gas from the reactor would need to be treated by converting it to oxygen, which would be discharged to the atmosphere. Although safer than sodium hypochlorite and with a better ability to accommodate potential future discharge requirements, this disinfection alternative was found to be too expensive while generating only slightly fewer disinfection byproducts than sodium hypochlorite.

#### Alternative Disinfection – UV Light (Proposed Action)

Use of UV light for effluent disinfection was ultimately selected as the proposed action because it is an effective physical process that does not produce disinfection byproducts. In addition, no hazardous or toxic chemicals are required for normal operations. Although there are significant infrastructure and energy costs related to conversion from chlorine disinfection to UV disinfection, this disinfection alternative is less expensive than ozone. Additionally, UV disinfection presents no risk of a discharge violation from disinfection byproducts, has the highest ability to adapt to potential future discharge requirements, and offers the greatest security and safety for WWTP staff and the public.

### **3. Mitigation**

The proposed action entails construction of a filtration and disinfection facility within the existing footprint of the WWTP. Compliance with existing regulations and permit conditions would avoid or reduce certain potential environmental impacts to less than significant. No mitigation is warranted.

*To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week*

*prior to the initiation of vegetation removal or facility construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller buffer zone is authorized by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).*

#### **D. HISTORIC/ARCHEOLOGICAL RESOURCES**

A cultural resources study, including a records search, Native American consultation, and field survey, was completed for the project by ENPLAN (Attachment B).

The records search included review of the data filed with the California Historical Resources Information System, Northeast Information Center at California State University, Chico, as well as other sources. The records search showed that eight cultural resource surveys have been previously conducted within a half-mile of the project site; however, none encompassed any portion of the project site. Three prehistoric isolates consisting of obsidian flakes have been previously recorded in the project vicinity.

Consultation with the Native American Heritage Commission and local Native American community did not reveal any known sacred sites or cultural resources in the project area.

ENPLAN conducted a pedestrian survey of the project site on April 10, 2015. A single prehistoric isolate was identified in the current project footprint as a result of the survey. The prehistoric isolate is a cryptocrystalline flake with evidence of both intentional and inadvertent fracture. The isolate was found within aggregate base fill imported to the facility and thus there exists the possibility that it was imported with the surrounding fill.

Based on the results of the records search, consultation, and field survey, ENPLAN concluded that no resources of local or state significance or resources potentially eligible for listing in the National Register of Historic Places would be affected by the proposed action. As part of the environmental review process, the cultural resources inventory report has been submitted to the State Historic Preservation Office (SHPO) along with a request for concurrence with the eligibility finding.

##### **Sources:**

ENPLAN. 2015. Cultural Resources Inventory, Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou County, California. Prepared for City of Mt. Shasta. On file at NE/CHRIS. (Attachment B)

Far Western Anthropological Research Group, Inc. 2013. A Geoarchaeological Overview and Assessment of Northeast California. Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties. Prepared by Jack Meyer. Davis, California.

#### **E. AFFECTED ENVIRONMENT**

##### **1. Affected Area**

The WWTP is located at approximately 3,300 feet above sea level, and is situated on relatively flat terrain. The project site is located on lands owned by the City of Mt. Shasta. Surrounding lands are primarily undeveloped. Lake Siskiyou is located to the west to the site



and the Sacramento River flows to west and south of the site. The Mount Shasta Resort Golf Course is located to the north. The area to the east supports several semi-rural residences.

Historic land use of the Mt. Shasta area includes Spanish and Mexican expeditions and fur trapping ventures as early as the 1820s. Euro-American settlers arrived in response to the discovery of gold between 1849 and 1852. Permanent settlement led to farming, ranching, and logging in the area. The growing timber industry facilitated the installation of railroads in the early 1900s. In 1887, the Central Pacific Railroad was completed through the area, allowing for a further increase in logging and tourism. With the decline in timber production, tourism is now the core industry and economic generator in the Mt. Shasta area.

## **2. Shorelines, Estuaries, Beaches and Dunes**

The project site is located in inland California (Siskiyou County), and well outside the coastal zone. Requirements of the Coastal Zone Management Act are not applicable to the subject action. There are no proposed overwater structures that could impact navigable waters. The proposed action would have no effect on shorelines, estuaries, beaches, or dunes.

## **3. Wetlands**

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map depicts the WWTP lagoons as freshwater emergent wetlands and as excavated palustrine aquatic bed habitat. However, with some qualifications, active sewage treatment lagoons are expressly excluded by the U.S. EPA and Corps of Engineers from the definition of "wetlands or other Waters of the United States." Field review by ENPLAN confirmed that no wetlands or other Waters of the United States would be affected by implementation of the proposed action.

### **Sources:**

ENPLAN. Field survey. April 30, 2015.

U.S. Fish and Wildlife Service. 2015. National Wetlands Inventory. Web site accessed August 2015. <http://www.fws.gov/wetlands/Data/Mapper.html>

## **4. Floodplains**

Review of FEMA's National Flood Hazard Layer shows that the project site is outside of the 100-year flood hazard zone. Other than a small portion of the Wagon Creek/Cold Creek arm of Lake Siskiyou, all of the WWTP service area is outside of the 100-year flood hazard zone. See Attachment C. Although the project site is owned by the City of Mt. Shasta, the site is located outside of the city limits, and thus, is considered an unincorporated area of Siskiyou County. Siskiyou County participates in the National Flood Plain Insurance Program.

### **Sources:**

FEMA. 2015. National Flood Hazard Layer (Official). Web site accessed August 2015. <http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30>

FEMA. 2011. Flood Insurance Study. Siskiyou County, California and Unincorporated Areas. Web site accessed August 2015. <http://klamathrestoration.gov/sites/klamathrestoration.gov/files/fema.siskiyou.flood.study.pdf>

## 5. Vegetation and Wildlife Resources

The proposed filtration and UV disinfection facility, as well as all associated piping, would be located within a previously disturbed area. Nearly all native vegetation has been previously cleared to accommodate the existing facilities. Remaining vegetation consists of a row of ponderosa pines (possibly planted), as well as a number of weedy annuals such as dyer's-woad, bachelor's buttons, annual ragweed, English peppergrass, spotted spurge, and rose clover.

The project site is located within the Pacific Flyway. A number of migratory birds were observed in or adjacent to the study area during the biological surveys, including osprey, mallard, Canada goose, acorn woodpecker, Brewer's blackbird, cliff swallow, common raven, killdeer, northern flicker, red-winged blackbird, Steller's jay, and turkey vulture. An active osprey nest was observed approximately 850 feet northwest of the project site, atop a man-made platform located at the southwestern corner of the western-most lagoon. According to the WWTP staff, this pair of osprey returns to nest at this location each year. A pair of Canada geese also returns annually to nest at the WWTP. Canada geese nest on the ground, typically on an elevated site near water offering an unobstructed view in many directions; nesting habitats can include lagoon berms. Other wildlife observed during the field survey included black-tailed deer, western fence lizard, California ground squirrel, and pond turtle.

The federal Migratory Bird Treaty Act (MBTA) and related international treaties and domestic laws provide protection for migratory birds. The MBTA established that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The MBTA is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to each country (i.e., they occur in each country at some point during their annual life cycle). The USFWS is the federal agency primarily responsible for protection of migratory birds.

Project implementation would not involve tree removal. Minor vegetation clearing for construction of the proposed facility would affect up to approximately  $\pm 0.5$  acres of the WWTP site. Because work would be confined to the existing footprint of the WWTP, impacts on vegetation would be negligible. With the exception of nesting birds, impacts on wildlife are also expected to be negligible. The existing osprey nest is sufficiently far from the planned work area such that nesting osprey are unlikely to be affected by construction noise or other activities. However, ground-nesting birds such as Canada geese and killdeer, could potentially occupy the work area at the time construction is initiated, and other birds could be nesting in nearby woody vegetation. Implementation of the following mitigation measure would ensure that nesting migratory birds are not adversely affected by project construction:

*To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week prior to the initiation of vegetation removal or facility construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller*

*buffer zone is authorized by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).*

No State or National Parks, National Wildlife Refuges, or National Game Preserves are located on or near the project site. Further, no wilderness areas, as designated or proposed under the Wilderness Act, or wild or scenic rivers, as designated or proposed under the Wild and Scenic Rivers Act, are located on or near the project site. Although the project site is located in the Klamath River watershed, and the Klamath River is included in the National Wild and Scenic River System, the proposed project is located approximately 41 miles south of the main stem of the river and 40 miles southeast of the Scott River segment of the river system.

**Sources:**

Caltrans. 2013. National Wild and Scenic River System – California. Web site accessed August 2015.

<http://www.dot.ca.gov/ser/vol1/sec3/special/ch19wsrivers/chap19.htm#natdesignated>

ENPLAN. Field surveys. April 30, May 13, June 24, and July 28, 2015.

U.S. Fish and Wildlife Service. 2013. List of Migratory Bird Species Protected by the Migratory Bird Treaty Act as of December 2, 2013. Web site accessed August 2015.

<http://www.fws.gov/migratorybirds/regulationspolicies/mbta/List%20of%20MBTA%20Protected%20Species%20December%202013.pdf>

## 6. Endangered Species

The potential for special-status species to be affected by the proposed action was evaluated through completion of a biological records search and a field survey. For the purposes of this study, special-status species are considered to include federally listed species, species proposed for federal listing, and candidates for federal listing.

The records search consisted of review of the USFWS IPaC Trust Resource Report for the study area as well as the California Department of Fish and Wildlife's California Natural Diversity Data Base (CNDDDB). The National Marine Fisheries Service was not consulted because anadromous fish have no potential to occur in or adjacent to the project site due to the presence of downstream dams that are a barrier to fish passage in the Sacramento River.

### *Plants*

The USFWS IPaC Trust Resource Report for the study area (Attachment D) identified five federally listed plant species, plant species proposed for federal listing, and/or candidates for federal listing as potentially being affected by the proposed project: Gentner's fritillary, Hoover's spurge, Siskiyou mariposa lily, slender Orcutt grass, and whitebark pine. The project site does not contain designated critical habitat for federally listed plant species. CNDDDB records do not identify any of these species as occurring within a ten-mile radius of the project site.

ENPLAN conducted a botanical field survey of the project site on May 13, June 27, and July 28, 2015. Most of the special-status plant species potentially occurring on the site would have been evident at the time the fieldwork was conducted. The potential presence of species not identifiable during the field study was readily determined on the basis of observed habitat characteristics. The potential for special-status plant species to occur on the project site is evaluated in Attachment D. As shown in Attachment D, the project site has

potentially suitable habitat for Gentner's fritillary and Siskiyou mariposa lily. However, neither of these special-status plant species was observed or is expected to occur on the site, nor were any other special-status plant species observed or expected to occur on the site.

#### *Wildlife*

The USFWS IPaC Trust Resource Report identified 12 federally listed wildlife species, species proposed for federal listing, and/or candidates for federal listing as potentially being affected by the proposed project: California red-legged frog, Oregon spotted frog, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, longfin smelt (San Francisco Bay Delta population), valley elderberry longhorn beetle, fisher, gray wolf, Delta smelt, western yellow-billed cuckoo, and northern spotted owl. No critical habitat for federally listed wildlife species has been designated in the project site. CNDDDB records indicate that three of these species have previously been reported within a ten-mile radius of the project site. These species consist of the fisher, gray wolf, and yellow-billed cuckoo.

To determine the presence/absence of special-status animal species, ENPLAN wildlife biologists conducted a survey of the study area on April 29, 2015. Most of the special-status animal species potentially occurring on the project site would not have been evident at the time the fieldwork was conducted. However, the potential presence of these species was readily determined on the basis of observed habitat characteristics. The potential for special-status animal species to utilize the project site is documented in Attachment D. No special-status wildlife species were observed during the wildlife survey, nor are special-status animal species expected to occur on the site.

#### *Findings*

Based on the results of the records search and field survey, ENPLAN has concluded that project implementation would have no effect on federally listed, proposed, or candidate species.

#### **Sources:**

California Natural Diversity Database. March 2015.

ENPLAN. Field surveys. April 30, May 13, June 24, and July 28, 2015.

U.S. Fish and Wildlife Service. 2015. IPaC Trust Resource Report. Accessed June 2015.

U.S. Fish and Wildlife Service. 2015. Critical Habitat Mapper. Web site accessed June 2015. <http://criticalhabitat.fws.gov/crithab/flex/crithabMapper.jsp>

## **7. Land Use and Zoning**

The project site is located just outside the municipal limits of the City of Mt. Shasta, in Siskiyou County. The site is within the City's sphere of influence, and is designated under the City of Mt. Shasta General Plan as Public Land and Parks. The site has not been pre-zoned by the City of Mt. Shasta.

The Siskiyou County General Plan Land Use Element identifies the project site as being located within the following mapped areas: Soils – Erosion Hazard (High); Building Foundation Limitation – Severe Pressure Limitations Soils; Slope; Flood Hazard – Dam Inundation Areas; Surface Hydrology – Rivers and Streams; Critical Deer Wintering Area – Deer Wintering Area; Wildfire Hazard (High); and Woodland Productivity – High Suitability (site classes I and II). The Siskiyou County zoning for the site is Non-Prime Agricultural/Combining District for 40-acre parcels (AG-2-B-40). According to Article 49,

Section 10-6.4903, of the Siskiyou County Code, a public utility is permitted in the AG-2 District under a special-use permit. However, because the project site is owned by the City, the proposed project is not subject to County zoning requirements.

Surrounding lands are primarily undeveloped. Lake Siskiyou is located to the west of the project site, and the Sacramento River is to both the west and south of the site. The Mount Shasta Resort Golf Course is located to the north. The area to the east supports several semi-rural residences. Adjacent lands are designated by the City of Mt. Shasta as Public Lands and Parks, Rural Residential, and Resource Lands; the lands do not have a City zoning designation. The adjacent lands are zoned by Siskiyou County as Planned Development District -- sewer ponds (PD - Sw Ponds) and Rural Residential Agricultural District, 10-acre minimum parcel size (R-R-B-10).

The proposed project does not conflict with existing zoning for agricultural use, nor is it subject to Williamson Act contracts. The project site does not occur on farmland (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland). The nearest mapped farmland is located approximately 2.1 miles north of the project site west of North Old Stage Road. Given these conditions, the proposed project would not directly or indirectly affect farmland.

Beneficiaries of the proposed project would be located on land designated for use as industrial, commercial, residential, agricultural, recreational, and public facilities.

The proposed project is compatible with zoning designations and existing land uses on the site and in the vicinity.

**Sources:**

State of California, Department of Conservation. 2012. Farmland Mapping and Monitoring Program. Web site accessed March 2015.

<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sis10.pdf>

State of California, Department of Conservation. 2013. Siskiyou County Williamson Act FY 2012/2013. Web site accessed March 2015.

[ftp://ftp.consrv.ca.gov/pub/dlrp/wa/siskiyou\\_12\\_13\\_WA.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/wa/siskiyou_12_13_WA.pdf)

City of Mt. Shasta. 2007. General Plan. Land Use Element. Web site accessed April 2015.

<http://ci.mtshasta.ca.us/planning/genplan/3LandUseElement.pdf>

Siskiyou County. 2014. Siskiyou County, California - Code of Ordinances. Updated December 1. Web site accessed April 2015.

[https://www.municode.com/library/ca/siskiyou\\_county/codes/code\\_of\\_ordinances?nodeId=16630](https://www.municode.com/library/ca/siskiyou_county/codes/code_of_ordinances?nodeId=16630).

Siskiyou County. 1980. Siskiyou County General Plan Land Use and Circulation Elements.

Web site accessed August 2015. <http://www.co.siskiyou.ca.us/content/planning-division-siskiyou-county-general-plan>

## 8. Solid Waste Management

There are no active landfills in Siskiyou County. All solid waste is disposed of at one of five transfer stations before being trucked out of state. Construction of the proposed project would result in a minimal amount of debris that would be disposed of at Black Butte Transfer Station in Mt. Shasta, where it would be consolidated and ultimately trucked to the Dry Creek Landfill in southern Oregon. This one-time impact is not expected to significantly affect the

capacity of a landfill. Beneficiaries of the project (i.e., existing and future users within the WWTP service area) would also produce solid waste; however, the majority of the waste would be generated from existing households, and thus, would not result in a significant increase in disposal needs. Further, this landfill has a projected operational life that exceeds 100 years, and thus, has sufficient permitted capacity to accommodate the project's solid waste disposal needs. The proposed project would comply with all federal, state, and local statutes and regulations as they relate to solid waste.

No solid waste would require disposal at the landfill once the project is operational. No significant impacts related to solid waste would be expected.

Recycling or other resource recovery programs, other than water reuse for golf course irrigation purposes, are not applicable.

**Sources:**

Mike Reusze, Solid Waste & Flood Control Supervisor – Siskiyou County, General Services, Sanitation Division, personal communication, May 2015.

Rogue Disposal & Recycling, Inc. 2015. About the Landfill. Web site accessed June 2015. <http://roquedisposal.com/about-the-landfill/>

## **9. Hazardous or Toxic Substances**

Project operation would not result in an increased use of hazardous materials, nor would it increase the potential for a release of hazardous materials to the environment. However, project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing state standards govern the transport, use, and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted.

Beneficiaries of the proposed project may also use relatively small quantities of materials such as household cleaning products, motor oil, paint, and pesticides. However, project beneficiaries would also be subject to existing state standards that govern the transport, use, and disposal of hazardous materials. WWTP staff and the service area as a whole would benefit from the conversion to a UV disinfection system, which would eliminate hazards associated with the use of chlorine gas.

## **10. Water Resources**

No water features exist on the project site. The proposed project would not require new groundwater supplies for construction or operation of the project. Although minor amounts of erosion could occur during construction, the project would not create a substantial additional source of polluted runoff. Standard best management practices for spill prevention and erosion control will be implemented during project construction and existing requirements governing the transport, use, and disposal of fuels and other potentially hazardous materials will be met. These measures would reduce the potential for water quality degradation to an insignificant level. In the long term, operation of the project would improve water quality because the discharge would meet the new, more-stringent NPDES permit requirements.

According to the U.S. Environmental Protection Agency, there are no sole-source aquifers in the project vicinity. The nearest designated sole-source aquifer is the Santa Margarita Aquifer, Scotts Valley, which is located south of the San Francisco Bay.

**Source:**

U.S. Environmental Protection Agency. 2014. Sole Source Aquifer. Web site accessed August 2015. <http://www.epa.gov/region9/water/groundwater/ssa.html>

## 11. Water Supply and Distribution System

The primary water source for the City of Mt. Shasta is Cold Creek Springs. The springs produce an average of about 2,000 gallons per minute of pure, unfiltered, and untreated water. The distribution system consists of gravity-fed four storage tanks (with a combined storage capacity of 1.7 million gallons), water supply lines, two groundwater wells, distribution pipelines, and computerized control system. Because the springs depend on natural precipitation, during months of minimal rainfall the City's demand for water outweighs the springs' production, the two wells are utilized to supplement spring production providing an average of 1,200 gallons per minute. The water is supplied in compliance with the Safe Drinking Water Act.

The proposed facility is part of the WWTP that collects and treats wastewater produced within the service area boundary. The proposed project would not require additional water supplies, or new, or expanded entitlements. Relatively small amounts of water would be consumed during project construction, and no increase in water consumption would occur as a result of project implementation. Impacts would be less than significant.

**Source:**

City of Mt. Shasta. 2015. Water Conservation. Web site accessed August 2015. <http://www.ci.mt-shasta.ca.us/publicworks/conservation.php>

## 12. Wastewater Collection and Treatment Facilities

The Mt. Shasta WWTP treats wastewater produced within a service area of approximately 11,714 acres. The WWTP currently has the capacity to treat an average dry weather flow (ADWF) of 0.75 MGD and a peak wet weather flow of 3.56 MGD. As of 2015, the WWTP manages an ADWF of 0.67 MGD and a PWWF of 1.83 MGD. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. Treated effluent is discharged at one of three locations: the Sacramento River, Mt. Shasta Resort Golf Course, or a leach field located east of the Interstate 5/Highway 89 interchange. Sludge is occasionally removed from the lagoons, laid out to dry, and taken to a landfill for disposal.

Improvements to the WWTP and Sacramento River discharge are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) increase the treatment and discharge capacity of the facility. The WWTP has occasionally been in violation of the NPDES permit requirements regarding the quality of the effluent being discharged. Additionally, the WWTP cannot meet the requirements contained in the new NPDES permit without improvements to the treatment and discharge facilities. Per the Time Schedule Order, the treatment and discharge facilities must be upgraded to meet the new standards no later than November 2017. The City plans to make necessary improvements to the WWTP and Sacramento River discharge to comply with the NPDES permit/Clean Water Act.

The proposed project would upgrade the filtration and disinfection systems of the WWTP. With these improvements, the City would meet the requirements for removing copper and zinc from the waste stream, which become effective in 2017 (before other needed treatment

plant improvements can be fully implemented). Work would not include discharges that would require on-site pre-treatment. Implementation of the proposed project would be beneficial to the overall treatment process. The proposed facility would not limit upgrade options for upstream treatment processes that will be needed to meet the new discharge requirements.

### **13. Environmental Justice (Executive Order 12898)**

The project entails construction of a new filtration and UV disinfection facility at the WWTP. The improvements will benefit all users within the service area boundary. The project would have no disproportionate adverse human health or environmental impacts relative to minority and low-income populations.

### **14. Transportation (Streets, Traffic and Parking)**

The WWTP is accessed by Grant Road, a residential street that ultimately connects to Siskiyou Lake Boulevard (a designated collector) and South Old Stage Road (a designated arterial). The latter provides access to Interstate 5 via Hatchery Lane/West Lake Street. Traffic volume increases on the local road network would occur during project construction, but would be minimal in and of relatively short duration. In the long term, no additional traffic would be generated. Existing transportation facilities have sufficient capacity to accommodate the temporary increase in traffic volume during the construction period.

### **15. Air Quality**

Siskiyou County is in compliance with the Federal Clean Air Act for all criteria pollutants (considered attainment or unclassified). Local topographical or meteorological conditions are not known to substantially hinder the dispersal of air emissions within the area.

The proposed facility would not result in long-term operational emissions. Project implementation would result in temporarily increased air emissions, including release of diesel fumes, paint fumes, and other potentially objectionable odors, during construction due to equipment emissions and earthwork. However, this increase would be minimal because of the small size of the construction area, short-term nature of the construction activities (approximately 12 months). Because the project site is well buffered from surrounding residential uses, air emissions and potentially objectionable odors during the construction period would not be significant.

In regards to greenhouse gas emissions, the proposed facility would not result in long-term operational greenhouse gas emissions. Although project construction would result in a temporary increase in greenhouse gas emissions, such as carbon dioxide (CO<sub>2</sub>) and nitrous oxides (NO<sub>x</sub>), this increase would be negligible given the limited amount of construction and the short-term nature of the construction activities. Impacts would be less than significant.

### **16. Noise Pollution**

The proposed facility would be located within the footprint of the existing WWTP and would be enclosed to protect the equipment from harsh weather conditions; therefore, operation of the proposed facility would not result in an increase in ambient noise levels. The beneficiaries of the project (i.e., existing and future users within the WWTP service area) would not be expected to generate increased ambient noise levels as a result of implementation of the project. No impacts with respect to noise would be expected.



## 17. Permits

No federal, state, or local permits would be needed for the proposed project.

## 18. Public Notification/Controversy

The proposed project entails construction of a new filtration and disinfection facility within the footprint of the existing WWTP. The project is in direct response to state-mandated improvements as determined by the NPDES permit. No public notice is necessary and no public controversy is anticipated.

## 19. Direct, Indirect, and Cumulative Effects

The Central Valley RWQCB has issued new waste discharge requirements for the WWTP that necessitate improvements to the filtration and disinfection facilities. Because the proposed project would be located within the existing footprint of the WWTP and serves only to improve the effectiveness and safety of filtration and disinfection processes, the project would not result in direct or indirect effects on the environment. Additionally, as noted before, the capacity of the proposed processes would be sized to accommodate peak wet-weather flows, as mandated in the NPDES permit. The City's current filtration facilities cannot accommodate current peak wet-weather flows. The proposed improvements, effectively, increase the filtration capacity of the WWTP, but only due to regulatory mandates that requires the City to filter its wintertime flows. Conversion from chlorine gas to UV disinfection would have no effect on treatment capacity. Thus, the project would not be growth inducing.

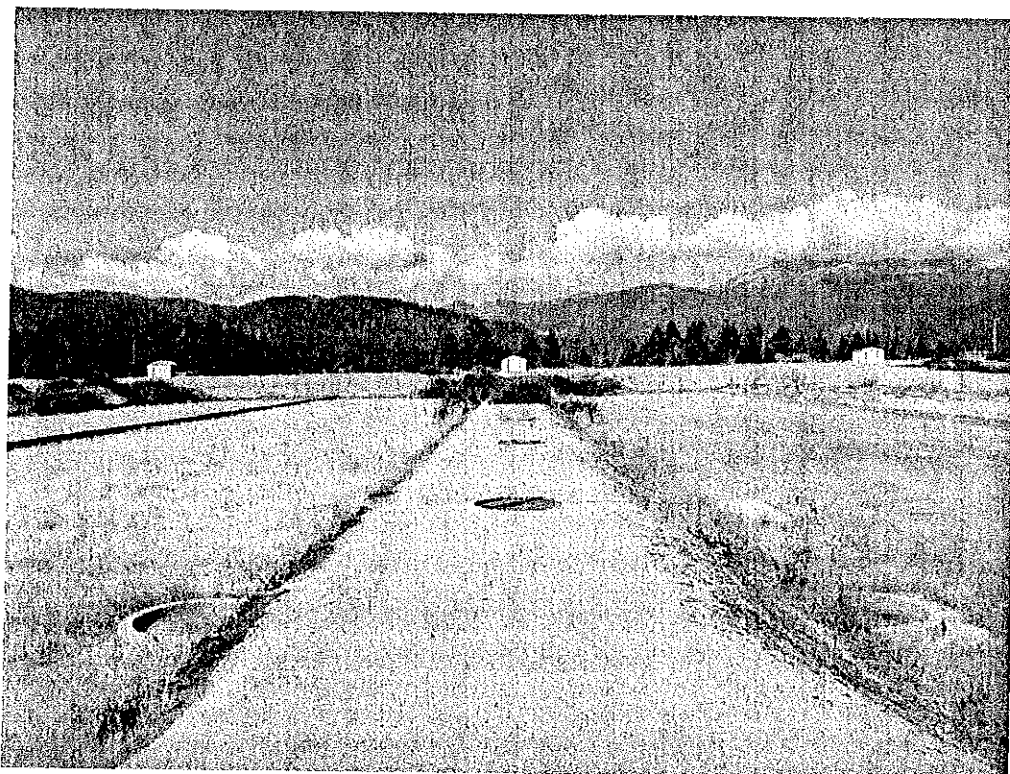
In order to satisfy other remaining requirements of the NPDES permit, other improvements to the WWTP and the Sacramento River outfall would be constructed in the future. These improvements would also occur within the existing footprint of the WWTP, and would serve only to improve the capacity and effectiveness of existing treatment and discharge processes. These subsequent improvements of the WWTP would be sized to accommodate anticipated growth over a 20-year period, with growth anticipated at a rate of one percent per year. Although growth-induced cumulative impacts are expected, such impacts have been fully addressed in the City of Mt. Shasta General Plan and EIR, which anticipated growth at a rate of two percent per year. Further, an increase in the capacity of the WWTP is consistent with the City of Mt. Shasta General Plan Policy LU-16.1 to "ensure that the growth of the community does not outstrip the capacity of the wastewater collection system and treatment facility".

## F. LIST OF FIGURES AND ATTACHMENTS

- USGS topographic map and site map (see Section B1, Figures 1 and 2)
- Attachment A: Site Photos
- Attachment B: Cultural Resources Report
- Attachment C: FEMA Floodplain Maps
- Attachment D: U.S. Fish and Wildlife Service IPaC Trust Resource Report, and the Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

## ATTACHMENT A.

Site Photos



View looking west across the abandoned intermittent sand filters (site of proposed action)



View looking north along the abandoned intermittent sand filters (site of proposed action)

## **ATTACHMENT B.**

Cultural Resources Inventory

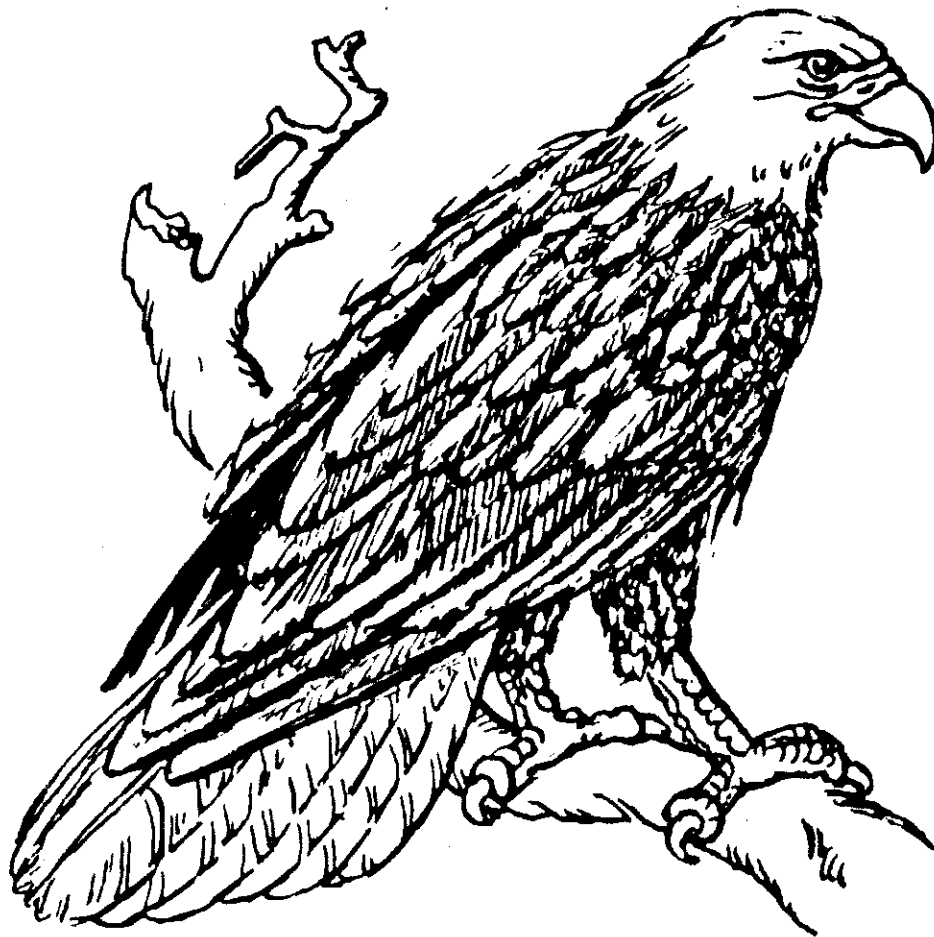
U.S. Fish & Wildlife Service

# My project

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## *IPaC Trust Resource Report*

Generated June 01, 2015 09:47 AM MDT



US Fish & Wildlife Service

# IPaC Trust Resource Report



## Project Description

NAME

My project

PROJECT CODE

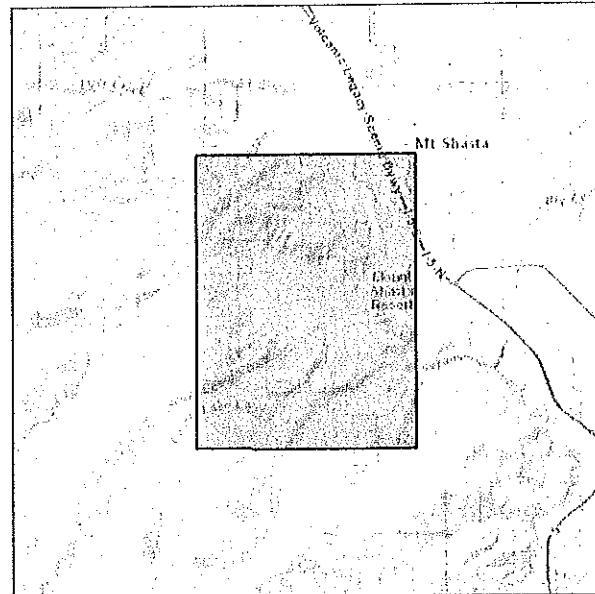
UYEAO-YJFKR-E2V00-P5WI7-YQC3OI

LOCATION

Siskiyou County, California

DESCRIPTION

No description provided



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

**Yreka Fish And Wildlife Office**

1829 South Oregon Street

Yreka, CA 96097-3446

(530) 842-5763

## Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

### Amphibians

**California Red-legged Frog** *Rana draytonii* Threatened

**CRITICAL HABITAT**

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02D>

**Oregon Spotted Frog** *Rana pretiosa* Threatened

**CRITICAL HABITAT**

There is **proposed** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02A>

### Birds

**Northern Spotted Owl** *Strix occidentalis caurina* Threatened

**CRITICAL HABITAT**

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B08B>

**Yellow-billed Cuckoo** *Coccyzus americanus* Threatened

**CRITICAL HABITAT**

There is **proposed** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06R>

### Conifers and Cycads

**Whitebark Pine** *Pinus albicaulis* Candidate

**CRITICAL HABITAT**

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=R00E>

## Crustaceans

**Conservancy Fairy Shrimp** *Branchinecta conservatio* Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03D>

**Vernal Pool Fairy Shrimp** *Branchinecta lynchi* Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03G>

**Vernal Pool Tadpole Shrimp** *Lepidurus packardii* Endangered

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K048>

## Fishes

**Delta Smelt** *Hypomesus transpacificus* Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E070>

**Longfin Smelt, San Francisco Bay Delta Population** *Spirinchus thaleichthys* Candidate

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E088>



## Flowering Plants

**Gentner's Fritillary** *Fritillaria gentneri* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q0V6>

**Hoover's Spurge** *Chamaesyce hooveri* Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q0E9>

**Siskiyou Mariposa Lily** *Calochortus persistens* Candidate

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q0AL>

**Slender Orcutt Grass** *Orcuttia tenuis* Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q1AZ>

## Insects

**Valley Elderberry Longhorn Beetle** *Desmocerus californicus dimorphus* Threatened

CRITICAL HABITAT

There is final critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=I01L>

## Mammals

**Fisher** *Martes pennanti* Candidate Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0HS>

**Gray Wolf** *Canis lupus* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A00D>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

**Northern Spotted Owl Critical Habitat** Final designated

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B08B#crithab>

## Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008</a>	
<b>Calliope Hummingbird</b> <i>Stellula calliope</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3</a>	
<b>Cassin's Finch</b> <i>Carpodacus cassinii</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0J6">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0J6</a>	
<b>Flammulated Owl</b> <i>Otus flammeolus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK</a>	
<b>Fox Sparrow</b> <i>Passerella iliaca</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NE">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NE</a>	
<b>Green-tailed Towhee</b> <i>Pipilo chlorurus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IQ">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IQ</a>	
<b>Lewis's Woodpecker</b> <i>Melanerpes lewis</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HQ">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HQ</a>	
<b>Loggerhead Shrike</b> <i>Lanius ludovicianus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY</a>	
<b>Long-billed Curlew</b> <i>Numenius americanus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S</a>	
<b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HT">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HT</a>	

<b>Oak Titmouse</b> <i>Baeolophus inornatus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MJ">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MJ</a>	
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN</a>	
<b>Peregrine Falcon</b> <i>Falco peregrinus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU</a>	
<b>Purple Finch</b> <i>Carpodacus purpureus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L0">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L0</a>	
<b>Sage Thrasher</b> <i>Oreoscoptes montanus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ID">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ID</a>	
<b>Short-eared Owl</b> <i>Asio flammeus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD</a>	
<b>Snowy Plover</b> <i>Charadrius alexandrinus</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L6">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L6</a>	
<b>Swainson's Hawk</b> <i>Buteo swainsoni</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070</a>	
<b>Western Grebe</b> <i>aechmophorus occidentalis</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0EA">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0EA</a>	
<b>White Headed Woodpecker</b> <i>Picoides albolarvatus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HU">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HU</a>	
<b>Williamson's Sapsucker</b> <i>Sphyrapicus thyroideus</i>	Bird of conservation concern
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX</a>	
<b>Willow Flycatcher</b> <i>Empidonax traillii</i>	Bird of conservation concern
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6</a>	

## Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

## Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

### DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

COMMON NAME/ SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
<b>Plants</b>						
Gentner's fritillary <i>Fritillaria gentneri</i>	FE, 1B.1	Gentner's fritillary is a perennial bulbiferous herb that occurs in chaparral and cismontane woodland habitats, sometimes in serpentine soils. The species is found between 3,200 and 3,700 feet in elevation. The flowering period is April through May.	Yes	No	No	Although suitable dry woodland habitat is present at the project site, Gentner's fritillary is not known or expected to occur in the study area. The species is known from only two locations in California, both near the Oregon border. Because the nearest population is approximately 40 miles away, Gentner's fritillary is not expected to be present at the project site. The species was not observed during the field survey.
Hoover's spurge <i>Chamaesyce hooveri</i>	FT, 1B.2	Hoover's spurge is an annual herb that occurs in vernal pools. The species is found between sea level and 900 feet in elevation. The flowering period is July through October.	No	No	No	No vernal pools or other potentially suitable habitats for Hoover's spurge are present in the study area. Further, the study area is well above the known elevational range of Hoover's spurge. Hoover's spurge was not observed during the botanical survey and is not expected to be present.
Siskiyou mariposa-lily <i>Calochortus persistens</i>	FC, 1B.2	Siskiyou mariposa lily is a perennial bulbiferous herb that occurs in rocky, acidic soils in lower montane coniferous forest, and North Coast coniferous forest. The species is found between 3,280 and 6,100 feet in elevation. The flowering period is June through July.	Yes	No	No	Although rocky soils are present in the study area, Siskiyou mariposa lily is not known or expected to occur in the study area. The lily has been found only on lands within about ten miles to the north and west of Yreka. Given the restricted range of the species and because the nearest population is over 35 miles away, Siskiyou mariposa lily is not expected to be present at the project site. The species was not observed during the botanical survey.

## Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

COMMON NAME/ SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT, 1B.1	Slender Orcutt grass is an annual herb that occurs in vernal pools and similar habitats, occasionally on reservoir edges or stream floodplains, on clay soils with seasonal inundation in valley grassland to coniferous forest or sagebrush scrub. The species is found between 100 and 5,800 feet in elevation. The flowering period is May through September.	No	No	No	No vernal pools or other potentially suitable habitats for slender Orcutt grass are present in the study area. Slender Orcutt grass was not observed during the botanical survey and is not expected to be present.
Whitebark pine <i>Pinus albicaulis</i>	FC	In California, whitebark pine typically occurs in cold, windy, high-elevation sites in the Coast and Cascade ranges and the Sierra Nevada. The species is found at elevations ranging from 6,500 to 12,200 feet.	No	No	No	The project site is well below the elevational range of whitebark pine. Whitebark pine was not observed during the botanical survey and is not expected to be present.
<b>Invertebrates</b>						
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	FE	Conservancy fairy shrimp inhabit large, cool-water vernal pools with moderately turbid water.	No	No	No	No vernal pools or other potentially suitable habitats for Conservancy shrimp are present in the study area. Conservancy fairy shrimp would thus not be present.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	The valley elderberry longhorn beetle is found only in association with elderberry shrubs ( <i>Sambucus</i> spp.). The species' elevational range extends from sea level to 3,000 feet. The species is known to occur in the Central Valley and foothills.	No	No	No	No elderberry shrubs were observed in the study area and Siskiyou County is outside the known range of the valley elderberry longhorn beetle. The valley elderberry longhorn beetle would thus not be present.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	Vernal pool fairy shrimp inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool fairy shrimp are present in the study area. Vernal pool fairy shrimp would thus not be present.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	Vernal pool tadpole shrimp occur in vernal pools in California's Central Valley and in the surrounding foothills.	No	No	No	No vernal pools or other potentially suitable habitats for vernal pool tadpole shrimp are present in the study area. Vernal pool tadpole shrimp would thus not be present.

Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

COMMON NAME/ SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
<b>Birds</b>						
Northern spotted owl <i>Strix occidentalis caurina</i>	FT, SC, SSSC	Northern spotted owls inhabit dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir forests from sea level to approximately 7,600 feet in elevation. Northern spotted owls typically nest in tree cavities, the broken tops of trees, or in snags.	No	No	No	No old-growth forest or potentially suitable nesting trees/snags are present on the project site. Thus, the spotted owl is not expected to nest on the project site.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT, SE	Western yellow-billed cuckoos inhabit and nest in extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which about slow-moving watercourses, backwaters, or seeps. Willows are almost always a dominant component of the vegetation.	No	No	No	No suitable nesting habitat occurs on the project site for the western yellow-billed cuckoo. Thus, yellow-billed cuckoos are not expected to nest on the project site.
<b>Amphibians</b>						
California red-legged frog <i>Rana draytonii</i>	FT, SSSC	Suitable aquatic habitat for the California red-legged frog (CRLF) consists of permanent water bodies of virtually still or slow-moving fresh water, including natural and man-made ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. The CRLF is not characteristically found in deep lacustrine habitats (e.g., deep lakes and reservoirs). Dense, shrubby riparian vegetation, e.g., willow ( <i>Salix</i> ) and bulrush ( <i>Scirpus</i> ) species, and bank overhangs are important features of CRLF breeding habitat. The CRLF tends to occur in greater numbers in deeper, cooler pools with dense emergent and shoreline vegetation.	No	No	No	The project site occurs well outside of the historic and current range of the CRLF. The CRLF would thus not be present.
Oregon spotted frog <i>Rana pretiosa</i>	FT, SSSC	Oregon spotted frog is typically found in or near a perennial body of water that includes zones of shallow water and abundant emergent or floating aquatic plants, which the frogs use as basking sites and for escape cover. The frog prefers large, warm marshes (approximate minimum size of 9 acres), and is thought to be extirpated from California.	No	No	No	Review of CNDDDB records found that the Oregon spotted frog has been reported from two locations in California, the nearest being ±70 miles northeast of the project site. The species has not been observed in California since 1918. Thus, the Oregon spotted frog is not expected to be present.



Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

COMMON NAME/ SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
<b>Fish</b>						
Delta smelt <i>Hypomesus transpacificus</i>	FT, SE	Delta smelt primarily inhabit the brackish waters of Sacramento-San Joaquin River Delta. Most spawning occurs in backwater sloughs and channel edgewater.	No	No	No	The project site is well outside the range of Delta smelt. Delta smelt would thus not be present.
Longfin smelt, San Francisco DPS <i>Spirinchus thaleichthys</i>	FC, ST, SSSC	The longfin smelt is a pelagic estuarine fish. The historical and current range of the longfin smelt extends from Alaska southward to the San Francisco Bay-Delta in California, which includes the Delta, Suisun Marsh, San Pablo Bay, and the San Francisco Bay to the Golden Gate Bridge. The range is made up of at least 20 scattered populations found in estuaries, rivers, and lakes. The United States Fish and Wildlife Service found that listing the longfin smelt is warranted only for the Bay-Delta, not range-wide.	No	No	No	The project site is well outside the range of longfin smelt. Longfin smelt would thus not be present.
<b>Mammals</b>						
Fisher - West Coast DPS <i>Martes (Pekania) pennanti</i>	FP, SC, SSSC	Fishers inhabit mixed conifer forests dominated by Douglas-fir, although they also are encountered frequently in higher elevation fir and pine forests, and mixed evergreen/broadleaf forests. Suitable habitat for fishers consists of large areas of mature, dense forest stands with snags and greater than 50 percent canopy closure. Fishers den in cavities in large trees, snags, logs, rocky areas, or shelters provided by slash or brush piles. Fishers are very sensitive to human activities. Den sites are most often found in areas with no human disturbance.	No	No	No	Marginally suitable habitat for fishers occurs in the study area. However, the fisher is not expected to den on the site due to the level of human disturbance.

Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

COMMON NAME/ SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Gray wolf <i>Canis lupus</i>	FE, SE	Gray wolves may be found in any terrestrial habitat in the Northern Hemisphere from about 20° latitude to the polar ice pack. However, key components of preferred wolf habitat include a year-round abundance of natural prey (e.g., ungulates and medium-size mammals) secluded denning and rendezvous sites, and sufficient space with minimal human disturbance. Dens may be a hollow log or a tunnel excavated in loose soil. A den may have two or more entrances, which are usually indicated by a large pile of dirt. Den sites are often near water, and are usually elevated to detect approaching enemies. Wolf packs establish and defend territories that may range from 20 to 400 square miles. Wolves travel over large areas to hunt, and may cover as much as 30 miles in a day. Young wolves may disperse several hundred miles to seek out a mate or to establish their own pack.	Yes	No	No	A gray wolf pack, known as the "Shasta Pack" became established in southeastern Siskiyou County, in the spring of 2015. Continued dispersal of wolves into California is expected. Although gray wolves can travel approximately 30 miles each day, and could potentially forage or stray through the study area, gray wolves would not den in the study area given the extent of human activity in and adjacent to the study area.

Federal Status

- FE = Federally Listed – Endangered
- FT = Federally Listed – Threatened
- FC = Federal Candidate Species
- FP = Federal Proposed Species
- FD = Federally Delisted
- FSC = Federal Species of Concern

State Status

- SFP = State Fully Protected
- SR = State Rare
- SE = State Listed – Endangered
- ST = State Listed – Threatened
- SC = State Candidate
- SD = State Delisted

Rare Plant Rank

- List 1A = Presumed extirpated in California and either rare or extinct elsewhere
- List 1B = Rare or Endangered in California and elsewhere
- List 2A = Presumed extirpated in California, but more common elsewhere
- List 2B = Rare or Endangered in California, but more common elsewhere
- List 3 = Plants for which we need more information - Review list (generally not considered special-status, unless unusual circumstances warrant)
- List 4 = Plants of limited distribution - Watch list (generally not considered special-status, unless unusual circumstances warrant)

Threat Ranks

- 0.1 = Seriously Threatened in California
- 0.2 = Fairly Threatened in California
- 0.3 = Not Very Threatened in California

**CITY OF MT. SHASTA  
EDA-FUNDED WASTEWATER TREATMENT PLANT  
IMPROVEMENTS  
PRELIMINARY ENGINEERING REPORT (PER)**

**1. DESCRIPTION OF PROJECT COMPONENTS**

The City of Mt. Shasta proposes to construct filtration and ultra-violet (UV) disinfection facilities in order to meet State-mandated waste discharge requirements imposed in the 2012 National Pollution Discharge Elimination System (NPDES) permit. The specific components are described as follows, and shown on Figure 1.

**A. Filtration Facilities**

The proposed filtration facilities will consist of either, 1) travelling bridge filters, or 2) disk-type (cloth) filters. Final filtration technology selection will be made as part of the 10% Preliminary Design and Development Report (PDDR) effort for this project. The travelling bridge filters consist of two (2) approximately 16-foot by 46-foot concrete basins adjacent to one another. Each basin contains about 10 inches of graded filter sand and have an approximate area of 736 square feet. The filter beds are partitioned into many smaller cells. A travelling bridge moves slowly across the entire bed, backwashing one individual partitioned cell at a time. This allows the entire filter (less one cell) to remain in service at all times – even during backwashing. Each filter has a peak wet weather flow capacity of approximately 2.0 million gallons per day (MGD) to accommodate peak wet weather flows. The filters will be covered by a structural steel enclosure with open sides.

If a disk-type (cloth) filtration system is selected, the overall footprint will be much smaller because the filtration media consists of circular disks mounted vertically. Both sides of the disks filter clarified effluent. There are two type of configurations for these units: 1) clarified effluent enters the outside of the disks, or 2) clarified effluent enters the disk internally and exists, thereby retaining trapped solids inside the disk. While the disk-type filters are more expensive, equipment-wise, the overall installation cost may be comparable to travelling bridges because of the smaller footprint. Each disk filter

consists of steel basin that fits within a 15-foot by 8-foot area. If disk-type filters are selected, consideration will be made to house them in an enclosed, conditioned building along with the UV facilities.

**B. UV Disinfection Facilities**

The UV disinfection facilities will consist of two UV channels – one primary and one back-up. The channels will be below-ground reinforced concrete located adjacent to the filtration facilities. At full build-out, each UV channel will contain three banks of lamps delivering a dose of 80,000 micro watts per square centimeter ( $\mu\text{Ws}/\text{cm}^2$ ). The approximate footprint of the UV channels is about 46 feet by 20 feet. Both the disinfection and UV facilities will be housed under an open-walled enclosure or metal building.

**2. STATEMENT OF COMPLIANCE WITH SECTION A.2 OF FORM ED-900**

The proposed project encompasses improvements to the City of Mt. Shasta's wastewater treatment plant that serves areas within the City and Siskiyou County. The improvements consist of constructing new effluent filtration and disinfection facilities at the wastewater treatment plant. These improvements are necessary for the City to comply with its current National Pollution Discharge Elimination System (NPDES) permit, adopted in October 2012. Said improvements will allow the City to meet current regulatory requirements imposed in the 2012 NPDES discharge permit. Refer to attached Form ED-900, Section A.2, which was provided for the original Interceptor Sewer Replacement project. The proposed project is shown graphically on attached Figure 1.

**3. COMPLIANCE WITH SECTION B.5 OF FORM ED-900**

Reference is made to Form ED-900, Section B.5, attached, submitted as part of the original project funding application. The project beneficiaries are unchanged from the original Form ED-900.

**4. PROJECT CONSTRUCTIBILITY**

Both the filtration and UV disinfection facilities will be constructed within the footprint of the existing slow sand filters – currently not being used. Both processes will be

constructed in the ground so that the working surfaces are at approximately ground level. If travelling bridge filters are utilized, the depth of excavation will be about eight feet. Use of disk-type filters will require less excavation. The depth of excavation for the UV channels is expected to be about six to seven feet.

Since the proposed site is previously disturbed by construction of the slow sand filters, no difficult excavation is anticipated. It will be critical to perform the 10% PDDR prior to final placement of the proposed facilities in order to determine design elevations based on the water hydraulic profile through the entire treatment plant. This will avoid the need for extraneous pumping when the remaining WWTP processes are designed and constructed for the State-Mandated project.

## **5. PROPOSED METHOD OF CONSTRUCTION**

The project implementation approach will be by "design-bid-build." PACE will design the improvements, prepare bid documents and lead the public bidding process. Public advertisement will be accomplished in accordance with Public Contract Code requirements pertaining to local advertisement. In addition, the project will be advertised on CIPList.com, which is a hosted bid advertisement website used by many public agencies. The lowest responsive and responsible bidder will be awarded the construction contract. Construction management and inspection services will be provided by PACE Engineering, Inc.

## **6. ANTICIPATED NUMBER OF CONSTRUCTION CONTRACTS**

It is anticipated that the proposed facilities will be constructed as part of one contract with an single Class A-licensed engineering contractor. The Contractor may have subcontractors at his own discretion, and as long as 50% of the work is completed by his/her own forces.

## **7. CONSTRUCTION COST ESTIMATE**

The total project cost is estimated to be about \$3.03M, see Table 1. Construction is estimated to be about \$2.497M in June 2016 dollars – the time in which bidding is expected to take place, and includes a 15% contingency. Prior to any design work, it is appropriate to use a 15% to 20% contingency. When design is nearly complete, it is

appropriate to reduce the contingency allowance to 10% to 15% percent. We feel a 15% contingency for this level of planning is appropriate.

Cost are based on proposals from equipment suppliers and our in-house database of costs observed on recently bid public works projects throughout northern California.

## 8. PROPERTY ACQUISITION

There are no property or easement acquisitions required to implement the subject project. All project components reside on City of Mt. Shasta property, refer to Figure 2.

## 9. PROJECT PERMITS

The typical construction-related permits will be obtained by the Contractor prior to starting work. The Contract will provide evidence or an OSHA shoring permit, and construction erosion control permit from the California Regional Water Quality Control Board. No encroachment or other permits will be required.

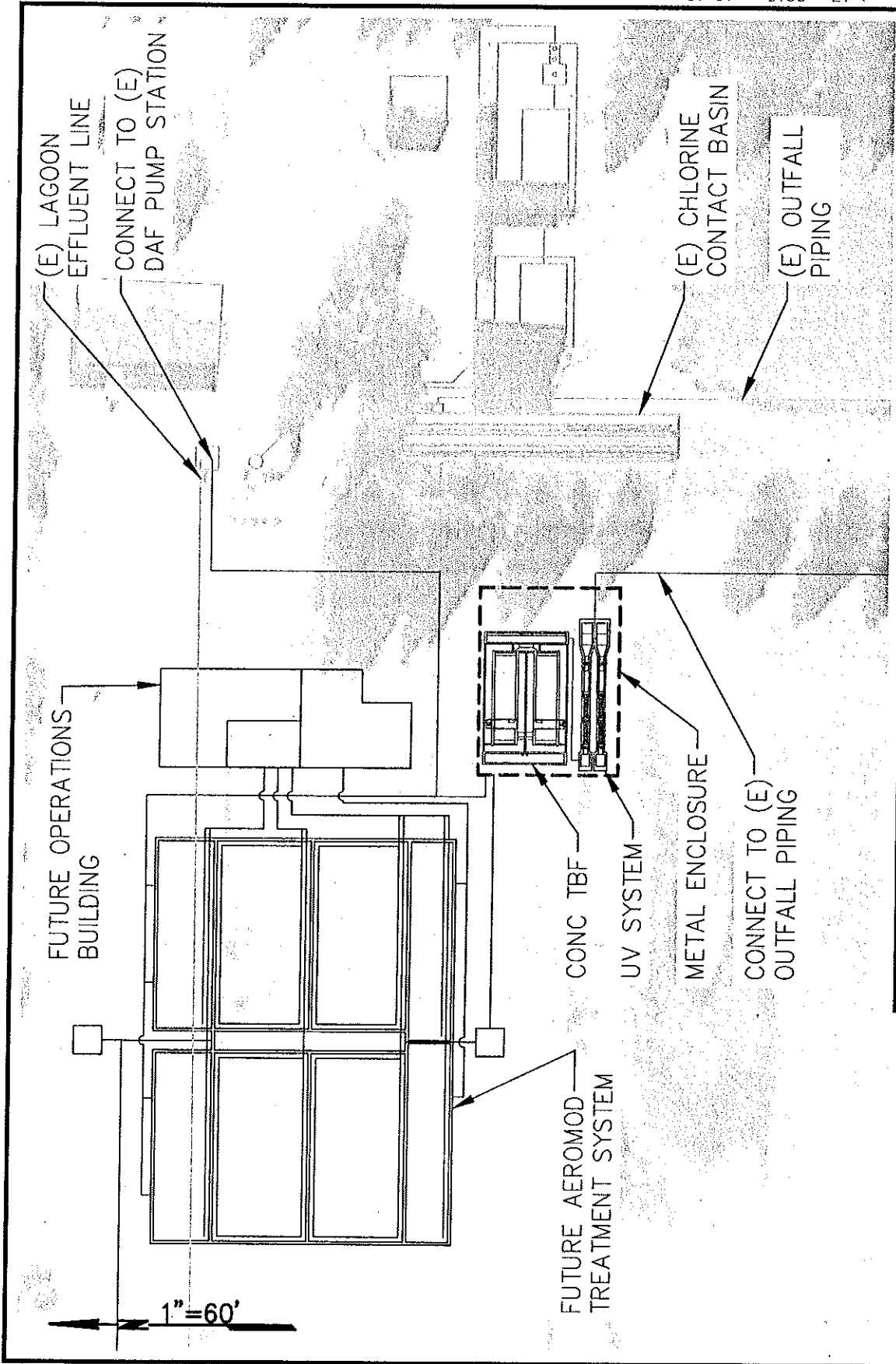
## 10. ESTIMATED PROJECT SCHEDULE

In order to meet the September 25, 2016 deadline to begin construction on the project using EDA grant funds, the following schedule must be adhered to.

MILESTONE	DURATION	COMPLETION DATE
Obtain EDA approval to proceed with revised project.	1 wk	Sep 25, 2015
City authorize PACE to proceed with PDDR & final design.	1-1/2 wks	Sep 28, 2015
Design surveys and mapping	3 wks	Oct 16, 2015
Preliminary Design and Development Report (PDDR).	18 wks	Feb 12, 2016
Advertise for public bids	32 wks	Jun 7, 2016
Public bid opening	5 wks	Jul 12, 2016
Issue Notice to Proceed to Contractor	6 wks	Sep 1, 2016
Construction completed	13 mos	Sep 30, 2017

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**FIGURES**



(E) LAGOON  
EFFLUENT LINE  
CONNECT TO (E)  
DAF PUMP STATION

(E) CHLORINE  
CONTACT BASIN

(E) OUTFALL  
PIPING

FUTURE OPERATIONS  
BUILDING

FUTURE AEROMOD  
TREATMENT SYSTEM

CONC TBF

UV SYSTEM

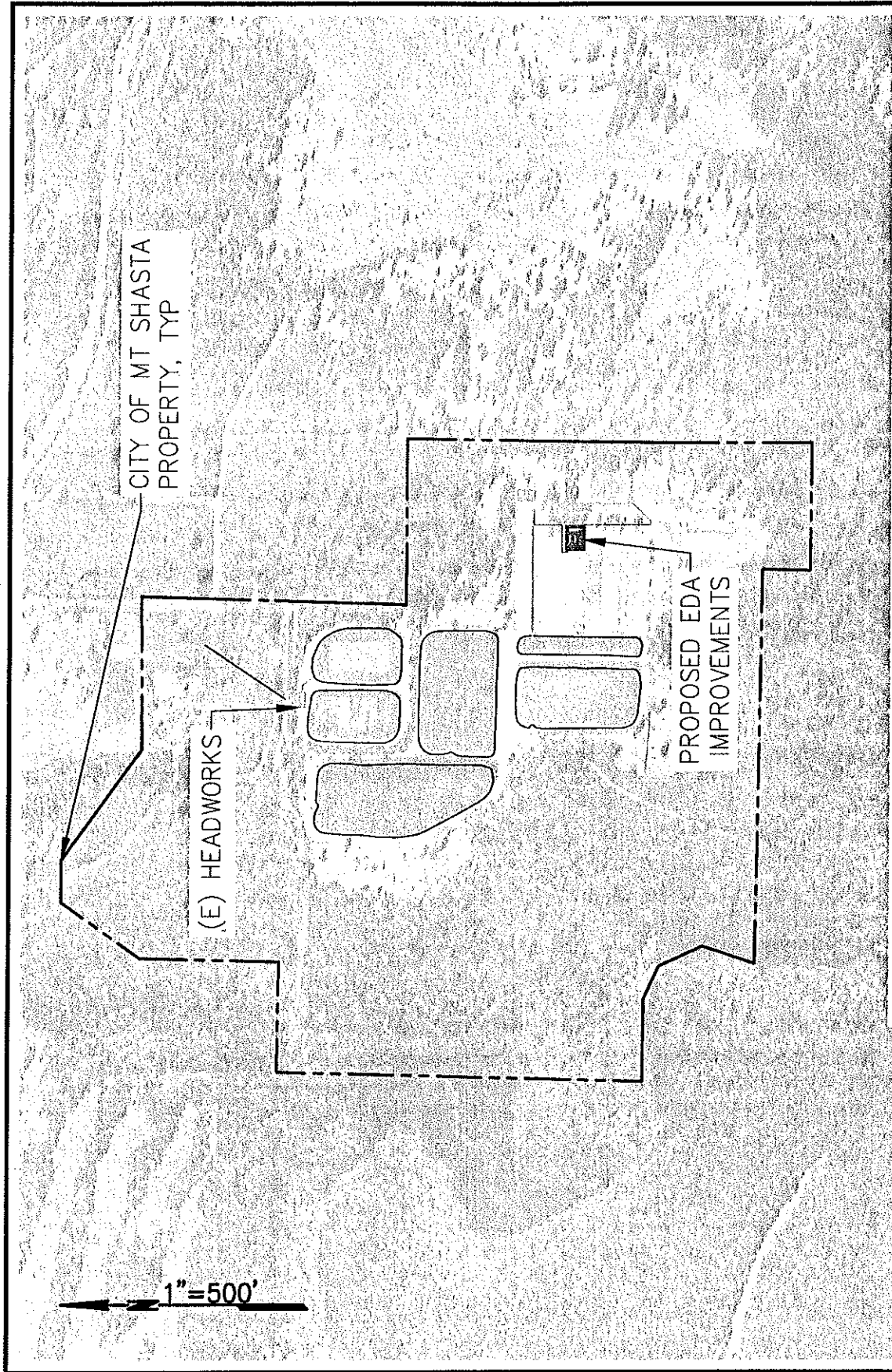
METAL ENCLOSURE


CONNECT TO (E)  
OUTFALL PIPING

1" = 60'

	<b>CITY OF MT. SHASTA</b> <b>EDA-FUNDED WWTP</b> <b>IMPROVEMENTS</b>		<b>FIGURE 1</b>
			<b>DATE: 8/15</b>
			<b>JOB #111.54</b>





 <b>PACE</b> ENGINEERING REDDING, CALIFORNIA	<b>CITY OF MT. SHASTA</b> <b>EDA-FUNDED WWTP</b> <b>IMPROVEMENTS</b>	<b>FIGURE 2</b> <b>DATE: 8/15</b> <b>JOB #111.54</b>
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## **TABLES**

**TABLE 1**

**City of Mt. Shasta  
EDA-FUNDED WASTEWATER TREATMENT PLANT IMPROVEMENTS**

Description	QTY	UNITS	UNIT COST	CONTRACT AMOUNTS
<b>Filtration Facilities</b>				
Equipment and Controls	2	EA	\$251,000	\$502,000
Concrete structure	1	LS	\$416,000	\$416,000
Structure excavation and backfill	1200	CY	\$30	\$36,000
Process and utility piping	240	LF	\$175	\$42,000
Steel enclosure	4800	SF	\$25	\$120,000
<b>UV Disinfection Facilities</b>				
UV disinfection equipment	1	LS	\$570,000	\$570,000
Concrete basin	1	LS	\$130,000	\$130,000
Electrical and controls	1	LS	\$250,000	\$250,000
Subtotal Filtration & Disinfection Improvements (June 2014 Dollars):				
Inflation @ 2.5%/yr for 2 years:				
Contingency Allowance @ 15%:				
Total Construction Cost (Including Contingency):				
INDIRECT COSTS				
Grant Administration Cost:				
Environmental (IS/MND):				
Survey/Mapping:				
10% Preliminary Design & Development Report:				
Design, including geotechnical:				
Contract Services (Bidding/Award/Contract Execution):				
Labor Code Compliance Services:				
Construction Administration:				
Construction Observation:				
<b>TOTAL ESTIMATED PROJECT COST (June 2016 Dollars):</b>				
				<b>\$3,032,451</b>

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**ATTACHMENTS**

### A.1. Investment (Project) Region

Identify and describe the region where the project will be located, identify and describe the region that will benefit from the project (if different from or in addition to the region in which the project will be located), and discuss the project's expected economic impact. For purposes of this application, a region is defined as "an economic unit of human, natural, technological, capital or other resources, defined geographically. Geographic areas comprising a region need not be contiguous or defined by political boundaries, but should constitute a cohesive area capable of undertaking self-sustained economic development." (See 13 C.F.R. § 300.3 for the definition of "Region.")

This project will take place in and benefit the County of Siskiyou and the City of Mt. Shasta, California. The City of Mt. Shasta is a rural alpine valley community located between the Eddy Range and the southwestern slope of 14,162-foot Mount Shasta in the southern Cascade Range. The City is located 50 miles south of the California/Oregon border, in southern Siskiyou County. The city contains 3,411 people within its 3.75 square mile boundary, with an additional 3,000 residents living just outside of the City limits (census.gov). The successful completion of this project would allow for the opening of a state of the art beverage bottling plant and the creation of 60 new jobs. It would also prepare the City for the needs of future development.

### A.2. Investment (Project) Description

Provide a detailed description of the complete scope of work for the proposed EDA investment. If you are proposing a construction project, please include specific construction components. Also, for National Technical Assistance, Training and Research and Evaluation Projects, provide a description of the methodology to be used to complete the project.

This project encompasses improvements to the City of Mt. Shasta's wastewater system that serves areas in both the City and County. These improvements include upsizing approximately 7300 feet of main sewer interceptor line from 12 inch to 30 inch line and building two to three new storage lagoons at the wastewater treatment facility to accommodate flows from the bottling plant and future development.

*Note: If EDA determines that your project merits further consideration, and if your project includes construction, you will be required to provide a USGS map of the site. You may provide this now using the 'Attachments' form that is part of the application package downloaded from [www.Grants.gov](http://www.Grants.gov) or in hard copy.*

### A.3. Economic Development Needs

- a. Does the region in which the project will be located have a Comprehensive Economic Development Strategy (CEDS)? (See [www.eda.gov/ImageCache/EDAPublic/documents/pdfdocs2006/cedsflyer081706\\_2epdf/v1/cedsflyer081706.pdf](http://www.eda.gov/ImageCache/EDAPublic/documents/pdfdocs2006/cedsflyer081706_2epdf/v1/cedsflyer081706.pdf).) (Note: Except for strategy grants as described in 13 C.F.R. § 303.7, the region in which Public Works or Economic Adjustment projects will be located must have a CEDS with which the project is consistent.)

Yes

No

If Yes, what is the source? Note: If you are unsure if your region has a CEDS, please contact your local District Organization.

Superior California Economic Development District

4. **Substantial Direct Benefit:** A project located within an Economic Development District (EDD) that is located in a region that does not meet the economic distress criteria set forth in section B.3 above, is also eligible for EDA investment assistance if EDA determines that the project will be of "substantial direct benefit" to a geographic area within the EDD that meets the distress criteria set forth in question B.3 above by providing significant employment opportunities for unemployed, underemployed, or low-income residents of the distressed geographic area within the EDD. If applicable, identify the EDD in which the proposed project will be located, as well as the geographic area within the EDD that meets the economic distress criteria detailed in section B.3. above, and explain how the proposed project will provide a substantial direct benefit to this geographic area within the EDD. (See 13 C.F.R. § 301.3 (a)(2).)

**No, not applicable.** The project is located in a region that meets the economic distress criteria in section B.3.

**Yes, this project will provide a "substantial direct benefit" to residents of an area meeting the economic distress criteria. Please provide an explanation below.**

If Yes,  
explain:

5. **Project Beneficiaries:** Identify private sector employers that will benefit from the project, and attach letters of commitment electronically (using the 'Attachments' form that is part of the application package downloaded from [www.Grants.gov](http://www.Grants.gov)) or in hardcopy, if available. In the last column, select 'Committed' if the company has committed to being a partner in the project or 'Interest Only' if it has merely expressed interest. PLEASE NOTE: Exhibit A must be completed for EACH beneficiary listed in the chart below. The applicant must send an electronic or hard copy of Exhibit A to each beneficiary. Each beneficiary should then complete Exhibit A and return to the applicant. Once received, the applicant can attach Exhibit A (all copies) electronically using the 'Attachments' form that is part of the application package downloaded from [www.Grants.gov](http://www.Grants.gov) or the applicant can submit Exhibit A (all copies) as part of a hard copy application.

**If none, check this box, do not complete this chart, and go to Section C.**

Company	Products and Services Produced by Company (4 digit NAICS code)	Number of Jobs Saved by Project	Number of Jobs Created by Project	Amount of Company Investment (\$)	Company Committed or Only Interested?
Crystal Geyser	31211	0	150	40,000,000.00	Committed

*Note: If EDA determines that your project merits further consideration, you will be required to provide letters of commitment from the project's beneficiaries, verifying the above information.*

## SECTION M - TO BE COMPLETED BY CONSTRUCTION ASSISTANCE APPLICANTS ONLY

Are you applying for Construction Assistance?

Yes

No

**Appendix A: Applicant Certification Clause**

The applicant represents and certifies that it has used due diligence to determine that the description of the project site described herein is accurate with respect to the presence or absence of contamination from toxic and hazardous substances. The term "site" includes the entire scope of the project, including future phases of the project and all areas where construction will occur.

1. Is the site currently, or has it in the past 50 years, been used for any of the following operations or activities:

- a. Generation of hazardous substances or waste?  
 \* Yes  No (\*See Attachment 1 for explanation for all questions marked with an \*)
- b. Treatment, storage (temporary or permanent), or disposal of solid or hazardous substances or waste?  
 \* Yes  No
- c. Storage of petroleum products?  
 \* Yes  No
- d. Used/waste oil storage or reclamation units?  
 Yes  No
- e. Research or testing laboratory?  
 Yes  No
- f. Ordinance research, testing, production, use, or storage?  
 Yes  No
- g. Chemical manufacturing or storage?  
 Yes  No
- h. Weapons or ammunition training, use, or testing?  
 Yes  No
- i. Iron works/foundry?  
 Yes  No
- j. Railroad yard?  
 Yes  No
- k. Industrial or manufacturing operation?  
 Yes  No

If any of the above operations ever occurred at the site, and if appropriate cleanup or other mitigation actions were performed in accordance with the local, State, and federal laws, please attach documentation of these actions.

2. Do wells draw from an underlying aquifer to provide the local domestic water supply?  
 Yes  No

3. Has a federal, State, or local regulatory authority ever conducted an environmental assessment, environmental impact statement, or a preliminary assessment/site inspection, or similar environmental surveyor inspection report at the site? If yes, please list here and attach copies of these reports or results.  
 \* Yes  No

**Appendix A: Applicant Certification Clause**

- 1) 1972 EIR by W.A. Gelonek & Affiliates
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

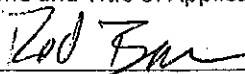
- 4. Have any environmental or OSHA citations or notices of violation been issued to a facility at the site? If yes, please attach copies.  
 Yes  No
- 5. Have any unauthorized releases of hazardous substances occurred at any facility at the site which resulted in notification of the EPA's National Response Center?  
 Yes  No
- 6. Is any material containing asbestos or lead paint located at the site? If yes, please attach information concerning State and federal regulatory compliance.  
 Yes  No
- 7. Is there any equipment (electrical transformers, etc.) containing polychlorinated biphenyls (PCB) on the site? If yes, please attach a description of the equipment.  
 Yes  No
- 8. Are there underground or above ground storage tanks on the site? If yes, please attach a detailed description, including the number of underground storage tanks on the site, whether the tanks have been inspected (or removed) and the results of such inspections.  
 Yes  No
- 9. Has the site been tested for radon? If yes, please attach results.  
 Yes  No
- 10. Have there been, or are there now any environmental investigations by federal, State or local government agencies that could affect the site in question? If yes, please attach available information.  
 Yes  No

The applicant acknowledges that this certification regarding hazardous substances and/or waste is a material representation of fact upon which EDA relies when making and executing an award. EDA reserves the right to terminate any award made in conjunction with the representations contained herein if, at any time during the useful life of the project, EDA becomes aware of the presence of hazardous materials or waste at the site, or that hazardous materials or waste have been inappropriately handled thereon.

Further, if it is determined at any time that the presence of hazardous materials or waste, or handling thereof, has been misrepresented, EDA may pursue other available legal remedies against the applicant.

City of Mt. Shasta  
 Applicant's Name

Rod Bryan, Public Works Director  
 Name and Title of Applicant's Authorized Representative

  
 Signature of Applicant's Authorized Representative

9-4-15  
 Date



Attachment 1. Supplemental Explanation and Documentation  
For  
Appendix A: Applicant Certification Clause

1.

- a. Generation of hazardous substances or waste?  
The existing WWTP generates a small amount of hazardous waste from regular maintenance operations, typically waste oil from routine maintenance on generators and blower motors. The facility EPA ID # is CAL000384070.
- b. Treatment, storage (temporary or permanent), or Disposal of solid or hazardous substances or waste?  
Temporary storage of used oil from regular maintenance activities includes 5 gallons maximum that is stored on site until transported to another off site facility for disposal.
- c. Storage of Petroleum Products?  
150 gallon above ground diesel storage tank for emergency generator
- g. Chemical Manufacturing or Storage?  
No chemicals are manufactured on site. The existing WWTP has the following chemicals stored on site:

- Chlorine (gas) CAS-7782-50-5
- Sulfur Dioxide gas CAS-7446-09-5
- Aluminum Chlorohydrate Hydroxide 12042-91-0
- Polymer flocculent
- Sodium Hypochlorite >12.5%-15% CAS-7681-52-9
- Diesel fuel CAS-68334-30-5

- 3. Has a federal, State, or local regulatory authority ever conducted an environmental assessment, environmental impact statement, or a preliminary assessment/site inspection, or similar environmental surveyor inspection report at the site? If yes, please list here and attach copies of these reports or results.

An Environmental Impact Report (EIR) was completed in 1972 when the original WWTP was constructed. That report is attached. More recently, Enplan has completed the environmental review for the current project funding request, included in this scope of work amendment package.

- 4. Have any environmental or OSHA citations or notices of violation been issued to a facility at the site? If yes, please attach copies.

From time to time, the City has received Notices of Violation or Administrative Civil Liability Complaints for waste discharge violations. These have typically been for exceedances of effluent limitations for chlorine residual, or for other constituents such as copper and zinc, which this proposed project will rectify. Attached are copies of some of those violations.



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW ROORHOUZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

NOTICE OF VIOLATION

6 February 2013

CERTIFIED MAIL  
7009 2250 0002 9885 5440

Mr. Rod Bryan  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067

WDID 5A470105001

**VIOLATION OF WASTE DISCHARGE REQUIREMENTS ORDER R5-2007-0056, NPDES PERMIT NO. CA0078051, CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT, MT. SHASTA, SISKIYOU COUNTY**

The discharge of treated wastewater from the City of Mt. Shasta's (Discharger) Wastewater Treatment Plant (Facility) is currently regulated by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) pursuant to Waste Discharge Requirements (WDRs) Order R5-2012-0086, NPDES Permit No. CA0078051 adopted by the Central Valley Water Board on 4 October 2012 and became effective on 23 November 2012. The Facility was previously regulated by the Central Valley Water Board pursuant to WDRs Order R5-2007-0056, NPDES Permit No. CA0078051 adopted by the Central Valley Water Board on 21 June 2007 and effective until 23 November 2012.

Central Valley Water Board staff has determined that the Discharger violated an effluent limitation and a land discharge specification of the previous WDRs Order R5-2007-0056 in June and July of 2012. This Notice of Violation explains the basis for determining the violations and explains the potential additional enforcement actions for the violations.

**Violation of WDR Order R5-2007-0056, Effluent Limitations**

WDR Order R5-2007-0056 Effluent Limitation 1.a. sets forth the following effluent limitations for copper when discharging treated effluent to the Sacramento River at discharge location D-001:

Parameter	Unit	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper (total recoverable)	µg/L	3.94	--	7.90	--	--

On 24 July 2012, the Discharger submitted a Facility monitoring report for the month of June 2012. As reported, treated effluent was discharged to the Sacramento River from 7 June 2012 until part-day on 11 June 2012. On 12 June 2012, a sample of treated effluent was collected and analyzed for copper concentration which resulted in a single reported value of 4.8 µg/L. No other sampling results for effluent copper concentration were reported by the Discharger. Therefore, the Central Valley Water Board considers the 12 June 2012 result representative of effluent copper concentration in the discharge to the Sacramento River for June 2012.

The reported value of 4.8 µg/L for total recoverable copper exceeds the average monthly effluent limitation of 3.94 µg/L by 20 percent or more. The effluent volume discharged to the Sacramento River over the five day period from 7 June 2012 through 11 June 2012 is estimated at 3,093,000 gallons.

#### **Violation of WDR Order R5-2007-0056, Land Discharge Specifications**

WDR Order R5-2007-0056 Land Discharge Specification B.1 states, "The daily average discharge flow shall not exceed 0.70 MGD."

On 4 July 2012, the Discharger reported daily average discharge flow was 0.75 MGD which exceeds the daily average discharge flow specification of 0.70 MGD for discharges to the Facility leachfield.

#### **Enforcement Actions**

Pursuant to the California Water Code (CWC) section 13385, the violations of the WDRs are potentially subject to administrative civil liability of up to ten thousand dollars (\$10,000) for each day in which the violations occurred, and up to ten dollars (\$10) per gallon of wastewater discharged in excess of 1,000 gallons. Furthermore, pursuant to CWC section 13385 (h) and (i) certain effluent violations are subject to Mandatory Minimum Penalties of three thousand dollars (\$3,000) per qualifying violation. The actual liability can vary between the Mandatory Minimum Penalty amount and the maximum amount discussed above.

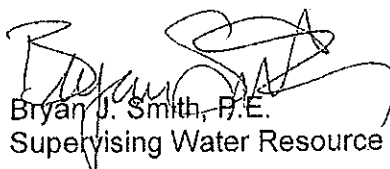
As described in the attached table, the violations cited in this letter are subject to Mandatory Minimum Penalties in the amount of three thousand dollars (\$3,000). This matter is being referred to the Executive Officer of the Central Valley Water Board for consideration of issuance of an Administrative Civil Liability Complaint (ACLC). If the EO issues an ACLC, the amount will be set at the Mandatory Minimum Penalty, or an amount up to the maximum potential liability.

Please review the violations cited by this letter, and the attached Calculation of Mandatory Minimum Penalties table for accuracy, and submit any comments/corrections **by 1 March 2013**. If you have any questions regarding this letter, please contact Mr. Scott Gilbreath at (530) 224-4851, [sgilbreath@waterboards.ca.gov](mailto:sgilbreath@waterboards.ca.gov), or at the footer address.

Mr. Rod Bryan  
City of Mt. Shasta

3

6 February 2013



Bryan J. Smith, P.E.  
Supervising Water Resource Control Engineer

SMG:

Enclosure: Attachment A – Calculation of Mandatory Minimum Penalties

cc: U.S. Environmental Protection Agency, San Francisco  
SWRCB, Sacramento  
Siskiyou County Public Health Department, Environmental Health Division, Yreka  
Ted Marconi, City Manager, Mt. Shasta

U:\Clerical\North\SG\lb\breath\DRAFTS 2013\NOV - mswwp - Cu & Lf Flow- 29 January 2013.docx

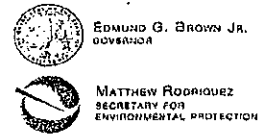
Attachment A

CITY OF MT. SHASTA, MT. SHASTA WASTEWATER TREATMENT PLANT

Table 1. Calculation of Mandatory Minimum Penalties

Violation Date	Discharge Point	Pollutant/Parameter	Effluent Limit	Analytical/Calculated Result	Percentage Over	Violation Type	180-day Violation Count	MMP	Penalty Status
06/12/2012	D-001	Copper, Total Recoverable	3.94 µg/L Average Monthly	4.8 µg/L	21.8%	Serious Group II	1	\$3,000	New Assessment
<b>Total New Assessment:</b>								<b>\$3,000</b>	

Notes: Serious Group I: Any waste discharge that exceeds the effluent limitations for a group I pollutant by 40% or more.  
 Serious Group II: Any waste discharge that exceeds the effluent limitations for a group II pollutant by 20% or more.  
 Non-Serious Violation: A non-serious violation occurs if the discharger does any one of the following four or more times in any period of 180 days:  
 (a) violates a WDR effluent limitation;  
 (b) fails to file a report of waste discharge pursuant to California Water Code section 13260;  
 (c) files an incomplete report of waste discharge pursuant to California Water Code section 13260; or  
 (d) violates a whole effluent toxicity limitation where the WDRs do not contain pollutant-specific effluent limitations for any toxic pollutants.



Central Valley Regional Water Quality Control Board

6 September 2013

CERTIFIED MAIL  
7012 2920 0001 2252 6955

Rod Bryan  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067

WDID No. 5A470105001

**ADMINISTRATIVE CIVIL LIABILITY COMPLAINT NO. R5-2013-0549 FOR ASSESSMENT OF MANDATORY MINIMUM PENALTIES, CITY OF MT. SHASTA, MT. SHASTA WASTEWATER TREATMENT PLANT, SISKIYOU COUNTY**

Enclosed is an Administrative Civil Liability Complaint (Complaint), issued pursuant to California Water Code section 13385, for violations of Waste Discharge Requirements (WDRs) Order No. R5-2007-0056 by the City of Mt. Shasta. The Complaint charges the City of Mt. Shasta with administrative civil liability in the amount of **three thousand dollars (\$3,000)**, which represents the sum of the statutory Mandatory Minimum Penalties for effluent violations from 1 June 2012 through 30 June 2012.

Pursuant to California Water Code section 13323, the City of Mt. Shasta may either pay the proposed administrative civil liability and waive its right to a hearing before the Regional Water Board, or may contest the Complaint and exercise its right to a hearing. The City of Mt. Shasta has the right to a hearing before the Regional Water Board within 90 days of the service of the Complaint. If the City of Mt. Shasta chooses to waive this right and settle the Complaint without a hearing, then a duly authorized agent must sign the enclosed waiver and submit it to this office by **7 October 2013**. The Complaint will be considered settled pending a 30-day period, tolled from the date of this Complaint, during which time interested parties may comment on this action by submitting information to this office, attention Daniel L. Warner.

If the Regional Water Board does not receive a waiver and payment for the full amount by **7 October 2013**, then a hearing will be scheduled for the **5/6 December 2013** Central Valley Water Board meeting in Rancho Cordova. Specific notice about this hearing and its procedures will be provided under separate cover.

Rob Bryan  
City of Mt. Shasta

- 2 -

6 September 2013

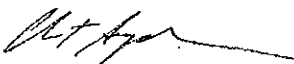
Any comments or evidence concerning the enclosed Complaint must be submitted to this office, attention Daniel L. Warner, so that they are received no later than **5 p.m. on 7 October 2013**. This includes material submitted by the City of Mt. Shasta to be considered at a hearing and material submitted by interested parties, including members of the public, who wish to comment on the proposed settlement. If the Central Valley Water Board does not hold a hearing on the matter, and the terms of the final settlement are not significantly different from those proposed in the enclosed Complaint, then there will not be additional opportunities for public comment on the proposed settlement. Written materials received after **5 p.m. on 7 October 2013** will not be accepted and will not be incorporated into the administrative record if doing so would prejudice any party.

In order to conserve resources, this letter transmits paper copies of the documents to the Discharger only. Interested persons may download the documents from the Central Valley Water Board's Internet website at:

[http://www.waterboards.ca.gov/centralvalley/tentative\\_orders/](http://www.waterboards.ca.gov/centralvalley/tentative_orders/).

Copies of these documents can also be obtained by contacting or visiting the Central Valley Water Board's office weekdays between 8:00 AM and 5:00 PM.

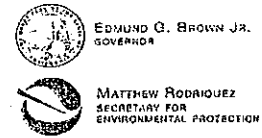
If you have any questions or comments regarding the Administrative Civil Liability Complaint, please contact Daniel L. Warner at (530) 224-4848, or George D. Day at (530)224-4859.

  
Clint E. Snyder, P.G.  
Assistant Executive Officer

DLW:lmw

Enclosures: Administrative Civil Liability Complaint No. R5-2013-0549  
Hearing Procedure for Administrative Civil Liability Complaint

cc w/o encl: Regional Board Members  
Ken Greenburg, U.S. Environmental Protection Agency, Region IX, San Francisco  
Matthew Kelley, U.S. Army Corps of Engineers, Redding  
California Environmental Protection Agency, Sacramento  
Department of Fish and Game, Region 1, Redding  
David Coupe, Staff Counsel, State Water Resources Control Board, Sacramento  
Ted Marconi, City Manager, Mt. Shasta



Central Valley Regional Water Quality Control Board

3 March 2014

WDID No. 5A470105001

Rod Byran  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067

**CERTIFIED MAIL:**  
7013 0600 0002 4320 0158

**ADOPTION OF ADMINISTRATIVE CIVIL LIABILITY ORDER R5-2014-0510, CITY OF MT. SHASTA, CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT, SISKIYOU COUNTY**

Enclosed, please find a copy of Administrative Civil Liability Order R5-2014-0510. This Order addresses violations of the federal Clean Water Act as detailed in Administrative Civil Liability Complaint R5-2013-0560. The violations occurred between 1 June 2012 through 30 June 2012. This Order contains a compliance project that brought your facility into compliance. The City of Mt. Shasta expended funds on the compliance project that exceeded three thousand dollars (\$3,000), the total amount assessed in the complaint. Therefore the entire \$3,000 is treated as a suspended Administrative Liability. The Order was publicly noticed for thirty days in January and February 2014, with no comments received.

In order to conserve paper and reduce mailing costs, a paper copy of the order has been sent only to the Discharger. Interested parties are advised that the full text of this order is available on the Water Board's web site at [http://www.waterboards.ca.gov/centralvalley/adopted\\_orders](http://www.waterboards.ca.gov/centralvalley/adopted_orders). Anyone without access to the Internet who needs a paper copy of the order can obtain one by calling Water Board staff.

If you have any questions regarding this matter, please contact George Day at (530) 224-4859 or [gday@waterboards.ca.gov](mailto:gday@waterboards.ca.gov).

A handwritten signature in black ink, appearing to read "Clint Snyder".

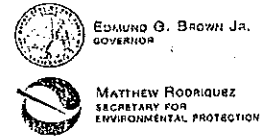
Clint E. Snyder, P.G.  
Assistant Executive Officer

DLW:lmw

Enclosures: Administrative Civil Liability Order R5-2014-0510

cc list on next page





Central Valley Regional Water Quality Control Board

7 March 2014

**CERTIFIED MAIL**  
7013 0600 0002 4320 0165

Rod Bryan  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067

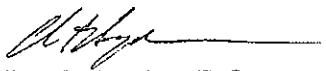
WDID No. 5A470105001

**ADOPTION OF ADMINISTRATIVE CIVIL LIABILITY ORDER R5-2014-0509, CITY OF MT. SHASTA, CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT, SISKIYOU COUNTY**

Enclosed, please find a copy of Administrative Civil Liability Order R5-2014-0509. This Order addresses violations of the federal Clean Water Act as detailed in Administrative Civil Liability Complaint R5-2012-0538. The violations occurred between 1 March 2009 and 18 November 2011. This Order contains a compliance project that brought your facility into compliance. The City of Mt. Shasta expended funds on the compliance project that exceeded eighteen thousand dollars (\$18,000), the total amount assessed in the complaint. Therefore the entire \$18,000 is treated as a suspended Administrative Liability. The Order was publicly noticed for thirty days in January and February 2014, with no comments received.

In order to conserve paper and reduce mailing costs, a paper copy of the order has been sent only to the Discharger. Interested parties are advised that the full text of this order is available on the Water Board's web site at [http://www.waterboards.ca.gov/centralvalley/adopted\\_orders](http://www.waterboards.ca.gov/centralvalley/adopted_orders). Anyone without access to the Internet who needs a paper copy of the order can obtain one by calling Water Board staff.

If you have any questions regarding this matter, please contact George Day at (530) 224-4845 or [gday@waterboards.ca.gov](mailto:gday@waterboards.ca.gov).

  
Clint E. Snyder, P.G.  
Assistant Executive Officer

DLW: mir

Enclosures: Administrative Civil Liability Order R5-2014-0509

cc list on next page



CITY OF MT. SHASTA

# Water · Pollution · Control · Facilities

## ENVIRONMENTAL IMPACT REPORT

SEPT., 1972



W. A. GELONEK & AFFILIATES

*Engineers*

*Planners*



W. A. GELONEK & AFFILIATES

*Engineers and Planners*

W. A. GELONEK  
JIM HUSTON 1931 - 1967

September 1972

State of California  
Water Resources Control Board  
Grants for Clean Water  
1416 Ninth Street, Room 1015  
Sacramento, California 95814

Attention: Mr. John Olaf Nelson, Manager

Re: Environmental Impact Statement - Water Pollution  
Control Facilities - City of Mt. Shasta

Gentlemen:

Attached hereto is a report dealing with the environmental considerations as they relate to the proposed water pollution control facilities outlined in the Project Report of September 1972.

We have attempted to make the report as inclusive as necessary to measure the impact on all facets of the environment.

Very truly yours,

W. A. GELONEK & AFFILIATES

W. A. Gelonek

WAG:bf1

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
I	Project Description	I-1
	Recommended Action	I-1
	Purpose of the Action	I-1
	Project Location	I-3
	Implementation of Proposal	I-6
	Interrelationship with Other Projects	I-7
	Referral to Supporting Documents	I-7
II	Environmental Setting	II-1
	Regional Setting	II-1
	Geology	II-1
	Hydrology	II-2
	Flora and Fauna	II-3
	Climate	II-5
	Land Usage	II-8
	Project Setting	II-11
	Geology	II-11
	Hydrology	II-13
	Historical or Archeological Sites	II-14
III	Assessment of Environmental Impact	III-1
IV	Environmental Impact Statement	IV-1
	Probable Impact of the Project on the Total Environment	IV-1

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
IV (continued)	Mitigation Measures Proposed to Minimize the Impact	IV-4
	High Level of Wastewater Treatment	IV-4
	Effluent Discharge	IV-8
	Land Discharge	IV-8
	River Discharge	IV-11
	Final Purification by Soils Mechanisms	IV-11
	Intermittent Discharge	IV-14
	Bypass Analysis	IV-15
	Flood Protection	IV-18
	Probable Adverse Environmental Effects Which Cannot be Avoided	IV-20
	Construction Period Disruption	IV-20
	Incomplete Nitrogen Removal	IV-22
	Alternatives to the Proposed Action	IV-24
	Treatment Alternatives	IV-24
	Stabilization Ponds	IV-24
	Unique Conditions	IV-31
	Alternate Treatments	IV-32
	Conclusion	IV-33
	Water Reclamation Alternatives	IV-34
	Short-Term Use Versus Long-Term Productivity	IV-37

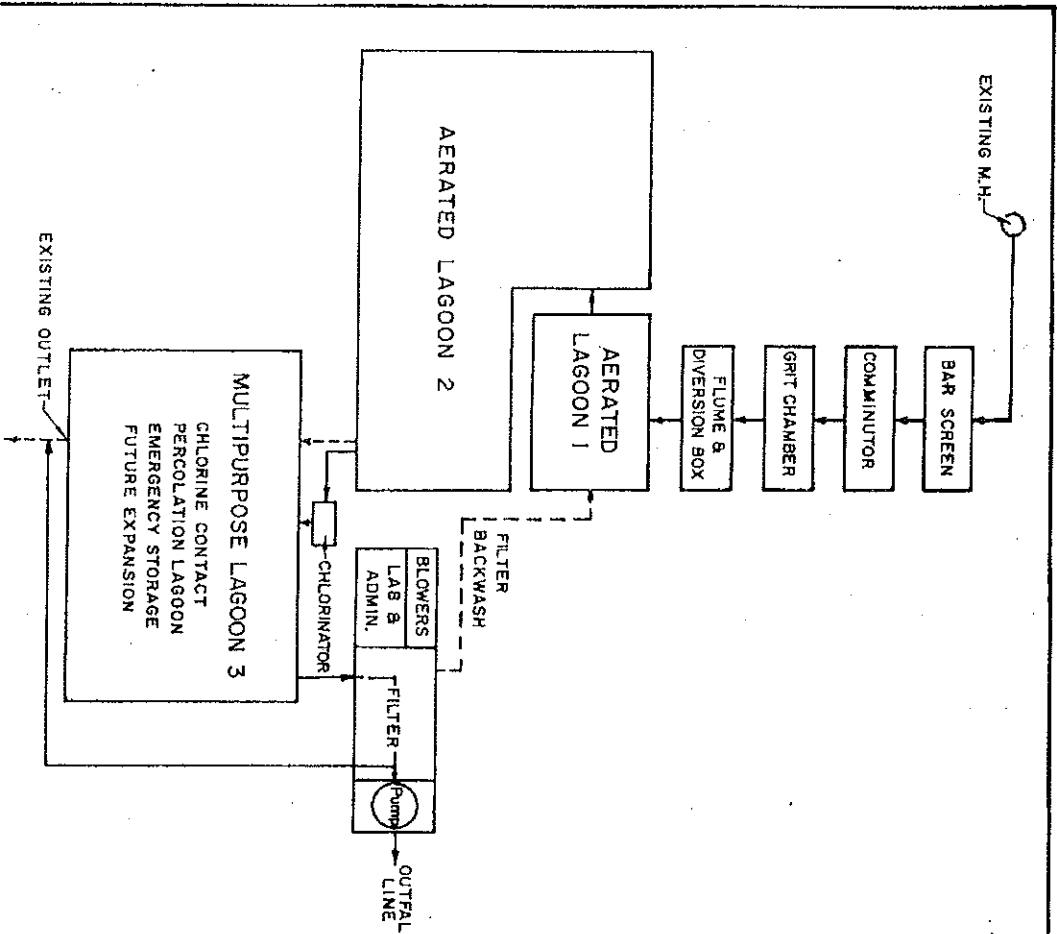
<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
IV (continued)	Irreversible and Irretrievable Commitments of Resources	IV-38
	Objections to the Project and Their Resolution	IV-39

#### PLATES

<u>NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Proposed Sewage Treatment Flow Diagram	I-2
2	Regional Map	I-4
3	Study and Service Area Boundaries	I-5
4	Existing Geological and Hydrological Conditions at Proposed Water Reclamation Site	II-12

#### TABLES

<u>NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Climate - City of Mt. Shasta	II-6
2	Environmental Impact Assessment Matrix	III-2



**DESIGN DATA**

FLOW, M.G.D.

DESIGN FLOW, AVERAGE DRY WEATHER 1.5  
 DESIGN FLOW, PEAK 3.7

PLANT DESIGN

DESIGN POPULATION, ACTUAL 6000  
 POPULATION, EQUIVALENT 9400  
 B.O.D. TOTAL, LBS/DAY 1600

STRUCTURES AND EQUIPMENT

PARSHALL FLUME  
 BAR SCREEN, MECHANICAL  
 COMMINUTOR  
 GRIT CHAMBER  
 AERATED LAGOONS VOLUME, MILLION GALLONS 25.0  
 CHLORINATOR  
 HOLDING LAGOON, EMERGENCY STORAGE,  
 CHLORINE CONTACT CHAMBER VOLUME, MILLION GALLONS 11.0

FILTERS  
 PUMP STATION  
 OPERATIONS BUILDING

PERFORMANCE

PLANT WILL PROVIDE SECONDARY TREATMENT WITH FINAL EFFLUENT POLISHING FOR LAND DISPOSAL DURING MAY 1<sup>ST</sup> THRU OCTOBER 31<sup>ST</sup> AND SECONDARY TREATMENT WITH FINAL EFFLUENT POLISHING AND DISINFECTION FOR WINTER DISCHARGE TO THE SACRAMENTO RIVER.

MAX. B.O.D. IN EFFLUENT, M.G./L. 20  
 MAX. S.S. IN EFFLUENT, M.G./L. 20  
 MIN. PERCENTAGE B.O.D. REMOVAL 90  
 MIN. PERCENTAGE S.S. REMOVAL 90  
 MAX. CONCENTRATION OF RESIDUAL CHLORINE, M.G./L. 0.10

PLATE 1  
**PROPOSED SEWAGE TREATMENT  
 FLOW DIAGRAM**

in Order No. 71-210, adopted March 26, 1971. The existing stabilization ponds, constructed as part of the Lake Siskiyou Recreation Project, are currently unable to meet the following standards.

1) No effluent release into the Sacramento River during the recreation period of May 1st to October 31st.

2) If river disposal is to be utilized during recreation periods prior to May 1, 1973 a minimum pond retention time (for stabilization ponds) of 150 days is required.

Proposed modifications include primary secondary, and polishing treatment of the combined sewage from the City of Mt. Shasta, Lake Siskiyou recreational area, and additional neighboring areas. The treatment will be effective in assuring that water quality, including turbidity, temperature, dissolved oxygen, suspended solids, pH, bacteriological quality and other parameters will be consistent with the current Sacramento River water quality objectives.

#### Project Location

The proposed water pollution control project is located in and around the incorporated City of Mt. Shasta, California, in the County of Siskiyou. The City rests at the extreme southeast end of Shasta Valley with 4,000 - 5,000 feet Rainbow Ridge to the west and 14,161 feet Mt. Shasta to the northeast. The City is almost entirely surrounded by lands of the Shasta National Forest.

The project area can be located on the Regional Map, Plate 2.

The project boundaries, including the service, treatment and discharge areas, are shown in Plate 3. The project coordinate number,



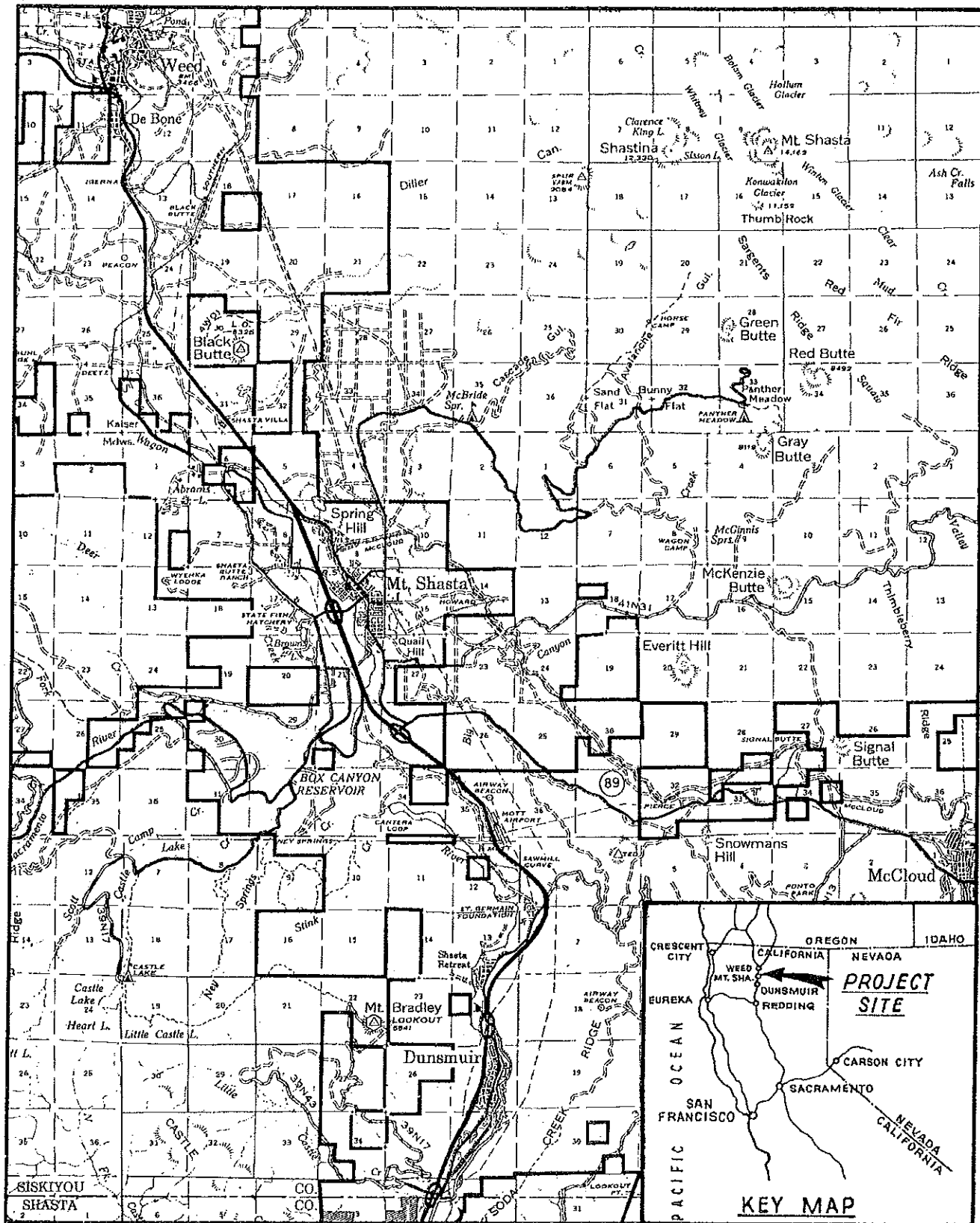
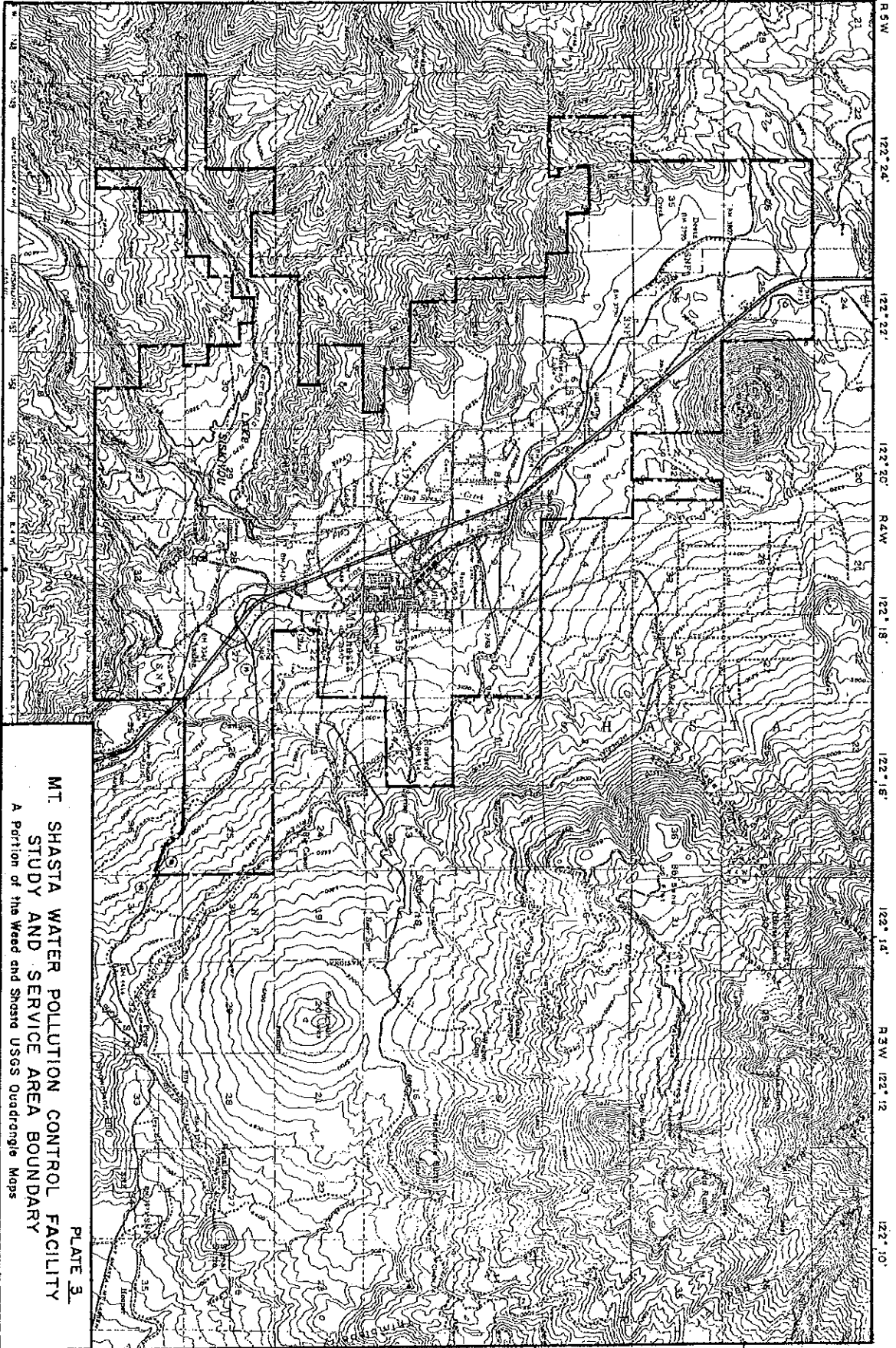


PLATE 2  
 MT. SHASTA WATER POLLUTION CONTROL FACILITY  
 REGIONAL MAP



**PLATE 3**  
**MT SHASTA WATER POLLUTION CONTROL FACILITY**  
**STUDY AND SERVICE AREA BOUNDARY**  
 A Portion of the Weed and Shasta USGS Quadrangle Maps

based on the approximate center of the project area, is North lat. 41°19',  
West longitude 122°19'.

Implementation of Proposal

It is proposed to conform with the following schedule for the design, construction and operation of the Mt. Shasta Water Pollution Control Facility.

<u>TASK</u>	<u>COMPLETION DATE</u>
1. Consumate final agreements between participating agencies -	January 15, 1973
2. Complete final arrangements for project financing -	May 1, 1973
3. Authorize engineering plans and specifications -	May 15, 1973
4. Complete plans and specifications -	March 1, 1974
5. Advertise for project construction bids -	April 15, 1974
6. Award construction contract -	June 1, 1974
7. Complete land disposal element of contract -	May 1, 1975
8. Complete final construction and demonstrate facility performance -	November 1, 1975

Item No. 7 is to be stipulated in the contract to provide for no recreational period discharge to the river following May 1, 1975.

### Interrelationship With Other Projects

The project is closely related to the Lake Siskiyou Recreation Area. The stabilization ponds currently in use were built in 1967 to compensate for land required for the Lake Siskiyou Project, and currently handle the combined sewage of the City of Mt. Shasta and the recreational facilities of the project. Facilities capable of accommodating 1,000 recreationist will be sewerred on the combined system.

Consideration has been given to including the cities of Mt. Shasta, Weed and Dunsmuir in a combined regional facility, however, such a proposal has been discounted, based on economic and other considerations. The sewage treatment facilities for the three cities will remain as separate projects. Responsibility for the preparation of the project reports and environmental impact statements for these related projects has been determined as follows:

City of Dunsmuir -

Robert A. Lounsbury  
Civil and Sanitary Engineering  
P.O. Box 51  
Wilton, California 95693

City of Weed -

Piemme & Bryan  
Engineers and Surveyors  
331 W. Miner  
Yreka, California 96097

### Referral to Supporting Documents

An Engineering Report in two volumes, entitled "Project Report for Water Pollution Control Facilities at the City of Mt. Shasta", dated September 1972, and prepared by W. A. Gelonek & Affiliates of Redding, California serves as a technical reference for this impact statement.

## SECTION II

### ENVIRONMENTAL SETTING

#### Regional Setting

##### Geology

Volcanic activity played the major role in geologic development of this area. The project site is located near the geologic boundary between the Klamath Mountains and the Cascade Range. Characteristic rock formations of both mountain ranges are present nearby. The Klamath Mountains, lying west of the area, contain intrusive, sedimentary, and volcanic rocks. The Cascade Range contains volcanic rocks which are divided into two units, the Western Cascade series and the High Cascade series. The Western Cascade series, an older outcropping, lies to the west of the peaks of the Cascade Range and extends north from Mt. Shasta into Oregon. The High Cascade series, a younger unit, includes both Mt. Shasta and Mt. Lassen.

This part of the High Cascades geologic province is underlain by volcanic rocks and alluvium of the Pleistocene Age. These deposits lay unconformably on tertiary volcanic rocks and older sedimentary and metamorphic rocks.

The earthquake history of the area, including the Klamath Mountains to the west and the Cascade Range to the east, indicates a relatively low seismic activity. No shocks greater than magnitude 4 on the Richter Scale are known to have occurred within a 40-mile radius of the project site.

### Hydrology.

The Mt. Shasta City area is one of heavy precipitation and abundant water supply. The Sacramento River collects the accumulated runoff from a drainage area of 122 square miles. Fall and winter rains on the relatively impervious basin area west of Rainbow Ridge provide one increment of runoff while another increment is provided by the sustained springtime runoff from melting snows in the high mountainous areas. Precipitation on the Mt. Shasta side of the basin does not produce surface runoff directly into the Sacramento system, but infiltrates into the extremely porous volcanics to increase ground water storage, and eventually discharges as part of the sustained summer yield. This sustained summer flow is regulated both by storage in the Mt. Shasta snowpack and by ground water basin seepage into the Sacramento drainage system.

The slopes of Mt. Shasta are covered by deposits of porous volcanic ash and coarse debris blown out during past eruptions or carried downhill by subsequent erosion. This material ranges from poor to highly permeable, depending on particle size and sorting. Rain falling on the mountain slopes infiltrates immediately; very little runs off in surface streams. Snow falls are retained on the mountain, both as winter snowpack and as permanent glaciers. Melt water runs in torrents down the mountainside for short distances until it, too, infiltrates into the porous soil.

Reference to the USGS Weed Quadrangle (Plate 3 ) discloses the near absence of surface drainage from the west and southwest slopes of Mt. Shasta into the Sacramento River. The triangle approximately defined by Dunsmuir, Black Butte, and the peak of Mt. Shasta, about 40 square miles in area, is an area of ground water storage. The numerous springs which emerge from the hillside on the east side of the Sacramento River as far south as Dunsmuir are all supplied from this ground water storage, which regulates runoff from the accumulated winter precipitation to a constant rate of flow. The uniform flow of these springs supplies the Sacramento River with a firm base flow in the Mt. Shasta - Dunsmuir area.

Both Mt. Shasta City and Dunsmuir derive their water supply from such uniform springs. There also are many individual household wells in the rural areas outside Mt. Shasta City that draw from the abundant ground water.

#### Flora and Fauna

a) General: The Mt. Shasta region shares the common features of two mountain ranges; the Cascade Range of Oregon and the Sierra Nevada Range of California. It affords the northernmost limit of Sierra species, and the southernmost limit of Cascade species. Hence, its flora and fauna are an over-lapping of both, sharing a large percentage of the common species and a mixture of restricted Sierra and Cascade species.

b) Trees: The ground cover ranges from Manzanita to virgin stands of many varieties of pine and fir. The dwindling of virgin timber is supplemented by reforestation practices to sustain the milling and manufacturing operations of the local lumber industry.

c) Fish: Rainbow, Eastern Brook, and Brown Trout inhabit many small lakes and streams of the area including the headwaters of the Sacramento River. During Trout season, the State Fish Hatchery at Mt. Shasta City supplements the native population with weekly plantings of catchable-sized Rainbow Trout in the Sacramento River.

d) Land Animals: The Shasta-Trinity National Forest contains big game animals such as the Rocky Mountain Elk, Black Bear, Columbian Black Tailed Deer, and the Rocky Mountain Mule Deer; upland game animals such as the Audubon Cottontail, Black Tailed Hare and various squirrels; small fur-bearers such as beavers, foxes, racoons, fishers and martens; and large fur-bearers such as the coyote and bobcat.

e) Birds: Also included in the regional wildlife are several varieties of upland game birds such as quail, grouse, pigeon and dove, and over 130 species of non-game birds. Water-fowl in the Shasta National Forest is generally limited to the Shasta Lake and Lake Britton areas and is not prevalent in the project area.



f) Rare or Endangered Species: There are no "rare" or "endangered" species of fish, reptiles or birds in the region. The southern variety Bald Eagle, whose population has dwindled to 87 (1971), has been classified "endangered". Although it can be found in the area of Shasta Lake and on occasion as far north as McCloud, it is not specifically known to occupy the project area.

Martens and fishers do habitate the Mt. Shasta area. They are classified as "unique" species. Although they are rare in California, they are not so on a nationwide basis, and therefore they are not classified "rare". They don't get along with development and have been greatly suppressed in the vicinity of the City. Previous concentrated development has tended to displace their population back into protected wooded land.

### Climate

#### a) Temperature

The City of Mt. Shasta lies in the lee of the westerly coastal mountains and is generally protected from marine influence. Temperature recordings in the City report an all-time maximum temperature of 103°F and a minimum of -8°F, but indicate a mean maximum of 85.3 in July and a mean minimum of 25.1 in January. Complete monthly temperature means and extremes can be found in Table 1.

CLIMATE - CITY OF MT. SHASTA

Temperature Means and Extremes (°F)

<u>Data</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Year</u>
Highest Temp.	65	71	78	84	91	96	100	101	103	92	80	72	103
Mean Max. Temp.	41.4	46.5	52.1	60.3	67.6	74.9	85.3	84.7	78.4	65.6	52.5	44.6	62.8
Mean Temp.	33.3	37.0	41.2	47.5	53.8	60.3	68.0	66.7	61.5	51.9	41.8	35.9	49.9
Mean Min. Temp.	25.1	27.5	30.2	34.6	39.9	45.7	50.7	48.6	44.5	38.2	31.0	27.2	36.9
Lowest Temp.	-3	0	11	10	21	25	31	34	26	17	11	-8	-8

Average Monthly and Seasonal Precipitation\* (inches)

<u>Data</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Season</u>
Avg. Precipitation	6.36	5.91	4.46	2.77	1.99	1.25	0.30	0.18	0.87	2.44	3.97	6.22	36.72

Average Monthly and Seasonal Snowfall (inches of depth)

<u>Data</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>Season</u>
Avg. Snowfall	0	0.3	3.4	19.2	31.1	19.7	14.7	6.4	1.3	0	96.1

\* Moisture falling from the air to the ground, whether in liquid or frozen form. If in frozen form, the melted liquid moisture content is used as a measure of the precipitation.

b) Precipitation

The annual precipitation pattern is generally characteristic of the rest of California with heavy precipitation during the winter months and much lighter rainfall during the summer. It is not uncommon however, to receive a few showers and an occasional thunderstorm during the summer months. Close proximity to towering Mt. Shasta (elev. 14,161 feet above sea level) provides a local topographic condition that results in an average snowfall of around 100 inches per year. This is a higher than average snowfall for the City's elevation (approx. 3,600 feet above sea level). Most intermediate elevations in the County receive an average from 25 to 35 inches per year. Average monthly and seasonal precipitation (including snowfall) can also be found in Table 1.

c) Evaporation

There are only limited evaporation records within the County, but indications are that the annual total loss from a standard 4-foot evaporation pan ranges from around 50 to 60 inches in the central part of the County. Seventy-five to eighty percent of this total is evaporated during the months of April through September. Evaporation from lakes and reservoirs is somewhat less, the annual total amounting to around 35 to 45 inches.

### Land Usage

The Mt. Shasta area lies in a forested area north of the Sacramento Valley. Through this area passes the most favorable transportation route from the Central Valley in California to communities in Oregon and the Northwest. Residents of the Mt. Shasta area have traditionally depended upon lumber, the railroad, and, to a lesser extent, upon tourism and agriculture for their livelihood. Although the lumber and railroad industries have experienced a decline in recent years, the income provided by agriculture has remained relatively stable. An additional source of income has resulted from the rapidly expanding use of the area for recreational pursuits.

### Lumbering

Prior to settlement of the Mt. Shasta area by the white man, the southern slope of Mt. Shasta and the surrounding territory were covered by virgin growths of pine and fir. Subsequent decades of lumbering and destructive forest fires have reduced the amount of harvestable timber available and left many areas unproductive.

Logging, milling, and transportation of lumber supported the early economy of the area, but the dwindling of virgin timber resources and the slow recovery brought by reforestation practices has resulted in decline of the local lumber industry. However, the demand for forest products has remained high during recent years and the lumber industry continues to provide a major source of income for the area.

### Agriculture

The extent of irrigated and irrigable lands within the Mt. Shasta area is very limited. Agriculture mainly consists of the raising of cattle and those pasture and hay crops required to support cattle. Crops, for profitable production, generally require irrigation from May through October. Most of the acreage suitable for tillage or irrigated pasture is presently developed and provided with irrigation water from the nearby creeks and springs.

### Transportation

The location of Mt. Shasta on an important interstate transportation route contributes in many ways to the economy of the area.

The north-south highway is heavily used by both automobile travel and by commercial trucks. The entire system is heavily used by vacationers during the spring, summer, and fall months.

When the railroad was constructed from Redding to Dunsmuir in 1886 and on to Oregon the next year, the first impetus was given to the lumber industry in the Mt. Shasta area. Today the railroad is an important contributor to the lumber industry and the general economy of the area.

### Recreation

The Mt. Shasta area, as well as many other communities in Northern California, is growing in its attraction to recreationists. The reasons for this growth stem both from the natural attributes of the locality and from the improved highway systems which has led to a general exodus from metropolitan centers, for "relief" from overcrowded conditions.

Mt. Shasta itself is an outstanding attraction. The 14,161 foot volcanic mountain dominates the entire project area. For much of the year snow covers that portion of the peak above 8,000 feet and several glaciers cling year around to the mountain.

Around the skirts of the mountain, and in the McCloud River and Mt. Eddy areas, fish and game abound. The upper reaches of the Sacramento River above Shasta Lake, for instance, are noted for the excellence of their trout fishery.

Despite easy access to the project area, little has been done until recent years toward the organized development of recreational opportunities in the area. Private individuals and organizations recently have developed improved campgrounds along the Sacramento River near Mt. Shasta and at Castle Lake. Such facilities make use of the river water during the summer vacation seasons.

In 1958, the completion of the Mt. Shasta Ski Bowl chair lift and lodge initiated a large-scale attempt to popularize the area for winter sports. Heavy snowpacks that reached 200 inches on the slopes of Mt. Shasta had long suggested this possibility. The ski season is generally long, beginning in late November and continuing through June. Recently, major improvements to the ski areas have been discussed and plans are now being formulated.

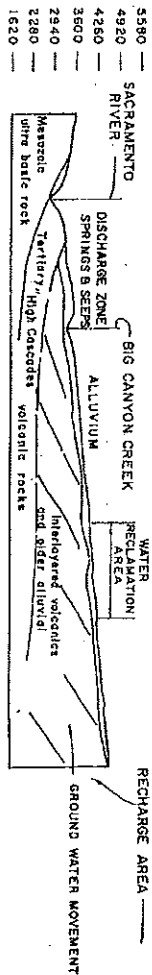
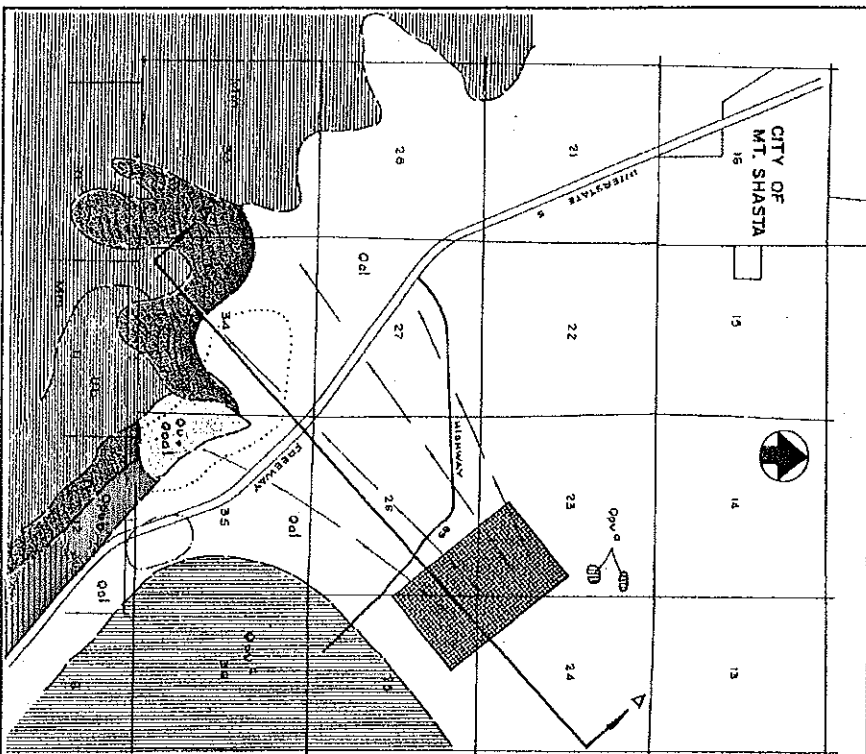
Around 1970 the opening of camping and picnicing facilities at the Box Canyon Dam Project (Lake Siskiyou) increased summer attraction to the project area. The reservoir is formed primarily from flows from Wagon Creek and from the north, middle, and south forks of the Sacramento River.

## Project Setting

### Geology

The geology of the project area has been examined primarily in the interest of identifying potential sites for the return of the treated water, and examining the geologic conditions at the project site. The geologic and hydrologic characteristics of various areas considered in the vicinity of the treatment facility are considered in the "Alternatives to The Proposed Action" section of this report.

The proposed site, on the basis of all information available, appears to be the only logical one from both technical and economic approaches. It is shown on Plate 4 and lies in Sections 23, 24, 25 and 26, T 40 N, R 4 W, two miles southeast of the center of the City of Mt. Shasta. Elevation ranges from 3900 ft. to 4200 ft. The site is part of the Big Canyon Plantation reforestation area in the Shasta National Forest. The proposed disposal site is underlain by rhyolitic and andesitic volcanic flows interlayered with older alluvium. It is in turn covered by a mantle of alluvium and rubble of a few feet to tens of feet thick. The soil of the site is highly variable in character, ranging from material with a high percentage of fine to coarse open rubble, but is generally a very poorly sorted mixture of weathering products from the underlying volcanic rocks and older sediments. The thickness of the soil development is highly variable, probably ranging from near zero to 100 to 200 feet.



**LEGEND:**

- PROPOSED WATER RECLAMATION
- EXISTING SPRINGS AREA
- AREA OF DOMESTIC WELLS
- DIRECTION OF PROBABLE GROUND WATER MOVEMENT

**SOILS DESCRIPTION**

- Qal** Stream and glacial outwash, generally poorly sorted, sandy to bouldery sand, silt and clay. Low to moderate permeability.
- Qoal** Recent Mt. Shasta andesitic volcanics, flows, massive to rubby, mud flow breccias. Slight to moderate permeability.
- Qpva** Recent basaltic rocks, massive basalt flows, lava tubes, coarse open rubble. Locally very permeable.
- Qpub** Volcanic and bedded rocks of high Cascades series. Generally poorly permeable and without large openings.
- Tv** Ultra-basalt igneous rocks. Essentially impermeable.
- Ub** Mesozoic metamorphic and crystalline rocks. Essentially impermeable.
- Mm**

PLATE 4  
 EXISTING GEOLOGICAL & HYDROLOGICAL CONDITIONS  
 AT PROPOSED WATER RECLAMATION SITE



### Hydrology

The hydrology of the project setting is dominated by the variable topography, with the high slopes of Mt. Shasta from which permanent recharge occurs, and the canyon of the Sacramento River which drains the area. Ground water in the saturated zones moves southwesterly under the proposed disposal site and discharges in a large number of seeps and springs in the slopes above the river (Plate 4).

Effluent from the proposed site will percolate vertically downward an unknown distance to the saturated zone and then will move down the hydraulic gradient in a general southwesterly direction through the poor to moderately permeable volcanic rocks and older alluvium toward the discharge zone two miles away.

Consideration was given to the risks of contamination of existing water supplies. The main water supply for the City of Mt. Shasta is at a higher elevation spring one mile north of the proposed disposal site. An existing well in the Mt. Shasta water system is some two miles to the north at only slightly lower elevation and well away from probable paths of ground water movement from the site. There are some domestic wells in the vicinity of Mott Airport which may be on the fringe of ground water movement from the site. Considering the low to moderate permeability of the materials, absence of cavernous rocks or lava tubes to provide a direct route of

influent seepage to these wells, and the distance involved, it is doubtful that should any of the effluent enter the wells, any bacterial or viral contamination will occur.

Historical or Archeological Sites

There are no known historical or archeological sites in the project area that will be affected by the proposed project.

### SECTION III

#### ASSESSMENT OF ENVIRONMENTAL IMPACT

The following matrix, Table 2, serves to locate the activities of the proposed project which will cause an environmental impact. The ratings are determined, taking into consideration the degree and duration of the impacts cited.

The magnitude of the impact relationship is evaluated and rated on a scale of 1 to 5. A rating of 5 represents the greatest magnitude of the impact and a rating of 1 represents the least.

The importance of the impact is also determined and represented on a scale of 1 to 5. A rating of 5 represents the greatest "importance" of the impact and 1, the least.

A plus sign (+) is placed in front of an impact which is felt to be beneficial to the project environment.

In the determination of the ratings, judgements include the overall effect of the proposed project including the measures proposed to mitigate negative environmental effects. As an aid in interpretation of the matrix and rating system, the proposed actions will be discussed with regard to their impact on the existing environmental elements.

The alteration of ground water hydrology will result from the disposal of the treated water over land. Due to the large quantities of ground water in the area, total impact on the hydrology of the area will be low.

The noise and vibration of the construction period will have an impact on the birds and land animals of the area, but such impact will not be of major significance.

TABLE 2

II PROPOSED ACTIONS WHICH MAY CAUSE ENVIRONMENTAL IMPACT  
(to include acquisition, development, operation, and phase out of proposed project)

ENVIRONMENTAL IMPACT ASSESSMENT MATRIX\*  
CLEAN WATER GRANTS

Responsible Agency \_\_\_\_\_  
Site Clearinghouse Number \_\_\_\_\_

INSTRUCTIONS

Identify all actions (located across the top of the matrix) that are part of the proposed project. Under each of the proposed actions, place a slash at the intersection with each item on the side of the matrix if an impact is possible. Having completed the matrix, in the upper left-hand corner of each box with a slash, place a number from 1 to 5 which indicates the MAGNITUDE of the possible impact; 5 represents the greatest magnitude of impact and 1, the least. (no zeroes). Before each number place + if the impact would be beneficial. In the lower right-hand corner of the box place a number from 1 to 5 which indicates the IMPORTANCE of the possible impact (e.g., regional vs. local); 5 represents the greatest importance and 1, the least (no zeroes).

A text should accompany the matrix and discuss those columns and rows with boxes marked.

SAMPLE MATRIX

	a	b	c	d	e
a		1		5	3
b	4	2	4	3	4

\*Based on U.S.G.S. Circular 645

EXISTING CHARACTERISTICS AND CONDITIONS OF THE ENVIRONMENT

		MODIFICATION OF REGIME	LAND TRANSFORMATION AND CONSTRUCTION	RESOURCE RENEWAL	CHANGES IN TRAFFIC	WASTE EMPLOYMENT AND TREATMENT	CHEMICAL TREATMENT	ACCIDENTS
EARTH	a. Soils							
	b. Land form							
WATER	a. Surface	/	/	/	/	/		
	b. Ocean							
	c. Underground	/	/	/	/	/		
	d. Quality	/	/	/	/	/		
	e. Temperature							
	f. Recharge	/	/	/	/	/		
	g. Snow, ice							
ATMOSPHERE	a. Quality							
PROCESSES	a. Floods							
	b. Erosion							
	c. Deposition							
FLORA	a. Trees (PLANTATION)		/	/	/	/		
	b. Shrubs							
	c. Grass							
	d. Crops							
	e. Microflora							
	f. Aquatic plants							
	g. Endangered species							
	h. Barriers							
	i. Corridors							
FAUNA	a. Birds		/	/	/	/		
	b. Land animals							
	c. Fish and shellfish							
	d. Benthic organisms							
	e. Insects							
	f. Microfauna							
	g. Endangered species							
	h. Barriers							
	i. Corridors							
LAND USE	a. Open spaces							
	b. Wetlands							
	c. Forestry							
	d. Grazing							
	e. Agriculture							
	f. Residential							
	g. Commercial							
	h. Industrial							
RECREATION	a. Fishing							
	b. Boating							
	c. Swimming							
AESTHETICS AND HUMAN INTEREST	a. Scenic views and vistas							
	b. Wilderness qualities							
	c. Open space qualities							
	d. Landscape design							
	e. Unique physical features							
	f. Parks and reserves							
CULTURAL STATUS	a. Cultural patterns							
	b. Health and safety							
	c. Employment							
	d. Population density							
MAN-MADE FACILITIES AND ACTIVITIES	a. Structures							
	b. Transportation network							
	c. Utility networks							
	d. Waste disposal							
	e. Barriers							
	f. Corridors							
ECOLOGICAL RELATIONSHIPS	a. Salinization							
	b. Eutrophication							
	c. Disease-insects							
	d. Food chains							

The installation of pipeline is centered mainly around the burial of the interceptor, outfall line, and discharge field perforated lines. Soils, shrubs and grass will be affected along the trench lines but to a minor degree, and all will recover by natural seeding and the fact that topsoil will be preserved and placed on top of the refilled trenches.

The waste treatment structure is by far the most important element of the project. There will be some alteration of soils and some deposition and recharge resulting from the oxidation ponds. But of major importance is the positive effect on the utility network and treatment of wastewaters for the Mt. Shasta community. A small beneficial cultural effect will result from the employment of a full-time plant operator.

Blasting and cut and fill operations will have an effect on the soils of the existing ponds as these operations are utilized to deepen Ponds #1 and #2 and raise the elevation of the berm. Such effects will be limited to the soils of the existing treatment site, an area previously committed to the wastewater treatment function.

The actual recharge of ground water will result from the discharge of the treated water into the soils of the Big Canyon Plantation, a U. S. Forest Service reforestation area. It is important that the recharge should not effect the quality of the normal ground waters

in a negative manner. Due to the high level of treatment it is anticipated that this will not occur and that the overall effect will be minimal. It is of still greater importance that the discharge not impact the plantation trees in a negative way. The project proposal includes specific measures to protect the trees, and so again, the total impact will be minimal.

The actual waste treatment function is again the most important aspect of the proposed project. It is for the treatment of the wastewater of the community and the elimination of negative environmental effects of the existing treatment operations that the study was performed. The importance of the wastewater treatment on water quality is rated high as a beneficial impact. The magnitude of the impact is also high, reflecting the high degree of treatment.

The "liquid effluent discharge" action is equivalent to the previously discussed "ground water recharge" action, and the "oxidation pond" element is similarly equivalent to the "waste treatment structures" element.

The final possible action would be the improbable, but possible accident of an "operational failure". Such an action might result in a discharge to the Sacramento River during the recreation season when such discharge is prohibited. Plant design and recommended operations will assure that in the worst case, the failure of the single force main outfall line, water discharged to the river would have

received full treatment prior to such an activity. Allowing even for accidents and failures, it is not anticipated that any untreated wastewater would be discharged to the river. For that reason, the magnitude of the impact would be low.

The above discussions are basically only a summary of the total environmental considerations. Complete and detailed discussion of these impacts can be found in the following section.

## SECTION IV

### ENVIRONMENTAL IMPACT STATEMENT

#### Probable Impact of The Project On The Total Environment

It is the nature of the project to reduce negative impact on the Mt. Shasta local and downstream environments. The proposal allows for:

- a) The elimination of current effluent discharge into the headwaters of the Sacramento River during the recreation season, May 1st through October 31st.
- b) Continual secondary treatment and polishing of municipal wastewater with controlled air-oxidation, and filtration.
- c) Increased recharge of natural water systems through sub-surface discharge of treated water during the spring, summer and early autumn seasons.
- d) Minimizing construction impact and claiming of additional land area through maximum utilization of existing treatment facilities.
- e) Use of air-oxidation to eliminate requirements for additional land area acquisition for stabilization ponding.
- f) Control of pond odor by providing adequate oxygen to allow for non-septic (aerobic) digestion of suspended material in wastewater.
- g) Protection of ground water resources through sealing of the existing second pond bottom which is thought to allow for short-circuit connection with ground water through fissures in the



underlying strata.

It is planned to include areas in the project which are now outside the City Limits and are currently utilizing septic tanks as the only treatment process prior to return of wastewaters to the natural water environment. Such inclusion will eliminate the constant return of the poorly treated septic tank effluent to the ground waters of the area.

The proposed action calls for the use of existing treatment ponds, thus containing future treatment facility operations on land previously allocated for such purposes. The major impact on the environment will result from the return of the treated water. Secondary effluent, reduced as it is, is still not pure water. Although the treatment processes remove essentially all of the soluble biologically degradable organics, a portion is converted into the organic cell material of the digestive organisms. Thus, the removal of organics which impart BOD to the effluent is limited, generally to the order of 60 - 90%. The proposed filtration will assure continued BOD and SS reduction in excess of 90%.

Non-bio-degradable organics are of course, not removed by secondary bio-degradation techniques. Inorganic compounds, such as phosphates and nitrates are also not completely removed by secondary treatment. Ions of inorganic salts containing calcium,

magnesium, sodium, potassium, etc. will always be found in water, natural and municipal, due to the almost universal solvent power of water. Of course, the cation content of a wastewater is dependent on the quality of the municipal water source and the spring water supply of the City of Mt. Shasta is of high quality with low ionic concentrations. Finally, secondary treatment does not remove 100% of the suspended particulate solids and without chlorination removal of pathogenic bacteria (typhoid) and viruses (infectious hepatitis) is not complete.

The mere presence of these elements does not make water unsuitable for usage. In fact, these factors will be found in all waters except those treated specifically for chemical purity. The content of waters including organics, non-organics, ions, gases, etc. is commonly used to determine the relative quality of the water when compared to established standards. Water from the controlled aeration treatment, followed by clarification and mixed media filtration, will be of a quality suitable for irrigation, capable of supporting aquatic life including trout, and is in most aspects equivalent to potable municipal water. However, it is felt that additional reduction of these elements prior to return to natural water systems is possible and is desirable. The proposed action calls for return of the polished secondary effluent to the soil during the critical period of water quality in the Sacramento River. Soil reclamation will allow for the continued treatment of the water by natural purification functions

such as mechanical filtration, chemical oxidation and immobilization, and biological degradation and reduction. The soil will provide continued treatment, in most aspects equivalent to the best available in-plant treatment.

#### Mitigation Measures Proposed to Minimize the Impact

##### High Level of Wastewater Treatment

Under favorable conditions stabilization ponds treat municipal wastes under aerobic conditions. The effectiveness of a pond however, is dependent upon a number of factors such as sunlight, temperature, pond depth, sewage characteristics and wind action. These factors affect the reoxygenation rate but cannot be controlled during operation. The slow progress of the wastewater through the ponds requires large amounts of land. Erratic performance of the pond cannot be avoided due to the inefficiency of algae as an oxygen producer during conditions of inadequate sunlight. Lack of light penetration and lack of thermal mixing in cold weather result in variations of dissolved oxygen throughout the depth of the pond. Conditions of insufficient oxygen promote putrefaction, digestion by anaerobic organisms which produce methane gas and odorous waste products such as sulphide gases.

##### Controlled Aeration

These conditions will be mitigated by use of a compressed air controlled aeration system. The system utilizes an air diffusion

technique for accelerating aerobic biological oxidation and is suitable for increasing the capabilities of existing lagoon installations. It provides for treatment consisting of primary settling, biological oxidation, final settling, sludge disposal, re-circulation and odor control.

Sheets of rising air bubbles from a grid network of polyethylene tubing create lineal barriers which divide the lagoon laterally into hydraulic cells. The laminar rise of the water above the tube (rise rate of less than 1 ft/sec.) produces counter rotating currents which persistently roll the wastewater over and over before it escapes into the next cell. This prevents short-circuiting of flow which can be found in stabilization ponds in summertime or under the ice in winter time.

The water is constantly exposed to new air allowing for aerobic degradation of suspended solids. The low downward circulation rate (sink rate of less than .03 ft/sec.) allows for the suspended solids, which cannot be degraded aerobically while in the water, to settle out at the bottom.

Circulation of oxygenated water over the deposited material transfers oxygen to the sludge so the top layer is aerobically reduced to carbon dioxide and water. The next layer digests by means of facultative bacteria. If the sludge is still deeper, anaerobic digestion

takes place further down. Sulphide gases and other resulting odorous compounds go into solution in the aerated water. Before the objectionable odors reach the air, they are turned by aerobic bacteria into carbon dioxide, water and similar inoffensive substances.

Methane gas, formed anaerobically, now serves a useful purpose. The sludge fills with gas, causing it to break off in small pieces. These chunks, rising to the surface, get caught up in the circulation pattern. Air bubbles work to break them into fine particles which become digested while in suspension or as they settle. The amount of inert ash, the final solid end product, eventually produced from normal domestic waste, requires that a lagoon be cleaned only at an interval of 20 - 30 years.

Treatment continues along the length of the pond making use of biologic elements to digest the organic material suspended in the wastewater, and in turn to provide a chain of consumption of the biologic elements. As the flow progresses and the sewage bacteria consume sludge, and the oxygen content of the water increases, the bacteria themselves become food for ciliates. As the oxygen content increases the pond can house sludge worms, cray fish, snails, insects and other scavengers which live on the sludge and consume it, so that some of the ash content is taken into the hard shells of cray fish and insects. Through this cycle of consumption and oxidation most of the sludge is converted to carbon dioxide, water, ash, and to a lesser extent, biotic cell material.

In effect, the system parallels the natural cleansing action of a fast moving (velocity greater than 2 miles/hour) stream, where, due to bottom drag, water tends to roll down a stream bed carrying water and oxygen from the surface to the bottom sludge, oxidizing solid organics and preventing septic consumption. Similarities in the progression of water quality allows the natural stream biotic cycle to exist in the pond, thus aiding further in reclaiming the water from municipal waste.

The treated product will be an effluent reduced in BOD in the order of 70% which is stabilized, will not cause odors, has a dissolved oxygen content (5-8 ppm) approaching saturation, and which will not remove oxygen from receiving waters. The secondary treatment will be followed by chlorination and dechlorination to eliminate the public health threat of pathogenic micro-organisms in the water returned to the environment.

#### Polishing Treatment

Polishing or final treatment prior to pumping to the disposal fields or discharge to the river during the winter months shall be accomplished by filtration. Buildup of biologically inert solids and digestive organism cell material within treatment ponds will eventually lead to the discharge of solids unless these are removed by further or polishing treatment.

Filtration will be accomplished by means of the mixed media process. That is, providing a coarse to fine filter gradation in the direction of flow. This is a very efficient means of filtration and the combined process should result in a total reduction of at least 90% in both BOD and SS.

From the filtration unit the wastewater shall be subjected to chlorination and then passed to the holding lagoon which shall also serve as a chlorination chamber and for emergency storage.

At each of the aforementioned stages of treatment, tests will be run to determine the degree of treatment received.

#### Effluent Discharge

In discharging of the treated effluent it is necessary to consider the possible environmental implications and what effects the action will have on existing ecological balances. Both land and river discharge are called for in the project proposal. Each will be considered separately.

##### a) Land Discharge

It is planned to discharge effluent waste on land during the recreation season, May 1st through October 31st. Improper disposal could result in assorted adverse environmental effects. Consideration of four major types of land discharge is summarized below.

1) Percolation/Evaporation Basins: The use of percolation/evaporation basins is discounted for two major reasons. Primarily, no area is economically available for such ponding. Completion of the reclamation of the water is best afforded if at least several thousand feet of percolation distance is allowed before ground waters containing the reclaimed water become available for contact with the general public. Secondly, according to California State Water Resources Control Board, evaporation is to be discouraged as a means of reclamation. It is considered to be less preferable than recharging ground waters.

2) Percolation Furrows: The use of furrows or trenches for percolation has proved useful in some instances. For example, requirements of the State of California Lahontan Regional Water Quality Control Board led to a furrow type disposal system north of the Lake Tahoe Basin. Such usage was permitted by a use permit requested of the U. S. Forest Service. The use of such a system in the Mt. Shasta proposal was eliminated for two major reasons. First, the use of open trenches commits the land primarily to that usage thus curtailing the range of other beneficial uses and introducing a major interference to the plantation function of the recommended site. Secondly, the close proximity of Highway 89 would permit undesirable public access to the exposed discharge area.



3) Sprinkler Discharge: Sprinkler discharge has been successfully employed in many locations. It has several inherent factors however, which make its use undesirable for the Mt. Shasta proposal. Besides such disadvantages as surface pooling, run-off, damage to vegetation from prolonged conditions of top soil saturation, winter problems of ground freezing and ice formation, and public health concerns, the slope of the Big Canyon Plantation exceeds the recommended allowable slope for sprinkler discharge. An 8% slope is generally considered to be the limit for spray fields. Slopes up to 14% have been utilized in specific instances. The 12% slope of the Big Canyon Plantation falls within the range considered to be marginal for reliable sprinkler discharge.

4) Sub-surface Discharge: It is desired instead to utilize an unimposing subsurface system which will deposit the reclaimed water with no exposure to the surface. Such discharge will avoid erosive runoff and excessive wet conditions at the surface which could adversely affect wildlife habitation patterns, and threaten increased incidence of disease, such as hoof rot in deer. It will also tend to avoid upset of existing vegetative balances resulting from the deposition of chemical substances such as nutrients and inorganic salts in the topsoil. This is accomplished by avoiding contact with the topsoil from which plants derive the major portion of their nutrition.

The recommended site for this water reclamation is the Big Canyon Plantation, a reforestation area on U. S. Forest Service Lands. It was planted from 1963 to 1965 with 600,000 pine seedlings. The trenching necessary to bury the perforated water reclamation system will be on the order of 10 feet deep to assure deposit adequately

below the root zone of the plantation pines. The lower 5 feet will be utilized for percolation, while the upper 5 feet will remain an unsaturated earth blanket. The flow will be dispersed on an intermittent schedule to allow for recovery and aeration of the saturated soils.

The reclaimed water thus deposited reasonably beneath the zones of plant and animal habitation, is free to percolate and continue purification through the mechanical, chemical and biological cleansing actions of the permeable material underlying the reclamation site.

#### b) River Discharge

The proposal calls for disposal of effluent in the Sacramento River during the period of November 1st through April 31st, thus allowing for the natural mixing and cleansing action of the youthful-stage stream flow. Such action is most effective during the high flow periods of the river, when natural mixing and aeration are most effective. The period of river discharge coincides closely with high stages of the Sacramento River, generally considered to be about October 1st through April 1st. The California Regional Water Quality Control Board will continue to set requirements for the quality of influent to the river. The proposal allows for the continued option of land discharge should the treated effluent at any time not meet these or any future revisions of river influent standards.

#### Final Purification by Soil Mechanisms

Recently, new interest has been generated in the reclamation of secondary effluents and other biodegradable wastes by deposit in the soil. The land discharge of secondary effluent and the consequent percolation

through soil make use of natural saprophytic organisms and other soil mechanisms to continue treatment of the wastewater prior to ground water recharge. Filtering wastewater through soil is effective at removing remaining bio-degradable material, fecal micro-organisms, inorganic salts and suspended solids. Of major concern is the capability of the soil to reduce phosphorous and nitrogen concentrations without the use of tertiary treatment facilities.

Phosphorous, mostly present in the effluent in the form of phosphate, is capable of reacting with soil elements to form insoluble compounds such as aluminum, iron and calcium phosphates. In addition to mineralization, phosphorus can be immobilized by incorporation into microbial tissue. It has also been suggested that anaerobic reduction of phosphate by soil micro-organisms may result in the volatilization of phosphorus in a gaseous form, such as phosphine. The soil can make an effective sink for phosphorous capable of removals up to and exceeding 90%.

Nitrogen, added to sewage in the form of human excreta, food waste and other organic materials and compounds, is acted on almost immediately by various proteolytic organisms which tend to reduce its form from complex proteins, polypeptides, amino acids, etc. to ammonia. Raw sewage has proceeded through this ammonification process to such an extent that by the time it reaches the treatment facility as much as 90% of the nitrogen can be in the form of ammonia or compounds from which ammonia is readily formed.

The abundant supply of oxygen in the proposed aerated secondary ponds will allow for partial biological nitrification of the ammonia-nitrogen into the nitrate form by aerobic bacteria. Nitrate concentrations are commonly increased 200-500% in effective secondary treatment. A nitrified effluent is desirable for use in reclamation where bacterial denitrification of nitrates to the form of free nitrogen gas is to be utilized for nitrogen reduction.

Various dispositions of the nitrogen in the wastewater are possible, dependent upon a multitude of varying conditions (See "Probable Adverse Effects Which Cannot be Avoided" of this section). Total removal of nitrogen and ammonia may be as high as 90% of the original content of the secondary effluent, but could be considerably less, depending on the nature of the soil and other factors.

Ammonia and ammonium ions will tend to be held near the soil surface by adsorption to soil particles, cation exchange reactions, or fixation in clay lattice. Under alkaline conditions some free ammonia gas will be released from the ionic state to escape as a volatile or to be adsorbed by organic materials. The fixed or adsorbed ammonia will be resistant to chemical oxidation and will remain in the soil minerals. During dry periods however, the ammonium cation can be removed and oxidized by nitrifying bacteria.

Nitrate and nitrite anions are repelled by the negatively charged surfaces of soil particles and tend to move freely in percolating waters. It is this characteristic that renders as ineffective, the reduction of nitrate concentrations by percolation alone. The most effective

natural mechanism for the reduction of nitrates is denitrification (nitrate reduction) by facultative bacteria. Under anaerobic conditions they are able to utilize nitrates and nitrites as electron acceptors (sources of oxygen), using the oxygen thus obtained for the metabolic oxidation of carbon and sulphur compounds. This results in the liberation of the nitrogen as a gas. This is surely the most desirable disposition, for the nitrogen is simply returned to the atmosphere without polluting air or water.

Denitrification takes place best under anaerobic conditions such as in soil after flooding or a heavy rainfall. It can also occur alternately with nitrification by use of an intermittent flooding schedule.

#### Intermittent Discharge

At the completion of secondary treatment more than 90% of the nitrogen present in the effluent will have completed the ammonification process. High concentrations of ammonium-nitrogen will be present, contributing to the total oxygen demand of disposed wastewater. It is necessary to maintain aerobic conditions in the upper zone of the receiving soil to allow for the oxidation of ammonium ions to nitrates by nitrifying bacteria. Continued conversion to nitrates will prevent ammonia saturation in the soil and allow the anionic nitrates

to move freely in the percolating water. When applied to soil water movement proceeds as a film over the surfaces of soil particles until reduction of porosity fills the capillary pores. Water movement will then continue in free downward and lateral flow. This saturated zone then provides the anaerobic conditions necessary for the denitrification process.

To accomplish the maintenance of aerobic conditions in the upper levels of the soil, it is proposed to discharge effluent on an intermittent schedule. Research has indicated that intermittent discharge can provide from reaeration of the soil, high percolation rates and optimum degree of advanced treatment, and that aerobic nitrification can be maintained with an intermittent flooding schedule. Freedom of adjustment of the discharge period will afford some control of the total nitrogen content of the reclaimed water.

#### Bypass Analysis

##### Downstream Water Uses

Below the Mt. Shasta area, the Sacramento River proceeds south through approximately 30 miles of a youthful-stage canyon until reaching Shasta Lake. The major utilization of the river water is for recreational purposes such as fishing and swimming. Domestic water along the canyon is derived mainly from springs and wells; there is no domestic usage of river flows at this point.

Shasta Lake is formed partially by the flow of the river and is one of the major recreational attractions of the north state. The first major usage of the water for domestic purposes is below the lake at the City of Redding, where river water is pumped and distributed

to the city residents. In addition, a portion of the river flow is diverted to supply irrigation for the Anderson-Cottonwood Irrigation District. The need to prevent bypassing of untreated or partially treated wastewater is in the interest of protecting recreation, irrigation and domestic uses of the Sacramento River water.

#### Power Failure

The proposed treatment facility will be safe - guarded against bypassing untreated water to the Sacramento River in case of power failure during the recreation season. The pump station will house an emergency generator to power the pumping station, back wash pump and all other electrical requirements of the treatment facility.

#### Infiltration

Infiltration flow components currently add more than acceptable amounts of flow to the sewage treatment facility. Modifications to the existing collection system are currently being planned to replace old and broken lines and lines of inadequate capacity. The proposed modifications are expected to bring infiltration down to within acceptable levels.

### Plant Unit Maintenance and Repair

Provisions for maintenance and repair of the treatment facility will be provided for in a manner which will not necessitate bypassing of untreated wastewater to discharge.

The grit chamber shall consist of two separate channels, each capable of handling the entire flow while the second is shut-down for cleaning and repair.

In the event that it becomes necessary to shut-down one of the ponds for maintenance, flow will be diverted around the pond but will continue to receive the benefits of all other treatment elements.

The filter is necessarily designed as a dual system due to backflush requirements. This allows for repetitive periods of shut-down of each filter unit. Should maintenance or repairs exceed the operational time of the alternate filter, the secondary effluent will receive chlorination and be stored in the emergency storage capacity of the third pond awaiting normal treatment.

The pumping station will house two pumps which will operate individually or in parallel as determined by treated effluent flows. In the case of maintenance or repair of one of the pumps the opposite should operate as required with excess flows being contained in the third pond during the repair period.

There will be only one outfall line (force main) to the water reclamation site. Should this line fail, or should both pumps simultaneously fail, the third pond will afford 10 - 15 days storage capability while the



failure is located and repaired. Should repairs entail amounts of time in excess of what the third pond storage capability can provide, the effluent will be discharged to the river. It should be emphasized that the water entering the river however, will have received full treatment and be within the standards required for non-recreation season discharge.

#### Flood Protection

The proposed use of the existing treatment site provides the significant flood protection advantage inherent in the location of the ponds. Elevation data on the three ponds is as follows:

##### Pond No. 1

Bottom elevation:	3295.0 ft.
Water level:	3299.0 ft.
Berm elevation:	3302.0 ft.

##### Pond No. 2

Bottom elevation:	3280.0 ft.
Water level:	3284.5 ft.
Berm elevation:	3287.0 ft.

##### Pond No. 3

Bottom elevation:	3275.0 ft.
Water level:	3280.5 ft.
Berm elevation:	3282.0 ft.

The elevation of the Sacramento River adjacent to the ponds varies from 2925 feet down to 2905 feet. The resulting elevation difference between the river and the berm of the third pond is at least 350 feet.

The existing reservoir at the Box Canyon Dam site provides a buffer to prevent flood conditions downstream of the dam through controlled release of reservoir waters. The water level of the reservoir was recorded as 3181.5 on January 2, 1970. Flood waters would have to top the dam by well over 100 feet to reach the level of the third pond. It is not anticipated that this condition will ever occur.

During the recreation season treated water will be pumped from the pond site an additional 1100 feet in elevation to the water reclamation area. The discharge site elevation is approximately 4000 feet, which is considered adequate protection from flood conditions.

The local flood control agency is:

Siskiyou County Flood Control and  
Water Conservation District  
Yreka, California

Probable Adverse Environmental Effects Which Cannot Be Avoided

Construction Period Disruption

The pond holding time required for the secondary treatment requires that the depth of Ponds #1 and #2 be increased to 10 feet. The excavation required to deepen the ponds will result in the noise and dust associated with heavy construction equipment and probably with blasting, for it is anticipated that in some locations, rock will be encountered under the ponds. The blasting will be accomplished in small controlled increments and will be employed only to break up rock sufficiently to allow removal by standard excavation equipment. The isolated location of the ponds will assure that noise levels and blast over-pressures will diffuse to well within public safety standards prior to any impingement on public areas. Material excavated from the bottom of the first and second ponds will be used to build up the dikes of the ponds. A combination of increasing the berm elevations and deepening the pond floors will be utilized to accommodate the desired five foot increase in pond depth.

Also during the construction period, there will be unavoidable disruption of soil and vegetation with the placement of the new interceptor line to the treatment site, and the new force main and sub-surface water reclamation system.

The interceptor will basically follow the path of the line it is replacing. The discharge pump station and treatment facility developments will be in the area of the existing ponds on previously acquired and developed land.

The new force main will travel a course which is currently undertermined. Efforts are being made to route a significant portion of the new line along an abandoned portion of Old Route 89. The line would be located on an existing bench which parallels the new highway. The advantages of this route would include utilizing the existing grade and avoiding clearing and pioneering a new route through previously undisturbed vegetated areas. In addition, the route is generally down the bank and screened from the existing route 89 and would provide little disruption of normal traffic flow during construction. Of particular importance is the use of existing grades to cross Big Canyon, thus avoiding the necessity for a supportive trestle or siphon system to carry the line across the canyon.

The installation of the discharge lines will require unavoidable disruption of the soils at the water reclamation site. The topsoil will be removed to a depth of 6 to 8 inches and set aside separately to be replaced on top of the trench lines. The seeds generally present in this soil element will allow for the re-seeding of the disrupted areas with natural vegetative cover, and the re-establishment of cover

will provide for protection against erosional damage. Dust control will be implemented as stipulated in standards of the California State Division of Highways.

The proposed reclamation site is a portion of the Big Canyon Plantation, a reforestation area planted from 1963 to 1965. Brush had been cleared at that time to favor the 600,000 pine seedlings. The seedlings now are 8 to 10 feet tall, and a significant amount of brush has become re-established in the area. Trenching in the area will once again disrupt some of the competitive brush. Vegetative spoil will be chipped and spread in a manner which will not present a future fire hazard. No spoil will be burned.

Trenches will be placed to provide the best possible routing considering seedling location, slope contours and discharge line gradient requirements. It is possible that removal of some of the seedlings could result if no other compromise in line routing can be accommodated. Provisions for the replacement of removed seedlings have been discussed with the National Forest Service.

#### Incomplete Nitrogen Removal

The extent to which various soil mechanisms will work on either nitrates or remaining ammonia varies according to prevailing conditions. The rate and extent of chemical and microbial actions is dependent upon soil structure and mineral content, variations in moisture content and aeration, availability of essential nutrients and energy sources for the saprophytic micro-organisms, soil pH,

temperature, presence of toxic substances, concentrations of the bio-degradable substances, and method of delivery (flooding, sprinkling, subsurface, etc.).

It is felt safe to assume that the lengthy percolation (approximately 2 miles) through the predicted ground water course will effectively complete the reduction of all sewage elements except perhaps the nitrogen forms. It is impossible to accurately determine the actual disposition of the nitrogen without definition of the various variables throughout the entire recharge course. The degree of nitrogen survival in the recharging water will, therefore, not be determined prior to application of the effluent. In the absence of in-plant tertiary treatment, it is recognized that there may be higher concentration of nitrogen compounds (ammonia or nitrates) in the recharging water than in the receiving water.

## Alternatives to The Proposed Action

### Treatment Alternatives

The most obvious alternative method of increasing the capabilities of the existing stabilization ponds is that of expanding the ponds to handle future flows and to meet discharge requirements. As concluded in the following examination however, the use of stabilization ponds as the sole source of treatment for the anticipated future flows and discharge requirements proves to be impractical.

### Stabilization Ponds

Stabilization ponds have been used as a method of disposal of wastewater long enough so that adequate design criteria can be applied to many areas. When the ponds are properly designed and the area is suitable, they have proved to be a very effective means of disposal of wastewater.

Proper design, of course, is the foundation for successful operation of any system. There are many factors which have to be considered including loading, soil conditions and climatic conditions. If one or more conditions are not suitable, there is a strong likelihood that success will not be achieved.

These matters will be discussed, along with references to the existing stabilization ponds, to attempt to determine ponding effectiveness for a method of treatment, recognizing that only a system of non-overflowing (no discharge) ponds can meet the no discharge requirements of the Water Quality Control Board. If this system

is not possible, land disposal of the pond discharge must be evaluated in the light of a pond effluent quality and its potential of being successfully reclaimed on land.

Loading:

As has been previously determined by all studies which have been made in the past the present stabilization ponds are not able to successfully handle the required loading.

Briefly, to refer to Dr. W. J. Oswald's study, presented to the City of Mt. Shasta in 1968, the following facts are discussed.

Standard loading is recommended to be in the ratio of 1 acre per 100 persons served. (The same criteria has been established by the Ten-State Committee\*). Such a loading rate should result in a system where stabilization of the sewage would result but does not imply that no discharge conditions would result or that the quality of the discharge would meet current requirements. This produces a requirement for the present population of 23 surface acres and which when projected to the design population of 6,000, would require 60 surface acres.

On Page 20 of Dr. Oswald's report, under land requirements, he states that the quantity of land set aside for the ponds should be at least 20 percent greater than the active water surface. This means that with a design population of 6,000, the minimum land area required would be 75 acres. Most sources use a figure of 33 percent which would bring this figure to 80 required acres.

\* The Committee on Development of Uniform Standards for Sewage Works



The surface area of the existing ponds totals 15.8 acres and the area of the entire treatment site is limited to the extent of the parcel allocated for treatment purposes, approximately 20 acres.

Soil Conditions:

Soil conditions is a rather broad aspect including the slope of the land, ground water, permeability, ground cover, and other related factors.

Slope of land must be considered as must the general topography of the area. It is obvious that to construct ponds a fairly level area would be desirable. The land surrounding the existing ponds tends to slope away at unfavorable rates, especially to the south and west as the terrain drops off into the walls of the Sacramento River Canyon. It is only possible to construct ponds on steep hillside locations if cost is disregarded but cost cannot be disregarded as a factor. Terracing of ponds is very expensive and since it is desirable to have a gravity flow system it would require an elaborate pond arrangement. Therefore, it would be necessary to look for an area of adequate size where ponds of the proper areas could easily be built and could maintain flow from one to another in series by gravity. Such an approach would be limited by the expenses of land acquisition and pond construction, could still require land disposal of pond overflow, and would not take advantage of the availability of the existing ponds.

Existing ground water conditions must be considered. It is undesirable to locate the ponds in a swamp or springs area or where the existing underground flow may become contaminated or degraded by percolation from the system.

Percolation of a part of the waste water from the ponds is an important phase of disposal of the treated water. With non-overflowing ponds there are only two disposal methods, percolation and evaporation. Percolation of course, depends upon the capability of the soil to absorb and drain away the liquid without the soil becoming overloaded and to drain this liquid at a rate which will produce an adequate treatment before the liquid reaches underground water supplies or surface watercourses.

High ground water conditions in the area of the present collection system and the existing ponds has proven to be a problem in the past. The original site borings associated with the pond design and construction show that water was encountered at 3 feet below ground level just above Pond No. 1, which in turn was 10 feet above the proposed pond floor. Observations of heavy water flows issuing into Ponds 1 and 2 have been made by City and County personnel.

The percolation here is affected by the previously mentioned infiltration. It is certain that if an area is already saturated, we cannot hope to dispose of more liquids there. Following is an excerpt from a Soil Survey of the existing ponds by the U. S. Soil Conservation Service, made in 1972 which refers to these conditions.

"The purpose of the pond in the waste water disposal system is to filter the water by percolating it through the earth underlying the pond."

"The purpose of the (our) excavations was to determine, if possible, why water percolation through the pond floor decreases in a short time. The pond became incapable of percolating the volume of water for which it was designed."

"The pond was constructed in glacial till, deposited by alpine glaciers from Mt. Shasta. The soils that developed in the till are moderately permeable and are 20 to 50 inches deep over consolidated layers. The consolidated layers are similar to a hardpan (duripan cemented by iron and silica compounds), or tuff-like soft rock. The cementation of this material is weak to moderate in strength and includes sand, silt, clay and imbedded fragments of rock ranging in size from fine gravel to large boulders of andesite or basalt."

"The excavations show that the soil material was removed when the pond was constructed and most of it was used to construct a compacted pond embankment. The floor of the pond is the cemented till."

"The surface few inches of the cemented layer is laminar, breaking along horizontal planes into fragments about two to three inches thick. Below the laminar layers the material is essentially massive with a few near vertical, fractures. Water is able to wet the entire mass of the cemented layers, which are several feet thick. Transmissal (sic) of the water, however, is very slow except along the horizontal and vertical fracture seams. The seams are filling with translocated silt and clay particles and possibly organic and inorganic compounds from the sewage effluent. The filling of the seams with this material is reducing the water permeability of the cemented layers."

"When the pond was constructed, about four years ago, the cemented layer was ripped mechanically, to depths of 20 to 30 inches, at intervals of about four feet. The ripping was parallel in an east to west and west to east direction across the floor of the pond. Examination of the excavations showed the ripping has little lateral effect on the cemented layer. The layer was fractured only six to eight inches on each side of the ripper blade. There was no evidence of the fractured material reconsolidating."

"The rapidly decreased rate of water percolation through the pond floor is caused mainly by the inherent very slow permeability of the cemented layers of till. These layers are very thick and once they are thoroughly wet, their permeability is decreased. There is also translocation of silt and clay particles which are carried by the percolating waters into the seams and cracks and deposited. This further reduces the permeability. Rapid weathering of the rock fragments and some of the minerals in the cemented layers is also taking place and producing silt and clay. Weathering also produces chemicals which may react with the chemicals in the water to form other compounds that may produce a further reduction in permeability. In time the pond floor will become essentially impermeable and useless for leaching sewage effluent."

This indicates that the area underlying the existing ponds is not desirable for this treatment and another location would have to be found.

It must therefore be concluded that in the existing treatment area, normally functioning stabilization ponds are not feasible.

Evaporation is the second method of disposing of the wastewater. The net evaporation obtained from figures established by the U. S. Weather Bureau is 33.8 inches per year. Using this rate we would expect to lose the following:

$$\frac{33.8 \times 325,850 \text{ gallons/acre foot}}{12} = 917.811 \text{ gallons/acre/year}$$

This would result in an amazingly large number of acres required considering a design requirement of 1.2 million gallons per day.

$$\frac{1,200,000 \times 365}{917,811} = 477 \text{ acres surface area}$$

$$\text{Surface area} \times 1.33 = 634 \text{ land acres required}$$

It should also be noted that reliance on evaporation for disposal is contrary to the Grant Program Guidelines since it eliminates the recharge of ground water resources within the area.

Examination of the foregoing data leads to three conclusions:

- 1) The existing stabilization ponds cannot, by themselves, properly meet the needs of the area,
- 2) Use of stabilization ponds alone as a method of waste water treatment for the City of Mt. Shasta is not feasible and if undertaken, would result in the necessity of acquiring a completely different site which is not practical, and
- 3) Land disposal is a necessity since a no-discharge condition is not a practical reality.

It is therefore recommended that stabilization ponds alone not be used but rather to combine the existing ponds with other processes which will result in the maximum utilization of the existing plant and provide the most economical and efficient method of waste water treatment under the present conditions.

### Unique Conditions

The unique conditions which must be met in the design of a treatment facility very sharply narrow the choice of treatment types available.

In the Mt. Shasta City Water Pollution Control Facility Study these requirements consist of the following:

- 1) Utilization of the existing treatment ponds as an integral part of the proposed treatment. Of course, this will require modifications of the existing facilities. Pre-treatment equipment such as a bar rack, grit chamber and comminutor would be required for any proposed concept.
- 2) Ease and convenience in winterizing portions of the system which may be removed from service at such times when river discharge is permitted.
- 3) Flexibility of operation within the treatment system to provide efficient operations under conditions of variation in flow.
- 4) A system which can operate through wide ranges of climatic conditions, capable of accommodating the low temperatures and heavy snowfall of the area.
- 5) Provision for a discharge which will be compatible with the ecological balances of the area.
- 6) Provision for an emergency power source for the facility.

7) Provision of a system which will be adequate to accomplish the aforementioned objectives while providing for a minimum of required maintenance and obtaining this by the most economical method.

8) Provisions for development and addition of future areas which may be served.

#### Alternate Treatments

There are many different types of systems of sewage treatment and several of these systems could be adapted to obtain the necessary results desired here. However, after examining the unique considerations it appears that utilization of the existing facilities with modifications is by far the most economical and efficient way to achieve these results. Detailed discussion of the proposed method is included in the "Recommended Project" portion of this report.

Among the many treatment processes which were considered were activated sludge, modified activated sludge, trickling filters, oxidation ditch, moving bed filters, extended oxidation, chemical treatment, and combinations of these processes. These concepts generally entail new facility installations and do not take advantage of the existence of current treatment facilities.

Use of available land area and continual usage of the existing facilities was primary among our considerations. Also, there are no available areas appropriate for disposing of large or even moderate

amounts of sludge which would result from some of these treatment methods. For this reason it is desirable to utilize a system which could generally reduce sludge resulting from its operation within its own limits.

For ease of maintenance a gravity flow method is considered desirable throughout the treatment facility. This not only will reduce costs by eliminating additional pumping costs but will utilize the existing system.

#### Conclusion

The selected recommendation for obtaining the required results after consideration of the conditions unique to this study, is the continued use of the existing ponds with the addition of a controlled aeration system, primary screening and grit removal prior to the ponding, and filtration following the ponding. The combined effect will be capable of meeting the treatment requirements and in addition, offers the following advantages.

- a) Utilization of the existing treatment ponds, current line routings and gravity flow operations.
- b) Maintaining treatment operations in the current desirable location on property already allocated for that use.
- c) Utilization of existing supportive functions, such as roads, power lines, fencing, etc.
- d) No disposal requirements for sludge.



- e) Control of pond odor by providing adequate oxygen to allow for non-septic (aerobic) digestion of suspended material in wastewater.
- f) Use of controlled aeration to eliminate requirements for additional land area acquisition for stabilization ponding.
- g) Flexibility in operation to provide efficient operation for the variations in daily flows.
- h) Full operational capability in winter under conditions of severe cold and snow loading.
- i) Emergency storage capability during periods of maintenance or failure.
- j) Provisions for maintenance and repair in a manner which will not necessitate bypassing of untreated water to discharge.
- k) Flood protection inherent in the location of the existing ponds.
- l) Minimum sensitivity to changes in population or inflow loading.
- m) Ease of expansion to accommodate increased flows as additional areas are included in the total service area.

#### Water Reclamation Method Alternatives

Perhaps the most important aspect of the required improvements is the necessity for curtailing all direct discharge into the Sacramento

River during the recreation season. This treated water must be delt with and eventually returned to the natural water environment.

The three major alternatives for the ultimate reclaiming of treated water are as follows:

- a) Terminal Ponding - Ponding that completely offsets in-flow by equivalent total rates of evaporation and percolation.
- b) Direct reusage, such as irrigation or direct return to a flow or body of water.
- c) Indirect reusage which allows for the spreading of the treated water over adequate land area to allow for percolation into the soil and eventual recharge of ground water or return to surface water through springs.

Terminal ponding is not possible for the existing facilities as evidenced by current operations in which the third pond overflows at a rate of approximately 0.3 MGD into the Sacramento River. Expansion of the current pond area has been considered. The current pond area of 15.8 acres would have to be increased to 60 acres to provide for a loading of 100 population served per acre of stabilization ponding. This minimum area would be required to achieve the complete disposal of the treated water by evaporation and percolation, assuming favorable soil and climate conditions. This alternative has been

discounted for the Mt. Shasta facility. Evaluation of the terminal ponding concept is included in the discussion of stabilization ponds in the "Stabilization Ponds" portion of this "Alternative" section.

Direct reuse of the effluent from the treatment facilities is primarily based upon water need. In some locations reuse of water is needed for a potable water supply. In this area that is not necessary. Neither is there a demand for water for irrigation at this location. The only possible direct use of the reclaimed wastewater would be for immediate delivery to water recreational facilities.

The most practical location for such discharge of the reclaimed water in the area would be the Box Canyon Reservoir. The effluent could be pumped to the Cold Creek Arm of the reservoir and then dispersed to the lake. This would in turn, intermingle in the reservoir and be diluted by waters from the Sacramento and Scott Camp Creek Arms.

Various projects have proven the feasibility of reuse of reclaimed wastewater. However, they are in areas where a need for the water exists. In the Mt. Shasta area there is an abundance of existing water supply. In addition, the concept of reuse of wastewater is still in the experimental stage and would require considerable time and effort put forth in study. The need for a new

treatment and disposal area at this location is now. In the interests of immediate action and also economy, for the studies would be costly and might prove to be unusable, and recognizing current regulations regarding return of effluent directly to surface waters, it is not considered desirable to utilize such concepts for the Mt. Shasta area.

Indirect reuse of treated water involves the return of water to natural water systems by means of distribution over land areas. It is felt that reclamation of water by land discharge will allow for the continued treatment of the water by natural purification functions such as mechanical filtration, chemical oxidation and immobilization and biological degradation.

#### Short-Term Use Versus Long-Term Productivity

The use of the environment, as cited in this report, is an investment in the long-term productivity of the environment. The proposed actions will help insure:

- 1) The future use of the Sacramento River as a source for downstream domestic and irrigation water,
- 2) The future use of the Sacramento flow as a source for safe recreational water, and

3) The preservation of the existing ecological balances of the river environment.

Short-term impact centers mainly around modifications on previously acquired land and existing facilities. The deepening of the aeration ponds and the burying of the force main and new discharge lines on undeveloped and vegetative land, the major short-term impacts, are countered by the decreased discharge into the river and the increase in ground water recharge during the warm months of the year.

The "no-action" alternative would result in continued year-round discharge of the stabilization pond effluent into the Sacramento River. Future increases in the area population would consistently increase loading and decrease the "holding time" capability of the existing ponds, thus increasing the pollution effects of the effluent.

The selected method of water reclamation provides for a significant reduction in current adverse environmental impact.

#### Irreversible and Irretrievable Commitments of Resources

There will be no extraction or consumption of organic or mineral resources other than construction materials and supplies. There will be no reduction of watershed, no threat to rare or endangered species and no significant alterations in land use or appearance.

The major irreversible commitments will be in the installation of the new interceptor, pump station, and water reclamation system whose future removal would be unlikely, although not impossible.

Following recovery from the construction period land use will be effectively unaltered.

The involvement of land use considerations and planning to assure the protection of the Big Canyon Plantation as an existing resource is demonstrated in the selection of the method of reclaiming the water. This selection process is detailed in the section of this report entitled "Mitigation Measures Proposed to Minimize the Impact".

#### Objections to The Project and Their Resolution

It is anticipated that a public hearing will be scheduled during the period following October 1, 1972. This hearing will follow the submittal of the Project Report and the Environmental Impact Statement to the City of Mt. Shasta and the State Water Quality Control Board. At that time all interested parties will be free to comment on the proposal following review of the proposal documents. Any objections to the proposal will be considered at that time and their resolution will be documented.

## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Monday, September 21, 2015 10:16 AM  
**To:** Good, Stan  
**Subject:** RE: Environmental Narrative Documents

Hi Stan,

They did send me copies of those documents. Maybe afterwards they realized that they should have copied you.

Thanks, Shannon

**From:** Good, Stan  
**Sent:** Monday, September 21, 2015 7:44 AM  
**To:** FitzGerald, Shannon  
**Subject:** FW: Environmental Narrative Documents

I specifically asked them to forward to you. Must not have your email address.

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)  
Join EDA's mailing list today to get the latest agency news and grant opportunity information!

**From:** Rod Bryan [<mailto:rbryan@mtshastaca.gov>]  
**Sent:** Monday, September 21, 2015 6:15 AM  
**To:** Good, Stan  
**Cc:** Paul Eckert; Paul Reuter <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)> ([preuter@paceengineering.us](mailto:preuter@paceengineering.us))  
**Subject:** Environmental Narrative Documents

Stan,  
Please see the attached requested documents. I can send hard copies as well if you need them.  
If you need anything else, please let me know.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

## FitzGerald, Shannon

---

**From:** FitzGerald, Shannon  
**Sent:** Monday, September 21, 2015 10:26 AM  
**To:** 'Paul Reuter'  
**Cc:** Good, Stan; Paul Eckert (eckert@ci.mt-shasta.ca.us)  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Paul,

Thanks for sending those. I've got one thing that I've got to finish by tomorrow and then I'll start on the environmental review.

Thanks again, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
sfitzgerald@eda.gov

---

**From:** Paul Reuter [mailto:preuter@paceengineering.us]  
**Sent:** Friday, September 18, 2015 11:04 AM  
**To:** Good, Stan; FitzGerald, Shannon  
**Subject:** Fwd: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Stan and Shannon,  
I sent the attachments to the City yesterday. You should be receiving them from the City by early next week.

Sent from my iPhone

Begin forwarded message:

**From:** "Paul Reuter" <preuter@paceengineering.us>  
**To:** "Rod Bryan" <rbryan@mtshastaca.gov>, "Muriel Howarth Terrell" <mterrell@mtshastaca.gov>  
**Cc:** "Paul Eckert" <eckert@mtshastaca.gov>  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Rod,

Along with the two Applicant Certification attachments you prepared (attached), please send the following attachments to Stan Good and Shannon FitzGerald at EDA. Stan mentioned they had to come from the City on your letterhead, but I suggest e-mailing and asking if they needed hard copies as well.

1. Applicant Certification documents



2. Preliminary Engineering Report (PER)

3. Environmental Narrative  
Thanks.

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)<<mailto:preuter@paceengineering.us>>

Ph: 530-244-0202

From: Rod Bryan [<mailto:rbryan@mtshastaca.gov>]  
Sent: Friday, September 04, 2015 11:24 AM  
To: Paul Reuter; Muriel Howarth Terrell  
Cc: Paul Eckert  
Subject: RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Paul Reuter,

Here is the Applicant Certification Clause with attachments. Please let me know if you need the hard copies as well. Also, If you need to modify anything, I have attached the original Word docs.

Thanks,  
Rod

From: Paul Reuter [<mailto:preuter@paceengineering.us>]  
Sent: Thursday, August 27, 2015 10:00 AM  
To: Rod Bryan <[rbryan@mtshastaca.gov](mailto:rbryan@mtshastaca.gov)<<mailto:rbryan@mtshastaca.gov>>>; Muriel Howarth Terrell <[mterrell@mtshastaca.gov](mailto:mterrell@mtshastaca.gov)<<mailto:mterrell@mtshastaca.gov>>>  
Cc: Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)<<mailto:eckert@mtshastaca.gov>>>  
Subject: FW: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Rod and Muriel,  
We will work with Enplan on the Enviro Narrative and PER. Can you guys fill out the Applicant Certification Clause?

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)<<mailto:preuter@paceengineering.us>>

Ph: 530-244-0202

From: FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]

Sent: Monday, August 24, 2015 6:13 PM

To: Paul Eckert ([eckert@ci.mt-shasta.ca.us](mailto:eckert@ci.mt-shasta.ca.us)<<mailto:eckert@ci.mt-shasta.ca.us>>); Paul Reuter  
Cc: Rod Bryan ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)<<mailto:RBryan@mtshastaca.gov>>); Muriel Howarth  
Terrell ([MTerrell@mtshastaca.gov](mailto:MTerrell@mtshastaca.gov)<<mailto:MTerrell@mtshastaca.gov>>); Matson, Malinda  
Subject: RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Paul and Paul,

We received the information. Thanks. What Stan and I need before we can amend the scope of work is an Environmental Narrative, Applicant Certification Clause and Engineering Report filled out for the proposed wastewater treatment plant project. I've attached all three templates.

Thanks in advance for getting those to us. -Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)<<mailto:sfitzgerald@eda.gov>>

From: Paul Reuter [<mailto:preuter@paceengineering.us>]  
Sent: Thursday, August 20, 2015 3:10 PM  
To: Good, Stan; FitzGerald, Shannon  
Cc: Paul Eckert ([Eckert@mtshastaca.gov](mailto:Eckert@mtshastaca.gov)<<mailto:Eckert@mtshastaca.gov>>); Rod Bryan  
([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)<<mailto:RBryan@mtshastaca.gov>>); Muriel Howarth Terrell  
([MTerrell@mtshastaca.gov](mailto:MTerrell@mtshastaca.gov)<<mailto:MTerrell@mtshastaca.gov>>)  
Subject: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hello Shannon and Stan,

Attached is a project description for the EDA-Funded WWTP Improvements for the City of Mt. Shasta. It includes a project cost estimate, schedule and figures showing proposed improvements.

Feel free to contact me if you have questions or desire additional information.

Thank you.

Paul J. Reuter, P.E.  
Managing Engineer  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)<<mailto:preuter@paceengineering.us>>

Ph: 530-244-0202

City Letterhead

September 28, 2015

Julianne Polanco  
State Historic Preservation Officer  
725 23rd Street, Suite 100  
Sacramento, CA 95816

RE: National Historic Preservation Act Section 106 consultation/request for concurrence of no effect determination for proposed EDA grant assistance to construct the Mt. Shasta Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California.

Dear Julianne Polanco:

The City of Mt. Shasta has made an application for grant funding to the U.S. Department of Commerce, Economic Development Administration (EDA) to construct improvements at the Mt. Shasta Wastewater Treatment Plant (WWTP) in order to comply with Central Valley Regional Water Quality Control Board requirements for wastewater discharge, and to increase the capacity of the treatment facility to meet future demand. Under 36 CFR §800.2(c)(4), EDA is delegating authority to the City of Mt. Shasta to consult with you on the behalf of EDA. The EDA will fund a portion of the necessary improvements at the WWTP, while the U.S. Department of Agriculture, Rural Development, and other federal agencies will likely provide further funding for the remaining improvements.

Improvements to the WWTP will occur as three separate but related actions due to restrictions associated with grant funding deadlines, a National Pollutant Discharge Elimination System (NPDES) permit deadline to meet effluent standards, and lastly, potential wastewater needs of a future industrial user, Crystal Geysers. Because the entire project site/all improvements were treated together for archaeological review, it is requested that SHPO review the entire project site/all improvements as a whole, as well.

The three separate but related actions are as follows:

- 1) the project to be funded solely by EDA which features a new filtration and UV disinfection facility and pipeline that would connect the new facility to the existing facilities;
- 2) improvements to the treatment facility and outfall, including improvements to the outfall pipeline and headworks, and an increase in treatment capacity to meet the City's projected population growth; and
- 3) a greater increase in capacity for an anticipated wastewater contribution from Crystal Geysers. The third action would come to fruition following separate environmental review and approval for connection of Crystal Geysers to the City's wastewater system and receipt of financial assurance from Crystal Geysers that they would cover the cost of the expansion.

## **BACKGROUND**

The WWTP is located at the southern terminus of Grant Road, just south of the City limits and west of Interstate 5, in a semi-rural area of Siskiyou County, California (Figure 1). The ±10-acre project site is located at and upslope of the Sacramento River, east of Lake Siskiyou, and just south of the Mount Shasta Resort Golf Course. Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades in the past several years. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection.

For clarification and filtration, the lagoon effluent is pumped to a dissolved air flotation thickener that polishes and clarifies water prior to filtration. Polished water flows into a rapid sand filtration system to remove suspended solids. Filtered effluent is then disinfected with gaseous chlorine before being discharged offsite.

## **PROJECT DESCRIPTION**

Improvements to the WWTP and Sacramento River outfall are needed to: (1) meet new Central Valley Regional Water Quality Control Board Requirements, and (2) increase the treatment and discharge capacity of the facility. Improvements to the treatment facility would include replacement of the existing treatment lagoon system with a new treatment facility and treatment process and be contained within the footprint of the old intermittent sand filters. Improvements would also be made to the Sacramento River outfall infrastructure and the existing access road that leads from the treatment facility to the outfall. Additionally, an access path would be created from where the access road ends to the outfall. Project plans are depicted in Figure 2, which shows all three actions as described above.

The Area of Potential Effect (APE) is the project boundary as delineated in Figure 2. The horizontal APE for the treatment facility improvements measures approximately 940 feet east-west and approximately 1,300 feet north-south. The APE for the minor road improvements and access path to the diffuser and outfall site measures 1300 linear feet with a 50-foot width along the road and 100-foot width through the access path location.

The vertical APE of the project is related to the proposed excavations associated with the project. The maximum depth of excavation would be 15 feet and would be reached for the installation of the new SEQUOX® treatment system in the footprint of the existing intermittent sand filter beds. However, this area has been previously disturbed down to a depth of about 11 feet.

### **Ground-Disturbing Activities**

The proposed improvements to the treatment facility and outfall would include the following specific ground-disturbing activities:

- Approximately 2,500 linear feet of new piping, which would be installed leading to and from the treatment facility, and to the outfall. Trench excavations would be up to approximately 4.5 feet deep. Approximately 700 linear feet of the new pipe, would either replace or parallel an existing pipeline in the same location.
- Construction of a replacement treatment facility (i.e., filtration, disinfection facilities, and control building).
- Conversion of the northeastern-most lagoon to a lined emergency retention basin.
- Installation of a replacement 17-foot-long river diffuser at the same location on the river bank as the existing five-foot-long diffuser, but rotated down to be completely submerged during low-flow periods. Some submerged rock would be shifted to allow the new diffuser to be installed.
- Minor grading, brushing, and placement of aggregate base on the existing access road to facilitate access to the outfall during construction.
- Construction of a foot path from the access road to the outfall. The path would provide safe access for construction workers and WWTP staff. The path route would be field-fitted to avoid trees and rock outcrops. Pressure-treated retaining boards held with rebar and backfilled with aggregate base would likely be used for construction of stair steps in areas where the grade is the steepest. Some vegetation may need to be cleared to facilitate path construction.

## SECTION 106 COMPLIANCE

In accordance with 36 CFR §800, the City of Mt. Shasta is initiating the Section 106 consultation process on behalf of EDA and requests concurrence of a no effect determination of the project on any cultural resources.

Existing WWTP structures such as the operations building, dissolved air flotation thickener, rapid sand filtration system, chlorine contact basin, and their associated buildings, may be demolished or repurposed once the new treatment facility is operational. However, as noted in the enclosed Cultural Resources Inventory prepared for the project, these structures were all constructed since 1976, and therefore, do not require historic evaluation. Survey findings included one prehistoric isolate within the existing facilities, and one historic period refuse scatter (CA-SIS-5258H) on the access road leading to the diffuser and outfall site. However, neither of these findings qualified as significant under Section 106, in terms of eligibility for listing in the National Register of Historic Places. The enclosed Cultural Resources Inventory documents the City of Mt. Shasta's effort to identify and evaluate historic properties pursuant to 36 CFR §800.4, and includes the following:

- Evidence that all interested parties were consulted pursuant to 36 CFR §800.4(a) (3)-(4);
- Documentation of efforts to identify and evaluate historic properties; and
- An assessment of the undertaking's potential to affect historic properties pursuant to 36 CFR §800.4(d) or 36 CFR §800.5.

We ask for your concurrence on these findings and determination. If further information is required, please contact me at 530-926-7526 or rbryan@mtshastaca.gov, or contact our consulting archaeologist, Heidi Shaw, at 530-221-0440.

Sincerely,

Rod Bryan  
Public Works Director

### Enclosures:

Figure 1 Project Location and Vicinity Map  
Figure 2 Area of Potential Effects and Proposed Improvements  
Cultural Resources Inventory

Copy to: Shannon FitzGerald, EDA Environmental Officer

Figure 1

Figure 2

## Cultural Resources Inventory



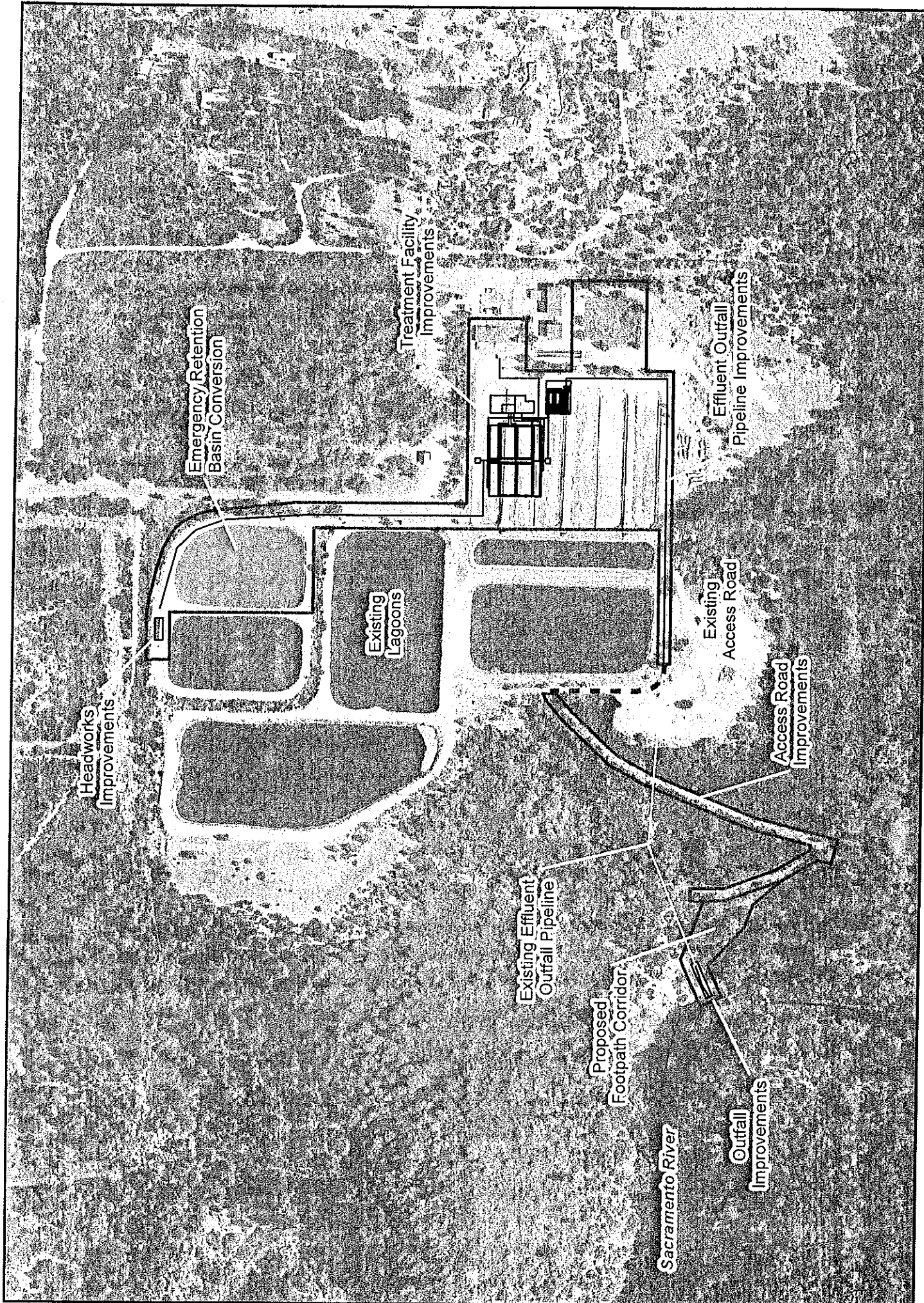


Figure 2

# Area of Potential Effects and Proposed Improvements

All depictions are approximate. Not a survey product. 09.22.15



City Letterhead

September 28, 2015

Mary Carpelan, Cultural and Archaeological Resources, Shasta Nation  
Roy V. Hall Jr., Chairperson, Shasta Nation  
Rebekah Sluss, Environmental Coordinator, Quartz Valley Indian Community  
Harold Bennett, Chairperson, Quartz Valley Indian Community  
Evette Lewis, Cultural Resources Coordinator, Quartz Valley Indian Community  
Sami Jo Difuntorum, Butte Valley Indian Community and Shasta Indian Nation

RE: National Historic Preservation Act Section 106 consultation for proposed EDA grant assistance to construct the Mt. Shasta Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California.

Dear All:

The City of Mt. Shasta has made an application for grant funding to the U.S. Department of Commerce, Economic Development Administration (EDA) to construct improvements at the Mt. Shasta Wastewater Treatment Plant (WWTP) in order to comply with Central Valley Regional Water Quality Control Board requirements for wastewater discharge, and to increase the capacity of the treatment facility to meet future demand. Under 36 CFR §800.2(c)(4), EDA is delegating authority to the City of Mt. Shasta to consult with you on the behalf of EDA. The EDA will fund a portion of the necessary improvements at the WWTP, while the U.S. Department of Agriculture, Rural Development, and other federal agencies will likely provide further funding for the remaining improvements.

Improvements to the WWTP will occur as three separate but related actions due to restrictions associated with grant funding deadlines, a National Pollutant Discharge Elimination System (NPDES) permit deadline to meet effluent standards, and lastly, potential wastewater needs of a future industrial user, Crystal Geyser. Because the entire project site/all improvements were treated together for archaeological review, it is requested that Tribal Leaders review the entire project site/all improvements as a whole, as well.

The three separate but related actions are as follows:

- 1) the project to be funded solely by EDA which features a new filtration and UV disinfection facility and pipeline that would connect the new facility to the existing facilities;
- 2) improvements to the treatment facility and outfall, including improvements to the outfall pipeline and headworks, and an increase in treatment capacity to meet the City's projected population growth; and
- 3) a greater increase in capacity for an anticipated wastewater contribution from Crystal Geyser. The third action would come to fruition following separate environmental review and approval for connection of Crystal Geyser to the City's wastewater system and receipt of financial assurance from Crystal Geyser that they would cover the cost of the expansion.

**BACKGROUND**

The WWTP is located at the southern terminus of Grant Road, just south of the City limits and west of Interstate 5, in a semi-rural area of Siskiyou County, California (Figure 1). The ±10-acre project site is located at and upslope of the Sacramento River, east of Lake Siskiyou, and just south of the Mount Shasta

Resort Golf Course. Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades in the past several years. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. For clarification and filtration, the lagoon effluent is pumped to a dissolved air flotation thickener that polishes and clarifies water prior to filtration. Polished water flows into a rapid sand filtration system to remove suspended solids. Filtered effluent is then disinfected with gaseous chlorine before being discharged offsite.

## **PROJECT DESCRIPTION**

Improvements to the WWTP and Sacramento River outfall are needed to: (1) meet new Central Valley Regional Water Quality Control Board Requirements, and (2) increase the treatment and discharge capacity of the facility. Improvements to the treatment facility would include replacement of the existing treatment lagoon system with a new treatment facility and treatment process and be contained within the footprint of the old intermittent sand filters. Improvements would also be made to the Sacramento River outfall infrastructure and the existing access road that leads from the treatment facility to the outfall. Additionally, an access path would be created from where the access road ends to the outfall. Project plans are depicted in Figure 2, which shows all three actions as described above.

The Area of Potential Effect (APE) is the project boundary as delineated in Figure 2. The horizontal APE for the treatment facility improvements measures approximately 940 feet east-west and approximately 1,300 feet north-south. The APE for the minor road improvements and access path to the diffuser and outfall site measures 1300 linear feet with a 50-foot width along the road and 100-foot width through the access path location.

The vertical APE of the project is related to the proposed excavations associated with the project. The maximum depth of excavation would be 15 feet and would be reached for the installation of the new SEQUOX® treatment system in the footprint of the existing intermittent sand filter beds. However, this area has been previously disturbed down to a depth of about 11 feet.

### **Ground-Disturbing Activities**

The proposed improvements to the treatment facility and outfall would include the following specific ground-disturbing activities:

- Approximately 2,500 linear feet of new piping, which would be installed leading to and from the treatment facility, and to the outfall. Trench excavations would be up to approximately 4.5 feet deep. Approximately 700 linear feet of the new pipe, would either replace or parallel an existing pipeline in the same location.
- Construction of a replacement treatment facility (i.e., filtration, disinfection facilities, and control building).
- Conversion of the northeastern-most lagoon to a lined emergency retention basin.
- Installation of a replacement 17-foot-long river diffuser at the same location on the river bank as the existing five-foot-long diffuser, but rotated down to be completely submerged during low-flow periods. Some submerged rock would be shifted to allow the new diffuser to be installed.
- Minor grading, brushing, and placement of aggregate base on the existing access road to facilitate access to the outfall during construction.
- Construction of a foot path from the access road to the outfall. The path would provide safe access for construction workers and WWTP staff. The path route would be field-fitted to avoid

trees and rock outcrops. Pressure-treated retaining boards held with rebar and backfilled with aggregate base would likely be used for construction of stair steps in areas where the grade is the steepest. Some vegetation may need to be cleared to facilitate path construction.

### **SECTION 106 COMPLIANCE**

In accordance with 36 CFR §800, the City of Mt. Shasta is initiating the Section 106 consultation process on behalf of EDA and requests concurrence of a no effect determination of the project on any cultural resources.

Existing WWTP structures such as the operations building, dissolved air flotation thickener, rapid sand filtration system, chlorine contact basin, and their associated buildings, may be demolished or repurposed once the new treatment facility is operational. However, as noted in the enclosed Cultural Resources Inventory prepared for the project, these structures were all constructed since 1976, and therefore, do not require historic evaluation. Survey findings included one prehistoric isolate within the existing facilities, and one historic period refuse scatter (CA-SIS-5258H) on the access road leading to the diffuser and outfall site. However, neither of these findings qualified as significant under Section 106, in terms of eligibility for listing in the National Register of Historic Places. The enclosed Cultural Resources Inventory documents the City of Mt. Shasta's effort to identify and evaluate historic properties pursuant to 36 CFR §800.4, and includes the following:

- Documentation of efforts to identify and evaluate historic properties.
- An assessment of the undertaking's potential to affect historic properties pursuant to 36 CFR §800.4(d) or 36 CFR §800.5.

If you have information that you can share with us regarding cultural resources that may be in the vicinity or need additional information, please contact me at 530-926-7526 or rbryan@mtshastaca.gov, or contact our consulting archaeologist, Heidi Shaw, at 530-221-0440.

Sincerely,

Rod Bryan  
Public Works Director

Enclosures:  
Figure 1 Project Location and Vicinity Map  
Figure 2 Area of Potential Effects and Proposed Improvements  
Cultural Resources Inventory

Copy to: Shannon FitzGerald, EDA Environmental Officer

Figure 1

Figure 2

Cultural Resources Inventory

## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Monday, September 28, 2015 2:00 PM  
**To:** Matson, Malinda  
**Subject:** FW: Environmental Narrative Documents  
**Attachments:** Env Narrative DRAFT 9-10-15\_complete.pdf; Applicant Certification Clause Form with Attachments.pdf; 1972 WWTP EIR.PDF; EDA-PER\_Report-w-Attachments.pdf

Hi Malinda,

I got the Mt. Shasta Environmental Narrative last Monday. Stan and I need to copy you on emails. I've started reading through it and amending the Environmental Assessment is this week's priority.

Thanks, Shannon

---

**From:** Good, Stan  
**Sent:** Monday, September 21, 2015 7:44 AM  
**To:** FitzGerald, Shannon  
**Subject:** FW: Environmental Narrative Documents

I specifically asked them to forward to you. Must not have your email address.

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)  
Join EDA's mailing list today to get the latest agency news and grant opportunity information!

---

**From:** Rod Bryan [<mailto:rbryan@mtshastaca.gov>]  
**Sent:** Monday, September 21, 2015 6:15 AM  
**To:** Good, Stan  
**Cc:** Paul Eckert; Paul Reuter <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)> ([preuter@paceengineering.us](mailto:preuter@paceengineering.us))  
**Subject:** Environmental Narrative Documents

Stan,  
Please see the attached requested documents. I can send hard copies as well if you need them.  
If you need anything else, please let me know.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526



# ENVIRONMENTAL NARRATIVE

---

CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT  
EDA-FUNDED FILTRATION AND DISINFECTION IMPROVEMENTS PROJECT  
SISKIYOU COUNTY, CALIFORNIA

September 2015

*Prepared for:*

City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

*and*

U.S. Department of Commerce  
Economic Development Administration  
915 Second Ave., Room 1890  
Seattle, WA 98174

*Prepared by:*

ENPLAN  
3179 Bechelli Lane, Suite 100  
Redding, CA 96002  
(530) 221-0440

# ENVIRONMENTAL NARRATIVE

## City of Mt. Shasta Wastewater Treatment Plant EDA-Funded Filtration and Disinfection Improvements Project

### **A. INTRODUCTION**

The City of Mt. Shasta owns and operates a wastewater treatment plant (WWTP) located within Township 40N, Range 4W, Section 28, Siskiyou County, California (Figure 1). Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades in the past several years. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. For clarification and filtration, the lagoon effluent is pumped to a dissolved air flotation thickener that polishes and clarifies water prior to filtration. Polished water flows into a rapid sand filtration system to remove suspended solids. Filtered effluent is then disinfected with gaseous chlorine before being discharged offsite.

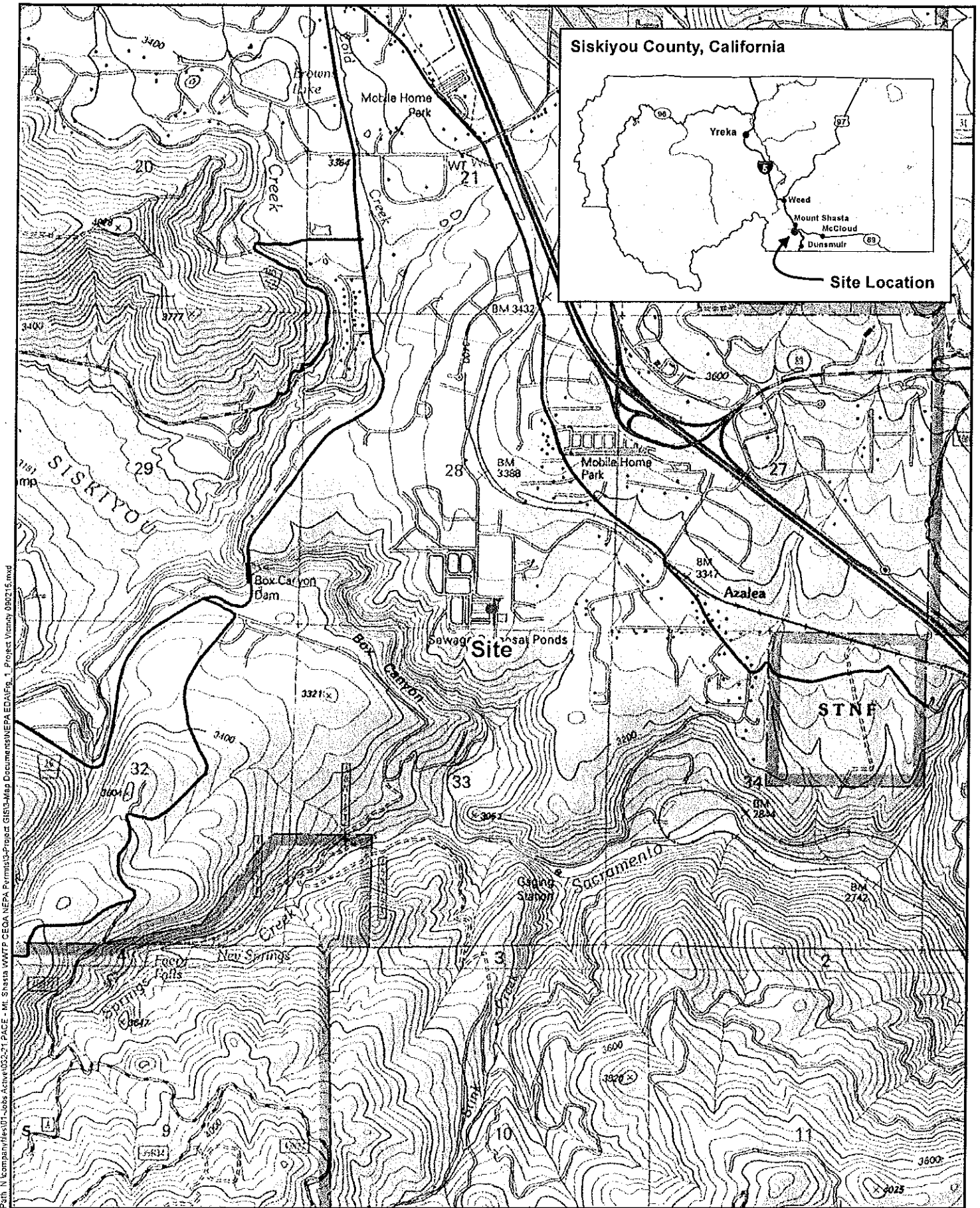
On October 4, 2012, the Central Valley RWQCB adopted Waste Discharge Requirements (WDR) Order No. R5 2012-0086 for the WWTP and concurrently issued Time Schedule Order (TSO) No. R5-2012-0087. The TSO included a compliance schedule to bring ammonia, copper, zinc, biological oxygen demand (BOD5), total suspended solids (TSS), and pH levels into compliance. In addition, the TSO required a compliance schedule for Title 22 Disinfection Requirements. The TSO required that a preliminary engineering report be developed to determine a method of compliance.

PACE Engineering, Inc.'s 2015 Engineering Report and Feasibility Study evaluated several treatment alternatives to meet these new effluent requirements. With respect to filtration, the study concluded that use of effluent filtration would adequately remove metals from the effluent; the current treatment system does not have adequate filtration capacity to remove metals during all existing flow conditions, as required by the Central Valley RWQCB. With respect to disinfection, the study concluded that the current gas chlorination system should be replaced by ultraviolet (UV) disinfection.

Implementation of the proposed action would allow the City to meet the requirements for removing copper and zinc from the waste stream, which become effective in 2017 (before other needed treatment plant improvements can be fully implemented).

### **B. BENEFICIARIES**

The purpose of the proposed action is to assist the City of Mt. Shasta in upgrading its Wastewater Treatment Plant (WWTP) in an effort to comply with requirements for wastewater discharge set by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB). Beneficiaries of the proposed project include existing residential, commercial, industrial, church, school, government, and other users, as well as future users, located within the approximate 11,714-acre service area of the WWTP.



Path: N:\Company\files\07-Jobs\Active\032521\PACE - Mt. Shasta WWP\CEQA\NEPA\Permits\3-Project GIS\Map Documents\NEPA\EDA\Fig\_1\_Project Vicinity\_090215.mxd

Figure 1  
**Project Vicinity**

All depictions are approximate. Not a survey product. 09.02.15



## **C. PROJECT DESCRIPTION**

### **1. Proposed Construction**

The City of Mt. Shasta is proposing to construct new filtration and disinfection facilities on a ±0.2-acre site just southwest of its existing operations building, within the footprint of the abandoned intermittent sand filters (see Figure 2). The new facilities would be housed in a single enclosed building, which would serve to reduce exposure to the environment and minimize the potential for algal growth. In addition, approximately 540 feet of new piping would be constructed to connect the new facility with the existing dissolved air flotation thickener pump station to the north and the existing effluent pipeline to the south. The filtration and disinfection systems would include the components and processes described below.

Effluent would travel from the existing oxidation lagoons to the new filtration facilities for final removal of total suspended solids. The 2015 Engineering Report and Feasibility Study identified use of travelling bridge filters as the most likely method of filtration. However, as part of the preliminary design effort for the current project, other filtration technologies would be evaluated, such as disk- or cloth-filtration technology. The final filtration technology selection would not affect the location or function of this process. In fact, if another technology is selected (other than travelling bridge), the project footprint would be much smaller.

To achieve disinfection, the filtered effluent would be directed to one of two UV channels. Each of the UV channels would contain three banks of UV lamps. The UV lamps discharge electromagnetic energy that penetrates the cell walls of pathogenic organisms and destroys the organisms' ability to reproduce. After disinfection, effluent would be discharged from the WWTP to one of the three approved discharge locations.

The project would be constructed over a period of approximately 12 months. Construction equipment would likely include a compactor, excavator, dozer, backhoe, loader, dump truck, and grader. The construction staging area would be located entirely within the existing footprint of the WWTP (see site photos in Attachment A). Total land disturbance would be approximately ±0.5 acres. The construction contract would be awarded prior to September 2016, with construction completed by September 1, 2017.

### **2. Alternatives to the Proposed Action**

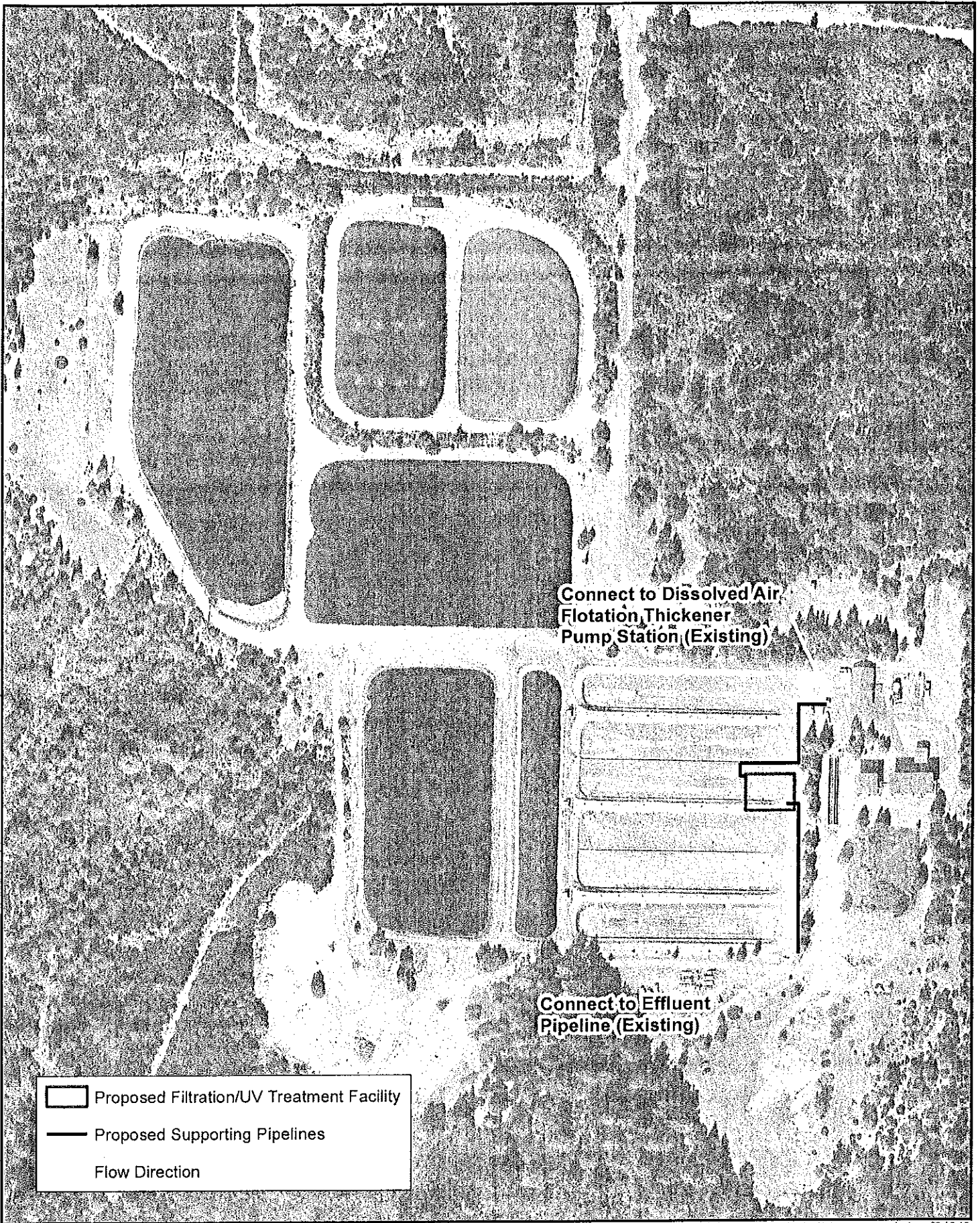
Project alternatives addressed in this narrative include no action, expansion of the existing rapid sand filtration and gaseous chlorine disinfection systems, as well as disinfection through use of sodium hypochlorite, ozone, and UV systems. Alternative filtration systems are also considered, but in less detail because the choice of filtration systems has minimal bearing on environmental effects.

#### The No-Action Alternative

Under the No-Action Alternative, no improvements to the existing filtration or disinfection facilities would be made and the City would not meet the new effluent standards mandated by the Central Valley RWQCB.

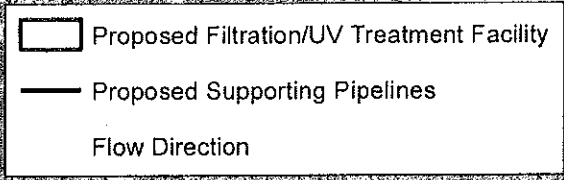
The No-Action Alternative is not feasible because the City is required to implement improvements to its existing filtration and disinfection facilities in order to comply with Central Valley RWQCB permit requirements. If the City does not comply, fines would be levied and a cease and desist order would be issued.

Path: N:\complan\files\01-Jobs Active\032521\PLACE - Mt. Shasta WWTTP CEQA NEPA Permits\3-Project GIS\Map Documents\NEPA EDA\Fig 2 Project Location 05/01/15.mxd



Connect to Dissolved Air Flotation Thickener Pump Station (Existing)

Connect to Effluent Pipeline (Existing)



- Proposed Filtration/UV Treatment Facility
- Proposed Supporting Pipelines
- Flow Direction



0 Feet 200

Figure 2  
Project Location

All depictions are approximate. Not a survey product. 09.10.15



### Alternative Filtration Systems

Adequate filtration could be achieved through several different types of treatment, including expansion of the existing rapid sand filtration system, use of a travelling bridge system, or use of disk- or cloth filtration systems. The existing rapid sand filters are housed in an open structure consisting of a roof with no walls. Because the current filtration equipment contains numerous exposed small pipelines, pumps, and instrumentation that freezes during the winter months, adequate filtration cannot be achieved during the winter. The structure is not large enough to accommodate additional like facilities that would be needed to treat wintertime flows. Therefore, if the City were to expand the existing rapid sand filtration system, a substantial upgrade of the existing structure would be required. This would entail expansion of the building footprint, addition of insulated walls and a ceiling, and provision of a heated interior. These improvements would be expensive and provide no benefits that could not be achieved through use of alternative technologies. For these reasons, expansion of the existing rapid sand filtration system was dropped from consideration as a project alternative.

As noted above, the 2015 Engineering Report and Feasibility Study identified use of travelling bridge filters as the most likely method of filtration. However, as part of the preliminary design effort for the current project, other filtration technologies will be evaluated, such as disk- or cloth-filtration technology. All of these filtration alternatives would meet the new NDES requirements, and none involves processes posing risks to human health or the environment. The final filtration technology selection would not affect the location or function of this process. Therefore, use of a travelling bridge filter is considered as the worst-case environmental scenario in that it has the largest physical footprint. Although filtration alternatives will be considered by the project engineer with respect to costs and ease of operation, the alternative do not differ significantly from an environmental perspective and are therefore not further considered in this Environmental Narrative.

### Alternative Disinfection – Chlorine Gas

The City's existing gaseous chlorination facility has posed operational challenges in recent years. Use of chlorination for effluent disinfection can result in the formation of byproduct methane compounds; The City's new NPDES permit requires that all chlorine and regulated methane byproducts be removed from the waste stream prior to discharge to the Sacramento River. Sulfur dioxide gas is used for this purpose. Any glitches in the controls or equipment used in this process can lead to positive residuals in the effluent and subsequent fines by the Central Valley RWQCB. The City has had fines for positive chlorine residuals in recent years. Further, gas chlorination poses the threat of a chlorine gas leak into the environment, and is unsafe for WWTP staff. Similarly, due to the terrorism threat after 9/11, the federal Department of Homeland Security expressed concern with municipal facilities using chlorine gas.

As with the rapid sand filtration system, continued use of chlorine gas for disinfection would necessitate expansion of the existing housing, addition of insulated walls and a ceiling, and provision of a heated interior. These improvements would be expensive, and the continued/increased use of gas chlorine would remain a safety concern for WWTP staff and the public. The potential for disinfection byproducts detectable in the discharged effluent would remain high; and as a result, the City would continue to be subject to violation notices and fines from the Central Valley RWQCB. For these reasons, continued use of chlorine gas for disinfection was dropped from consideration.

### Alternative Disinfection - Sodium Hypochlorite

Sodium hypochlorite, commonly known as bleach, is frequently used in wastewater treatment plants. Many of the safety concerns related to the transport and storage of gaseous chlorine

are eliminated by using sodium hypochlorite. Although sodium hypochlorite is more expensive than gaseous chlorine, it is still less expensive than other disinfection options. However, as with gaseous chlorine, the use of sodium hypochlorite can form disinfection byproducts. Additionally, the WWTP's existing chlorine injection equipment would need to be replaced with storage tanks with secondary containment and metering pumps if sodium hypochlorite is to be used for disinfection. This disinfection alternative was not chosen because disinfection byproducts would still be produced, which could lead to discharge violations. Further, sodium hypochlorite systems do not have sufficient ability to adapt to anticipated future discharge requirements of the Central Valley RWQCB.

#### Alternative Disinfection - Ozone

Ozone is more effective than chlorine in inactivating most viruses, spores, cysts and oocysts, and no disinfectant neutralization is required. Although ozone does not form disinfection byproducts, ozone does have the potential to form aldehydes and aldo- and keto-acids. In addition, if bromide is present in the waste stream, certain brominated byproducts can be formed. These byproducts are a concern in terms of future NPDES compliance, as future discharge requirements will likely include pharmaceuticals.

The short life of ozone requires that it be generated onsite. There are several methods used to generate ozone, including electrolysis, photochemical reaction, and radiochemical reaction by electrical discharge. Although the efficiency of ozone generators has improved in recent years, the process still requires a considerable amount of energy and is relatively expensive.

In order to convert to ozone disinfection, construction of a new ozone contact reactor would be required. Because ozone is a toxic gas, off-gas from the reactor would need to be treated by converting it to oxygen, which would be discharged to the atmosphere. Although safer than sodium hypochlorite and with a better ability to accommodate potential future discharge requirements, this disinfection alternative was found to be too expensive while generating only slightly fewer disinfection byproducts than sodium hypochlorite.

#### Alternative Disinfection – UV Light (Proposed Action)

Use of UV light for effluent disinfection was ultimately selected as the proposed action because it is an effective physical process that does not produce disinfection byproducts. In addition, no hazardous or toxic chemicals are required for normal operations. Although there are significant infrastructure and energy costs related to conversion from chlorine disinfection to UV disinfection, this disinfection alternative is less expensive than ozone. Additionally, UV disinfection presents no risk of a discharge violation from disinfection byproducts, has the highest ability to adapt to potential future discharge requirements, and offers the greatest security and safety for WWTP staff and the public.

### **3. Mitigation**

The proposed action entails construction of a filtration and disinfection facility within the existing footprint of the WWTP. Compliance with existing regulations and permit conditions would avoid or reduce certain potential environmental impacts to less than significant. No mitigation is warranted.

*To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week*

*prior to the initiation of vegetation removal or facility construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller buffer zone is authorized by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).*

#### **D. HISTORIC/ARCHEOLOGICAL RESOURCES**

A cultural resources study, including a records search, Native American consultation, and field survey, was completed for the project by ENPLAN (Attachment B).

The records search included review of the data filed with the California Historical Resources Information System, Northeast Information Center at California State University, Chico, as well as other sources. The records search showed that eight cultural resource surveys have been previously conducted within a half-mile of the project site; however, none encompassed any portion of the project site. Three prehistoric isolates consisting of obsidian flakes have been previously recorded in the project vicinity.

Consultation with the Native American Heritage Commission and local Native American community did not reveal any known sacred sites or cultural resources in the project area.

ENPLAN conducted a pedestrian survey of the project site on April 10, 2015. A single prehistoric isolate was identified in the current project footprint as a result of the survey. The prehistoric isolate is a cryptocrystalline flake with evidence of both intentional and inadvertent fracture. The isolate was found within aggregate base fill imported to the facility and thus there exists the possibility that it was imported with the surrounding fill.

Based on the results of the records search, consultation, and field survey, ENPLAN concluded that no resources of local or state significance or resources potentially eligible for listing in the National Register of Historic Places would be affected by the proposed action. As part of the environmental review process, the cultural resources inventory report has been submitted to the State Historic Preservation Office (SHPO) along with a request for concurrence with the eligibility finding.

##### **Sources:**

ENPLAN. 2015. Cultural Resources Inventory, Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou County, California. Prepared for City of Mt. Shasta. On file at NE/CHRIS. (Attachment B)

Far Western Anthropological Research Group, Inc. 2013. A Geoarchaeological Overview and Assessment of Northeast California. Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties. Prepared by Jack Meyer. Davis, California.

#### **E. AFFECTED ENVIRONMENT**

##### **1. Affected Area**

The WWTP is located at approximately 3,300 feet above sea level, and is situated on relatively flat terrain. The project site is located on lands owned by the City of Mt. Shasta. Surrounding lands are primarily undeveloped. Lake Siskiyou is located to the west to the site



and the Sacramento River flows to west and south of the site. The Mount Shasta Resort Golf Course is located to the north. The area to the east supports several semi-rural residences.

Historic land use of the Mt. Shasta area includes Spanish and Mexican expeditions and fur trapping ventures as early as the 1820s. Euro-American settlers arrived in response to the discovery of gold between 1849 and 1852. Permanent settlement led to farming, ranching, and logging in the area. The growing timber industry facilitated the installation of railroads in the early 1900s. In 1887, the Central Pacific Railroad was completed through the area, allowing for a further increase in logging and tourism. With the decline in timber production, tourism is now the core industry and economic generator in the Mt. Shasta area.

## **2. Shorelines, Estuaries, Beaches and Dunes**

The project site is located in inland California (Siskiyou County), and well outside the coastal zone. Requirements of the Coastal Zone Management Act are not applicable to the subject action. There are no proposed overwater structures that could impact navigable waters. The proposed action would have no effect on shorelines, estuaries, beaches, or dunes.

## **3. Wetlands**

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map depicts the WWTP lagoons as freshwater emergent wetlands and as excavated palustrine aquatic bed habitat. However, with some qualifications, active sewage treatment lagoons are expressly excluded by the U.S. EPA and Corps of Engineers from the definition of "wetlands or other Waters of the United States." Field review by ENPLAN confirmed that no wetlands or other Waters of the United States would be affected by implementation of the proposed action.

### **Sources:**

ENPLAN. Field survey. April 30, 2015.

U.S. Fish and Wildlife Service. 2015. National Wetlands Inventory. Web site accessed August 2015. <http://www.fws.gov/wetlands/Data/Mapper.html>

## **4. Floodplains**

Review of FEMA's National Flood Hazard Layer shows that the project site is outside of the 100-year flood hazard zone. Other than a small portion of the Wagon Creek/Cold Creek arm of Lake Siskiyou, all of the WWTP service area is outside of the 100-year flood hazard zone. See Attachment C. Although the project site is owned by the City of Mt. Shasta, the site is located outside of the city limits, and thus, is considered an unincorporated area of Siskiyou County. Siskiyou County participates in the National Flood Plain Insurance Program.

### **Sources:**

FEMA. 2015. National Flood Hazard Layer (Official). Web site accessed August 2015. <http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30>

FEMA. 2011. Flood Insurance Study. Siskiyou County, California and Unincorporated Areas. Web site accessed August 2015. <http://klamathrestoration.gov/sites/klamathrestoration.gov/files/fema.siskiyou.flood.study.pdf>

## 5. Vegetation and Wildlife Resources

The proposed filtration and UV disinfection facility, as well as all associated piping, would be located within a previously disturbed area. Nearly all native vegetation has been previously cleared to accommodate the existing facilities. Remaining vegetation consists of a row of ponderosa pines (possibly planted), as well as a number of weedy annuals such as dyer's-wood, bachelor's buttons, annual ragweed, English peppergrass, spotted spurge, and rose clover.

The project site is located within the Pacific Flyway. A number of migratory birds were observed in or adjacent to the study area during the biological surveys, including osprey, mallard, Canada goose, acorn woodpecker, Brewer's blackbird, cliff swallow, common raven, killdeer, northern flicker, red-winged blackbird, Steller's jay, and turkey vulture. An active osprey nest was observed approximately 850 feet northwest of the project site, atop a man-made platform located at the southwestern corner of the western-most lagoon. According to the WWTP staff, this pair of osprey returns to nest at this location each year. A pair of Canada geese also returns annually to nest at the WWTP. Canada geese nest on the ground, typically on an elevated site near water offering an unobstructed view in many directions; nesting habitats can include lagoon berms. Other wildlife observed during the field survey included black-tailed deer, western fence lizard, California ground squirrel, and pond turtle.

The federal Migratory Bird Treaty Act (MBTA) and related international treaties and domestic laws provide protection for migratory birds. The MBTA established that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The MBTA is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to each country (i.e., they occur in each country at some point during their annual life cycle). The USFWS is the federal agency primarily responsible for protection of migratory birds.

Project implementation would not involve tree removal. Minor vegetation clearing for construction of the proposed facility would affect up to approximately  $\pm 0.5$  acres of the WWTP site. Because work would be confined to the existing footprint of the WWTP, impacts on vegetation would be negligible. With the exception of nesting birds, impacts on wildlife are also expected to be negligible. The existing osprey nest is sufficiently far from the planned work area such that nesting osprey are unlikely to be affected by construction noise or other activities. However, ground-nesting birds such as Canada geese and killdeer, could potentially occupy the work area at the time construction is initiated, and other birds could be nesting in nearby woody vegetation. Implementation of the following mitigation measure would ensure that nesting migratory birds are not adversely affected by project construction:

*To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible. If vegetation removal or construction must occur during the nesting season, a nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall be conducted no more than one week prior to the initiation of vegetation removal or facility construction. If nesting birds are found, the nest sites shall not be disturbed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no vegetation removal or construction activities shall occur within 500 feet of an active nest, unless a smaller*

*buffer zone is authorized by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service (the size of the construction buffer zone may vary depending on the species of nesting birds present).*

No State or National Parks, National Wildlife Refuges, or National Game Preserves are located on or near the project site. Further, no wilderness areas, as designated or proposed under the Wilderness Act, or wild or scenic rivers, as designated or proposed under the Wild and Scenic Rivers Act, are located on or near the project site. Although the project site is located in the Klamath River watershed, and the Klamath River is included in the National Wild and Scenic River System, the proposed project is located approximately 41 miles south of the main stem of the river and 40 miles southeast of the Scott River segment of the river system.

**Sources:**

Caltrans. 2013. National Wild and Scenic River System – California. Web site accessed August 2015.

<http://www.dot.ca.gov/ser/vol1/sec3/special/ch19wsrivers/chap19.htm#natdesignated>

ENPLAN. Field surveys. April 30, May 13, June 24, and July 28, 2015.

U.S. Fish and Wildlife Service. 2013. List of Migratory Bird Species Protected by the Migratory Bird Treaty Act as of December 2, 2013. Web site accessed August 2015.

<http://www.fws.gov/migratorybirds/regulationspolicies/mbta/List%20of%20MBTA%20Protected%20Species%20December%202013.pdf>

## 6. Endangered Species

The potential for special-status species to be affected by the proposed action was evaluated through completion of a biological records search and a field survey. For the purposes of this study, special-status species are considered to include federally listed species, species proposed for federal listing, and candidates for federal listing.

The records search consisted of review of the USFWS IPaC Trust Resource Report for the study area as well as the California Department of Fish and Wildlife's California Natural Diversity Data Base (CNDDDB). The National Marine Fisheries Service was not consulted because anadromous fish have no potential to occur in or adjacent to the project site due to the presence of downstream dams that are a barrier to fish passage in the Sacramento River.

### *Plants*

The USFWS IPaC Trust Resource Report for the study area (Attachment D) identified five federally listed plant species, plant species proposed for federal listing, and/or candidates for federal listing as potentially being affected by the proposed project: Gentner's fritillary, Hoover's spurge, Siskiyou mariposa lily, slender Orcutt grass, and whitebark pine. The project site does not contain designated critical habitat for federally listed plant species. CNDDDB records do not identify any of these species as occurring within a ten-mile radius of the project site.

ENPLAN conducted a botanical field survey of the project site on May 13, June 27, and July 28, 2015. Most of the special-status plant species potentially occurring on the site would have been evident at the time the fieldwork was conducted. The potential presence of species not identifiable during the field study was readily determined on the basis of observed habitat characteristics. The potential for special-status plant species to occur on the project site is evaluated in Attachment D. As shown in Attachment D, the project site has

potentially suitable habitat for Gentner's fritillary and Siskiyou mariposa lily. However, neither of these special-status plant species was observed or is expected to occur on the site, nor were any other special-status plant species observed or expected to occur on the site.

#### *Wildlife*

The USFWS IPaC Trust Resource Report identified 12 federally listed wildlife species, species proposed for federal listing, and/or candidates for federal listing as potentially being affected by the proposed project: California red-legged frog, Oregon spotted frog, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, longfin smelt (San Francisco Bay Delta population), valley elderberry longhorn beetle, fisher, gray wolf, Delta smelt, western yellow-billed cuckoo, and northern spotted owl. No critical habitat for federally listed wildlife species has been designated in the project site. CNDDDB records indicate that three of these species have previously been reported within a ten-mile radius of the project site. These species consist of the fisher, gray wolf, and yellow-billed cuckoo.

To determine the presence/absence of special-status animal species, ENPLAN wildlife biologists conducted a survey of the study area on April 29, 2015. Most of the special-status animal species potentially occurring on the project site would not have been evident at the time the fieldwork was conducted. However, the potential presence of these species was readily determined on the basis of observed habitat characteristics. The potential for special-status animal species to utilize the project site is documented in Attachment D. No special-status wildlife species were observed during the wildlife survey, nor are special-status animal species expected to occur on the site.

#### *Findings*

Based on the results of the records search and field survey, ENPLAN has concluded that project implementation would have no effect on federally listed, proposed, or candidate species.

#### **Sources:**

California Natural Diversity Database. March 2015.

ENPLAN. Field surveys. April 30, May 13, June 24, and July 28, 2015.

U.S. Fish and Wildlife Service. 2015. IPaC Trust Resource Report. Accessed June 2015.

U.S. Fish and Wildlife Service. 2015. Critical Habitat Mapper. Web site accessed June 2015. <http://criticalhabitat.fws.gov/crithab/flex/crithabMapper.jsp>

## **7. Land Use and Zoning**

The project site is located just outside the municipal limits of the City of Mt. Shasta, in Siskiyou County. The site is within the City's sphere of influence, and is designated under the City of Mt. Shasta General Plan as Public Land and Parks. The site has not been rezoned by the City of Mt. Shasta.

The Siskiyou County General Plan Land Use Element identifies the project site as being located within the following mapped areas: Soils – Erosion Hazard (High); Building Foundation Limitation – Severe Pressure Limitations Soils; Slope; Flood Hazard – Dam Inundation Areas; Surface Hydrology – Rivers and Streams; Critical Deer Wintering Area – Deer Wintering Area; Wildfire Hazard (High); and Woodland Productivity – High Suitability (site classes I and II). The Siskiyou County zoning for the site is Non-Prime Agricultural/Combining District for 40-acre parcels (AG-2-B-40). According to Article 49,

Section 10-6.4903, of the Siskiyou County Code, a public utility is permitted in the AG-2 District under a special-use permit. However, because the project site is owned by the City, the proposed project is not subject to County zoning requirements.

Surrounding lands are primarily undeveloped. Lake Siskiyou is located to the west of the project site, and the Sacramento River is to both the west and south of the site. The Mount Shasta Resort Golf Course is located to the north. The area to the east supports several semi-rural residences. Adjacent lands are designated by the City of Mt. Shasta as Public Lands and Parks, Rural Residential, and Resource Lands; the lands do not have a City zoning designation. The adjacent lands are zoned by Siskiyou County as Planned Development District -- sewer ponds (PD - Sw Ponds) and Rural Residential Agricultural District, 10-acre minimum parcel size (R-R-B-10).

The proposed project does not conflict with existing zoning for agricultural use, nor is it subject to Williamson Act contracts. The project site does not occur on farmland (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland). The nearest mapped farmland is located approximately 2.1 miles north of the project site west of North Old Stage Road. Given these conditions, the proposed project would not directly or indirectly affect farmland.

Beneficiaries of the proposed project would be located on land designated for use as industrial, commercial, residential, agricultural, recreational, and public facilities.

The proposed project is compatible with zoning designations and existing land uses on the site and in the vicinity.

**Sources:**

State of California, Department of Conservation. 2012. Farmland Mapping and Monitoring Program. Web site accessed March 2015.

<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sis10.pdf>

State of California, Department of Conservation. 2013. Siskiyou County Williamson Act FY 2012/2013. Web site accessed March 2015.

[ftp://ftp.consrv.ca.gov/pub/dlrp/wa/siskiyou\\_12\\_13\\_WA.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/wa/siskiyou_12_13_WA.pdf)

City of Mt. Shasta. 2007. General Plan. Land Use Element. Web site accessed April 2015.

<http://ci.mtshasta.ca.us/planning/genplan/3LandUseElement.pdf>

Siskiyou County. 2014. Siskiyou County, California - Code of Ordinances. Updated December 1. Web site accessed April 2015.

[https://www.municode.com/library/ca/siskiyou\\_county/codes/code\\_of\\_ordinances?nodeId=16630](https://www.municode.com/library/ca/siskiyou_county/codes/code_of_ordinances?nodeId=16630).

Siskiyou County. 1980. Siskiyou County General Plan Land Use and Circulation Elements. Web site accessed August 2015. <http://www.co.siskiyou.ca.us/content/planning-division-siskiyou-county-general-plan>

## 8. Solid Waste Management

There are no active landfills in Siskiyou County. All solid waste is disposed of at one of five transfer stations before being trucked out of state. Construction of the proposed project would result in a minimal amount of debris that would be disposed of at Black Butte Transfer Station in Mt. Shasta, where it would be consolidated and ultimately trucked to the Dry Creek Landfill in southern Oregon. This one-time impact is not expected to significantly affect the

capacity of a landfill. Beneficiaries of the project (i.e., existing and future users within the WWTP service area) would also produce solid waste; however, the majority of the waste would be generated from existing households, and thus, would not result in a significant increase in disposal needs. Further, this landfill has a projected operational life that exceeds 100 years, and thus, has sufficient permitted capacity to accommodate the project's solid waste disposal needs. The proposed project would comply with all federal, state, and local statutes and regulations as they relate to solid waste.

No solid waste would require disposal at the landfill once the project is operational. No significant impacts related to solid waste would be expected.

Recycling or other resource recovery programs, other than water reuse for golf course irrigation purposes, are not applicable.

**Sources:**

Mike Reusze, Solid Waste & Flood Control Supervisor – Siskiyou County, General Services, Sanitation Division, personal communication, May 2015.

Rogue Disposal & Recycling, Inc. 2015. About the Landfill. Web site accessed June 2015. <http://roguedisposal.com/about-the-landfill/>

## 9. Hazardous or Toxic Substances

Project operation would not result in an increased use of hazardous materials, nor would it increase the potential for a release of hazardous materials to the environment. However, project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing state standards govern the transport, use, and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted.

Beneficiaries of the proposed project may also use relatively small quantities of materials such as household cleaning products, motor oil, paint, and pesticides. However, project beneficiaries would also be subject to existing state standards that govern the transport, use, and disposal of hazardous materials. WWTP staff and the service area as a whole would benefit from the conversion to a UV disinfection system, which would eliminate hazards associated with the use of chlorine gas.

## 10. Water Resources

No water features exist on the project site. The proposed project would not require new groundwater supplies for construction or operation of the project. Although minor amounts of erosion could occur during construction, the project would not create a substantial additional source of polluted runoff. Standard best management practices for spill prevention and erosion control will be implemented during project construction and existing requirements governing the transport, use, and disposal of fuels and other potentially hazardous materials will be met. These measures would reduce the potential for water quality degradation to an insignificant level. In the long term, operation of the project would improve water quality because the discharge would meet the new, more-stringent NPDES permit requirements.

According to the U.S. Environmental Protection Agency, there are no sole-source aquifers in the project vicinity. The nearest designated sole-source aquifer is the Santa Margarita Aquifer, Scotts Valley, which is located south of the San Francisco Bay.

**Source:**

U.S. Environmental Protection Agency. 2014. Sole Source Aquifer. Web site accessed August 2015. <http://www.epa.gov/region9/water/groundwater/ssa.html>

## 11. Water Supply and Distribution System

The primary water source for the City of Mt. Shasta is Cold Creek Springs. The springs produce an average of about 2,000 gallons per minute of pure, unfiltered, and untreated water. The distribution system consists of gravity-fed four storage tanks (with a combined storage capacity of 1.7 million gallons), water supply lines, two groundwater wells, distribution pipelines, and computerized control system. Because the springs depend on natural precipitation, during months of minimal rainfall the City's demand for water outweighs the springs' production, the two wells are utilized to supplement spring production providing an average of 1,200 gallons per minute. The water is supplied in compliance with the Safe Drinking Water Act.

The proposed facility is part of the WWTP that collects and treats wastewater produced within the service area boundary. The proposed project would not require additional water supplies, or new, or expanded entitlements. Relatively small amounts of water would be consumed during project construction, and no increase in water consumption would occur as a result of project implementation. Impacts would be less than significant.

**Source:**

City of Mt. Shasta. 2015. Water Conservation. Web site accessed August 2015. <http://www.ci.mt-shasta.ca.us/publicworks/conservation.php>

## 12. Wastewater Collection and Treatment Facilities

The Mt. Shasta WWTP treats wastewater produced within a service area of approximately 11,714 acres. The WWTP currently has the capacity to treat an average dry weather flow (ADWF) of 0.75 MGD and a peak wet weather flow of 3.56 MGD. As of 2015, the WWTP manages an ADWF of 0.67 MGD and a PWWF of 1.83 MGD. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. Treated effluent is discharged at one of three locations: the Sacramento River, Mt. Shasta Resort Golf Course, or a leach field located east of the Interstate 5/Highway 89 interchange. Sludge is occasionally removed from the lagoons, laid out to dry, and taken to a landfill for disposal.

Improvements to the WWTP and Sacramento River discharge are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) increase the treatment and discharge capacity of the facility. The WWTP has occasionally been in violation of the NPDES permit requirements regarding the quality of the effluent being discharged. Additionally, the WWTP cannot meet the requirements contained in the new NPDES permit without improvements to the treatment and discharge facilities. Per the Time Schedule Order, the treatment and discharge facilities must be upgraded to meet the new standards no later than November 2017. The City plans to make necessary improvements to the WWTP and Sacramento River discharge to comply with the NPDES permit/Clean Water Act.

The proposed project would upgrade the filtration and disinfection systems of the WWTP. With these improvements, the City would meet the requirements for removing copper and zinc from the waste stream, which become effective in 2017 (before other needed treatment

plant improvements can be fully implemented). Work would not include discharges that would require on-site pre-treatment. Implementation of the proposed project would be beneficial to the overall treatment process. The proposed facility would not limit upgrade options for upstream treatment processes that will be needed to meet the new discharge requirements.

### **13. Environmental Justice (Executive Order 12898)**

The project entails construction of a new filtration and UV disinfection facility at the WWTP. The improvements will benefit all users within the service area boundary. The project would have no disproportionate adverse human health or environmental impacts relative to minority and low-income populations.

### **14. Transportation (Streets, Traffic and Parking)**

The WWTP is accessed by Grant Road, a residential street that ultimately connects to Siskiyou Lake Boulevard (a designated collector) and South Old Stage Road (a designated arterial). The latter provides access to Interstate 5 via Hatchery Lane/West Lake Street. Traffic volume increases on the local road network would occur during project construction, but would be minimal in and of relatively short duration. In the long term, no additional traffic would be generated. Existing transportation facilities have sufficient capacity to accommodate the temporary increase in traffic volume during the construction period.

### **15. Air Quality**

Siskiyou County is in compliance with the Federal Clean Air Act for all criteria pollutants (considered attainment or unclassified). Local topographical or meteorological conditions are not known to substantially hinder the dispersal of air emissions within the area.

The proposed facility would not result in long-term operational emissions. Project implementation would result in temporarily increased air emissions, including release of diesel fumes, paint fumes, and other potentially objectionable odors, during construction due to equipment emissions and earthwork. However, this increase would be minimal because of the small size of the construction area, short-term nature of the construction activities (approximately 12 months). Because the project site is well buffered from surrounding residential uses, air emissions and potentially objectionable odors during the construction period would not be significant.

In regards to greenhouse gas emissions, the proposed facility would not result in long-term operational greenhouse gas emissions. Although project construction would result in a temporary increase in greenhouse gas emissions, such as carbon dioxide (CO<sub>2</sub>) and nitrous oxides (NO<sub>x</sub>), this increase would be negligible given the limited amount of construction and the short-term nature of the construction activities. Impacts would be less than significant.

### **16. Noise Pollution**

The proposed facility would be located within the footprint of the existing WWTP and would be enclosed to protect the equipment from harsh weather conditions; therefore, operation of the proposed facility would not result in an increase in ambient noise levels. The beneficiaries of the project (i.e., existing and future users within the WWTP service area) would not be expected to generate increased ambient noise levels as a result of implementation of the project. No impacts with respect to noise would be expected.



## 17. Permits

No federal, state, or local permits would be needed for the proposed project.

## 18. Public Notification/Controversy

The proposed project entails construction of a new filtration and disinfection facility within the footprint of the existing WWTP. The project is in direct response to state-mandated improvements as determined by the NPDES permit. No public notice is necessary and no public controversy is anticipated.

## 19. Direct, Indirect, and Cumulative Effects

The Central Valley RWQCB has issued new waste discharge requirements for the WWTP that necessitate improvements to the filtration and disinfection facilities. Because the proposed project would be located within the existing footprint of the WWTP and serves only to improve the effectiveness and safety of filtration and disinfection processes, the project would not result in direct or indirect effects on the environment. Additionally, as noted before, the capacity of the proposed processes would be sized to accommodate peak wet-weather flows, as mandated in the NPDES permit. The City's current filtration facilities cannot accommodate current peak wet-weather flows. The proposed improvements, effectively, increase the filtration capacity of the WWTP, but only due to regulatory mandates that requires the City to filter its wintertime flows. Conversion from chlorine gas to UV disinfection would have no effect on treatment capacity. Thus, the project would not be growth inducing.

In order to satisfy other remaining requirements of the NPDES permit, other improvements to the WWTP and the Sacramento River outfall would be constructed in the future. These improvements would also occur within the existing footprint of the WWTP, and would serve only to improve the capacity and effectiveness of existing treatment and discharge processes. These subsequent improvements of the WWTP would be sized to accommodate anticipated growth over a 20-year period, with growth anticipated at a rate of one percent per year. Although growth-induced cumulative impacts are expected, such impacts have been fully addressed in the City of Mt. Shasta General Plan and EIR, which anticipated growth at a rate of two percent per year. Further, an increase in the capacity of the WWTP is consistent with the City of Mt. Shasta General Plan Policy LU-16.1 to "ensure that the growth of the community does not outstrip the capacity of the wastewater collection system and treatment facility".

## F. LIST OF FIGURES AND ATTACHMENTS

- USGS topographic map and site map (see Section B1, Figures 1 and 2)
- Attachment A: Site Photos
- Attachment B: Cultural Resources Report
- Attachment C: FEMA Floodplain Maps
- Attachment D: U.S. Fish and Wildlife Service IPaC Trust Resource Report, and the Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site

## ATTACHMENT A.

Site Photos








View looking west across the abandoned intermittent sand filters (site of proposed action)



View looking north along the abandoned intermittent sand filters (site of proposed action)

## **ATTACHMENT B.**

### Cultural Resources Inventory

-  Service Area Boundary
-  Beneficiaries of Proposed Project
-  Improvement Area
-  Mt. Shasta City Limit
-  100-Year Floodplain

City of  
Mt. Shasta

Lake Siskiyou

Interstate 5

Highway 89

FEMA Floodplain Data  
Effective Date: January 19, 2011



# Beneficiary Area

All depictions are approximate. Not a survey product. 08.31.15



Path: N:\enplan\files\071\shasta\WWTTP\CEQA\NEPA\Permits\GIS\Map Documents\NEPA\EA\FEMA\Facility Beneficiaries 083115.mxd

## **ATTACHMENT D.**

U.S. Fish and Wildlife Service IPaC Trust Resource Report  
Potential for Federally Listed, Proposed, and Candidate Species to Occur on the Project Site



CITY OF MT. SHASTA

# Water · Pollution · Control · Facilities

## ENVIRONMENTAL IMPACT REPORT

SEPT., 1972



W. A. GELONEK & AFFILIATES

*Engineers*

*Planners*

1005 YUBA STREET

Phone 916 - 241-7820

REDDING, CALIFORNIA



W. A. GELONEK & AFFILIATES

---

*Engineers and Planners*

W. A. GELONEK  
JIM HUSTON 1931 - 1967

September 1972

State of California  
Water Resources Control Board  
Grants for Clean Water  
1416 Ninth Street, Room 1015  
Sacramento, California 95814

Attention: Mr. John Olaf Nelson, Manager

Re: Environmental Impact Statement - Water Pollution  
Control Facilities - City of Mt. Shasta

Gentlemen:

Attached hereto is a report dealing with the environmental considerations as they relate to the proposed water pollution control facilities outlined in the Project Report of September 1972.

We have attempted to make the report as inclusive as necessary to measure the impact on all facets of the environment.

Very truly yours,

W. A. GELONEK & AFFILIATES

W. A. Gelonek

WAG:bfl



TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
I	Project Description	I-1
	Recommended Action	I-1
	Purpose of the Action	I-1
	Project Location	I-3
	Implementation of Proposal	I-6
	Interrelationship with Other Projects	I-7
	Referral to Supporting Documents	I-7
II	Environmental Setting	II-1
	Regional Setting	II-1
	Geology	II-1
	Hydrology	II-2
	Flora and Fauna	II-3
	Climate	II-5
	Land Usage	II-8
	Project Setting	II-11
	Geology	II-11
	Hydrology	II-13
	Historical or Archeological Sites	II-14
III	Assessment of Environmental Impact	III-1
IV	Environmental Impact Statement	IV-1
	Probable Impact of the Project on the Total Environment	IV-1

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
IV (continued)	Mitigation Measures Proposed to Minimize the Impact	IV-4
	High Level of Wastewater Treatment	IV-4
	Effluent Discharge	IV-8
	Land Discharge	IV-8
	River Discharge	IV-11
	Final Purification by Soils Mechanisms	IV-11
	Intermittent Discharge	IV-14
	Bypass Analysis	IV-15
	Flood Protection	IV-18
	Probable Adverse Environmental Effects Which Cannot be Avoided	IV-20
	Construction Period Disruption	IV-20
	Incomplete Nitrogen Removal	IV-22
	Alternatives to the Proposed Action	IV-24
	Treatment Alternatives	IV-24
	Stabilization Ponds	IV-24
	Unique Conditions	IV-31
	Alternate Treatments	IV-32
	Conclusion	IV-33
	Water Reclamation Alternatives	IV-34
	Short-Term Use Versus Long-Term Productivity	IV-37

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
IV (continued)	Irreversible and Irretrievable Commitments of Resources	IV-38
	Objections to the Project and Their Resolution	IV-39

PLATES

<u>NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Proposed Sewage Treatment Flow Diagram	I-2
2	Regional Map	I-4
3	Study and Service Area Boundaries	I-5
4	Existing Geological and Hydrological Conditions at Proposed Water Reclamation Site	II-12

TABLES

<u>NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Climate - City of Mt. Shasta	II-6
2	Environmental Impact Assessment Matrix	III-2

## SECTION I

### PROJECT DESCRIPTION

#### Recommended Action

The proposed Mt. Shasta Water Pollution Control Facility project consists of modifying and supplementing portions of the existing Mt. Shasta sewage disposal system, including increasing the treatment capacity and effluent quality, and eliminating discharge to the Sacramento River during the recreation season, May 1st through October 31st.

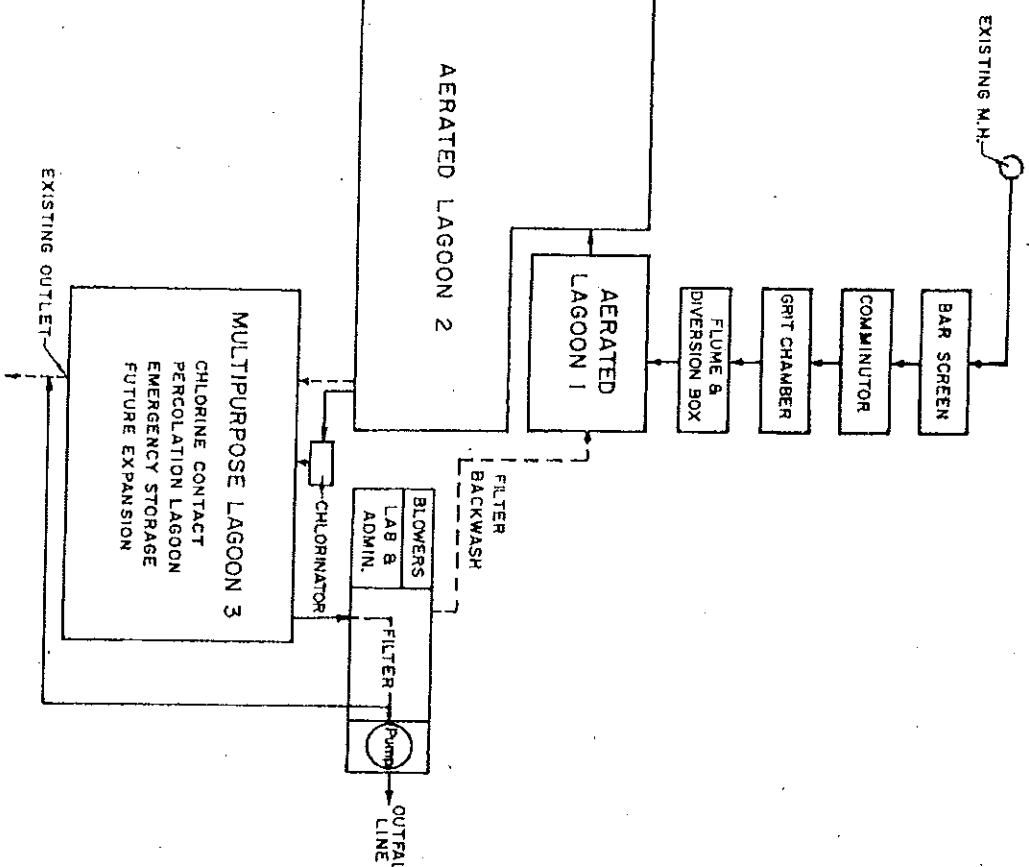
Specific tasks include:

- a) Replacement of the existing 12" interceptor line.
- b) Inclusion of primary treatment including bar screen, comminutor, and grit chamber.
- c) Excavation of the existing Ponds #1 and #2 to accommodate a 10-foot water depth.
- d) Modification of the ponds to include a controlled aeration system.
- e) Inclusion of a filtration system for effluent polishing.
- f) Installation of a pumping station, force main and land discharge system for use during the recreation season.

Plate 1 is a summary of the design data and a diagram of the operational flow of the proposed facility.

#### Purpose of the Action

The purpose of the proposed action is to modify the existing City of Mt. Shasta sewage disposal system to comply with current standards of the California Regional Water Quality Board as required



DESIGN DATA

FLOW, M.G.D.

DESIGN FLOW, AVERAGE DRY WEATHER 1.5  
 DESIGN FLOW, PEAK 3.7

PLANT DESIGN

DESIGN POPULATION, ACTUAL 6000  
 POPULATION, EQUIVALENT 9400  
 B.O.D. TOTAL, LBS/DAY 1600

STRUCTURES AND EQUIPMENT

PARSHALL FLUME 25.0  
 BAR SCREEN, MECHANICAL  
 COMMINUTOR  
 GRIT CHAMBER  
 AERATED LAGOONS  
 CHLORINATOR  
 HOLDING LAGOON, EMERGENCY STORAGE,  
 CHLORINE CONTACT CHAMBER 11.0  
 VOLUME, MILLION GALLONS

PERFORMANCE

PLANT WILL PROVIDE SECONDARY TREATMENT WITH FINAL EFFLUENT POLISHING FOR LAND DISPOSAL DURING MAY 1<sup>ST</sup> THRU OCTOBER 31<sup>ST</sup> AND SECONDARY TREATMENT WITH FINAL EFFLUENT POLISHING AND DISINFECTION FOR WINTER DISCHARGE TO THE SACRAMENTO RIVER.

MAX. B.O.D. IN EFFLUENT, M.G./L. 20  
 MAX. S.S. IN EFFLUENT, M.G./L. 20  
 MIN. PERCENTAGE B.O.D. REMOVAL 90  
 MIN. PERCENTAGE S.S. REMOVAL 90  
 MAX. CONCENTRATION OF RESIDUAL CHLORINE, M.G./L. 0.10

PLATE 1  
 PROPOSED SEWAGE TREATMENT  
 FLOW DIAGRAM

in Order No. 71-210, adopted March 26, 1971. The existing stabilization ponds, constructed as part of the Lake Siskiyou Recreation Project, are currently unable to meet the following standards.

- 1) No effluent release into the Sacramento River during the recreation period of May 1st to October 31st.
- 2) If river disposal is to be utilized during recreation periods prior to May 1, 1973 a minimum pond retention time (for stabilization ponds) of 150 days is required.

Proposed modifications include primary secondary, and polishing treatment of the combined sewage from the City of Mt. Shasta, Lake Siskiyou recreational area, and additional neighboring areas. The treatment will be effective in assuring that water quality, including turbidity, temperature, dissolved oxygen, suspended solids, pH, bacteriological quality and other parameters will be consistent with the current Sacramento River water quality objectives.

#### Project Location

The proposed water pollution control project is located in and around the incorporated City of Mt. Shasta, California, in the County of Siskiyou. The City rests at the extreme southeast end of Shasta Valley with 4,000 - 5,000 feet Rainbow Ridge to the west and 14,161 feet Mt. Shasta to the northeast. The City is almost entirely surrounded by lands of the Shasta National Forest.

The project area can be located on the Regional Map, Plate 2.

The project boundaries, including the service, treatment and discharge areas, are shown in Plate 3. The project coordinate number,

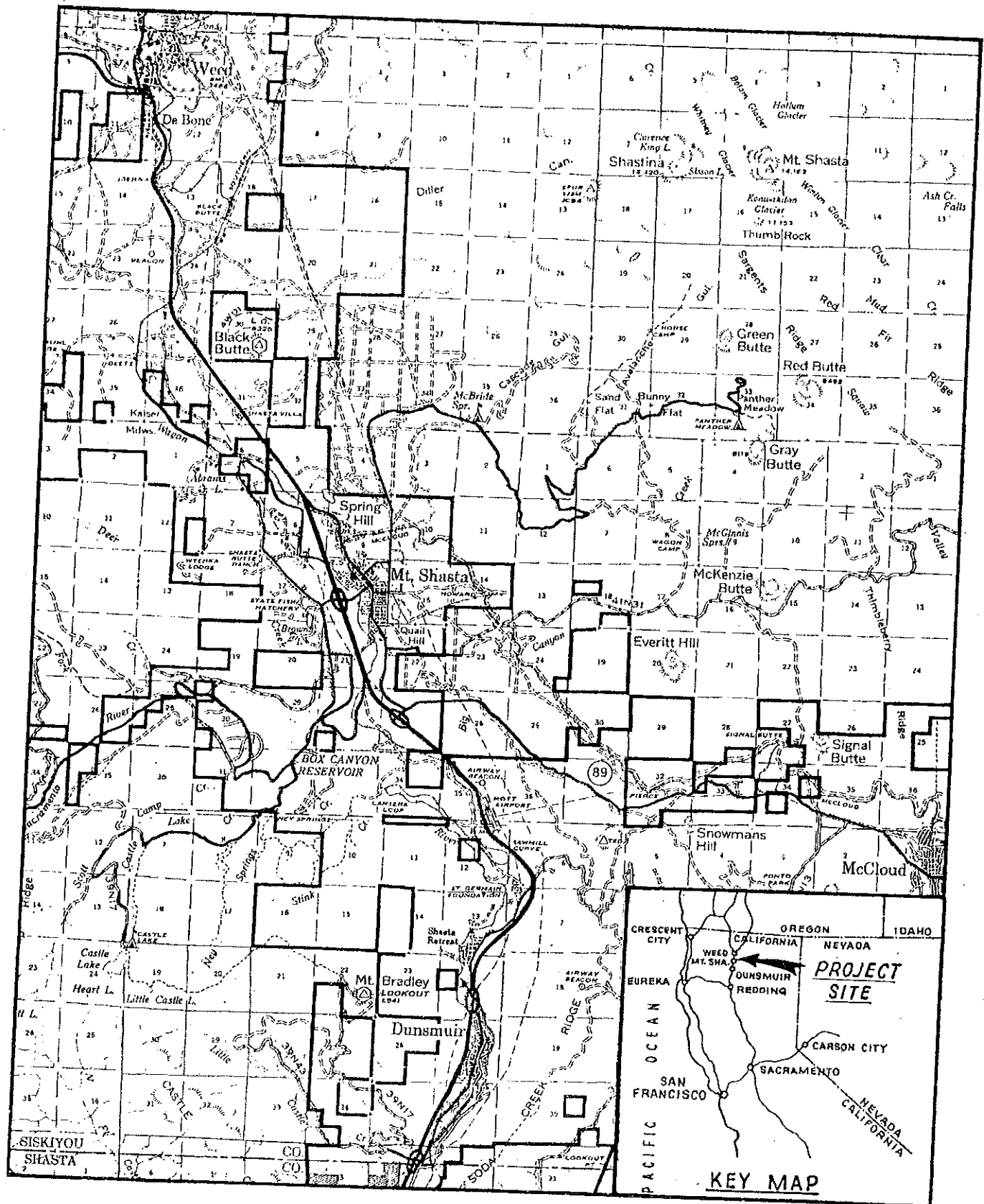
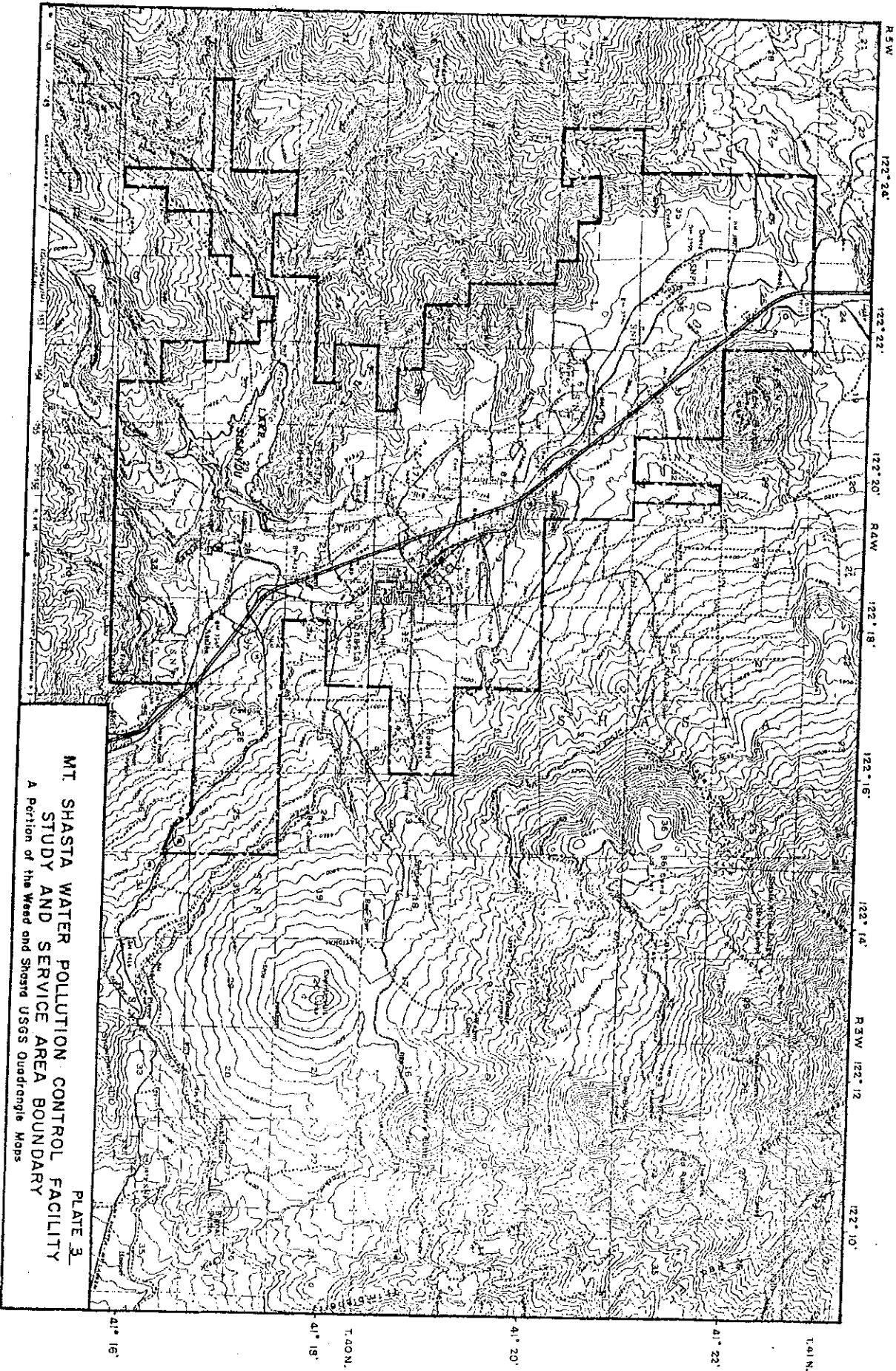


PLATE 2  
 MT. SHASTA WATER POLLUTION CONTROL FACILITY  
 REGIONAL MAP





based on the approximate center of the project area, is North lat. 41°19',  
West longitude 122°19'.

Implementation of Proposal

It is proposed to conform with the following schedule for the design, construction and operation of the Mt. Shasta Water Pollution Control Facility.

<u>TASK</u>	<u>COMPLETION DATE</u>
1. Consumate final agreements between participating agencies -	January 15, 1973
2. Complete final arrangements for project financing -	May 1, 1973
3. Authorize engineering plans and specifications -	May 15, 1973
4. Complete plans and specifications -	March 1, 1974
5. Advertise for project construction bids -	April 15, 1974
6. Award construction contract -	June 1, 1974
7. Complete land disposal element of contract -	May 1, 1975
8. Complete final construction and demonstrate facility performance -	November 1, 1975

Item No. 7 is to be stipulated in the contract to provide for no recreational period discharge to the river following May 1, 1975.

### Interrelationship With Other Projects

The project is closely related to the Lake Siskiyou Recreation Area. The stabilization ponds currently in use were built in 1967 to compensate for land required for the Lake Siskiyou Project, and currently handle the combined sewage of the City of Mt. Shasta and the recreational facilities of the project. Facilities capable of accommodating 1,000 recreationist will be sewerred on the combined system.

Consideration has been given to including the cities of Mt. Shasta, Weed and Dunsmuir in a combined regional facility, however, such a proposal has been discounted, based on economic and other considerations. The sewage treatment facilities for the three cities will remain as separate projects. Responsibility for the preparation of the project reports and environmental impact statements for these related projects has been determined as follows:

City of Dunsmuir -

Robert A. Lounsbury  
Civil and Sanitary Engineering  
P.O. Box 51  
Wilton, California 95693

City of Weed -

Piemme & Bryan  
Engineers and Surveyors  
331 W. Miner  
Yreka, California 96097

### Referral to Supporting Documents

An Engineering Report in two volumes, entitled "Project Report for Water Pollution Control Facilities at the City of Mt. Shasta", dated September 1972, and prepared by W. A. Gelonek & Affiliates of Redding, California serves as a technical reference for this impact statement.

## SECTION II

### ENVIRONMENTAL SETTING

#### Regional Setting

##### Geology

Volcanic activity played the major role in geologic development of this area. The project site is located near the geologic boundary between the Klamath Mountains and the Cascade Range. Characteristic rock formations of both mountain ranges are present nearby. The Klamath Mountains, lying west of the area, contain intrusive, sedimentary, and volcanic rocks. The Cascade Range contains volcanic rocks which are divided into two units, the Western Cascade series and the High Cascade series. The Western Cascade series, an older outcropping, lies to the west of the peaks of the Cascade Range and extends north from Mt. Shasta into Oregon. The High Cascade series, a younger unit, includes both Mt. Shasta and Mt. Lassen.

This part of the High Cascades geologic province is underlain by volcanic rocks and alluvium of the Pleistocene Age. These deposits lay unconformably on tertiary volcanic rocks and older sedimentary and metamorphic rocks.

The earthquake history of the area, including the Klamath Mountains to the west and the Cascade Range to the east, indicates a relatively low seismic activity. No shocks greater than magnitude 4 on the Richter Scale are known to have occurred within a 40-mile radius of the project site.

### Hydrology

The Mt. Shasta City area is one of heavy precipitation and abundant water supply. The Sacramento River collects the accumulated runoff from a drainage area of 122 square miles. Fall and winter rains on the relatively impervious basin area west of Rainbow Ridge provide one increment of runoff while another increment is provided by the sustained springtime runoff from melting snows in the high mountainous areas. Precipitation on the Mt. Shasta side of the basin does not produce surface runoff directly into the Sacramento system, but infiltrates into the extremely porous volcanics to increase ground water storage, and eventually discharges as part of the sustained summer yield. This sustained summer flow is regulated both by storage in the Mt. Shasta snowpack and by ground water basin seepage into the Sacramento drainage system.

The slopes of Mt. Shasta are covered by deposits of porous volcanic ash and coarse debris blown out during past eruptions or carried downhill by subsequent erosion. This material ranges from poor to highly permeable, depending on particle size and sorting. Rain falling on the mountain slopes infiltrates immediately; very little runs off in surface streams. Snow falls are retained on the mountain, both as winter snowpack and as permanent glaciers. Melt water runs in torrents down the mountainside for short distances until it, too, infiltrates into the porous soil.

Reference to the USGS Weed Quadrangle (Plate 3 ) discloses the near absence of surface drainage from the west and southwest slopes of Mt. Shasta into the Sacramento River. The triangle approximately defined by Dunsmuir, Black Butte, and the peak of Mt. Shasta, about 40 square miles in area, is an area of ground water storage. The numerous springs which emerge from the hillside on the east side of the Sacramento River as far south as Dunsmuir are all supplied from this ground water storage, which regulates runoff from the accumulated winter precipitation to a constant rate of flow. The uniform flow of these springs supplies the Sacramento River with a firm base flow in the Mt. Shasta - Dunsmuir area.

Both Mt. Shasta City and Dunsmuir derive their water supply from such uniform springs. There also are many individual household wells in the rural areas outside Mt. Shasta City that draw from the abundant ground water.

#### Flora and Fauna

a) General: The Mt. Shasta region shares the common features of two mountain ranges; the Cascade Range of Oregon and the Sierra Nevada Range of California. It affords the northernmost limit of Sierra species, and the southernmost limit of Cascade species. Hence, its flora and fauna are an over-lapping of both, sharing a large percentage of the common species and a mixture of restricted Sierra and Cascade species.

b) Trees: The ground cover ranges from Manzanita to virgin stands of many varieties of pine and fir. The dwindling of virgin timber is supplemented by reforestation practices to sustain the milling and manufacturing operations of the local lumber industry.

c) Fish: Rainbow, Eastern Brook, and Brown Trout inhabit many small lakes and streams of the area including the headwaters of the Sacramento River. During Trout season, the State Fish Hatchery at Mt. Shasta City supplements the native population with weekly plantings of catchable-sized Rainbow Trout in the Sacramento River.

d) Land Animals: The Shasta-Trinity National Forest contains big game animals such as the Rocky Mountain Elk, Black Bear, Columbian Black Tailed Deer, and the Rocky Mountain Mule Deer; upland game animals such as the Audubon Cottontail, Black Tailed Hare and various squirrels; small fur-bearers such as beavers, foxes, racoons, fishers and martens; and large fur-bearers such as the coyote and bobcat.

e) Birds: Also included in the regional wildlife are several varieties of upland game birds such as quail, grouse, pigeon and dove, and over 130 species of non-game birds. Water-fowl in the Shasta National Forest is generally limited to the Shasta Lake and Lake Britton areas and is not prevalent in the project area.

f) Rare or Endangered Species: There are no "rare" or "endangered" species of fish, reptiles or birds in the region. The southern variety Bald Eagle, whose population has dwindled to 87 (1971), has been classified "endangered". Although it can be found in the area of Shasta Lake and on occasion as far north as McCloud, it is not specifically known to occupy the project area.

Martens and fishers do habitate the Mt. Shasta area. They are classified as "unique" species. Although they are rare in California, they are not so on a nationwide basis, and therefore they are not classified "rare". They don't get along with development and have been greatly suppressed in the vicinity of the City. Previous concentrated development has tended to displace their population back into protected wooded land.

#### Climate

##### a) Temperature

The City of Mt. Shasta lies in the lee of the westerly coastal mountains and is generally protected from marine influence. Temperature recordings in the City report an all-time maximum temperature of 103°F and a minimum of -8°F, but indicate a mean maximum of 85.3 in July and a mean minimum of 25.1 in January. Complete monthly temperature means and extremes can be found in Table 1.

CLIMATE - CITY OF MT. SHASTA

Temperature Means and Extremes (°F)

<u>Data</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Year</u>
Highest Temp.	65	71	78	84	91	96	100	101	103	92	80	72	103
Mean Max. Temp.	41.4	46.5	52.1	60.3	67.6	74.9	85.3	84.7	78.4	65.6	52.5	44.6	62.8
Mean Temp.	33.3	37.0	41.2	47.5	53.8	60.3	68.0	66.7	61.5	51.9	41.8	35.9	49.9
Mean Min. Temp.	25.1	27.5	30.2	34.6	39.9	45.7	50.7	48.6	44.5	38.2	31.0	27.2	36.9
Lowest Temp.	-3	0	11	10	21	25	31	34	26	17	11	-8	-8

Average Monthly and Seasonal Precipitation\* (inches)

<u>Data</u>	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Season</u>
Avg. Precipitation	6.36	5.91	4.46	2.77	1.99	1.25	0.30	0.18	0.87	2.44	3.97	6.22	36.72

Average Monthly and Seasonal Snowfall (inches of depth)

<u>Data</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>Season</u>
Avg. Snowfall	0	0.3	3.4	19.2	31.1	19.7	14.7	6.4	1.3	0	96.1

\* Moisture falling from the air to the ground, whether in liquid or frozen form. If in frozen form, the melted liquid moisture content is used as a measure of the precipitation.



b) Precipitation

The annual precipitation pattern is generally characteristic of the rest of California with heavy precipitation during the winter months and much lighter rainfall during the summer. It is not uncommon however, to receive a few showers and an occasional thunderstorm during the summer months. Close proximity to towering Mt. Shasta (elev. 14,161 feet above sea level) provides a local topographic condition that results in an average snowfall of around 100 inches per year. This is a higher than average snowfall for the City's elevation (approx. 3,600 feet above sea level). Most intermediate elevations in the County receive an average from 25 to 35 inches per year. Average monthly and seasonal precipitation (including snowfall) can also be found in Table 1.

c) Evaporation

There are only limited evaporation records within the County, but indications are that the annual total loss from a standard 4-foot evaporation pan ranges from around 50 to 60 inches in the central part of the County. Seventy-five to eighty percent of this total is evaporated during the months of April through September. Evaporation from lakes and reservoirs is somewhat less, the annual total amounting to around 35 to 45 inches.

### Land Usage

The Mt. Shasta area lies in a forested area north of the Sacramento Valley. Through this area passes the most favorable transportation route from the Central Valley in California to communities in Oregon and the Northwest. Residents of the Mt. Shasta area have traditionally depended upon lumber, the railroad, and, to a lesser extent, upon tourism and agriculture for their livelihood. Although the lumber and railroad industries have experienced a decline in recent years, the income provided by agriculture has remained relatively stable. An additional source of income has resulted from the rapidly expanding use of the area for recreational pursuits.

### Lumbering

Prior to settlement of the Mt. Shasta area by the white man, the southern slope of Mt. Shasta and the surrounding territory were covered by virgin growths of pine and fir. Subsequent decades of lumbering and destructive forest fires have reduced the amount of harvestable timber available and left many areas unproductive.

Logging, milling, and transportation of lumber supported the early economy of the area, but the dwindling of virgin timber resources and the slow recovery brought by reforestation practices has resulted in decline of the local lumber industry. However, the demand for forest products has remained high during recent years and the lumber industry continues to provide a major source of income for the area.

### Agriculture

The extent of irrigated and irrigable lands within the Mt. Shasta area is very limited. Agriculture mainly consists of the raising of cattle and those pasture and hay crops required to support cattle. Crops, for profitable production, generally require irrigation from May through October. Most of the acreage suitable for tillage or irrigated pasture is presently developed and provided with irrigation water from the nearby creeks and springs.

### Transportation

The location of Mt. Shasta on an important interstate transportation route contributes in many ways to the economy of the area.

The north-south highway is heavily used by both automobile travel and by commercial trucks. The entire system is heavily used by vacationers during the spring, summer, and fall months.

When the railroad was constructed from Redding to Dunsmuir in 1886 and on to Oregon the next year, the first impetus was given to the lumber industry in the Mt. Shasta area. Today the railroad is an important contributor to the lumber industry and the general economy of the area.

### Recreation

The Mt. Shasta area, as well as many other communities in Northern California, is growing in its attraction to recreationists. The reasons for this growth stem both from the natural attributes of the locality and from the improved highway systems which has led to a general exodus from metropolitan centers, for "relief" from overcrowded conditions.

Mt. Shasta itself is an outstanding attraction. The 14,161 foot volcanic mountain dominates the entire project area. For much of the year snow covers that portion of the peak above 8,000 feet and several glaciers cling year around to the mountain.

Around the skirts of the mountain, and in the McCloud River and Mt. Eddy areas, fish and game abound. The upper reaches of the Sacramento River above Shasta Lake, for instance, are noted for the excellence of their trout fishery.

Despite easy access to the project area, little has been done until recent years toward the organized development of recreational opportunities in the area. Private individuals and organizations recently have developed improved campgrounds along the Sacramento River near Mt. Shasta and at Castle Lake. Such facilities make use of the river water during the summer vacation seasons.

In 1958, the completion of the Mt. Shasta Ski Bowl chair lift and lodge initiated a large-scale attempt to popularize the area for winter sports. Heavy snowpacks that reached 200 inches on the slopes of Mt. Shasta had long suggested this possibility. The ski season is generally long, beginning in late November and continuing through June. Recently, major improvements to the ski areas have been discussed and plans are now being formulated.

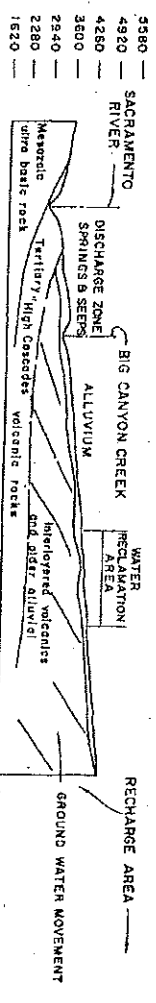
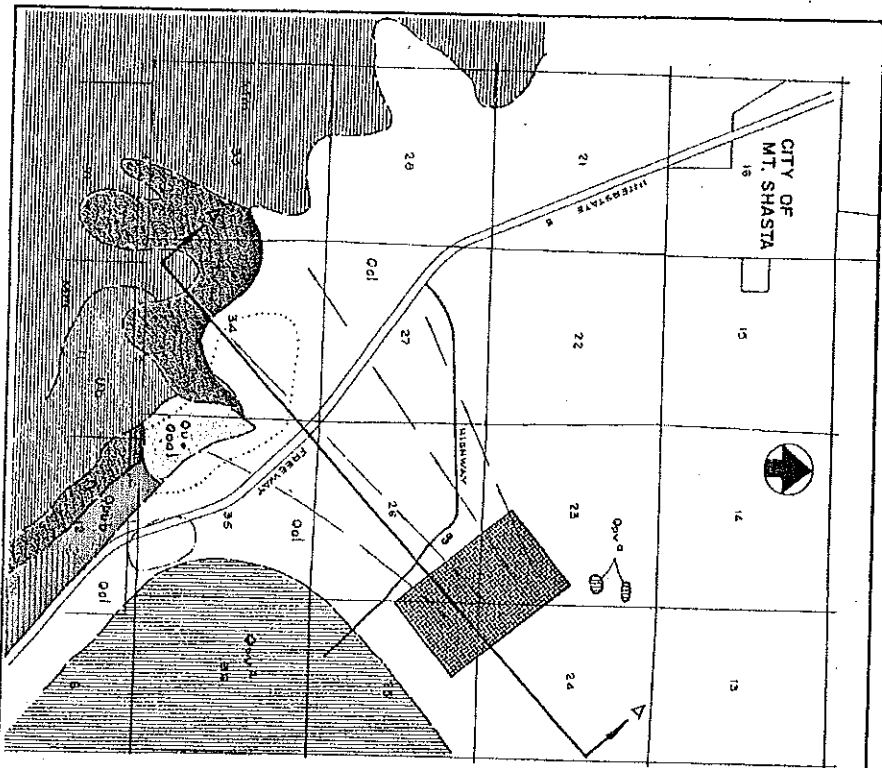
Around 1970 the opening of camping and picnicing facilities at the Box Canyon Dam Project (Lake Siskiyou) increased summer attraction to the project area. The reservoir is formed primarily from flows from Wagon Creek and from the north, middle, and south forks of the Sacramento River.

## Project Setting

### Geology

The geology of the project area has been examined primarily in the interest of identifying potential sites for the return of the treated water, and examining the geologic conditions at the project site. The geologic and hydrologic characteristics of various areas considered in the vicinity of the treatment facility are considered in the "Alternatives to The Proposed Action" section of this report.

The proposed site, on the basis of all information available, appears to be the only logical one from both technical and economic approaches. It is shown on Plate 4 and lies in Sections 23, 24, 25 and 26, T 40 N, R 4 W, two miles southeast of the center of the City of Mt. Shasta. Elevation ranges from 3900 ft. to 4200 ft. The site is part of the Big Canyon Plantation reforestation area in the Shasta National Forest. The proposed disposal site is underlain by rhyolitic and andesitic volcanic flows interlayered with older alluvium. It is in turn covered by a mantle of alluvium and rubble of a few feet to tens of feet thick. The soil of the site is highly variable in character, ranging from material with a high percentage of fine to coarse open rubble, but is generally a very poorly sorted mixture of weathering products from the underlying volcanic rocks and older sediments. The thickness of the soil development is highly variable, probably ranging from near zero to 100 to 200 feet.



SECTION A-A

- PROPOSED WATER RECLAMATION
- EXISTING SPRINGS AREA
- AREA OF DOMESTIC WELLS
- DIRECTION OF PROBABLE GROUND WATER MOVEMENT

**LEGEND:**

**SOILS DESCRIPTION**

- Qol** Stream and glacial outwash, generally poorly sorted, sandy to bouldery sand, silt and clay. Low to moderate permeability.
- Qodl** Recent Mt. Shasta andesitic volcanics, flows, massive to rubby, mud flow breccias. Slight to moderate permeability.
- Qpvd** Recent basaltic rocks, massive basalt flows, lava tubes, coarse open rubble. Locally very permeable.
- Qpub** Volcanic and banded rocks of high cascades series. Generally poorly permeable and without large openings.
- Tv** Ultra-basaltic igneous rocks. Essentially impermeable.
- Ub** Mesozoic metamorphic and crystalline rocks. Essentially impermeable.
- Mm**

PLATE 4  
EXISTING GEOLOGICAL & HYDROLOGICAL CONDITIONS  
AT PROPOSED WATER RECLAMATION SITE

### Hydrology

The hydrology of the project setting is dominated by the variable topography, with the high slopes of Mt. Shasta from which permanent recharge occurs, and the canyon of the Sacramento River which drains the area. Ground water in the saturated zones moves southwesterly under the proposed disposal site and discharges in a large number of seeps and springs in the slopes above the river (Plate 4).

Effluent from the proposed site will percolate vertically downward an unknown distance to the saturated zone and then will move down the hydraulic gradient in a general southwesterly direction through the poor to moderately permeable volcanic rocks and older alluvium toward the discharge zone two miles away.

Consideration was given to the risks of contamination of existing water supplies. The main water supply for the City of Mt. Shasta is at a higher elevation spring one mile north of the proposed disposal site. An existing well in the Mt. Shasta water system is some two miles to the north at only slightly lower elevation and well away from probable paths of ground water movement from the site. There are some domestic wells in the vicinity of Mott Airport which may be on the fringe of ground water movement from the site. Considering the low to moderate permeability of the materials, absence of cavernous rocks or lava tubes to provide a direct route of

influent seepage to these wells, and the distance involved, it is doubtful that should any of the effluent enter the wells, any bacterial or viral contamination will occur.

Historical or Archeological Sites

There are no known historical or archeological sites in the project area that will be affected by the proposed project.



### SECTION III

#### ASSESSMENT OF ENVIRONMENTAL IMPACT

The following matrix, Table 2, serves to locate the activities of the proposed project which will cause an environmental impact. The ratings are determined, taking into consideration the degree and duration of the impacts cited.

The magnitude of the impact relationship is evaluated and rated on a scale of 1 to 5. A rating of 5 represents the greatest magnitude of the impact and a rating of 1 represents the least.

The importance of the impact is also determined and represented on a scale of 1 to 5. A rating of 5 represents the greatest "importance" of the impact and 1, the least.

A plus sign (+) is placed in front of an impact which is felt to be beneficial to the project environment.

In the determination of the ratings, judgements include the overall effect of the proposed project including the measures proposed to mitigate negative environmental effects. As an aid in interpretation of the matrix and rating system, the proposed actions will be discussed with regard to their impact on the existing environmental elements.

The alteration of ground water hydrology will result from the disposal of the treated water over land. Due to the large quantities of ground water in the area, total impact on the hydrology of the area will be low.

The noise and vibration of the construction period will have an impact on the birds and land animals of the area, but such impact will not be of major significance.

TABLE 2

II PROPOSED ACTIONS WHICH MAY CAUSE ENVIRONMENTAL IMPACT  
(to include acquisition, development, operation, and phase out of proposed project)

ENVIRONMENTAL IMPACT ASSESSMENT MATRIX\*  
CLEAN WATER GRANTS

Responsible Agency \_\_\_\_\_  
State Clearinghouse Number \_\_\_\_\_

INSTRUCTIONS

- Identify all actions (located across the top of the matrix) that are part of the proposed project. Under each of the proposed actions, place a slash at the intersection with each item on the side of the matrix if an impact is possible.
- Having completed the matrix, in the upper left-hand corner of each box with a slash, place a number from 1 to 5 which indicates the MAGNITUDE of the possible impact; 5 represents the greatest magnitude of impact and 1, the least (no zeroes). Before each number place + if the impact would be beneficial. In the lower right-hand corner of the box place a number from 1 to 5 which indicates the IMPORTANCE of the possible impact (e.g., regional vs. local); 5 represents the greatest importance and 1, the least (no zeroes).

A text should accompany the matrix and discuss those columns and rows with boxes marked.

SAMPLE MATRIX

	a	b	c	d	e
a	2	1		5	3
b	4	2	4	3	5
			4	1	4

\*Based on U.S.G.S. Circular 645

EXISTING CHARACTERISTICS AND CONDITIONS OF THE ENVIRONMENT

	MODIFICATION OF REGIME	LAND TRANSFORMATION AND CONSTRUCTION	RESOURCE RENEWAL CHANGES IN TRAFFIC	WASTE EMPACEMENT AND TREATMENT	CHEMICAL TREATMENT	ACCIDENTS																								
							a. Alteration of ground water hydrology	b. Alteration of drainage	c. Irrigation	d. Noise, vibration, and lighting	a. Transmission lines, pipelines and corridors	b. Barriers including fencing	c. Dams and impoundments	d. Offshore structures	e. Waste treatment structures	f. Blasting and drilling	g. Cut, fill, spoil, and dust	h. Tunnels and underground structures	a. Ground water recharge	b. Waste recycling	a. Automobile & Trucking	b. Water traffic	c. Air traffic	a. Ocean disposal	b. Landfill	c. Underground storage	d. Deep well emplacement	e. Waste treatment	f. Liquid effluent discharges, incl. spray irrigation	g. Stabilization and oxidation ponds
EARTH	a. Soils																													
	b. Land form																													
WATER	a. Surface	/																												
	b. Ocean																													
	c. Underground	/	/																											
	d. Quality	/	/																											
	e. Temperature																													
	f. Recharge	/	/																											
	g. Snow, ice																													
ATMOSPHERE	a. Quality																													
PROCESSES	a. Floods																													
	b. Erosion																													
	c. Deposition																													
FLORA	a. Trees (PLANTATION)		/																											
	b. Shrubs	/																												
	c. Grass	/																												
	d. Crops																													
	e. Microflora																													
	f. Aquatic plants																													
	g. Endangered species																													
	h. Barriers																													
	i. Corridors																													
	FAUNA	a. Birds	/																											
b. Land animals		/																												
c. Fish and shellfish																														
d. Benthic organisms																														
e. Insects																														
f. Microfauna																														
g. Endangered species																														
h. Barriers																														
i. Corridors																														
LAND USE		a. Open spaces																												
	b. Wetlands																													
	c. Forestry																													
	d. Grazing																													
	e. Agriculture																													
	f. Residential																													
	g. Commercial																													
	h. Industrial																													
	RECREATION	a. Fishing																												
b. Boating																														
c. Swimming																														
AESTHETICS AND HUMAN INTEREST	a. Scenic views and vistas																													
	b. Wilderness qualities																													
	c. Open space qualities																													
	d. Landscape design																													
	e. Unique physical features																													
	f. Parks and reserves																													
CULTURAL STATUS	a. Cultural patterns																													
	b. Health and safety	/																												
	c. Employment																													
	d. Population density																													
MAN-MADE FACILITIES AND ACTIVITIES	a. Structures																													
	b. Transportation network																													
	c. Utility networks																													
	d. Waste disposal																													
	e. Barriers																													
	f. Corridors																													
ECOLOGICAL RELATIONSHIPS	a. Sanitization																													
	b. Eutrophication																													
	c. Disease-insects																													
	d. Food chains																													

The installation of pipeline is centered mainly around the burial of the interceptor, outfall line, and discharge field perforated lines. Soils, shrubs and grass will be affected along the trench lines but to a minor degree, and all will recover by natural seeding and the fact that topsoil will be preserved and placed on top of the refilled trenches.

The waste treatment structure is by far the most important element of the project. There will be some alteration of soils and some deposition and recharge resulting from the oxidation ponds. But of major importance is the positive effect on the utility network and treatment of wastewaters for the Mt. Shasta community. A small beneficial cultural effect will result from the employment of a full-time plant operator.

Blasting and cut and fill operations will have an effect on the soils of the existing ponds as these operations are utilized to deepen Ponds #1 and #2 and raise the elevation of the berm. Such effects will be limited to the soils of the existing treatment site, an area previously committed to the wastewater treatment function.

The actual recharge of ground water will result from the discharge of the treated water into the soils of the Big Canyon Plantation, a U. S. Forest Service reforestation area. It is important that the recharge should not effect the quality of the normal ground waters

in a negative manner. Due to the high level of treatment it is anticipated that this will not occur and that the overall effect will be minimal. It is of still greater importance that the discharge not impact the plantation trees in a negative way. The project proposal includes specific measures to protect the trees, and so again, the total impact will be minimal.

The actual waste treatment function is again the most important aspect of the proposed project. It is for the treatment of the wastewater of the community and the elimination of negative environmental effects of the existing treatment operations that the study was performed. The importance of the wastewater treatment on water quality is rated high as a beneficial impact. The magnitude of the impact is also high, reflecting the high degree of treatment.

The "liquid effluent discharge" action is equivalent to the previously discussed "ground water recharge" action, and the "oxidation pond" element is similarly equivalent to the "waste treatment structures" element.

The final possible action would be the improbable, but possible accident of an "operational failure". Such an action might result in a discharge to the Sacramento River during the recreation season when such discharge is prohibited. Plant design and recommended operations will assure that in the worst case, the failure of the single force main outfall line, water discharged to the river would have

received full treatment prior to such an activity. Allowing even for accidents and failures, it is not anticipated that any untreated wastewater would be discharged to the river. For that reason, the magnitude of the impact would be low.

The above discussions are basically only a summary of the total environmental considerations. Complete and detailed discussion of these impacts can be found in the following section.

## SECTION IV

### ENVIRONMENTAL IMPACT STATEMENT

#### Probable Impact of The Project On The Total Environment

It is the nature of the project to reduce negative impact on the Mt. Shasta local and downstream environments. The proposal allows for:

- a) The elimination of current effluent discharge into the headwaters of the Sacramento River during the recreation season, May 1st through October 31st.
- b) Continual secondary treatment and polishing of municipal wastewater with controlled air-oxidation, and filtration.
- c) Increased recharge of natural water systems through sub-surface discharge of treated water during the spring, summer and early autumn seasons.
- d) Minimizing construction impact and claiming of additional land area through maximum utilization of existing treatment facilities.
- e) Use of air-oxidation to eliminate requirements for additional land area acquisition for stabilization ponding.
- f) Control of pond odor by providing adequate oxygen to allow for non-septic (aerobic) digestion of suspended material in wastewater.
- g) Protection of ground water resources through sealing of the existing second pond bottom which is thought to allow for short-circuit connection with ground water through fissures in the

underlying strata.

It is planned to include areas in the project which are now outside the City Limits and are currently utilizing septic tanks as the only treatment process prior to return of wastewaters to the natural water environment. Such inclusion will eliminate the constant return of the poorly treated septic tank effluent to the ground waters of the area.

The proposed action calls for the use of existing treatment ponds, thus containing future treatment facility operations on land previously allocated for such purposes. The major impact on the environment will result from the return of the treated water. Secondary effluent, reduced as it is, is still not pure water. Although the treatment processes remove essentially all of the soluble biologically degradable organics, a portion is converted into the organic cell material of the digestive organisms. Thus, the removal of organics which impart BOD to the effluent is limited, generally to the order of 60 - 90%. The proposed filtration will assure continued BOD and SS reduction in excess of 90%.

Non-bio-degradable organics are of course, not removed by secondary bio-degradation techniques. Inorganic compounds, such as phosphates and nitrates are also not completely removed by secondary treatment. Ions of inorganic salts containing calcium,

magnesium, sodium, potassium, etc. will always be found in water, natural and municipal, due to the almost universal solvent power of water. Of course, the cation content of a wastewater is dependent on the quality of the municipal water source and the spring water supply of the City of Mt. Shasta is of high quality with low ionic concentrations. Finally, secondary treatment does not remove 100% of the suspended particulate solids and without chlorination removal of pathogenic bacteria (typhoid) and viruses (infectious hepatitis) is not complete.

The mere presence of these elements does not make water unsuitable for usage. In fact, these factors will be found in all waters except those treated specifically for chemical purity. The content of waters including organics, non-organics, ions, gases, etc. is commonly used to determine the relative quality of the water when compared to established standards. Water from the controlled aeration treatment, followed by clarification and mixed media filtration, will be of a quality suitable for irrigation, capable of supporting aquatic life including trout, and is in most aspects equivalent to potable municipal water. However, it is felt that additional reduction of these elements prior to return to natural water systems is possible and is desirable. The proposed action calls for return of the polished secondary effluent to the soil during the critical period of water quality in the Sacramento River. Soil reclamation will allow for the continued treatment of the water by natural purification functions



such as mechanical filtration, chemical oxidation and immobilization, and biological degradation and reduction. The soil will provide continued treatment, in most aspects equivalent to the best available in-plant treatment.

#### Mitigation Measures Proposed to Minimize the Impact

##### High Level of Wastewater Treatment

Under favorable conditions stabilization ponds treat municipal wastes under aerobic conditions. The effectiveness of a pond however, is dependent upon a number of factors such as sunlight, temperature, pond depth, sewage characteristics and wind action. These factors affect the reoxygenation rate but cannot be controlled during operation. The slow progress of the wastewater through the ponds requires large amounts of land. Erratic performance of the pond cannot be avoided due to the inefficiency of algae as an oxygen producer during conditions of inadequate sunlight. Lack of light penetration and lack of thermal mixing in cold weather result in variations of dissolved oxygen throughout the depth of the pond. Conditions of insufficient oxygen promote putrefaction, digestion by anaerobic organisms which produce methane gas and odorous waste products such as sulphide gases.

##### Controlled Aeration

These conditions will be mitigated by use of a compressed air controlled aeration system. The system utilizes an air diffusion

technique for accelerating aerobic biological oxidation and is suitable for increasing the capabilities of existing lagoon installations. It provides for treatment consisting of primary settling, biological oxidation, final settling, sludge disposal, re-circulation and odor control.

Sheets of rising air bubbles from a grid network of polyethylene tubing create lineal barriers which divide the lagoon laterally into hydraulic cells. The laminar rise of the water above the tube (rise rate of less than 1 ft/sec.) produces counter rotating currents which persistently roll the wastewater over and over before it escapes into the next cell. This prevents short-circuiting of flow which can be found in stabilization ponds in summertime or under the ice in winter time.

The water is constantly exposed to new air allowing for aerobic degradation of suspended solids. The low downward circulation rate (sink rate of less than .03 ft/sec.) allows for the suspended solids, which cannot be degraded aerobically while in the water, to settle out at the bottom.

Circulation of oxygenated water over the deposited material transfers oxygen to the sludge so the top layer is aerobically reduced to carbon dioxide and water. The next layer digests by means of facultative bacteria. If the sludge is still deeper, anaerobic digestion

takes place further down. Sulphide gases and other resulting odorous compounds go into solution in the aerated water. Before the objectionable odors reach the air, they are turned by aerobic bacteria into carbon dioxide, water and similar inoffensive substances.

Methane gas, formed anaerobically, now serves a useful purpose. The sludge fills with gas, causing it to break off in small pieces. These chunks, rising to the surface, get caught up in the circulation pattern. Air bubbles work to break them into fine particles which become digested while in suspension or as they settle. The amount of inert ash, the final solid end product, eventually produced from normal domestic waste, requires that a lagoon be cleaned only at an interval of 20 - 30 years.

Treatment continues along the length of the pond making use of biologic elements to digest the organic material suspended in the wastewater, and in turn to provide a chain of consumption of the biologic elements. As the flow progresses and the sewage bacteria consume sludge, and the oxygen content of the water increases, the bacteria themselves become food for ciliates. As the oxygen content increases the pond can house sludge worms, cray fish, snails, insects and other scavengers which live on the sludge and consume it, so that some of the ash content is taken into the hard shells of cray fish and insects. Through this cycle of consumption and oxidation most of the sludge is converted to carbon dioxide, water, ash, and to a lesser extent, biotic cell material.

In effect, the system parallels the natural cleansing action of a fast moving (velocity greater than 2 miles/hour) stream, where, due to bottom drag, water tends to roll down a stream bed carrying water and oxygen from the surface to the bottom sludge, oxidizing solid organics and preventing septic consumption. Similarities in the progression of water quality allows the natural stream biotic cycle to exist in the pond, thus aiding further in reclaiming the water from municipal waste.

The treated product will be an effluent reduced in BOD in the order of 70% which is stabilized, will not cause odors, has a dissolved oxygen content (5-8 ppm) approaching saturation, and which will not remove oxygen from receiving waters. The secondary treatment will be followed by chlorination and dechlorination to eliminate the public health threat of pathogenic micro-organisms in the water returned to the environment.

#### Polishing Treatment

Polishing or final treatment prior to pumping to the disposal fields or discharge to the river during the winter months shall be accomplished by filtration. Buildup of biologically inert solids and digestive organism cell material within treatment ponds will eventually lead to the discharge of solids unless these are removed by further or polishing treatment.

Filtration will be accomplished by means of the mixed media process. That is, providing a coarse to fine filter gradation in the direction of flow. This is a very efficient means of filtration and the combined process should result in a total reduction of at least 90% in both BOD and SS.

From the filtration unit the wastewater shall be subjected to chlorination and then passed to the holding lagoon which shall also serve as a chlorination chamber and for emergency storage.

At each of the aforementioned stages of treatment, tests will be run to determine the degree of treatment received.

#### Effluent Discharge

In discharging of the treated effluent it is necessary to consider the possible environmental implications and what effects the action will have on existing ecological balances. Both land and river discharge are called for in the project proposal. Each will be considered separately.

##### a) Land Discharge

It is planned to discharge effluent waste on land during the recreation season, May 1st through October 31st. Improper disposal could result in assorted adverse environmental effects. Consideration of four major types of land discharge is summarized below.

1) Percolation/Evaporation Basins: The use of percolation/evaporation basins is discounted for two major reasons. Primarily, no area is economically available for such ponding. Completion of the reclamation of the water is best afforded if at least several thousand feet of percolation distance is allowed before ground waters containing the reclaimed water become available for contact with the general public. Secondly, according to California State Water Resources Control Board, evaporation is to be discouraged as a means of reclamation. It is considered to be less preferable than recharging ground waters.

2) Percolation Furrows: The use of furrows or trenches for percolation has proved useful in some instances. For example, requirements of the State of California Lahontan Regional Water Quality Control Board led to a furrow type disposal system north of the Lake Tahoe Basin. Such usage was permitted by a use permit requested of the U. S. Forest Service. The use of such a system in the Mt. Shasta proposal was eliminated for two major reasons. First, the use of open trenches commits the land primarily to that usage thus curtailing the range of other beneficial uses and introducing a major interference to the plantation function of the recommended site. Secondly, the close proximity of Highway 89 would permit undesirable public access to the exposed discharge area.

3) Sprinkler Discharge: Sprinkler discharge has been successfully employed in many locations. It has several inherent factors, however, which make its use undesirable for the Mt. Shasta proposal. Besides such disadvantages as surface pooling, run-off, damage to vegetation from prolonged conditions of top soil saturation, winter problems of ground freezing and ice formation, and public health concerns, the slope of the Big Canyon Plantation exceeds the recommended allowable slope for sprinkler discharge. An 8% slope is generally considered to be the limit for spray fields. Slopes up to 14% have been utilized in specific instances. The 12% slope of the Big Canyon Plantation falls within the range considered to be marginal for reliable sprinkler discharge.

4) Sub-surface Discharge: It is desired instead to utilize an unimposing subsurface system which will deposit the reclaimed water with no exposure to the surface. Such discharge will avoid erosive runoff and excessive wet conditions at the surface which could adversely affect wildlife habitation patterns, and threaten increased incidence of disease, such as hoof rot in deer. It will also tend to avoid upset of existing vegetative balances resulting from the deposition of chemical substances such as nutrients and inorganic salts in the topsoil. This is accomplished by avoiding contact with the topsoil from which plants derive the major portion of their nutrition.

The recommended site for this water reclamation is the Big Canyon Plantation, a reforestation area on U. S. Forest Service Lands. It was planted from 1963 to 1965 with 600,000 pine seedlings. The trenching necessary to bury the perforated water reclamation system will be on the order of 10 feet deep to assure deposit adequately

below the root zone of the plantation pines. The lower 5 feet will be utilized for percolation, while the upper 5 feet will remain an unsaturated earth blanket. The flow will be dispersed on an intermittent schedule to allow for recovery and aeration of the saturated soils.

The reclaimed water thus deposited reasonably beneath the zones of plant and animal habitation, is free to percolate and continue purification through the mechanical, chemical and biological cleansing actions of the permeable material underlying the reclamation site.

#### b) River Discharge

The proposal calls for disposal of effluent in the Sacramento River during the period of November 1st through April 31st, thus allowing for the natural mixing and cleansing action of the youthful-stage stream flow. Such action is most effective during the high flow periods of the river, when natural mixing and aeration are most effective. The period of river discharge coincides closely with high stages of the Sacramento River, generally considered to be about October 1st through April 1st. The California Regional Water Quality Control Board will continue to set requirements for the quality of influent to the river. The proposal allows for the continued option of land discharge should the treated effluent at any time not meet these or any future revisions of river influent standards.

#### Final Purification by Soil Mechanisms

Recently, new interest has been generated in the reclamation of secondary effluents and other biodegradable wastes by deposit in the soil. The land discharge of secondary effluent and the consequent percolation



through soil make use of natural saprophytic organisms and other soil mechanisms to continue treatment of the wastewater prior to ground water recharge. Filtering wastewater through soil is effective at removing remaining bio-degradable material, fecal micro-organisms, inorganic salts and suspended solids. Of major concern is the capability of the soil to reduce phosphorous and nitrogen concentrations without the use of tertiary treatment facilities.

Phosphorous, mostly present in the effluent in the form of phosphate, is capable of reacting with soil elements to form insoluble compounds such as aluminum, iron and calcium phosphates. In addition to mineralization, phosphorus can be immobilized by incorporation into microbial tissue. It has also been suggested that anaerobic reduction of phosphate by soil micro-organisms may result in the volatilization of phosphorus in a gaseous form, such as phosphine. The soil can make an effective sink for phosphorous capable of removals up to and exceeding 90%.

Nitrogen, added to sewage in the form of human excreta, food waste and other organic materials and compounds, is acted on almost immediately by various proteolytic organisms which tend to reduce its form from complex proteins, polypeptides, amino acids, etc. to ammonia. Raw sewage has proceeded through this ammonification process to such an extent that by the time it reaches the treatment facility as much as 90% of the nitrogen can be in the form of ammonia or compounds from which ammonia is readily formed.

The abundant supply of oxygen in the proposed aerated secondary ponds will allow for partial biological nitrification of the ammonia-nitrogen into the nitrate form by aerobic bacteria. Nitrate concentrations are commonly increased 200-500% in effective secondary treatment. A nitrified effluent is desirable for use in reclamation where bacterial denitrification of nitrates to the form of free nitrogen gas is to be utilized for nitrogen reduction.

Various dispositions of the nitrogen in the wastewater are possible, dependent upon a multitude of varying conditions (See "Probable Adverse Effects Which Cannot be Avoided" of this section). Total removal of nitrogen and ammonia may be as high as 90% of the original content of the secondary effluent, but could be considerably less, depending on the nature of the soil and other factors.

Ammonia and ammonium ions will tend to be held near the soil surface by adsorption to soil particles, cation exchange reactions, or fixation in clay lattice. Under alkaline conditions some free ammonia gas will be released from the ionic state to escape as a volatile or to be adsorbed by organic materials. The fixed or adsorbed ammonia will be resistant to chemical oxidation and will remain in the soil minerals. During dry periods however, the ammonium cation can be removed and oxidized by nitrifying bacteria.

Nitrate and nitrite anions are repelled by the negatively charged surfaces of soil particles and tend to move freely in percolating waters. It is this characteristic that renders as ineffective, the reduction of nitrate concentrations by percolation alone. The most effective

natural mechanism for the reduction of nitrates is denitrification (nitrate reduction) by facultative bacteria. Under anaerobic conditions they are able to utilize nitrates and nitrites as electron acceptors (sources of oxygen), using the oxygen thus obtained for the metabolic oxidation of carbon and sulphur compounds. This results in the liberation of the nitrogen as a gas. This is surely the most desirable disposition, for the nitrogen is simply returned to the atmosphere without polluting air or water.

Denitrification takes place best under anaerobic conditions such as in soil after flooding or a heavy rainfall. It can also occur alternately with nitrification by use of an intermittent flooding schedule.

#### Intermittent Discharge

At the completion of secondary treatment more than 90% of the nitrogen present in the effluent will have completed the ammonification process. High concentrations of ammonium-nitrogen will be present, contributing to the total oxygen demand of disposed wastewater. It is necessary to maintain aerobic conditions in the upper zone of the receiving soil to allow for the oxidation of ammonium ions to nitrates by nitrifying bacteria. Continued conversion to nitrates will prevent ammonia saturation in the soil and allow the anionic nitrates

to move freely in the percolating water. When applied to soil water movement proceeds as a film over the surfaces of soil particles until reduction of porosity fills the capillary pores. Water movement will then continue in free downward and lateral flow. This saturated zone then provides the anaerobic conditions necessary for the denitrification process.

To accomplish the maintenance of aerobic conditions in the upper levels of the soil, it is proposed to discharge effluent on an intermittent schedule. Research has indicated that intermittent discharge can provide for reaeration of the soil, high percolation rates and optimum degree of advanced treatment, and that aerobic nitrification can be maintained with an intermittent flooding schedule. Freedom of adjustment of the discharge period will afford some control of the total nitrogen content of the reclaimed water.

#### Bypass Analysis

##### Downstream Water Uses

Below the Mt. Shasta area, the Sacramento River proceeds south through approximately 30 miles of a youthful-stage canyon until reaching Shasta Lake. The major utilization of the river water is for recreational purposes such as fishing and swimming. Domestic water along the canyon is derived mainly from springs and wells; there is no domestic usage of river flows at this point.

Shasta Lake is formed partially by the flow of the river and is one of the major recreational attractions of the north state. The first major usage of the water for domestic purposes is below the lake at the City of Redding, where river water is pumped and distributed

to the city residents. In addition, a portion of the river flow is diverted to supply irrigation for the Anderson-Cottonwood Irrigation District. The need to prevent bypassing of untreated or partially treated wastewater is in the interest of protecting recreation, irrigation and domestic uses of the Sacramento River water.

#### Power Failure

The proposed treatment facility will be safe - guarded against bypassing untreated water to the Sacramento River in case of power failure during the recreation season. The pump station will house an emergency generator to power the pumping station, back wash pump and all other electrical requirements of the treatment facility.

#### Infiltration

Infiltration flow components currently add more than acceptable amounts of flow to the sewage treatment facility. Modifications to the existing collection system are currently being planned to replace old and broken lines and lines of inadequate capacity. The proposed modifications are expected to bring infiltration down to within acceptable levels.

### Plant Unit Maintenance and Repair

Provisions for maintenance and repair of the treatment facility will be provided for in a manner which will not necessitate bypassing of untreated wastewater to discharge.

The grit chamber shall consist of two separate channels, each capable of handling the entire flow while the second is shut-down for cleaning and repair.

In the event that it becomes necessary to shut-down one of the ponds for maintenance, flow will be diverted around the pond but will continue to receive the benefits of all other treatment elements.

The filter is necessarily designed as a dual system due to backflush requirements. This allows for repetitive periods of shut-down of each filter unit. Should maintenance or repairs exceed the operational time of the alternate filter, the secondary effluent will receive chlorination and be stored in the emergency storage capacity of the third pond awaiting normal treatment.

The pumping station will house two pumps which will operate individually or in parallel as determined by treated effluent flows. In the case of maintenance or repair of one of the pumps the opposite should operate as required with excess flows being contained in the third pond during the repair period.

There will be only one outfall line (force main) to the water reclamation site. Should this line fail, or should both pumps simultaneously fail, the third pond will afford 10 - 15 days storage capability while the

failure is located and repaired. Should repairs entail amounts of time in excess of what the third pond storage capability can provide, the effluent will be discharged to the river. It should be emphasized that the water entering the river however, will have received full treatment and be within the standards required for non-recreation season discharge.

#### Flood Protection

The proposed use of the existing treatment site provides the significant flood protection advantage inherent in the location of the ponds. Elevation data on the three ponds is as follows:

##### Pond No. 1

Bottom elevation:	3295.0 ft.
Water level:	3299.0 ft.
Berm elevation:	3302.0 ft.

##### Pond No. 2

Bottom elevation:	3280.0 ft.
Water level:	3284.5 ft.
Berm elevation:	3287.0 ft.

##### Pond No. 3

Bottom elevation:	3275.0 ft.
Water level:	3280.5 ft.
Berm elevation:	3282.0 ft.

The elevation of the Sacramento River adjacent to the ponds varies from 2925 feet down to 2905 feet. The resulting elevation difference between the river and the berm of the third pond is at least 350 feet.

The existing reservoir at the Box Canyon Dam site provides a buffer to prevent flood conditions downstream of the dam through controlled release of reservoir waters. The water level of the reservoir was recorded as 3181.5 on January 2, 1970. Flood waters would have to top the dam by well over 100 feet to reach the level of the third pond. It is not anticipated that this condition will ever occur.

During the recreation season treated water will be pumped from the pond site an additional 1100 feet in elevation to the water reclamation area. The discharge site elevation is approximately 4000 feet, which is considered adequate protection from flood conditions.

The local flood control agency is:

Siskiyou County Flood Control and  
Water Conservation District  
Yreka, California



Probable Adverse Environmental Effects Which Cannot Be Avoided

Construction Period Disruption

The pond holding time required for the secondary treatment requires that the depth of Ponds #1 and #2 be increased to 10 feet. The excavation required to deepen the ponds will result in the noise and dust associated with heavy construction equipment and probably with blasting, for it is anticipated that in some locations, rock will be encountered under the ponds. The blasting will be accomplished in small controlled increments and will be employed only to break up rock sufficiently to allow removal by standard excavation equipment. The isolated location of the ponds will assure that noise levels and blast over-pressures will diffuse to well within public safety standards prior to any impingement on public areas. Material excavated from the bottom of the first and second ponds will be used to build up the dikes of the ponds. A combination of increasing the berm elevations and deepening the pond floors will be utilized to accommodate the desired five foot increase in pond depth.

Also during the construction period, there will be unavoidable disruption of soil and vegetation with the placement of the new interceptor line to the treatment site, and the new force main and sub-surface water reclamation system.

The interceptor will basically follow the path of the line it is replacing. The discharge pump station and treatment facility developments will be in the area of the existing ponds on previously acquired and developed land.

The new force main will travel a course which is currently undetermined. Efforts are being made to route a significant portion of the new line along an abandoned portion of Old Route 89. The line would be located on an existing bench which parallels the new highway. The advantages of this route would include utilizing the existing grade and avoiding clearing and pioneering a new route through previously undisturbed vegetated areas. In addition, the route is generally down the bank and screened from the existing route 89 and would provide little disruption of normal traffic flow during construction. Of particular importance is the use of existing grades to cross Big Canyon, thus avoiding the necessity for a supportive trestle or siphon system to carry the line across the canyon.

The installation of the discharge lines will require unavoidable disruption of the soils at the water reclamation site. The topsoil will be removed to a depth of 6 to 8 inches and set aside separately to be replaced on top of the trench lines. The seeds generally present in this soil element will allow for the re-seeding of the disrupted areas with natural vegetative cover, and the re-establishment of cover

will provide for protection against erosional damage. Dust control will be implemented as stipulated in standards of the California State Division of Highways.

The proposed reclamation site is a portion of the Big Canyon Plantation, a reforestation area planted from 1963 to 1965. Brush had been cleared at that time to favor the 600,000 pine seedlings. The seedlings now are 8 to 10 feet tall, and a significant amount of brush has become re-established in the area. Trenching in the area will once again disrupt some of the competitive brush. Vegetative spoil will be chipped and spread in a manner which will not present a future fire hazard. No spoil will be burned.

Trenches will be placed to provide the best possible routing considering seedling location, slope contours and discharge line gradient requirements. It is possible that removal of some of the seedlings could result if no other compromise in line routing can be accommodated. Provisions for the replacement of removed seedlings have been discussed with the National Forest Service.

#### Incomplete Nitrogen Removal

The extent to which various soil mechanisms will work on either nitrates or remaining ammonia varies according to prevailing conditions. The rate and extent of chemical and microbial actions is dependent upon soil structure and mineral content, variations in moisture content and aeration, availability of essential nutrients and energy sources for the saprophytic micro-organisms, soil pH,

temperature, presence of toxic substances, concentrations of the bio-degradable substances, and method of delivery (flooding, sprinkling, subsurface, etc.).

It is felt safe to assume that the lengthy percolation (approximately 2 miles) through the predicted ground water course will effectively complete the reduction of all sewage elements except perhaps the nitrogen forms. It is impossible to accurately determine the actual disposition of the nitrogen without definition of the various variables throughout the entire recharge course. The degree of nitrogen survival in the recharging water will, therefore, not be determined prior to application of the effluent. In the absence of in-plant tertiary treatment, it is recognized that there may be higher concentration of nitrogen compounds (ammonia or nitrates) in the recharging water than in the receiving water.

## Alternatives to The Proposed Action

### Treatment Alternatives

The most obvious alternative method of increasing the capabilities of the existing stabilization ponds is that of expanding the ponds to handle future flows and to meet discharge requirements. As concluded in the following examination however, the use of stabilization ponds as the sole source of treatment for the anticipated future flows and discharge requirements proves to be impractical.

### Stabilization Ponds

Stabilization ponds have been used as a method of disposal of wastewater long enough so that adequate design criteria can be applied to many areas. When the ponds are properly designed and the area is suitable, they have proved to be a very effective means of disposal of wastewater.

Proper design, of course, is the foundation for successful operation of any system. There are many factors which have to be considered including loading, soil conditions and climatic conditions. If one or more conditions are not suitable, there is a strong likelihood that success will not be achieved.

These matters will be discussed, along with references to the existing stabilization ponds, to attempt to determine ponding effectiveness for a method of treatment, recognizing that only a system of non-overflowing (no discharge) ponds can meet the no discharge requirements of the Water Quality Control Board. If this system

is not possible, land disposal of the pond discharge must be evaluated in the light of a pond effluent quality and its potential of being successfully reclaimed on land.

Loading:

As has been previously determined by all studies which have been made in the past the present stabilization ponds are not able to successfully handle the required loading.

Briefly, to refer to Dr. W. J. Oswald's study, presented to the City of Mt. Shasta in 1968, the following facts are discussed.

Standard loading is recommended to be in the ratio of 1 acre per 100 persons served. (The same criteria has been established by the Ten-State Committee\*). Such a loading rate should result in a system where stabilization of the sewage would result but does not imply that no discharge conditions would result or that the quality of the discharge would meet current requirements. This produces a requirement for the present population of 23 surface acres and which when projected to the design population of 6,000, would require 60 surface acres.

On Page 20 of Dr. Oswald's report, under land requirements, he states that the quantity of land set aside for the ponds should be at least 20 percent greater than the active water surface. This means that with a design population of 6,000, the minimum land area required would be 75 acres. Most sources use a figure of 33 percent which would bring this figure to 80 required acres.

\* The Committee on Development of Uniform Standards for Sewage Works

The surface area of the existing ponds totals 15.8 acres and the area of the entire treatment site is limited to the extent of the parcel allocated for treatment purposes, approximately 20 acres.

Soil Conditions:

Soil conditions is a rather broad aspect including the slope of the land, ground water, permeability, ground cover, and other related factors.

Slope of land must be considered as must the general topography of the area. It is obvious that to construct ponds a fairly level area would be desirable. The land surrounding the existing ponds tends to slope away at unfavorable rates, especially to the south and west as the terrain drops off into the walls of the Sacramento River Canyon. It is only possible to construct ponds on steep hillside locations if cost is disregarded but cost cannot be disregarded as a factor. Terracing of ponds is very expensive and since it is desirable to have a gravity flow system it would require an elaborate pond arrangement. Therefore, it would be necessary to look for an area of adequate size where ponds of the proper areas could easily be built and could maintain flow from one to another in series by gravity. Such an approach would be limited by the expenses of land acquisition and pond construction, could still require land disposal of pond overflow, and would not take advantage of the availability of the existing ponds.

Existing ground water conditions must be considered. It is undesirable to locate the ponds in a swamp or springs area or where the existing underground flow may become contaminated or degraded by percolation from the system.

Percolation of a part of the waste water from the ponds is an important phase of disposal of the treated water. With non-overflowing ponds there are only two disposal methods, percolation and evaporation. Percolation of course, depends upon the capability of the soil to absorb and drain away the liquid without the soil becoming overloaded and to drain this liquid at a rate which will produce an adequate treatment before the liquid reaches underground water supplies or surface watercourses.

High ground water conditions in the area of the present collection system and the existing ponds has proven to be a problem in the past. The original site borings associated with the pond design and construction show that water was encountered at 3 feet below ground level just above Pond No. 1, which in turn was 10 feet above the proposed pond floor. Observations of heavy water flows issuing into Ponds 1 and 2 have been made by City and County personnel.



The percolation here is affected by the previously mentioned infiltration. It is certain that if an area is already saturated, we cannot hope to dispose of more liquids there. Following is an excerpt from a Soil Survey of the existing ponds by the U. S. Soil Conservation Service, made in 1972 which refers to these conditions.

"The purpose of the pond in the waste water disposal system is to filter the water by percolating it through the earth underlying the pond."

"The purpose of the (our) excavations was to determine, if possible, why water percolation through the pond floor decreases in a short time. The pond became incapable of percolating the volume of water for which it was designed."

"The pond was constructed in glacial till, deposited by alpine glaciers from Mt. Shasta. The soils that developed in the till are moderately permeable and are 20 to 50 inches deep over consolidated layers. The consolidated layers are similar to a hardpan (duripan cemented by iron and silica compounds), or tuff-like soft rock. The cementation of this material is weak to moderate in strength and includes sand, silt, clay and imbedded fragments of rock ranging in size from fine gravel to large boulders of andesite or basalt."

"The excavations show that the soil material was removed when the pond was constructed and most of it was used to construct a compacted pond embankment. The floor of the pond is the cemented till."

"The surface few inches of the cemented layer is laminar, breaking along horizontal planes into fragments about two to three inches thick. Below the laminar layers the material is essentially massive with a few near vertical, fractures. Water is able to wet the entire mass of the cemented layers, which are several feet thick. Transmissal (sic) of the water, however, is very slow except along the horizontal and vertical fracture seams. The seams are filling with translocated silt and clay particles and possibly organic and inorganic compounds from the sewage effluent. The filling of the seams with this material is reducing the water permeability of the cemented layers."

"When the pond was constructed, about four years ago, the cemented layer was ripped mechanically, to depths of 20 to 30 inches, at intervals of about four feet. The ripping was parallel in an east to west and west to east direction across the floor of the pond. Examination of the excavations showed the ripping has little lateral effect on the cemented layer. The layer was fractured only six to eight inches on each side of the ripper blade. There was no evidence of the fractured material reconsolidating."

"The rapidly decreased rate of water percolation through the pond floor is caused mainly by the inherent very slow permeability of the cemented layers of till. These layers are very thick and once they are thoroughly wet, their permeability is decreased. There is also translocation of silt and clay particles which are carried by the percolating waters into the seams and cracks and deposited. This further reduces the permeability. Rapid weathering of the rock fragments and some of the minerals in the cemented layers is also taking place and producing silt and clay. Weathering also produces chemicals which may react with the chemicals in the water to form other compounds that may produce a further reduction in permeability. In time the pond floor will become essentially impermeable and useless for leaching sewage effluent."

This indicates that the area underlying the existing ponds is not desirable for this treatment and another location would have to be found.

It must therefore be concluded that in the existing treatment area, normally functioning stabilization ponds are not feasible.

Evaporation is the second method of disposing of the wastewater. The net evaporation obtained from figures established by the U. S. Weather Bureau is 33.8 inches per year. Using this rate we would expect to lose the following:

$$\frac{33.8 \times 325,850 \text{ gallons/acre foot}}{12} = 917.811 \text{ gallons/acre/year}$$

This would result in an amazingly large number of acres required considering a design requirement of 1.2 million gallons per day.

$$\frac{1,200,000 \times 365}{917,811} = 477 \text{ acres surface area}$$

$$\text{Surface area} \times 1.33 = 634 \text{ land acres required}$$

It should also be noted that reliance on evaporation for disposal is contrary to the Grant Program Guidelines since it eliminates the recharge of ground water resources within the area.

Examination of the foregoing data leads to three conclusions:

- 1) The existing stabilization ponds cannot, by themselves, properly meet the needs of the area,
- 2) Use of stabilization ponds alone as a method of waste water treatment for the City of Mt. Shasta is not feasible and if undertaken, would result in the necessity of acquiring a completely different site which is not practical, and
- 3) Land disposal is a necessity since a no-discharge condition is not a practical reality.

It is therefore recommended that stabilization ponds alone not be used but rather to combine the existing ponds with other processes which will result in the maximum utilization of the existing plant and provide the most economical and efficient method of waste water treatment under the present conditions.

### Unique Conditions

The unique conditions which must be met in the design of a treatment facility very sharply narrow the choice of treatment types available.

In the Mt. Shasta City Water Pollution Control Facility Study these requirements consist of the following:

- 1) Utilization of the existing treatment ponds as an integral part of the proposed treatment. Of course, this will require modifications of the existing facilities. Pre-treatment equipment such as a bar rack, grit chamber and comminutor would be required for any proposed concept.
- 2) Ease and convenience in winterizing portions of the system which may be removed from service at such times when river discharge is permitted.
- 3) Flexibility of operation within the treatment system to provide efficient operations under conditions of variation in flow.
- 4) A system which can operate through wide ranges of climatic conditions, capable of accommodating the low temperatures and heavy snowfall of the area.
- 5) Provision for a discharge which will be compatible with the ecological balances of the area.
- 6) Provision for an emergency power source for the facility.

7) Provision of a system which will be adequate to accomplish the aforementioned objectives while providing for a minimum of required maintenance and obtaining this by the most economical method.

8) Provisions for development and addition of future areas which may be served.

#### Alternate Treatments

There are many different types of systems of sewage treatment and several of these systems could be adapted to obtain the necessary results desired here. However, after examining the unique considerations it appears that utilization of the existing facilities with modifications is by far the most economical and efficient way to achieve these results. Detailed discussion of the proposed method is included in the "Recommended Project" portion of this report.

Among the many treatment processes which were considered were activated sludge, modified activated sludge, trickling filters, oxidation ditch, moving bed filters, extended oxidation, chemical treatment, and combinations of these processes. These concepts generally entail new facility installations and do not take advantage of the existence of current treatment facilities.

Use of available land area and continual usage of the existing facilities was primary among our considerations. Also, there are no available areas appropriate for disposing of large or even moderate

amounts of sludge which would result from some of these treatment methods. For this reason it is desirable to utilize a system which could generally reduce sludge resulting from its operation within its own limits.

For ease of maintenance a gravity flow method is considered desirable throughout the treatment facility. This not only will reduce costs by eliminating additional pumping costs but will utilize the existing system.

#### Conclusion

The selected recommendation for obtaining the required results after consideration of the conditions unique to this study, is the continued use of the existing ponds with the addition of a controlled aeration system, primary screening and grit removal prior to the ponding, and filtration following the ponding. The combined effect will be capable of meeting the treatment requirements and in addition, offers the following advantages.

- a) Utilization of the existing treatment ponds, current line routings and gravity flow operations.
- b) Maintaining treatment operations in the current desirable location on property already allocated for that use.
- c) Utilization of existing supportive functions, such as roads, power lines, fencing, etc.
- d) No disposal requirements for sludge.

- e) Control of pond odor by providing adequate oxygen to allow for non-septic (aerobic) digestion of suspended material in wastewater.
- f) Use of controlled aeration to eliminate requirements for additional land area acquisition for stabilization ponding.
- g) Flexibility in operation to provide efficient operation for the variations in daily flows.
- h) Full operational capability in winter under conditions of severe cold and snow loading.
- i) Emergency storage capability during periods of maintenance or failure.
- j) Provisions for maintenance and repair in a manner which will not necessitate bypassing of untreated water to discharge.
- k) Flood protection inherent in the location of the existing ponds.
- l) Minimum sensitivity to changes in population or inflow loading.
- m) Ease of expansion to accommodate increased flows as additional areas are included in the total service area.

#### Water Reclamation Method Alternatives

Perhaps the most important aspect of the required improvements is the necessity for curtailing all direct discharge into the Sacramento

River during the recreation season. This treated water must be delt with and eventually returned to the natural water environment.

The three major alternatives for the ultimate reclaiming of treated water are as follows:

- a) Terminal Ponding - Ponding that completely offsets in-flow by equivalent total rates of evaporation and percolation.
- b) Direct reusage, such as irrigation or direct return to a flow or body of water.
- c) Indirect reusage which allows for the spreading of the treated water over adequate land area to allow for percolation into the soil and eventual recharge of ground water or return to surface water through springs.

Terminal ponding is not possible for the existing facilities as evidenced by current operations in which the third pond overflows at a rate of approximately 0.3 MGD into the Sacramento River. Expansion of the current pond area has been considered. The current pond area of 15.8 acres would have to be increased to 60 acres to provide for a loading of 100 population served per acre of stabilization ponding. This minimum area would be required to achieve the complete disposal of the treated water by evaporation and percolation, assuming favorable soil and climate conditions. This alternative has been



discounted for the Mt. Shasta facility. Evaluation of the terminal ponding concept is included in the discussion of stabilization ponds in the "Stabilization Ponds" portion of this "Alternative" section.

Direct reuse of the effluent from the treatment facilities is primarily based upon water need. In some locations reuse of water is needed for a potable water supply. In this area that is not necessary. Neither is there a demand for water for irrigation at this location. The only possible direct use of the reclaimed wastewater would be for immediate delivery to water recreational facilities.

The most practical location for such discharge of the reclaimed water in the area would be the Box Canyon Reservoir. The effluent could be pumped to the Cold Creek Arm of the reservoir and then dispersed to the lake. This would in turn, intermingle in the reservoir and be diluted by waters from the Sacramento and Scott Camp Creek Arms.

Various projects have proven the feasibility of reuse of reclaimed wastewater. However, they are in areas where a need for the water exists. In the Mt. Shasta area there is an abundance of existing water supply. In addition, the concept of reuse of wastewater is still in the experimental stage and would require considerable time and effort put forth in study. The need for a new

treatment and disposal area at this location is now. In the interests of immediate action and also economy, for the studies would be costly and might prove to be unusable, and recognizing current regulations regarding return of effluent directly to surface waters, it is not considered desirable to utilize such concepts for the Mt. Shasta area.

Indirect reuse of treated water involves the return of water to natural water systems by means of distribution over land areas. It is felt that reclamation of water by land discharge will allow for the continued treatment of the water by natural purification functions such as mechanical filtration, chemical oxidation and immobilization and biological degradation.

#### Short-Term Use Versus Long-Term Productivity

The use of the environment, as cited in this report, is an investment in the long-term productivity of the environment. The proposed actions will help insure:

- 1) The future use of the Sacramento River as a source for downstream domestic and irrigation water,
- 2) The future use of the Sacramento flow as a source for safe recreational water, and

3) The preservation of the existing ecological balances of the river environment.

Short-term impact centers mainly around modifications on previously acquired land and existing facilities. The deepening of the aeration ponds and the burying of the force main and new discharge lines on undeveloped and vegetative land, the major short-term impacts, are countered by the decreased discharge into the river and the increase in ground water recharge during the warm months of the year.

The "no-action" alternative would result in continued year-round discharge of the stabilization pond effluent into the Sacramento River. Future increases in the area population would consistently increase loading and decrease the "holding time" capability of the existing ponds, thus increasing the pollution effects of the effluent.

The selected method of water reclamation provides for a significant reduction in current adverse environmental impact.

#### Irreversible and Irretrievable Commitments of Resources

There will be no extraction or consumption of organic or mineral resources other than construction materials and supplies. There will be no reduction of watershed, no threat to rare or endangered species and no significant alterations in land use or appearance.

The major irreversible commitments will be in the installation of the new interceptor, pump station, and water reclamation system whose future removal would be unlikely, although not impossible.

Following recovery from the construction period land use will be effectively unaltered.

The involvement of land use considerations and planning to assure the protection of the Big Canyon Plantation as an existing resource is demonstrated in the selection of the method of reclaiming the water. This selection process is detailed in the section of this report entitled "Mitigation Measures Proposed to Minimize the Impact".

#### Objections to The Project and Their Resolution

It is anticipated that a public hearing will be scheduled during the period following October 1, 1972. This hearing will follow the submittal of the Project Report and the Environmental Impact Statement to the City of Mt. Shasta and the State Water Quality Control Board. At that time all interested parties will be free to comment on the proposal following review of the proposal documents. Any objections to the proposal will be considered at that time and their resolution will be documented.

## FitzGerald, Shannon

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**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Monday, October 05, 2015 3:20 PM  
**To:** FitzGerald, Shannon  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description  
**Attachments:** SHPO letter DRAFT 10-5-15\_complete.pdf; SHPO letter DRAFT 10-5-15.docx

Hi Shannon,

Please see attached for the revised SHPO consultation letter. A word file containing just the letter without the attachments is attached as well. If all looks good, we'll apply the same changes to the THPO consultation letters, as appropriate.

Thanks,  
Lindsay

☐  
Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

**Wildfire Viewer:** [wv.enplan.com](http://wv.enplan.com)  
*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [mailto:SFitzGerald@eda.gov]  
**Sent:** Wednesday, September 30, 2015 5:05 PM  
**To:** Lindsay Kantor <lkantor@enplan.com>  
**Cc:** Good, Stan <SGood@eda.gov>; Paul Eckert (eckert@ci.mt-shasta.ca.us) <eckert@ci.mt-shasta.ca.us>  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Lindsay,

Thanks on waiting to send out the National Historic Preservation Act Section 106 consultation letters to the SHPO and THPOs until I was out of training and had a chance to look at them. Today I spoke with Tristan Tozer in the SHPO's office. Tristan agrees that EDA's consultation letters (EDA has delegated authority to the City to consult on its behalf) should be limited to the undertaking funded by EDA which is the new filtration and UV disinfection facility. In the future, as other federal agencies fund other parts of the overall project, they can consult on their specific undertakings.

So please revise the letter and the Area of Potential Effect map to include just the EDA-funded filtration and UV disinfection.

Also, please send each Tribal entity their own consultation letter and please send us the responses. If a Tribe requests to consult directly with EDA, then we will do that.

Thanks again, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** Lindsay Kantor [<mailto:lkantor@enplan.com>]  
**Sent:** Monday, September 28, 2015 4:10 PM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Thanks, Shannon. We can talk about this after Wednesday, but I did want to comment that the scope of work contained in the draft SHPO and THPO letters should be current.

To better explain my e-mail below: while the work scope for the purpose of EDA funds is limited to the UV and filtration facilities, for the purpose of SHPO/THPO consultation, the work scope entails the entire project site/all improvements as a whole (new treatment facility, access road, *plus* the filtration, UV facilities, etc.), which is what the letters include. This is because the entire project site/all improvements were treated together for archaeological review, and SHPO consultation/concurrence will be needed later on down the road as USDA Rural Development Rural Development, and other federal agencies will likely provide further funding for the remaining improvements. Thus, the letters request that SHPO/THPO review the entire project site/all improvements as a whole.

Hopefully that clears things up in the interim, and if we need to better clarify the above in the SHPO and THPO letters, it's no problem. Talk to you soon.

Thanks,  
Lindsay

✉  
Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

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*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Monday, September 28, 2015 3:46 PM  
**To:** Lindsay Kantor <[lkantor@enplan.com](mailto:lkantor@enplan.com)>

**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Lindsay,

Thanks for sending the drafts of the consultation letters. I was out sick and am in office-wide training today and tomorrow. The draft letters appear to contain an old scope of work which has been modified. Before you send anything out, let me check with Stan Good, the engineer on the project, to confirm that the scope has been changed. We will get back to you with comments—definitely by Wednesday if not sooner.

Thanks again, Shannon 206-220-7703

**From:** Lindsay Kantor [<mailto:lkantor@enplan.com>]  
**Sent:** Monday, September 28, 2015 10:07 AM  
**To:** FitzGerald, Shannon  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Shannon,

Attached are draft SHPO and THPO letters for the Mt. Shasta Wastewater Treatment Plant project. Do have time to take a look at the letters before we finalize them with the City and send out to the respective parties?

Both of the letters will have two figures and the cultural report enclosed (see attached).

Also, as you may remember the SHPO/THPO consultation/concurrence will be requested for *all* of the potential improvements at the wastewater treatment plant, not just the EDA-funded filtration and disinfection improvements, as USDA Rural Development will also be funding a portion of the improvements. The letters indicate this.

Thanks for your help!  
Lindsay



Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

**Wildfire Viewer:** [wv.enplan.com](http://wv.enplan.com)  
*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Thursday, September 03, 2015 4:30 PM  
**To:** Lindsay Kantor <[lkantor@enplan.com](mailto:lkantor@enplan.com)>  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Lindsay,

Here is a template of the letter that the City will need to send to the State Historic Preservation Officer (SHPO) on EDA's behalf. We need to get their concurrence on the determination of the effects of the project on any cultural resources that may be present at the site before any restoration to the buildings is done. If the wastewater treatment plant is older than 45 year, then it would not qualify as a historic property. We could then make the determination that there are no historic properties at the project site. But I will defer to the determination that the consulting archaeologist made in their report. The SHPO's contact information is:

Julianne Polanco  
State Historic Preservation Officer  
California Office of Historic Preservation  
1725 23<sup>rd</sup> Street, Suite 100  
Sacramento, CA 95816

If you need assistance at the SHPO's office, Tristan Tozer is the staff person that we work with. His number is 916-445-7027 and his email address is [ttozer@parks.ca.gov](mailto:ttozer@parks.ca.gov).

I've also included the template of the letter that will need to be sent to Tribe identified on the Native American Heritage Commission's (NAHC) Native American Contact List. The letter will need to go to both the Tribal leader (it could be a chairperson or president) and the Tribal Historic Preservation Officer (or cultural resources director if there isn't a federally recognized THPO). I'd be glad to review a draft of the letter to the SHPO and one of the letters to the Tribes. In addition to requesting a Native American Contact List, also ask the NAHC for a Sacred Lands File Search. They use to have a website that you could submit a request electronically, but one of our grantees said that that no longer worked. The NAHC contact information is:

Native American Heritage Commission  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
Phone: 916-373-3710  
Fax: 916-373-5471  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

It sounds like the consulting archaeologist contacted the Northeast Information Center in Chico for cultural resources information. That would be good to emphasize that in the letter to the SHPO if it is not identified in the cultural resources report that was produced. If for some reason, you need to contact them, the coordinator is Antoinette Martinez at 530-898-6256.

If you have any questions, you can also contact me. Thanks for doing this, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Ave., Room 1890  
Seattle, WA 98174  
phone: 206-220-7703  
fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** Lindsay Kantor [<mailto:lkantor@enplan.com>]  
**Sent:** Thursday, September 03, 2015 10:54 AM  
**To:** FitzGerald, Shannon  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description



Hi Shannon,

I realized after we spoke about SHPO consultation the other day that I didn't provide you with my e-mail address and you likely didn't have it.

Thanks,  
Lindsay



Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

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*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Monday, August 24, 2015 6:13 PM  
**To:** Paul Eckert ([eckert@ci.mt-shasta.ca.us](mailto:eckert@ci.mt-shasta.ca.us)); Paul Reuter  
**Cc:** Rod Bryan ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)); Muriel Howarth Terrell ([MTerrell@mtshastaca.gov](mailto:MTerrell@mtshastaca.gov)); Matson, Malinda  
**Subject:** RE: EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hi Paul and Paul,

We received the information. Thanks. What Stan and I need before we can amend the scope of work is an Environmental Narrative, Applicant Certification Clause and Engineering Report filled out for the proposed wastewater treatment plant project. I've attached all three templates.

Thanks in advance for getting those to us. -Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue; Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** Paul Reuter [<mailto:preuter@paceengineering.us>]  
**Sent:** Thursday, August 20, 2015 3:10 PM  
**To:** Good, Stan; FitzGerald, Shannon  
**Cc:** Paul Eckert ([Eckert@mtshastaca.gov](mailto:Eckert@mtshastaca.gov)); Rod Bryan ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)); Muriel Howarth Terrell ([MTerrell@mtshastaca.gov](mailto:MTerrell@mtshastaca.gov))  
**Subject:** EDA-Funded Wastewater Treatment Plan Improvements - Project Description

Hello Shannon and Stan,

Attached is a project description for the EDA-Funded WWTP Improvements for the City of Mt. Shasta. It includes a project cost estimate, schedule and figures showing proposed improvements. Feel free to contact me if you have questions or desire additional information. Thank you.

**Paul J. Reuter, P.E.** Ph: 530-244-0202

**Managing Engineer**  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)

City Letterhead

October 5, 2015

Julianne Polanco  
State Historic Preservation Officer  
725 23rd Street, Suite 100  
Sacramento, CA 95816

RE: National Historic Preservation Act Section 106 consultation/request for concurrence of no effect determination for proposed EDA grant assistance to construct the EDA-Funded Filtration and Disinfection Improvements Project, Mt. Shasta, California.

Dear Julianne Polanco:

The City of Mt. Shasta has made an application for grant funding to the U.S. Department of Commerce, Economic Development Administration (EDA), to construct filtration and disinfection improvements at the Mt. Shasta Wastewater Treatment Plant (WWTP). This work constitutes a portion of that necessary to comply with Central Valley Regional Water Quality Control Board requirements for wastewater discharge, and to increase the capacity of the treatment facility to meet future demand. Under 36 CFR §800.2(c)(4), EDA is delegating authority to the City of Mt. Shasta to consult with you on the behalf of EDA regarding the filtration and disinfection improvements. Because federal funding will be requested for the remaining improvements, subsequent consultation with SHPO will be needed to address the other improvements once specific funding agencies are identified.

The enclosed Cultural Report Inventory entails archaeological review for the filtration and UV disinfection improvements that will be funded by EDA, as well as for all other anticipated future improvements that may be constructed at the WWTP. Improvements at the WWTP will occur as three separate but related actions due to restrictions associated with grant funding deadlines, a National Pollutant Discharge Elimination System (NPDES) permit deadline to meet effluent standards, and lastly, potential wastewater needs of a future industrial user, Crystal Geysers.

The three separate but related actions are as follows:

- 1) the project to be funded solely by EDA, which features new filtration and UV disinfection facilities and a pipeline that would connect the new facilities to the existing facilities;
- 2) improvements to the treatment facility and outfall, including improvements to the outfall pipeline and headworks, and an increase in treatment capacity to meet the City's projected population growth; and
- 3) a greater increase in capacity for an anticipated wastewater contribution from Crystal Geysers. The third action would come to fruition following separate environmental review and approval for connection of Crystal Geysers to the City's wastewater system and receipt of financial assurance from Crystal Geysers that they would cover the cost of the expansion.

## **BACKGROUND**

The WWTP is located at the southern terminus of Grant Road, just south of the City limits and west of Interstate 5, in a semi-rural area of Siskiyou County, California (Figure 1). The WWTP is upslope of the Sacramento River, east of Lake Siskiyou, and just south of the Mount Shasta Resort Golf Course. Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades

in the past several years. The current treatment methodology involves processing influent through a series of six lagoons followed by clarification, filtration, and disinfection. For clarification and filtration, the lagoon effluent is pumped to a dissolved air flotation thickener that polishes and clarifies water prior to filtration. Polished water flows into a rapid sand filtration system to remove suspended solids. Filtered effluent is then disinfected with gaseous chlorine before being discharged offsite.

## **PROJECT DESCRIPTION**

The City of Mt. Shasta is proposing to use EDA funding to construct new filtration and disinfection facilities on a ±0.2-acre site just southwest of its existing operations building, within the footprint of the abandoned intermittent sand filters (see Figure 2). The new facilities would be housed in a single enclosed building, which would serve to reduce exposure to the environment and minimize the potential for algal growth. In addition, approximately 540 feet of new piping would be constructed to connect the new facilities with the existing dissolved air flotation thickener pump station to the north and the existing effluent pipeline to the south.

The filtration and disinfection facilities would be constructed over a period of approximately 12 months. Construction equipment would likely include a compactor, excavator, dozer, backhoe, loader, dump truck, and grader. The construction staging area would be located entirely within the existing footprint of the WWTP. Total land disturbance would be approximately one acre.

The Area of Potential Effect (APE) for the EDA-funded improvements is the project boundary as delineated in Figure 2. The horizontal APE for the treatment facility improvements measures approximately 136 feet east-west and approximately 431 feet north-south.

The vertical APE of the project is related to the proposed excavations associated with the project. The maximum depth of excavation would be 15 feet and would be reached for the installation of the new filtration and disinfection facilities in the footprint of the existing intermittent sand filter beds. However, this area has been previously disturbed down to a depth of about 11 feet.

### **Ground-Disturbing Activities**

The proposed EDA-funded improvements would include the following specific ground-disturbing activities:

- Construction of new filtration and disinfection facilities.
- Trenching to install approximately 540 linear feet of new piping, which would connect the new facilities with the existing dissolved air flotation thickener pump station to the north and the existing effluent pipeline to the south. Trench excavations would be up to approximately 4.5 feet deep.

## **SECTION 106 COMPLIANCE**

In accordance with 36 CFR §800, the City of Mt. Shasta is initiating the Section 106 consultation process on behalf of EDA and requests concurrence of a no effect determination of the project on any cultural resources.

Survey findings included one prehistoric isolate in or immediately adjacent to the APE for the EDA-funded facilities, and one historic period refuse scatter (CA-SIS-5258H) on the access road leading to the Sacramento River outfall site; the refuse scatter is outside the APE for the EDA-funded facilities. Neither of these findings qualify as significant under Section 106, in terms of eligibility for listing in the National Register of Historic Places. The enclosed Cultural Resources Inventory documents the City of Mt.

Shasta's effort to identify and evaluate historic properties pursuant to 36 CFR §800.4, and includes the following:

- Evidence that all interested parties were consulted pursuant to 36 CFR §800.4(a) (3)-(4);
- Documentation of efforts to identify and evaluate historic properties; and
- An assessment of the undertaking's potential to affect historic properties pursuant to 36 CFR §800.4(d) or 36 CFR §800.5.

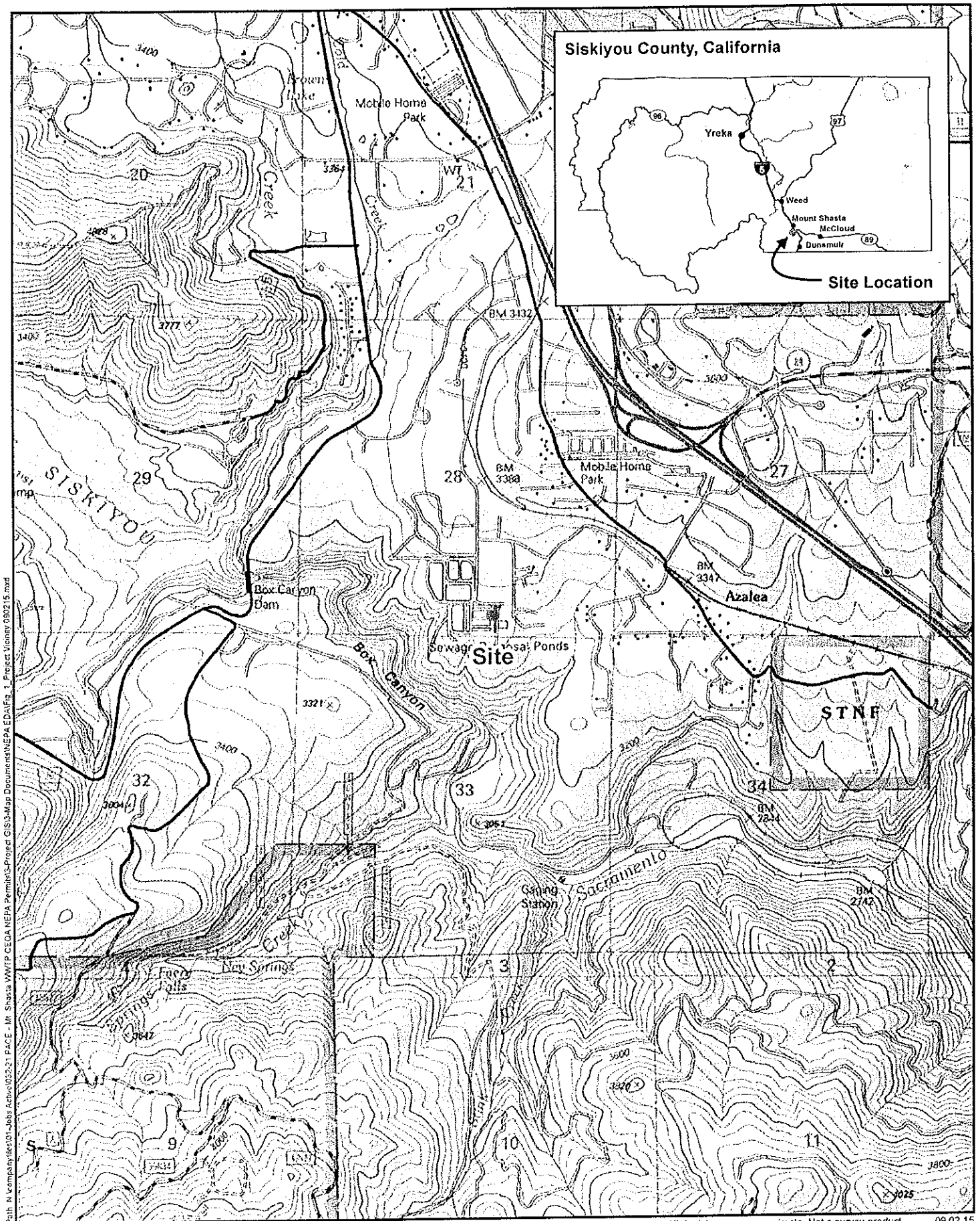
We ask for your concurrence on these findings and determination. If further information is required, please contact me at 530-926-7526 or rbryan@mtshastaca.gov, or contact our consulting archaeologist, Heidi Shaw, at 530-221-0440.

Sincerely,

Rod Bryan  
Public Works Director

Enclosures:  
Figure 1 Project Vicinity  
Figure 2 Area of Potential Effects  
Cultural Resources Inventory

Copy to: Shannon FitzGerald, EDA Environmental Officer



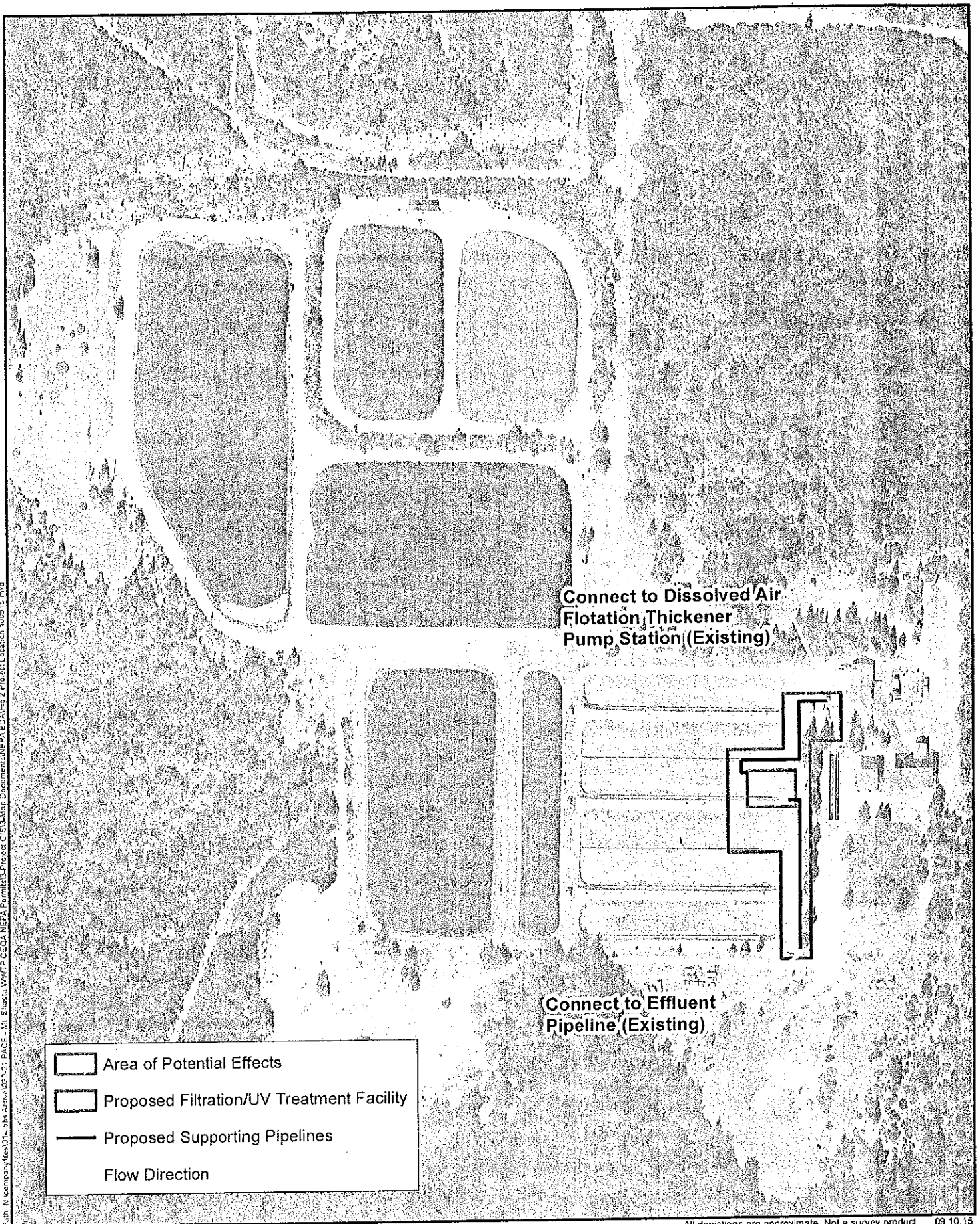
Path: R:\company\101-Jobs\Ache\03221\FACE - Mt. Shasta\WVTP\CEDA\NEPA\Permits\Project\GIS\Map Documents\NEPA\ED\Fig. 1 - Project Vicinity 090215.mxd

Figure 1  
Project Vicinity

All depictions are approximate. Not a survey product. 09.02.15



Path: H:\emscap\fig01\sub\Act\w\03\3.1\_PACE...1st\_Sheet\1\WVTP\_CEOA\_NEPA\_Permit\3\_Prop\GIS\Map\_Documents\NEPA\_EDA\Fig 2\_Potential\_Effects.mxd



All depictions are approximate. Not a survey product. 09.10.15



0 Feet 200

Figure 2  
Area of Potential Effects

ENPLAN

## FitzGerald, Shannon

---

**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Tuesday, October 06, 2015 11:49 AM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan; Paul Eckert (eckert@ci.mt-shasta.ca.us); Rod Bryan (RBryan@mtshastaca.gov) (RBryan@mtshastaca.gov); Paul Reuter (preuter@paceengineering.us); Don Burk  
**Subject:** RE: Mt. Shasta SHPO consultation letter

Thanks, Shannon. Sounds good.

Lindsay



Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

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*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Tuesday, October 06, 2015 11:01 AM  
**To:** Lindsay Kantor <[lkantor@enplan.com](mailto:lkantor@enplan.com)>  
**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>; Paul Eckert ([eckert@ci.mt-shasta.ca.us](mailto:eckert@ci.mt-shasta.ca.us)) <[eckert@ci.mt-shasta.ca.us](mailto:eckert@ci.mt-shasta.ca.us)>; Rod Bryan ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)) ([RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)) <[RBryan@mtshastaca.gov](mailto:RBryan@mtshastaca.gov)>; Paul Reuter ([preuter@paceengineering.us](mailto:preuter@paceengineering.us)) <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)>  
**Subject:** Mt. Shasta SHPO consultation letter

Hi All,

I really appreciate the work that folks have contributed to drafting consultation letter to the SHPO. I started marking it up to focus the letter on the EDA-funded project and it got pretty messy. Also, the determination of effect in the draft letter did not match the determination of effect in the Cultural Resources Inventory. So what I will do is use parts of the draft letter and EDA will consult directly with the SHPO. So there is no need for the City to send a letter to the SHPO.

In the Cultural Resources Inventory there are letters to the Tribes and two responses. So we do not need to send another consultation letter to the Tribes. However, if there is an inadvertent discovery during construction, we will stop work in the immediate vicinity of the find and contact the Tribes and the SHPO.

Thanks for providing the information for the letter. Shannon

Shannon FitzGerald



Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Wednesday, October 07, 2015 4:32 PM  
**To:** Good, Stan  
**Subject:** Mt. Shasta question

Hi Stan,

I'm almost done with the Mt. Shasta amended EA. Can you ask the City's engineer how much area will be disturbed by the pipe segments and the filtration and UV disinfection facilities? I read through the preliminary engineering report but they didn't mention it. If it is less than an acre then we can drop the NPDES stormwater permit special condition.

As an aside: the engineering report states that section B.5 of the original application is attached, but actually A.1-A.3 is attached which describes the original project. ???

Thanks, Shannon

**FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Thursday, October 08, 2015 3:44 PM  
**To:** Good, Stan  
**Subject:** Mt. Shasta engineering memo

Hi Stan,

I should have caught your earlier. When I provide the amended EA to Len for his review, I'll need the engineer's memo from you to Kris. I know you provided me with language regarding the amended SOW for the amended EA, but did you provide me with the engineering memo? Did I misplace it already?

Thanks, Shannon

## FitzGerald, Shannon

---

**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Tuesday, October 13, 2015 3:51 PM  
**To:** FitzGerald, Shannon  
**Subject:** RE: Mt. Shasta WWTP Public Notice

Sounds good. Thanks, Shannon!

Lindsay

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Tuesday, October 13, 2015 3:43 PM  
**To:** Lindsay Kantor <lkantor@enplan.com>  
**Subject:** RE: Mt. Shasta WWTP Public Notice

Hi Lindsay,

Thanks for the update. 40 CFR §1506.6 states that agencies shall make diligent efforts to involve the public in preparing and implementing their NEPA procedures. So EDA will go ahead and publish a public notice in the newspaper. I'll keep you in the loop on when that will be.

Thanks again for all your help. --Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** Lindsay Kantor [<mailto:lkantor@enplan.com>]  
**Sent:** Tuesday, October 13, 2015 2:43 PM  
**To:** FitzGerald, Shannon  
**Subject:** Mt. Shasta WWTP Public Notice

Hi Shannon—Quick follow-up to our phone conversation. A public notice for the EDA-funded project may still be the right way to go, however, I failed to mention that Crystal Geyser announced last month that they will be preparing an EIR for expansion of their bottling facility. It's our hope that this decision will take most of the heat off of our CEQA document for the wastewater treatment plant. Wanted to make sure you got wind of local news... ☺

Thanks,  
Lindsay

  
Lindsay Kantor  
Environmental Planner

ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
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[www.enplan.com](http://www.enplan.com)

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*Parcel and record data for select counties.*

## FitzGerald, Shannon

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**From:** Paul Reuter <preuter@paceengineering.us>  
**Sent:** Tuesday, October 13, 2015 6:47 PM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan; Grant Maxwell  
**Subject:** Re: area?

Thanks Shannon.

I'm on vacation until the 27th, but I believe Rod Bryan is trying to provide the information needed. Grant Maxwell at PACE will be our point of contact until I get back on the 27th. Grant can provide any areas you need. I think Rod just needed clarification whether the area needs to include the EDA-funded portion of the work or the overall State-Mandated project.

Thanks.

Sent from my iPhone

On Oct 13, 2015, at 1:28 PM, FitzGerald, Shannon <[SFitzGerald@eda.gov](mailto:SFitzGerald@eda.gov)> wrote:

Hi Paul,

Can you provide us with the area that will be disturbed by the filtration and UV disinfection facilities, and the piping?

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## FitzGerald, Shannon

---

**From:** FitzGerald, Shannon  
**Sent:** Wednesday, October 14, 2015 10:06 AM  
**To:** Paul Eckert (eckert@ci.mt-shasta.ca.us)  
**Cc:** Good, Stan; 'bryan@ci.mt-shasta.ca.us'; Paul Reuter (preuter@paceengineering.us); Lindsay Kantor (lkantor@enplan.com)  
**Subject:** draft NEPA public notice for EDA scope amendment  
**Attachments:** Mt. Shasta NEPA Public Notice(2).docx

Hi Paul,

Before EDA finalized its Environmental Assessment for the original scope of work, we published a NEPA public notice. For the scope amendment, we will issue another NEPA public notice. Please fill in the attached public notice and publish it in a local newspaper (Mt. Shasta Herald) for three consecutive days. I vaguely recall that the Mt. Shasta Herald may be a weekly newspaper. If that is the case, you could also publish the public notice in a county-wide newspaper.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

*Publish this notice in the daily newspaper with the greatest local circulation for three (3) consecutive days. Provide an affidavit of publication to EDA upon publication.*

### **PUBLIC NOTICE**

The U.S. Department of Commerce, Economic Development Administration (EDA) is considering a request from the City of Mt. Shasta to amend the scope of work for an existing grant. The proposed scope of work would fund the construction of new filtration and ultraviolet (UV) disinfection facilities and associated piping at the Mt. Shasta Waste Water Treatment Plant (WWTP) in Siskiyou County, California. Pursuant to the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), EDA is conducting an assessment of the potential of the proposed project to affect the environment and/or historic properties.

Under the proposed project, filtration and UV disinfection facilities would be constructed at the Mt. Shasta WWTP on Grant Road to the southwest of the City of Mt. Shasta. The filtration and UV disinfection facilities would be located where abandoned intermittent sand filters currently exist. Project information is available for review at applicant's office, address and phone number.

If you have any information regarding potential impacts environmental resources or historic properties associated with this proposed project, please provide it in writing to:

Regional Environmental Officer  
US Department of Commerce  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
sfitzgerald@eda.gov

Comments received in the EDA Regional Office by 5:00 pm on insert date 15 days after the third day of publication of this notice. If the newspaper is not a daily, please contact the Regional Environmental Officer prior to publication to determine the deadline for comments will be considered. A copy of the NEPA/NHPA decisional document will be available upon request from the above EDA Regional Office.



**FitzGerald, Shannon**

---

**From:** Good, Stan  
**Sent:** Wednesday, October 14, 2015 1:54 PM  
**To:** FitzGerald, Shannon  
**Subject:** FW: Engineering Narrative  
**Attachments:** FIG1 - API.pdf

Shasta WWTP site

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!

**From:** Grant Maxwell [<mailto:gmaxwell@paceengineering.us>]  
**Sent:** Wednesday, October 14, 2015 11:11 AM  
**To:** Good, Stan; Rod Bryan  
**Cc:** Paul Eckert; Paul Reuter  
**Subject:** RE: Engineering Narrative

Stan

Please find the attached figure. Giving the site a generous buffer gives us an area of impact less than 0.8 acres.

Let me know if you have any questions.

Thanks

Grant Maxwell

---

PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[gmaxwell@paceengineering.us](mailto:gmaxwell@paceengineering.us)

Ph: 530-244-0202, Fax: 530-244-1978

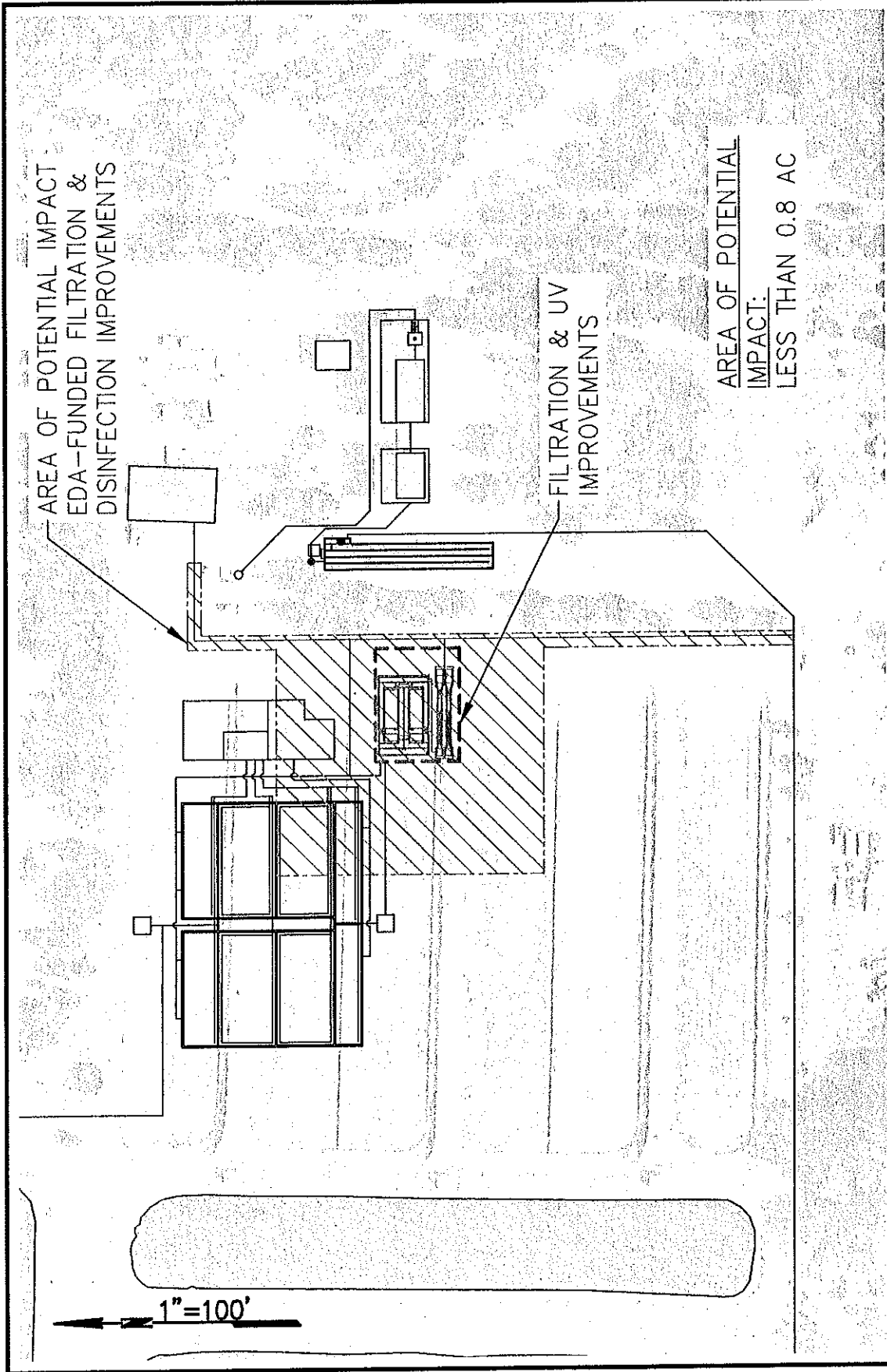


FIGURE 1  
DATE: 3/15  
JOB #111.44

CITY OF MT. SHASTA  
EDA-FUNDED FILTRATION & DISINFECTION  
IMPROVEMENTS PROJECT  
AREA OF POTENTIAL IMPACT



## FitzGerald, Shannon

---

**From:** Good, Stan  
**Sent:** Wednesday, October 14, 2015 2:32 PM  
**To:** FitzGerald, Shannon  
**Subject:** RE: Engineering Narrative

They said 0.8 acre.

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

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**From:** FitzGerald, Shannon  
**Sent:** Wednesday, October 14, 2015 2:09 PM  
**To:** Good, Stan  
**Subject:** RE: Engineering Narrative

It is less than an acre—one less special condition. Thanks.

**From:** Good, Stan  
**Sent:** Wednesday, October 14, 2015 1:54 PM  
**To:** FitzGerald, Shannon  
**Subject:** FW: Engineering Narrative

Shasta WWTP site

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!

**From:** Grant Maxwell [<mailto:gmaxwell@paceengineering.us>]  
**Sent:** Wednesday, October 14, 2015 11:11 AM  
**To:** Good, Stan; Rod Bryan  
**Cc:** Paul Eckert; Paul Reuter  
**Subject:** RE: Engineering Narrative

Stan.

Please find the attached figure. Giving the site a generous buffer gives us an area of impact less than 0.8 acres.

Let me know if you have any questions.

Thanks

Grant Maxwell

---

PACE Engineering, Inc.

1730 South St.

Redding, CA 96001

[gmaxwell@paceengineering.us](mailto:gmaxwell@paceengineering.us)

Ph: 530-244-0202, Fax: 530-244-1978

## FitzGerald, Shannon

---

**From:** FitzGerald, Shannon  
**Sent:** Thursday, October 15, 2015 2:17 PM  
**To:** 'Lindsay Kantor'  
**Subject:** RE: Cultural Resources Inventory

That would be great! That's the right address and you don't need to include my title. Thanks! Shannon

**From:** Lindsay Kantor [<mailto:lkantor@enplan.com>]  
**Sent:** Thursday, October 15, 2015 1:54 PM  
**To:** FitzGerald, Shannon  
**Subject:** RE: Cultural Resources Inventory

No problem. I can have it shipped to you by tomorrow at the latest. Is the below address appropriate to receive mail?

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174

Thanks,  
Lindsay

✉

Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

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*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Thursday, October 15, 2015 1:39 PM  
**To:** Lindsay Kantor <[lkantor@enplan.com](mailto:lkantor@enplan.com)>  
**Subject:** Cultural Resources Inventory

Hi Lindsay,

Could you send me a hardcopy of the Cultural Resources Inventory report? I have the electronic copy but I do not have access to a color printer and I now realize that the SHPO will want to see the color diagrams. Once I have the color hardcopy, I will bundle it with the consultation letter and send it off to the SHPO.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## FitzGerald, Shannon

---

**From:** Paul Eckert <eckert@mtshastaca.gov>  
**Sent:** Sunday, October 18, 2015 4:38 PM  
**To:** FitzGerald, Shannon; Good, Stan  
**Cc:** Paul Reuter (preuter@paceengineering.us); Rod Bryan; Muriel Howarth Terrell; Larisa Proulx  
**Subject:** FW: agenda and minutes of public meeting can substitute for public notice  
**Attachments:** cc01.26.15\_FINALnumbered.pdf; cc01.26.15\_MINUTES Approved.pdf

Greetings Shannon and Stan;

Please find attached the requested documentation. Thank you for your ongoing assistance.

Paul Eckert  
City Manager

**From:** Larisa Proulx  
**Sent:** Thursday, October 15, 2015 4:17 PM  
**To:** Paul Eckert <eckert@mtshastaca.gov>  
**Subject:** RE: agenda and minutes of public meeting can substitute for public notice

Is this what he is looking for?

The agenda packet and minutes are also posted on the City's website:

minutes: [http://ci.mt-shasta.ca.us/clerk/council/cc01.26.15\\_MINUTES\\_Aproved.pdf](http://ci.mt-shasta.ca.us/clerk/council/cc01.26.15_MINUTES_Aproved.pdf)

agenda packet: [http://ci.mt-shasta.ca.us/clerk/council/CC\\_09.28.15\\_AgendaPacket.pdf](http://ci.mt-shasta.ca.us/clerk/council/CC_09.28.15_AgendaPacket.pdf)

Larisa

**From:** Paul Eckert  
**Sent:** Thursday, October 15, 2015 8:31 AM  
**To:** Larisa Proulx <lproulx@mtshastaca.gov>  
**Cc:** Paul Reuter (preuter@paceengineering.us) <preuter@paceengineering.us>; Rod Bryan <rbryan@mtshastaca.gov>  
**Subject:** FW: agenda and minutes of public meeting can substitute for public notice

Hi Larisa,  
Can you please search for the information requested below when you have time.

Thank you!

Paul

**From:** FitzGerald, Shannon [mailto:SFitzGerald@eda.gov]  
**Sent:** Wednesday, October 14, 2015 2:18 PM  
**To:** Paul Eckert <eckert@mtshastaca.gov>  
**Cc:** Good, Stan <SGood@eda.gov>; Paul Reuter (preuter@paceengineering.us) <preuter@paceengineering.us>; Lindsay

Kantor ([lkantor@enplan.com](mailto:lkantor@enplan.com)) <[lkantor@enplan.com](mailto:lkantor@enplan.com)>

**Subject:** agenda and minutes of public meeting can substitute for public notice

Hi Paul,

I was just rereading the history of the project. It looks like there was a City Council public meeting on January 26, 2015 regarding the proposed amended scope of work. If you can send me the agenda and minutes for that meeting which document that the proposed project was discussed and it was a public meeting, then that can substitute in lieu of a public notice.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)



## Mt. Shasta City Council Regular City Council Meeting Agenda

Mt. Shasta Community Center, 629 Alder Street  
Monday, January 26, 2015; 5:30 p.m.

“Our mission is to maintain the character of our “small town” community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence.”

Page	Item	STANDING AGENDA ITEMS
	1.	Call to Order and Flag Salute
	2.	Roll call
	3.	Special Presentations & Announcements: Water Conservation- Meadow Fitton
	4.	City Council Interviews of Board/Commission /Commissioner Candidates:
P 5-7	a.	Melanie Findling – Planning Commission
P 9-10	b.	Lorie Saunders – Beautification Committee
P 11-14	c.	Alexis Meadows – Beautification Committee
P 15-18	d.	Leslie Holland – Beautification Committee
P 19-20	e.	Terez Maniatis – Beautification Committee
	5.	<p>Public Comment:</p> <p>Welcome to our City Council meeting. The Council invites the public to address the Council on matters on the Consent Agenda and matters not listed on the agenda that are within the Council's subject matter jurisdiction. If the Public wishes to comment on matters that are on the agenda, the Council will request comment when the matter is heard. The Council reserves the right to limit public comment on matters that are outside its subject matter jurisdiction.</p> <p>The City Council may regulate the total amount of time on particular issues and for speakers (typically 3 minutes). The Council may place additional time limits on comments, to ensure members of the public have an opportunity to speak and the Council is able to complete its business. A group may be asked to choose a spokesperson to address the Council on a subject matter, or the Council may limit the number of persons addressing the Council whenever a group of persons wishes to address the council on the same subject matter. Speakers may not cede their time to another.</p> <p>The Mayor manages the City Council meeting with a commitment to effective engagement while maintaining a positive, respectful decorum. The Mayor will typically start the Public Comment period sharing the following reminders relating decorum and Brown Act compliance efforts:</p> <ul style="list-style-type: none"> <li>✓ This is the time for the public to address the Council on matters on the Consent Agenda or matters NOT on the Council Agenda. This will be a comment period only. If the public wishes a response they may provide their contact information to the Deputy City Clerk.</li> <li>✓ The Mayor will recognize each speaker in an orderly fashion. Most often, the Mayor will call the speakers whom have signed in first and shall then call for those who would like to address the Council but whom did not sign in by inviting them to come to the front of the room and wait to be recognized to speak. Once the speaker is recognized, the speaker will address the Council only and shall provide comment from the public microphone. Public Comment will typically not be taken from any</li> </ul>

	<ul style="list-style-type: none"> <li>✓ person shouting from the audience.</li> <li>✓ No heckling or shouting from the audience at a speaker shall be permitted.</li> <li>✓ The City Council may ask "clarifying" questions only. Due to equity and Brown Act concerns, the Council will avoid engaging in dialogue or debate.</li> <li>✓ If there is an item of great community significance/interest and is within the Council's subject matter jurisdiction, the Council may request the item be agendaized for further consideration at a subsequent Council meeting.</li> </ul>
	6. Meeting Recess (As Necessary)
<b>CITY COUNCIL BUSINESS</b>	
<p>P 21</p> <p>P 23-25</p> <p>P 27-30</p> <p>P 31-34</p> <p>P 35</p> <p>P 37</p> <p>P 39-46</p>	<p>7. Consent Agenda - The City Manager recommends approval of the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.</p> <ul style="list-style-type: none"> <li>a. Approval of Minutes: December 16, 2014 Special City Council Meeting</li> <li>b. Approval of Minutes: January 12, 2015 Regular City Council Meeting</li> <li>c. Acceptance of Brown Act Committee Minutes:             <ul style="list-style-type: none"> <li>ATC Regular Meeting Minutes of November 21, 2014</li> <li>ATC Regular Meeting Minutes of December 19, 2014</li> <li>Beautification Committee Regular Meeting Minutes of October 8, 2014</li> <li>Beautification Committee Special Meeting Minutes of October 8, 2014</li> </ul> </li> <li>d. Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director)</li> <li>e. City Council Committee Assignments:             <ul style="list-style-type: none"> <li>i. LTC – Michael Burns Sr.</li> <li>ii. ATC – Michael Burns Sr.</li> <li>iii. Beautification Committee – Jeffrey Collings</li> <li>iv. CEDAC – Tim Stearns &amp; Geoff Harkness</li> <li>v. LTAC – Geoff Harkness</li> <li>vi. DEAC – Michael Burns Sr.</li> <li>vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings</li> <li>viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings</li> <li>ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. &amp; Jeffrey Collings</li> <li>x. SAGE – Tim Stearns</li> <li>xi. Solid Waste JPA – City Manager</li> </ul> </li> </ul>
P 47	<p>8. Prop 84 Water Meters and Pipeline Projects funded through the Regional Water Management Group (RWMG)- Project Process and Update</p> <p><u>Background:</u> Staff will provide an update on the progress on the proposed projects and summarize next steps.</p> <p><u>Report By:</u> Rod Bryan, Public Works Director</p>

	<p><u>Council Action:</u> Provide direction to staff in selection of a water meter.</p>
P 49	<p>9. Selection of a project alternative for the Caltrans SR 89/South Mt. Shasta Boulevard Intersection Improvement Project Concepts.</p> <p><u>Background:</u> Caltrans will present alternatives and seek Council input on alternatives for improving the Highway 89/South Mt. Shasta Boulevard intersection.</p> <p><u>Report By:</u> Rod Bryan, Public Works Director and Caltrans Representatives</p> <p><u>Council Action:</u> City Council direction regarding preferred alignment on Highway 89.</p>
P 51-61	<p>10. City response to U.S. Economic Development Administration (EDA).</p> <p><u>Background:</u> City Staff will provide and update regarding the U.S. Economic Development Administration (EDA) Grant Award changes. The City Council will be asked to consider and decide among two alternatives, returning the funds or directing the funds to the Mt. Shasta State Mandated Waste Water Treatment Plant Project.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> City Council to provide direction regarding U.S. Economic Development Administration (EDA) alternatives stated above.</p>
P 63-64	<p>11. Efforts to obtain funding from various sources for the well documents necessary to <u>complete</u> repairs to the City's Interceptor Line.</p> <p><u>Background:</u> The Interceptor Line Repair has been a top priority in the City's Sewer Master Plan for several decades. Completing the project remains a top priority of the City Council. The loss of the EDA funding requires that alternative funding sources be identified.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> Provide direction to staff regarding exploring and obtaining funding sources for repairs to the City's Interceptor Line.</p>
<b>CITY COUNCIL/STAFF REPORTING PERIOD</b>	
	12. Council Reports on Attendance at Appointed/Outside Meetings
	13. Council and Staff Comments
	<p>14. Future Agenda Items (Appearing on the agenda within 60-90 days):</p> <ul style="list-style-type: none"> <li>a. Review of Ordinance #275 with the intent to add language allowing the inclusion of downtown property owners to be eligible to sit on the DEAC – 2/2015 (Waiting for legal review)</li> <li>b. LED Light System Update – 2/2015</li> </ul>

	<ul style="list-style-type: none"><li>c. Overview of election process for Councilmembers – 2/2015</li><li>d. ATC jurisdiction review – 2/2015</li><li>e. Water conservation communication efforts – 3/2015</li><li>f. Commercial Recycling Oversight Requirements – 3/2015</li><li>g. Updates from Council appointed committees – 4/2015</li></ul>
	<p><b>15. Adjourn</b></p> <p>Availability of Public Records: All public records related to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at City Hall located at 305 North Mt. Shasta Blvd., Mt. Shasta, CA at the same time the public records are distributed or made available to the members of the legislative body. Agenda related writings or documents provided to a majority of the legislative body after distribution of the Agenda packet will be available for public review within a separate binder at City Hall at the same time as they are made available to the members of the legislative body.</p> <p>The City of Mt. Shasta does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or provision of services. In compliance with the Americans with Disabilities Act, persons requiring accommodations for a disability at a public meeting should notify the City Clerk or Deputy City Clerk at least 48 hours prior to the meeting at (530) 926-7510 in order to allow the City sufficient time to make reasonable arrangements to accommodate participation in this meeting</p>

## Mt. Shasta City Council Regular Meeting Minutes

Mt. Shasta Community Center, 629 Alder Street

Monday, January 26, 2015 - 5:30 p.m.

Approved as submitted February 9, 2015

"Our mission is to maintain the character of our "small town" community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence."

Page	Item	STANDING AGENDA ITEMS
	1.	<p>Call to Order and Flag Salute</p> <p>At the hour of 5:35 p.m., Mayor Geoffrey Harkness called the meeting to order and led the audience in the Pledge of Allegiance.</p>
	2.	<p>Roll Call</p> <p>Councilmembers Present: Mayor Pro Tem Jeffrey Collings, Burns, Stearns, Mayor Harkness Councilmembers Absent: None</p>
	3.	<p>Special Presentations and Announcements: Water Conservation - Meadow Fitton</p> <p>Meadow Fitton, Water Education Consultant, gave a brief presentation on the preparations being made with the City of Mt. Shasta to advise its citizens about water conservation in drought conditions. An informational brochure will be mailed to City utility customers in the third week of February, 2015. Three "water talks," which will include an informational video, have been scheduled in the City of Mt. Shasta for March 10, May 21, and October 21, 2015.</p>
	4.	<p>City Council Interviews of Board/Commission /Commissioner Candidates:</p> <ul style="list-style-type: none"> <li>a. Melanie Findling – Planning Commission</li> <li>b. Lorie Saunders – Beautification Committee</li> <li>c. Alexis Meadows – Beautification Committee</li> <li>d. Leslie Holland – Beautification Committee</li> <li>e. Terez Maniatis – Beautification Committee</li> </ul> <p>MOTION to fill the four (4) vacancies on the Planning Commission with Melanie Findling, Alan Pardee, Emily Derby, and Casey Clure.</p> <p>Motion by: Councilmember Stearns Second by: Councilmember Burns 4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)</p>

	<p>MOTION to fill existing two (2) vacancies on the Beautification Committee with Terez Maniatis and Leslie Holland.</p> <p>Motion by: Councilmember Stearns          Second by: No second on motion.</p> <p>Council Action: This item was postponed for a future regular meeting of the City Council.</p>
	<p>5. Public Comment:</p> <p>Members of the audience voiced their comments and concerns regarding: geo engineering; the Interceptor Line Project, an Environmental Impact Report (EIR); logging at Lake Siskiyou campground; the impact on the health and welfare of the community with installation of smart water meters; and Caltrans SR 89/South Mt. Shasta Boulevard Intersection Project.</p>
	<p>6. Meeting Recess: A brief recess was taken at 7:45 p.m.</p>
<p><b>CITY COUNCIL BUSINESS</b></p>	
	<p>7. Consent Agenda - The City Manager recommends approval of the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.</p> <p>a. Approval of Minutes: December 16, 2014 Special City Council Meeting</p> <p>b. Approval of Minutes: January 12, 2015 Regular City Council Meeting</p> <p>c. Acceptance of Brown Act Committee Minutes:</p> <p style="padding-left: 40px;">ATC Regular Meeting Minutes of November 21, 2014          ATC Regular Meeting Minutes of December 19, 2014          Beautification Committee Regular Meeting Minutes of October 8, 2014          Beautification Committee Special Meeting Minutes of October 8, 2014</p> <p>d. Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director)</p> <p>e. City Council Committee Assignments:</p> <ul style="list-style-type: none"> <li>i. LTC – Michael Burns Sr.</li> <li>ii. ATC – Michael Burns Sr.</li> <li>iii. Beautification Committee – Jeffrey Collings</li> <li>iv. CEDAC – Tim Stearns &amp; Geoff Harkness</li> <li>v. LTAC – Geoff Harkness</li> <li>vi. DEAC – Michael Burns Sr.</li> <li>vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings</li> <li>viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings</li> </ul>

- ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. & Jeffrey Collings
- x. SAGE – Tim Stearns
- xi. Solid Waste JPA – City Manager

MOTION to approve consent agenda item 7(a) Approval of Minutes: December 16, 2014 Special City Council Meeting; 7(b) Approval of Minutes: January 12, 2015 Regular City Council Meeting; 7(c) Acceptance of Brown Act Committee Minutes: ATC Regular Meeting Minutes of November 21, 2014; ATC Regular Meeting Minutes of December 19, 2014; Beautification Committee Regular Meeting Minutes of October 8, 2014; Beautification Committee Special Meeting Minutes of October 8, 2014; and 7(d) Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director); and 7(e) City Council Committee Assignments: i. LTC – Michael Burns Sr.; ii. ATC – Michael Burns Sr.; iii. Beautification Committee – Jeffrey Collings; iv. CEDAC – Tim Stearns and Geoff Harkness; v. LTAC – Geoff Harkness; vi. DEAC – Michael Burns Sr.; vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings; viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings; ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. and Jeffrey Collings; x. SAGE – Tim Stearns; and xi. Solid Waste JPA – City Manager

Motion by: Councilmember Stearns, with one exception. Item 7(e) City Council Committee Assignments, Item i., LTC – Michael Burns, Sr. This committee position is assigned by the Mayor's Committee of the League of Local Agencies (LOLA). Councilmember Stearns reported that Michael Burns, Sr. was appointed to fill one of two vacancies on the LTC by that Committee in their meeting the previous week.

MOTION to accept consent agenda items, with the exception of item 7(e)i:

Motion by: Councilmember Stearns  
Second by: Councilmember Burns  
4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)

8. Prop 84 Water Meters and Pipeline Projects funded through the Regional Water Management Group (RWMG)- Project Process and Update

Background: Staff will provide an update on the progress on the proposed projects and summarize next steps.

Report By: Rod Bryan, Public Works Director

Council Action: Provide direction to staff in selection of a water meter.

Mayor Pro Tem Collings gave a presentation on his extensive research regarding various types of water meters, their safety and efficiency, benefits, costs, and role in water conservation, now and for the long-term.

	<p>In order to minimize health impacts on the City of Mt. Shasta's utility customers, labor and maintenance costs to the City, in addition to providing ongoing data to promote water conservation, City Council unanimously directed the Public Works Department to move forward with the installation of the <i>Census / Pearl</i> "drive-by" Automatic Meter Reading (AMR) system, which is not a smart meter.</p>
	<p>9. Selection of a project alternative for the Caltrans SR 89/South Mt. Shasta Boulevard Intersection Improvement Project Concepts.</p> <p><u>Background:</u> Caltrans will present alternatives and seek Council input on alternatives for improving the Highway 89/South Mt. Shasta Boulevard intersection.</p> <p><u>Report By:</u> Rod Bryan, Public Works Director and Caltrans Representatives</p> <p><u>Council Action:</u> City Council direction regarding preferred alignment on Highway 89.</p> <p>No direction was given or action taken by City Council on this project at this meeting.</p>
	<p>10. City response to U.S. Economic Development Administration (EDA).</p> <p><u>Background:</u> City Staff will provide and update regarding the U.S. Economic Development Administration (EDA) Grant Award changes. The City Council will be asked to consider and decide among two alternatives, returning the funds or directing the funds to the Mt. Shasta State Mandated Waste Water Treatment Plant Project.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> City Council to provide direction regarding U.S. Economic Development Administration (EDA) alternatives stated above.</p> <p>MOTION to redirect grant award funds from the U.S. Economic Development Administration (EDA) to the State Mandated Waste Water Treatment Plant Project for the City of Mt. Shasta.</p> <p>Motion by: Mayor Pro Tem Collings Second by: Councilmember Stearns 4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)</p>
	<p>11. Efforts to obtain funding from various sources necessary to complete repairs to the City's Interceptor Line.</p> <p><u>Background:</u> The Interceptor Line Repair has been a top priority in the City's Sewer Master Plan for several decades. Completing the project remains a top priority of the City Council. The loss of the EDA funding requires that alternative funding sources be identified.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> Provide direction to staff regarding exploring and obtaining funding sources for repairs to the City's Interceptor Line.</p>



	<p>City Council tasked City Manager Eckert with exploring and obtaining alternative funding for the City of Mt. Shasta's Interceptor Line, and to keep Council apprised of those ongoing efforts.</p>
	<p align="center"><b>CITY COUNCIL/STAFF REPORTING PERIOD</b></p>
	<p>12. Council Reports on Attendance at Appointed/Outside Meetings</p> <p>Councilmember Stearns reported that he has been elected as Chair of the League of Local Agencies (LOLA).</p>
	<p>13. Council and Staff Comments</p> <p>City Manager Eckert reported that the Public Works Department is doing an exceptional job on improving the City's infrastructure. The City's mechanic must also be commended for his expertise and efforts in saving the City substantial costs associated with vehicle maintenance.</p> <p>Public Works Director Rod Bryan addressed the ongoing improvements to City water lines and pressure regulators. Future coliform samples will be taken from the City's water mains instead of residential or commercial samplings, as in the past.</p>
	<p>14. Future Agenda Items (Appearing on the agenda within 60-90 days):</p> <ul style="list-style-type: none"> <li>a. Review of Ordinance #275 with the intent to add language allowing the inclusion of downtown property owners to be eligible to sit on the DEAC – 2/2015 (Waiting for legal review)</li> <li>b. LED Light System Update – 2/2015</li> <li>c. Overview of election process for Councilmembers – 2/2015</li> <li>d. ATC jurisdiction review – 2/2015</li> <li>e. Water conservation communication efforts – 3/2015</li> <li>f. Commercial Recycling Oversight Requirements – 3/2015</li> <li>g. Updates from Council appointed committees – 4/2015</li> </ul>
	<p>15. Adjourn</p> <p>There being no further business before the City Council, the meeting was adjourned by Mayor Harkness at the hour of 11:15 p.m.</p>

**FitzGerald, Shannon**

---

**From:** Good, Stan  
**Sent:** Monday, October 26, 2015 7:19 AM  
**To:** Skrinde, Kristine; FitzGerald, Shannon  
**Subject:** Mt. Shasta Engineering Narrative  
**Attachments:** ENGINEERING NARRATIVE.docx

As attached

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!

ENGINEERING NARRATIVE  
City of Mount Shasta, CA  
EDA Grant No. 07-79-07000  
October 2015

### Project Background

The EDA made an Award on September 25, 2013 to fund sewer line and wastewater treatment plant improvements. The project has experienced a significant amount of controversy involving the primary beneficiary which resulted in the City's request to amend the project budget to help fund a California Environmental Quality Impact Report. The funding for the EIR was not part of the approved scope of work. EDA sent a letter on December 19, 2014 stating EDA is not in a position to approve the proposed budget revision and offered that the EDA funds be used to solely fund state mandated improvements at the wastewater treatment plant.

On January 26, 2015 the City Council voted to accept the recommended alternative to fund the mandated improvements to the wastewater treatment plant. The City's project manager has prepared and sent to EDA on April 06, 2015 an amended Environmental Narrative and an amended Engineering Narrative that addresses only the wastewater treatment plant improvements. The change in scope is necessary to allow the project to proceed.

### Revised Scope of Work

The City's existing wastewater treatment process consists of a series of oxidation ponds, dissolved air flotation thicker (DAF), effluent filtration and disinfection facilities. The ponds do not provide adequate nitrogen removal to promote reduction of ammonia. The recommended project consists of a "packaged" biological nutrient removal-activated sludge process (BNR-ASP), utilizing the City's existing discharge to the Upper Sacramento River and Mt. Shasta Golf Course irrigation.

As such, the proposed BNR-ASP process is necessary to remove nitrogen compounds to below effluent limits. The proposed process by AeroMod utilizes common-wall construction, side-cast aeration and air-lift pumping which leads to a smaller footprint and lower construction cost. In addition, the side-cast aeration facilities are accessible from catwalks above the basins so it is not necessary to dewater a tank to perform routine maintenance on the aeration system.

The revised project is the result of State-mandated requirements set forth in the City of Mt. Shasta's National Pollution Discharge Elimination System (NPDES) wastewater discharge permit, issued by the California State Water Resources Control Board in October 2012. In part, the permit imposed more stringent effluent limits for Copper, Zinc, ammonia, Title 22 disinfection requirements, and other constituents. As a condition of the NPDES permit, the City hired PACE Engineering to prepare a Feasibility Study/Preliminary Engineering Report (PER) to evaluate effluent disposal and treatment alternatives to address the newly imposed requirements. The draft report was completed in June 2014 and has since been reviewed by the Regional Board and an independent peer reviewer.

## **FitzGerald, Shannon**

---

**From:** Good, Stan  
**Sent:** Monday, October 26, 2015 8:00 AM  
**To:** Skrinde, Kristine; FitzGerald, Shannon  
**Subject:** Revised narrative for Mt. Shasta w budget  
**Attachments:** ENGINEERING NARRATIVE.docx; Am-1 ED-508\_Budget.xlsx

The initial budget for the grant had a typo in the budget. We had agreed to correct it in the Amendment. See attached

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!

ENGINEERING NARRATIVE  
City of Mount Shasta, CA  
EDA Grant No. 07-79-07000  
October 2015

### Project Background

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## Revised Budget

The initial budget had a typographical error where the Construction line item was shown in the Demolition line item. This Amendment will correct that error. The budget is attached.

AMENDMENT No. 1  
PUBLIC WORKS PROJECT COST CLASSIFICATIONS

EDA Award No. 07-79-07000

State: CA

County Siskiyou

<u>Cost Classification</u>	<u>Approved Project Cost</u>	<u>Revised Approved Project Cost</u>
Administrative and legal expenses	\$10,000	\$10,000
Land, structures and rights-of-ways , etc.	\$30,000	\$30,000
Relocation expenses and payments	\$0	\$0
Architectural and engineering fees	\$450,000	\$450,000
Other architectural and engineering fees	\$95,000	\$95,000
Project inspection fees	\$150,000	\$150,000
Site Work	\$0	\$0
Demolition and removal	\$4,814,000	\$0
Construction	\$0	\$4,814,000
Equipment	\$0	\$0
Miscellaneous	\$0	\$0
Contingencies	\$451,000	\$451,000
<b>TOTAL PROJECT COSTS</b>	<b>\$6,000,000</b>	<b>\$6,000,000</b>

Remarks

<u>FUNDING</u>	\$2,503,731	EDA Award	48%
	\$2,799,012	Recipient Share	52%
	<u>\$5,302,743</u>	Total Cost	100%

## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Tuesday, October 27, 2015 9:37 AM  
**To:** Good, Stan; Skrinde, Kristine  
**Subject:** RE: Mt. Shasta Engineering Narrative

Thanks Stan and Kris. I'll get the amended EA on Len's desk today. -S

**From:** Good, Stan  
**Sent:** Monday, October 26, 2015 7:19 AM  
**To:** Skrinde, Kristine; FitzGerald, Shannon  
**Subject:** Mt. Shasta Engineering Narrative

As attached

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!



## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Tuesday, October 27, 2015 9:37 AM  
**To:** Good, Stan; Skrinde, Kristine  
**Subject:** RE: Revised narrative for Mt. Shasta w budget

Just saw the amendment. Thanks.

**From:** Good, Stan  
**Sent:** Monday, October 26, 2015 8:00 AM  
**To:** Skrinde, Kristine; FitzGerald, Shannon  
**Subject:** Revised narrative for Mt. Shasta w budget

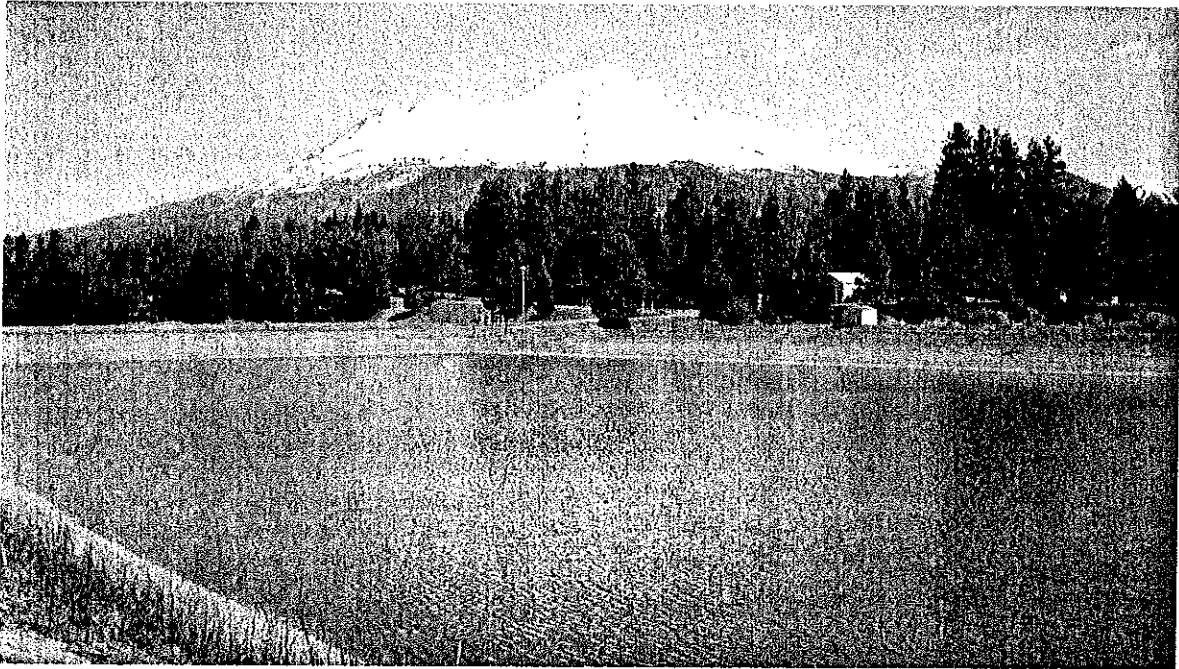
The initial budget for the grant had a typo in the budget. We had agreed to correct it in the Amendment. See attached

Stan Good, P.E.  
Civil Engineer  
Seattle Regional Office  
Ph: 206-220-7701  
Email: [sgood@eda.gov](mailto:sgood@eda.gov)  
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CONFIDENTIAL DOCUMENT

## Cultural Resources Inventory

### Mt. Shasta Wastewater Treatment and Outfall Improvement Project Siskiyou County, California



*Prepared for:*  
City of Mt. Shasta

September 2015  
32-21

*Prepared by:*  
Jessica McCoy and Heidi Shaw



3179 Bechelli Lane, Suite 100, Redding, CA 96002  
(530) 221-0440  
[www.enplan.com](http://www.enplan.com)

## STATEMENT OF CONFIDENTIALITY

This document is not for public distribution. This report identifies the locations of cultural resource sites. Disclosure of this information to the public may be in violation of both federal and state laws. Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3), the Archaeological Resources Protection Act [16 U.S.C. Section 9(a) and Section 470(hh)], and Executive Order 13007. In California, such laws include, but may not be limited to, Government Code Section 6254.10. Site location information should be kept confidential and is not for public disclosure.

Additionally, records maintained or in the possession of the Native American Heritage Commission or state and local agencies that are exempt from public disclosure include those that contain information on Native American graves, cemeteries, and sacred places, and include records obtained during consultation with Native Americans (California Government Code §6254(r) and §6254.10).

## TABLE OF CONTENTS

SUMMARY OF FINDINGS .....	1
INTRODUCTION.....	2
Project Location and Description .....	2
Area of Potential Effects .....	3
SOURCES CONSULTED.....	3
Summary of Methods and Results.....	3
Summary of Native American Consultation.....	4
BACKGROUND.....	5
Environment .....	5
Prehistory .....	6
Ethnohistory .....	7
History .....	9
Sensitivity .....	10
FIELD METHODS .....	10
STUDY FINDINGS AND CONCLUSIONS.....	11
Determination of Eligibility .....	12
RECOMMENDATIONS .....	13
REFERENCES.....	15
APPENDICES	
Appendix A: Figures	
Appendix B: Correspondence	
Appendix C: Photos	
Appendix D: Site Record	

## SUMMARY OF FINDINGS

This report details the results of a cultural resources inventory conducted for the Mt. Shasta Wastewater Treatment and Outfall Improvement Project. The Wastewater Treatment Plant (WWTP) is located at the southern terminus of Grant Road, southeast of the Mt. Shasta Resort Golf Course, just south of the City of Mt. Shasta, Siskiyou County, California. The ±10-acre study area is located in Sections 28 and 33, of Township 40 North, Range 4 West, of the U.S. Geological Survey's City of Mount Shasta 7.5-minute quadrangle (Figure 1, Project Location and Vicinity, Appendix A).

This project has the potential to adversely affect cultural resources that may be located within the project area. A good faith effort was therefore made to identify any cultural resources within and immediately adjacent to the Area of Potential Effects (APE). The cultural resources inventory was conducted to satisfy requirements of the National Environmental Policy Act (NEPA) of 1969, Section 106 of the National Historic Preservation Act of 1966, and the California Environmental Quality Act (CEQA) of 1970 (all as amended). The purpose of this effort was to identify and evaluate any archaeological and historic sites that may exist within the APE (Figure 2, Area of Potential Effects, Appendix A).

A record and literature search revealed that eight archaeological surveys have previously been conducted within a half-mile radius of the APE, but none within the proposed project's APE. The search also revealed that three previously recorded prehistoric isolates are within a half-mile radius of the APE; however, no resources have been recorded within the APE.

Archaeological fieldwork took place on April 10, 2015 and September 3, 2015, in which the entire APE was surveyed. This cultural resources inventory identified one prehistoric isolate and one historic refuse scatter (CA-SIS-5258H).

## INTRODUCTION

The City of Mt. Shasta contracted with ENPLAN to conduct the necessary cultural resource studies for the Wastewater Treatment and Outfall Improvement Project. ENPLAN is an environmental consulting firm with over 30 years of experience with projects throughout northern California. ENPLAN's cultural resource studies are conducted in accordance with accepted professional archaeological standards, and in compliance with all applicable state and federal codes, acts, regulations, and orders relating to cultural resources.

This project has the potential to adversely affect cultural resources that may be located within the project area. A good faith effort was therefore made to identify any cultural resources within and immediately adjacent to the APE. The cultural resources inventory was conducted to satisfy requirements of the National Environmental Policy Act (NEPA) of 1969, Section 106 of the National Historic Preservation Act (NHPA) of 1966, implementing regulations of 36 CFR Part 800, and the California Environmental Quality Act (CEQA) of 1970 (all as amended).

All work associated with this project was performed by Heidi Shaw (MS, Archaeology), and Jessica McCoy (MS, Archaeology), ENPLAN Archaeologists who meet the Secretary of the U.S. Department of the Interior Professional Qualification Standards in archaeology.

### ***PROJECT LOCATION AND DESCRIPTION***

The City of Mt. Shasta is proposing to construct a replacement treatment facility at the Mt. Shasta Wastewater Treatment Plant (WWTP). The WWTP is located at the southern terminus of Grant Road, southeast of the Mt. Shasta Resort Golf Course, just south of the City of Mt. Shasta, Siskiyou County, California. As shown in Figure 1 (Project Location and Vicinity, Appendix A), the ±10-acre study area is located in Sections 28 and 33, of Township 40 North, Range 4 West, of the U.S. Geological Survey's City of Mount Shasta 7.5-minute quadrangle.

The proposed project entails improvements to the wastewater treatment and the Sacramento River outfall facility. These improvements are necessary to comply with Central Valley Regional Water Quality Control Board requirements for wastewater discharge. The proposed improvements would be located within the existing footprint of the WWTP and would include a replacement treatment facility, a new energy dissipation tank, and a new diffuser at the outfall. In order to facilitate access to the outfall site during construction and for future maintenance, it may be necessary to perform some minor grading, brushing, and placement of

aggregate base to improve the existing road and create a permanent access path. All structures of the WWTP itself were constructed in, or after 1976 and therefore do not require historic evaluation.

### ***AREA OF POTENTIAL EFFECTS***

The Area of Potential Effects (APE) was established in consultation with PACE Engineering (Figure 2, Area of Potential Effects, Appendix A). Project APEs vary depending on the potential impacts of the project and the type of environmental clearance required (i.e., CEQA or NEPA). The horizontal APE for the treatment facility improvements measures approximately 940 feet east-west and approximately 1,300 feet north-south. The APE for the minor road improvements and access path to the diffuser and outfall site measures 1300 linear feet, with a 50-foot width along the road and 100-foot width through the access path location.

The vertical APE (i.e., associated with the potential for buried cultural resources) is based upon the existing topography, geological history, site development history, and the engineering design of the project. The vertical APE of a project is related to the proposed excavations associated with the project. The maximum depth of excavation would be  $\pm 15$  feet and would be reached for the installation of the SEQUOX® system in the footprint of the existing intermittent sand filter beds.

### **SOURCES CONSULTED**

The following sources were consulted to obtain information concerning known archaeological sites, historic properties, and historic activities within and/or adjacent to the study area: Northeast Center of the California Historical Resources Information System at California State University, Chico (NE/CHRIS); the Native American Heritage Commission (NAHC); Siskiyou County Historical Society; and the local Native American community.

### ***SUMMARY OF METHODS AND RESULTS***

Research at NE/CHRIS was conducted by Ms. Shaw on April 6, 2015, and covered an approximate half-mile radius around the APE for previously recorded archaeological sites and for previously conducted surveys. The size and scope of the search area was determined to be sufficient based on the results. Research included reviewing maps and records for archaeological surveys, sites, and other cultural resources in this portion of Siskiyou County. The following

resources were also consulted: National Register of Historic Places (NRHR) (1979-2002 and supplements); the California Register of Historical Resources (CRHR) (2011 web list and supplemental information to date); California Inventory of Historic Resources (1976); California Historical Landmarks (1995 and supplemental information to date); California Points of Historical Interest (1992 and supplemental information to date); and USGS historical topographic maps. Results are outlined below.

The record search through NE/CHRIS indicated that eight cultural resource surveys have been conducted within a half-mile radius of the project site (Winthrop 1991; Vaughan 1996; Henson 1998; Jensen 1999; Lindler 2004; Jensen 2004; SWCA 2006; Vann 2012). The APE, however, has not been previously surveyed.

Three prehistoric isolates have been previously recorded within a half-mile radius of the project area. No cultural resources have been previously identified within the APE.

The earliest historic map for the project vicinity is the 1882 survey plat, which depicts a road running northeast of the project location. According to General Land Office records, the southern portion of the project area was granted to the Central Pacific Railroad in 1896 for the construction of the Oregon and California Railroad. Wallace McIntosh was granted a land patent in 1889 for the southeast quarter of Section 28, Township 40 North, Range 4 West, which includes the northeastern portion of the project area. The northwestern portion of the project area was included in the land patented to Elias C. Merwin in 1887, in the north half and southeast quarter of the southwest quarter of Section 28, Township 40 North, Range 4 West.

Review of the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, and California Historical Landmarks identified no resources within a half-mile radius of the project area.

#### ***SUMMARY OF NATIVE AMERICAN CONSULTATION***

A Request for a Sacred Lands Search was faxed to the Native American Heritage Commission on April 4, 2015. The NAHC responded by fax on May 1, 2015, indicating that their files did not identify the presence of Native American sacred sites or cultural resources in the immediate project area. Comment solicitation letters were sent on May 4, 2015, to Mary Carpelan, Cultural and Archaeological Resources, Shasta Nation; Roy V. Hall Jr., Chairperson, Shasta Nation; Rebekah Sluss, Environmental Coordinator, Quartz Valley Indian Community; Harold



Bennett, Chairperson, Quartz Valley Indian Community; Evette Lewis, Cultural Resources Coordinator, Quartz Valley Indian Community; and Sami Jo Difuntorum, Butte Valley Indian Community and Shasta Indian Nation.

A response to the comment solicitation letters was received from Isaiah Williams on behalf of the Quartz Valley Indian Reservation on May 14, 2015; he did not have any knowledge of existing sites in the area but expressed that the project area was within Tribal ancestral lands and that he was therefore interested in any archaeological findings.

Mary Carpelan was contacted by phone and she expressed that she had no comments on the project at present but wished to be notified if archaeological resources were found. Additional phone calls were made to Sami Jo Difuntorum and Roy V. Hall Jr. on May 20, 2015; no responses were received.

Copies of all written correspondence and written documentation of phone conversations are included in Appendix B.

## **BACKGROUND**

### ***ENVIRONMENT***

The project area lies within the Cascade Range Geomorphic Province near the base of Mt. Shasta (Figure 1, Project Vicinity and Location, Appendix A). The Sacramento River runs adjacent to the project area through Box Canyon. Lake Siskiyou, a dammed reservoir, lies to the west. Abundant subsistence resources for prehistoric and historic occupants would have been available through the diverse terrestrial and aquatic communities in the general project area.

Vegetation along the canyon slope consists primarily of a manzanita chaparral within a mixed conifer forest of canyon live oak, black oak, incense cedar, ponderosa pine and Douglas-fir. On the upper terrace, the majority of native vegetation has been previously cleared to accommodate the existing facilities.

According to the U.S. Department of Agriculture, Natural Resources Conservation Service (2015), two soil units have been mapped within the APE: Neer-Ponto stony sandy loams, 15 to 50 percent slopes, and Ponto-Neer complex, 2 to 15 percent slopes. Both Ponto-Neer complex

and Neer-Ponto stony sandy loams are volcanic in origin, date to the early Holocene (11,500-7000 B.P.), and have a "Low Potential" for buried cultural deposits (Meyer 2013).

The climate of the Cascades is moderately cool and moist. Annual precipitation averages  $\pm 39.94$  inches. The average daily maximum July temperature is 84.9 degrees Fahrenheit, and the average daily minimum January temperature is 25.8 degrees Fahrenheit (Western Regional Climate Center 2015).

### ***PREHISTORY***

California prehistory is divided into three broad temporal periods that reflect similar cultural characteristics throughout the state: Paleoindian Period (c. 9000-6000 BC), Archaic Period (6000 BC-AD 500), and Emergent Period (A.D. 500-Historic Contact). The Archaic is divided further into Lower (6000-3000 BC), Middle (3000-1000 BC), and Upper (1000 BC-AD 500) Periods, generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic (Moratto 1984).

The project area lies in what is generally described as the Cascade subregion of the Northeastern California Archaeological Region, which is one of eight arbitrary organizational divisions of the state by Moratto (1984). The Cascade subregion extends southward from the Oregon border to the Central Valley, between the crest of the Klamath Mountains on the west and the Modoc Plateau on the east. Two important obsidian flows are found within the subregion: Glass Mountain and Medicine Lake Highlands in eastern Siskiyou County.

Evidence for human occupation in the Cascade subregion dates as early as 10,000 years ago during the Paleoindian Period and apparently experienced a hiatus after the Mazama ash fall approximately 7,600 years ago. The region has not been studied thoroughly by archaeologists and, unlike other parts of California, has been affected only slightly by development. This ecologically diverse area was occupied, however, for a long time during prehistory.

The earliest definite evidence of human occupation in north-central California is from the site CA-SHA-475 located north of Redding and south of the present project area on Squaw Creek, where a charcoal-based C-14 date suggests initial Native American presence around 6,500 years ago. Continuous use of the region is indicated on the basis of evidence from this and other regional sites. Most of the artifactual material dating to this early time period suggests cultural affiliation with the Borax Lake area, the presence of large wide-stemmed projectile points and

manos and metates being the most prominent artifact types represented. The possibility exists that this early culture represents Hokan-speaking peoples who were related to those who subsequently expanded into the northern Sierra Nevada, the southern Cascade, the northern Coast Range, and the southern Klamath Mountains.

Sometime around AD 100-200, the first major disruption of this Hokan-speaking population by Penutian immigrants occurred to the south. Eventually, these later arrivals displaced at least some of the Hokan populations who had been occupying the Sacramento Valley floor and the margins of the Sacramento River, and may have forced the northward migration of Hokan-speaking groups, which had been occupying sections of the Sacramento River Canyon north of Redding and south of Mt. Shasta and Weed. The Penutian-speaking immigrants were still expanding into areas previously occupied by Hokan-speakers at the time of initial contact with Euro-American populations circa AD 1850. Presumably introduced by the Penutian-speaking people were more extensive use of bulbs and other plant foods, animal and fishing products processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed and corner-notched projectile points. In the northernmost Sacramento Valley, the so-called Shasta Complex represents the material culture record of the local Penutian speakers — the Wintu peoples.

In the present project area, the descendants of the earlier Hokan-speaking populations, the Shastan groups, were still in control of Shasta Valley and the area around Mt. Shasta at the time of initial contact with Euro-American populations (circa AD 1850).

### ***ETHNOHISTORY***

The following information concerning the ethnographic documentation of the Shastan peoples is summarized from Silver (1978), Voegelin (1942), and Kroeber (1925).

The project area is located within the ethnographic territory of the Okwanuchu, one of four northern California Hokan-speaking groups collectively termed Shastan peoples. The tribal name possibly was derived from susti'ka, a Shasta village or social unit in the vicinity of Yreka. Shastan territory extended from the Rogue River in Oregon, down into the central Klamath River watershed amid the Cascade, Klamath, and Scott Mountains, and south to the Salmon and upper Sacramento Rivers. Ethnographers recognize four cultural-geographical divisions of Shastan peoples. The Okwanuchu along the upper Sacramento, the New River Shasta and Konomihu in the Salmon River watershed, and the Shasta proper, farthest to the north. Little is known

specifically about the Okwanuchu, except that they lived in the heavily forested mountain region of the upper Sacramento River and intermarried with the neighboring Achumawi. Consequently, the following information is a generalized account of the four Shastan groups as a whole.

The basic social unit for the Shastan was the family, although the village may also be considered a social, as well as a political and economic unit. The Shastan family was bilateral with a patrilineal bias and it was not uncommon for an entire village to be made up of only one family. Shastan villages, for the most part, were located at the mouth of a creek into the main river. Some were located, however, near oaks in the high hills.

The Shastan were hunters and gatherers who practiced an annual subsistence round based on a series of seasonal moves designed to ensure their arrival at specific areas during the peak period of productivity for certain resources. Permanent winter villages were located along the major rivers and tributaries; in the spring the families moved into brush houses and remained in them through the summer; during acorn season single-family bark houses were used; and during the fall hunt families camped out

As with most other northern California Indian groups, economic life revolved around hunting, fishing, and collecting plant foods, with deer, acorns, and salmon representing primary staples. The collection and processing of these various food resources was accomplished with the use of a wide variety of wooden, bone, and stone tools. These included bows and arrows, spears, traps, nets, slings, and blinds for hunting land mammals and birds; and harpoons, hooks, salmon gigs, nets, and weirs for fish. Woven tools—seed beaters, burden baskets, and carrying nets—and sharpened digging sticks were used to collect plant resources. For food processing, a variety of tools were used, including bedrock and portable mortars (predominantly basket and hopper mortars) and pestles, stone knives, stone scrapers, and a variety of bone tools. The Shastan groups also carved acorn mush stirring paddles, and each person had his or her own eating baskets, along with wooden spoons. The Shastan groups produced simple closework and openwork twined baskets, but relied heavily on imported basketry. The Shasta were a conduit between the western and eastern tribes, as well as between those to the north and south. Water routes up and down the valleys were used for trade and regular visits to other tribes, predominantly with the Karuk, Hupa, and Yurok from whom the Shasta received acorns, baskets, Dentalium, Haliotis, and other shells in exchange for pine nuts, obsidian blades, juniper beads, and Wintu beads. Obsidian blades obtained from the Achumawi and the pine nuts from the Wintu,

were traded for buckskin and Dentalium; the Shastan groups also imported pepperwood gourds from the Karuk for wolf skins, woodpecker scalps, and white deerskins.

The Shastan and other northern California tribes had little to no contact with Europeans until the 1820s when a few fur trappers passed through their lands on their way from the northwest coast south into the Sacramento River Valley. The 1849 California Gold Rush, however, quickly brought miners and settlers to the territory, and the Shasta were soon crowded out of their primary hunting grounds and fisheries along the rivers. With the start of permanent Euro-American logging and farming settlements, there were active campaigns to exterminate the Shasta and the other tribes along the Klamath River and its tributaries. Leaders of the Shastan peoples signed the treaty of 1852 that was brought to all the Native American tribes of California, in which they were offered large protected regional reservations for forfeiting their title to the rest of the state. This treaty was never ratified, and the Shasta played a prominent role in the Rogue River Indian wars, which lasted from 1850 to 1857.

By the 1870s, the Shastan population and way of life had been impacted drastically by the influx of Euro-Americans. Calculations based on the number of settlements in 1852 led Kroeber to suggest a total population for all Shastan language-speaking groups at 2,000, while Cook (1976) estimated the pre-contact population at 3,000. In 1925, Kroeber asserts that there were no more living Okwanuchu. After little over a century of contact, it was estimated that there were 36 Shastans living on the Quartz Valley Rancheria. The decline in the numbers of Shastan peoples can be attributed to the influx of Euro-Americans to the area beginning circa 1850. The great influx of miners to the region crowded the Shasta's from their traditional lands and the commencement of permanent settlements threatened to abridge their movements still more.

### ***HISTORY***

Spanish and Mexican expeditions and early fur-trapping ventures may have come through and made brief stays within the general project vicinity as early as the 1820s (Silver 1978). However, the first major incursion by Euro-American settlers occurred during the Gold Rush period (1849-1852). The placer lodes of regional streams, particularly around Yreka and within Scott, Jones and Quartz Valleys, were intensively mined during the latter half of the nineteenth century. The initial influx into Shasta Valley, Yreka and the Mt. Shasta area occurred in 1851 (Brooks 1981).

Most areas around Siskiyou County were mined during the mid to late nineteenth century and into the early part of the twentieth century. The area also saw those individuals seeking a more stable lifestyle and farming and ranching became popular in the area as well.

As the population of the county grew, the need for timber became increasingly more important. Lumber mills were set up in various portions of the county to take advantage of the vast timber supply. John Hilt began logging near the Siskiyou Mountains in the northern part of the county by the latter half of the nineteenth century and a small system of railroad grades was constructed in the early 1900s to better reach and transport the timber to the mill (Hoover et al. 1990). In 1887, the Central Pacific Railroad was completed through the area, due to the efforts of Justin Sisson (Signor 1982). Sisson was granted a deed conveying 120 acres for a town site and railroad station. With this, the population began to grow, and an influx of tourism and an increase in logging shortly followed.

The arrival of the railroad established the town of Mount Shasta at its present location; until then, the railroad had only gone as far as Redding. After the railroad completion, the newly established town was initially given the name Sisson, after the prominent landowner. Prior to the arrival of the railroad, the area was known as Strawberry Valley, and then as Berryvale (Brooks 1981). The name was officially changed to Mount Shasta in 1924.

### ***SENSITIVITY***

The results of archival research, comment solicitation, previous surveys adjacent to and within the study area, and the environmental context all contribute to an assessment of the sensitivity level for a given project area. The prehistoric and historic use of the area, the physiographic characteristics, level of modern disturbance, and proximity to a perennial water source contribute to a moderate potential for cultural resources within the APE. The project site is considered to have a low sensitivity for historic and prehistoric cultural resources given the steep slope of the access road and path, and outfall location, and the previous development and use on the upper terrace.

## **FIELD METHODS**

Ms. Shaw and Ms. McCoy conducted a pedestrian survey of 80 percent of the APE on April 10, 2015, and September 3, 2015; the remaining 20 percent was inaccessible due to slope

and filled settling ponds (Figure 3, Survey Coverage, Appendix A). The ±10-acre study area was intensively surveyed with transects spaced approximately 10 meters apart. Part of the APE leading to the outfall site was not surveyed as the canyon descends at a slope that is greater than 45 percent. This steep slope greatly limits the potential for the accumulation of cultural deposits. Two of the ponds within the survey area were full at the time of survey and thus were not included in the survey coverage.

Ground visibility varied from poor (<10%) to excellent (90%). Visibility was constrained in areas due to the accumulation of duff and dense vegetation covering the ground surface, as well as modern imported fill and pavement restricting visual access to the natural soil. Areas with exposed subsurface soil, including rodent burrows and ditches, were thoroughly inspected for evidence of any possible buried cultural deposits and/or soil differentiation.

Much of the APE has been subject to disturbance, particularly the upper terrace where the existing treatment facility is located. This disturbance is the result of the use of the area as a wastewater treatment plant and the installation of the associated structures and infrastructure. No subsurface testing was conducted. Efforts to identify subsurface deposits included the methods described above.

## STUDY FINDINGS AND CONCLUSIONS

The pedestrian archaeological survey conducted by ENPLAN resulted in the identification of one prehistoric isolate within the existing treatment plant facilities, and one historic-period refuse scatter (CA-SIS-5258H) on the access road leading to the diffuser and outfall site (Figure 4, Survey Results, Appendix A). The prehistoric isolate is a single cryptocrystalline flake with evidence of both intentional and inadvertent fracture. The isolate was found within aggregate base fill imported to the facility and thus there exists the possibility it was imported with the surrounding fill.

CA-SIS-5258H consists of 22 bottle glass fragments (colorless, amber, and green), two fragments of white improved earthenware, and four ferrous metal objects including one complete pull-tab Olympia beer can. The glass fragments are all under 10cm in size and approximately 60 percent do not contain diagnostic features. It is likely that the materials have come from further upslope on the terrace, but have subsequently been conveyed to their present location by

precipitation washing downslope towards the Sacramento River. A site record was completed for the scatter and filed at NE/CHRIS (Appendix D).

Approximately one third of the glass bottle fragments have datable diagnostic features. These fragments indicate dates around the mid-twentieth century. One colorless base fragment (Photo # 1276) bears the Owen's Illinois Glass Company maker's mark with a date and plant code corresponding to the year 1968 and the Los Angeles bottle plant (Toulouse 1971). Another colorless base fragment displays the Tygart Valley Glass maker's mark used between 1940 and 1960 (Photo #1238). One green glass bottle neck has a metal screw top inscribed "MADE AND SEALED BY GALLO IN CALIF" (Photo# 1252). Gallo began bottling wines in green glass bottles in 1966 (Toulouse 1971). The Olympia beer can (Photo #1285) dates to the 1960s or 1970s, based on the pull-tab opening and label design (Maxwell 1993). Photographs of these artifacts are included in Appendix C.

#### ***DETERMINATION OF ELIGIBILITY***

Cultural resource significance under Section 106 is evaluated in terms of eligibility for listing in the National Register of Historic Places (NRHP). NRHP significance criteria applied to evaluate the cultural resources are defined in 36 CFR 60.4 as the quality of significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following criteria:

- a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) that are associated with the lives of persons significant in our past; or
- c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) that have yielded, or may be likely to yield, information important in prehistory or history.

The California Register of Historical Resources (CRHR) includes buildings, sites, structures, objects and districts significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. To qualify for



inclusion in the CRHR, a historical resource must be significant at the local, state, or national level, under one or more of the following four criteria:

- 1) it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California, or the United States; or
- 2) it is associated with the lives of persons important to local, California, or national history; or
- 3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- 4) it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Eligibility for listing in the NRHP or CRHR requires that a resource not only meet one of the significance criteria above, but also possess integrity. Integrity is the ability of a property to convey its significance. The evaluation of a resource's integrity must be grounded in an understanding of that resource's physical characteristics and how those characteristics relate to its significance. The NRHP and CRHR define seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. A cultural resource that meets one of the significance criteria and has sufficient integrity to convey that historical significance is considered eligible for inclusion in one or both of the registers.

The historic refuse scatter along the access road to the river diffuser is not associated with a historically significant person, event, or characteristic type. Additionally, the site is unlikely to yield information important to local, state, or national history as it does not maintain the required integrity. The site has been disturbed to the point that little to no integrity remains. The site is no longer in situ as it appears to have been displaced downslope, it is not in association with any other historic artifacts or features, nor are any of the included artifacts unique or particularly diagnostic. As such, the site does not qualify for eligibility for either the NRHP or the CRHR.

## RECOMMENDATIONS

This report satisfies the requirements of archaeological survey for NEPA, Section 106 of the National Historic Preservation Act as amended, and CEQA. ENPLAN recommends strict adherence to California Health and Safety Codes Section 7050.5 and 5097.98 (as amended by

AB 2641) of the Public Resources Code in the event that human remains are encountered as a result of project developments.

We also recommend that the following stipulations be included as conditions of project approval, and that these stipulations be included on all project construction/design plans:

- A. *If any human remains are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find. The county coroner shall be contacted to determine whether investigation of the cause of death is required as well as to determine whether the remains may be Native American in origin. Should Native American remains be discovered, the county coroner must contact the Native American Heritage Commission (NAHC). The NAHC will then determine those persons it believes to be most likely descended from the deceased Native American(s). Together with representatives of the people of most likely descent, a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary.*
- B. *If any previously unevaluated cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly-modified lithics, historic artifacts, etc.) are encountered, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. This stipulation does not apply to those cultural resources evaluated and determined not Historical Resources/Historic Properties in this report.*
- C. *In the event that project plans change to include areas not surveyed, additional archaeological reconnaissance may be required.*

## REFERENCES

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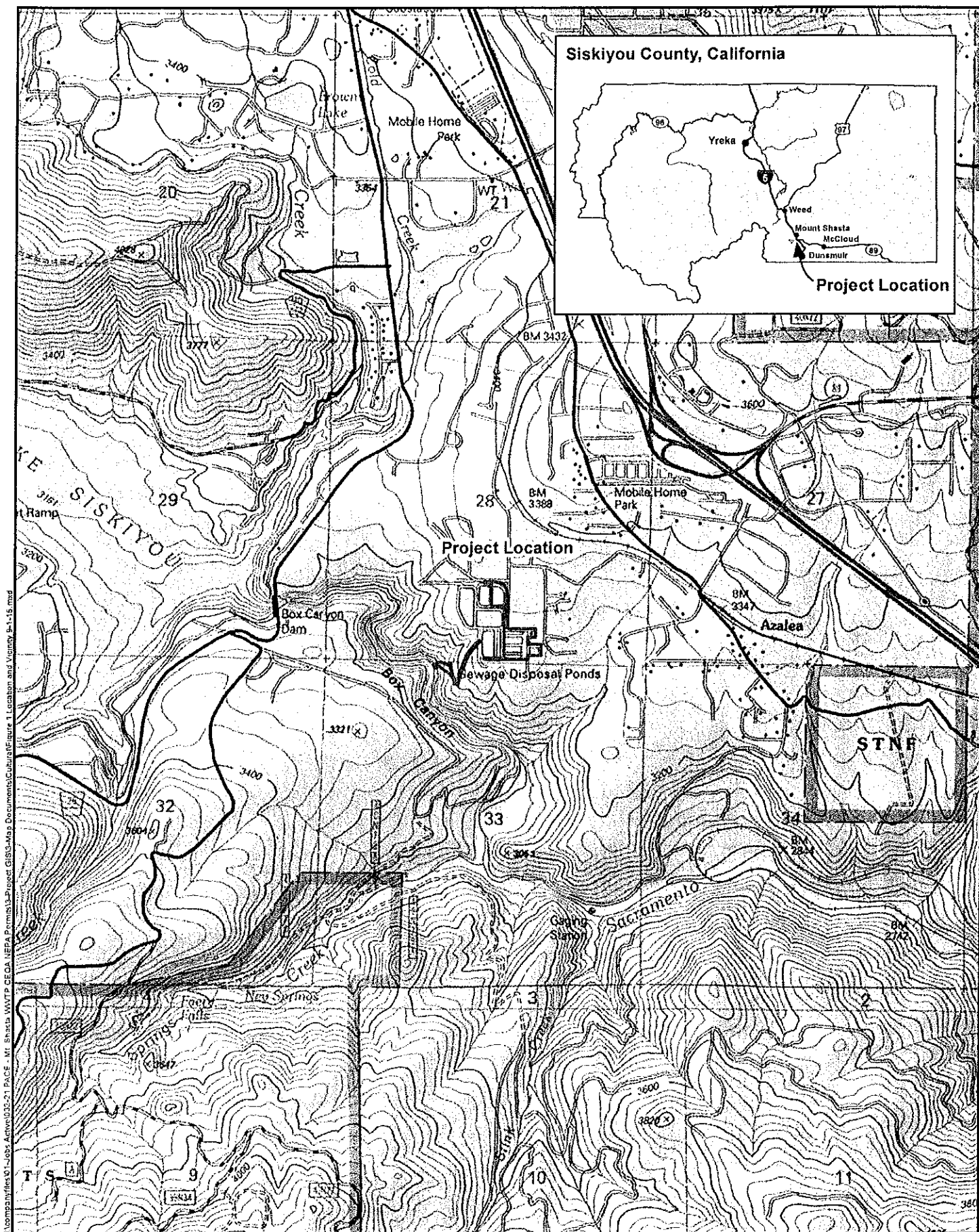
## APPENDIX A: FIGURES

Figure 1. Project Location and Vicinity

Figure 2. Area of Potential Effects

Figure 3. Survey Coverage

Figure 4. Survey Results



N:\comp\files\01-0855\_Adm\03-21 PAGE - M1 Shasta WWTTP CEQA NEPA Permit\GIS\Map Documents\Cultural\Figure 1 Location and Vicinity 8-1-15.mxd

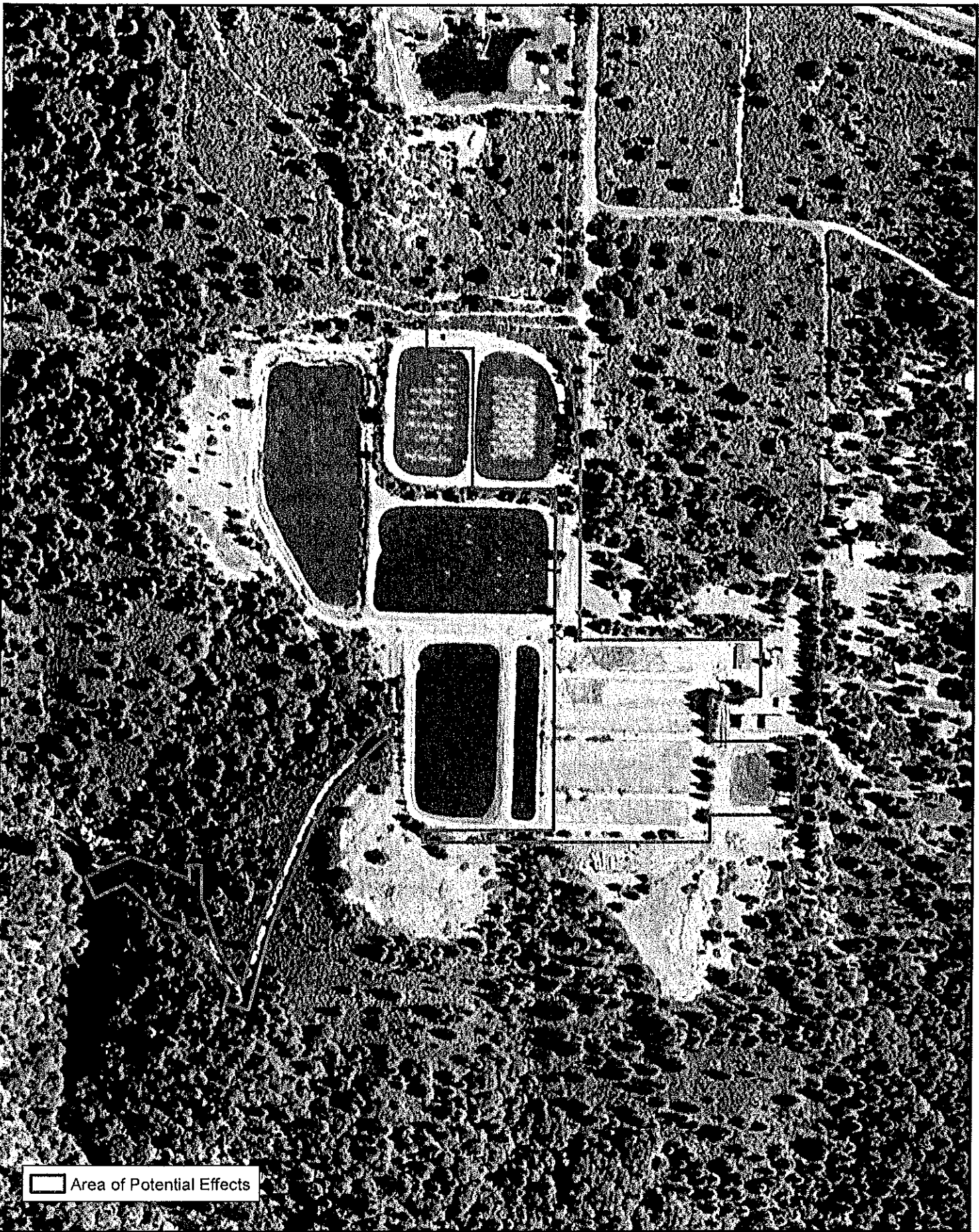
All depictions are approximate. Not a survey product. 9.1.15



Figure 1  
**Project Location and Vicinity**

**Confidential**  
**ENPLAN**

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Area of Potential Effects



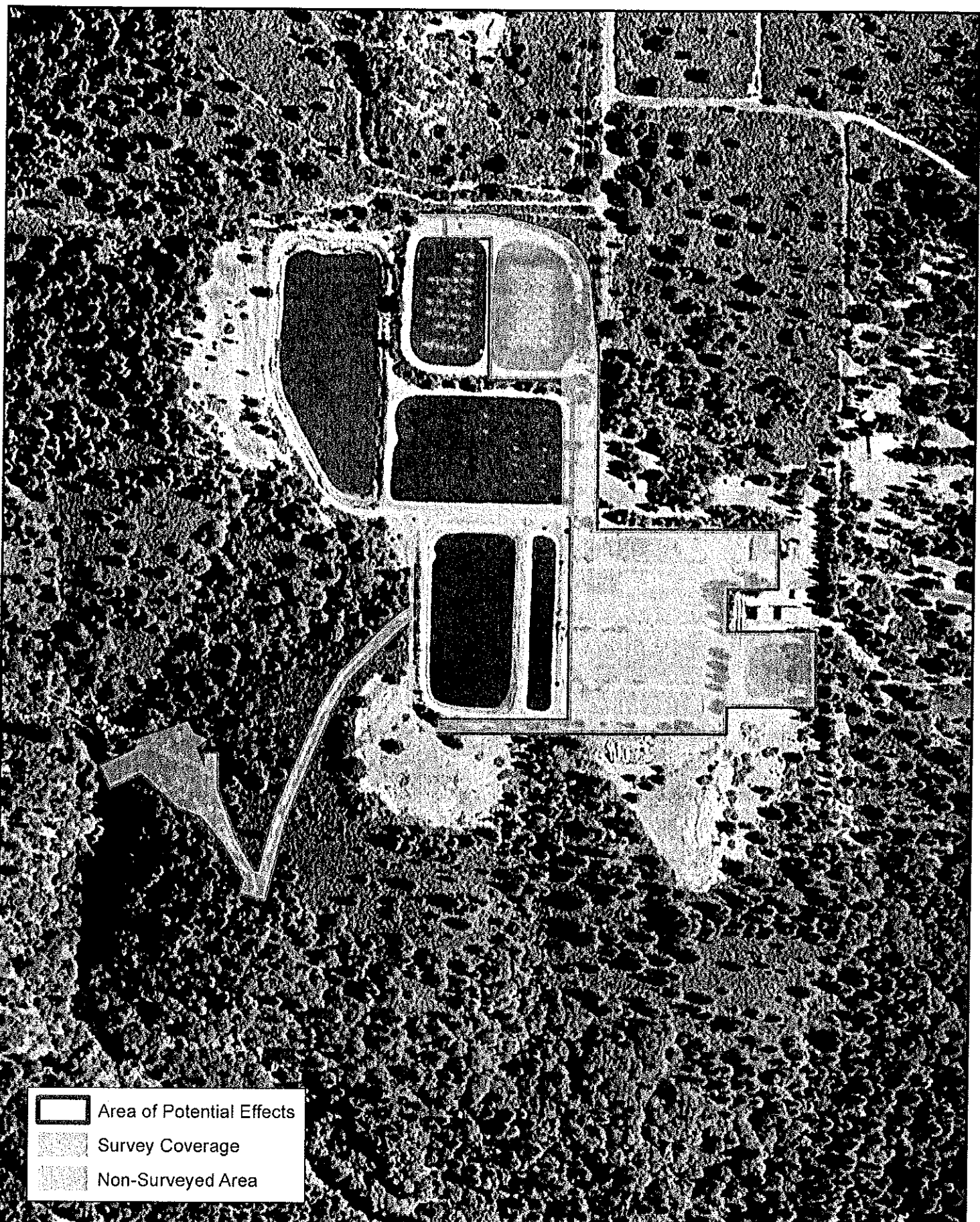
Figure 2  
Area of Potential Effects

All depictions are approximate. Not a survey product. 9.1.15

Confidential  
ENPLAN



Partial Aerial Photograph of the Site, Showing the Proposed Project (GIS) and the Survey Coverage. The Survey Coverage is Indicated by the Dotted Pattern. The Area of Potential Effects is Indicated by the Solid Line. The Non-Surveyed Area is Indicated by the Stippled Pattern. The Scale Bar is Located in the Lower Left Corner. The Date is 9.3.15.






	Area of Potential Effects
	Survey Coverage
	Non-Surveyed Area



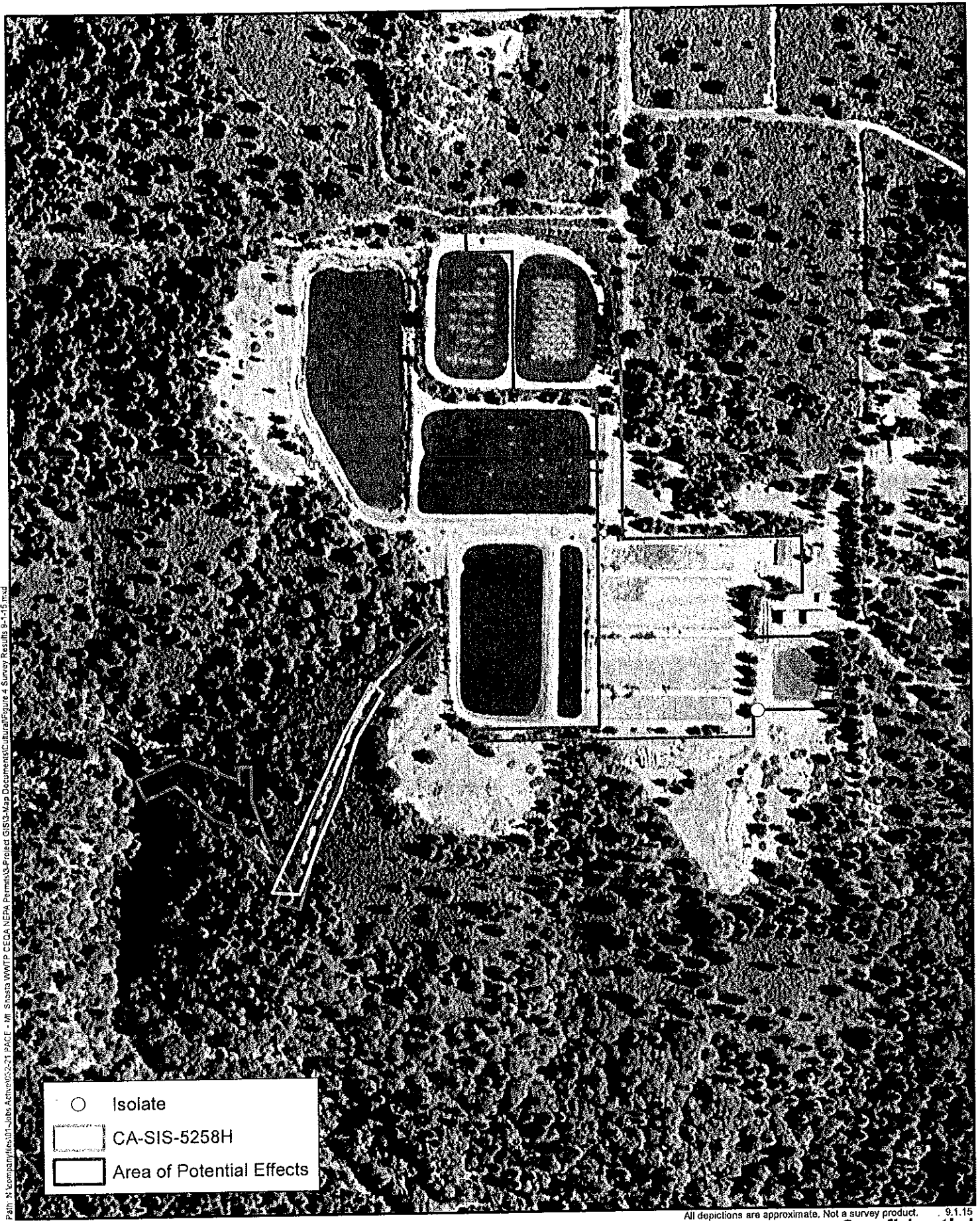
Figure 3  
Survey Coverage

All depictions are approximate. Not a survey product. 9.3.15

Confidential  
ENPLAN



Path: N:\Company\files\01-Jobs\Arch\03-21-13\ACE - M - Shasta\DMITP\CEQA\NEPA\Permis\GIS\Map Documents\Cultural\Figure 4 Survey Results 9-1-15.mxd



All depictions are approximate. Not a survey product. 9.1.15



Figure 4  
Survey Results

Confidential  
ENPLAN

## APPENDIX B: CORRESPONDENCE

- Request for Sacred Land Search faxed to Native American Heritage Commission, April 1, 2015
- Faxed Native American Heritage Commission response, May 1, 2015
- Request for Comment letter sent to Native American groups/individuals, May 4, 2015
- Quartz Valley Indian Reservation response, May 14, 2015
- Record of Phone Conversations, May 20, 2015



32-21  
April 1, 2015

**REQUEST FOR SACRED LANDS SEARCH**

**TO:** Native American Heritage Commission

**FROM:** Heidi Shaw, Cultural Resources Manager

**EMAIL:** hshaw@enplan.com

**PHONE:** (530) 221-0440 x 7124

**PROPOSED PROJECT:** City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project

**SITE LOCATION:** City of Mount Shasta 7.5' Quadrangle, Township 40 N, Range 4 W, Sections 28 and 33

**SITE SIZE:** ±12.5 Acres

ENPLAN is conducting the necessary records search and comment solicitation pursuant to the California Environmental Quality Act (CEQA).

The City of Mount Shasta is proposing to construct a replacement treatment facility at the Mt. Shasta Wastewater Treatment Plant. The new treatment, filtration, disinfection facilities, and control buildings will be constructed within the footprint of abandoned intermittent sand filters. New pipelines from the existing headworks to the new facility will be constructed in previously disturbed areas within the existing treatment facility boundary. The project will also require improvements to the Sacramento River outfall pipeline, replacement of the existing energy dissipation tank, and river diffuser; all of which will be constructed within the footprint of the existing structures. In order to facilitate access to the outfall site during construction, it may be necessary to perform some minor grading, brushing, and placement of aggregate base on the existing access road and access path.

We would appreciate any information you could provide regarding cultural resources in the area, or Native American groups that we might contact for more information. You may respond by phone, letter, fax, or e-mail.

Thank you for your assistance.

Heidi Shaw

Enclosed: Project Location and Vicinity Map

STATE OF CALIFORNIAEdmund G. Brown, Jr., Governor**NATIVE AMERICAN HERITAGE COMMISSION**

1550 Harbor Blvd., ROOM 100  
West SACRAMENTO, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



April 23, 2015

Heidi Shaw  
ENPLAN  
3179 Bechell Ln., Ste 100  
Redding, CA 96002

Sent by Fax: (530) 221-6963  
Number of Pages: 2

Re: City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou  
County.

Dear Ms. Shaw,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez  
Associate Government Program Analyst

**Native American Contact List  
Siskiyou County  
April 23, 2015**

Quartz Valley Indian Community  
Harold Bennett, Chairperson  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
tribalchair@qvir.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

Shasta Indian Nation  
Sami Jo Difuntorum, Cultural Resources  
P.O. Box 634 Shasta  
Newport , OR 97365  
samijodif@yahoo.com  
(530) 643-2463 Cell

Shasta Nation  
Mary Carpelan, Cultural & Archaeological Res.  
P.O. Box 1054 Shasta  
Yreka , CA 96097  
(530) 842-5654

Shasta Nation  
Roy V. Hall, Jr, Chairperson  
P.O. Box 1054 Shasta  
Yreka , CA 96097  
(530) 468-2314

Quartz Valley Indian Community  
Evette Lewis, Cultural Resources Coordinator  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
qvirnichelle@yahoo.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

Butte Valley Indian Community  
Sami Jo Difuntorum, Administrator  
P.O. Box 100 Shasta  
Macdoel , CA 96058  
samijodif@gmail.com  
(530) 643-2463

Quartz Valley Indian Community  
Rebekah Sluss, Environmental Coordinator  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
qvirnichelle@yahoo.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou County.



32-21  
May 4, 2015

**REQUEST FOR COMMENT**

**TO:** Mary Carpelan, Cultural and Archaeological Resources, Shasta Nation  
Roy V. Hall Jr., Chairperson, Shasta Nation  
Rebekah Sluss, Environmental Coordinator, Quartz Valley Indian  
Community  
Harold Bennett, Chairperson, Quartz Valley Indian Community  
Evette Lewis, Cultural Resources Coordinator, Quartz Valley Indian  
Community  
Sami Jo Difuntorum, Butte Valley Indian Community and Shasta  
Indian Nation

**FROM:** Heidi Shaw, Cultural Resources Manager  
**EMAIL:** hshaw@enplan.com  
**PHONE:** (530) 221-0440 x 7124

**PROPOSED PROJECT:** City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project

**SITE LOCATION:** City of Mount Shasta 7.5' Quadrangle, Township 40 N, Range 4 W, Sections 28 and 33

**SITE SIZE:** ±12.5 acres

On behalf of the City of Mt. Shasta, ENPLAN is conducting the necessary records search and comment solicitation pursuant to the California Environmental Quality Act (CEQA).

The City of Mount Shasta is proposing to construct a replacement treatment facility at the Mt. Shasta Wastewater Treatment Plant. The new treatment, filtration, disinfection facilities, and control buildings will be constructed within the footprint of abandoned intermittent sand filters. New pipelines from the existing headworks to the new facility will be constructed in previously disturbed areas within the existing treatment facility boundary. The project will also require improvements to the Sacramento River outfall pipeline, replacement of the existing energy dissipation tank, and river diffuser; all of which will be constructed within the footprint of the existing structures. In order to facilitate access to the outfall site during construction, it may be necessary to perform some minor grading, brushing, and placement of aggregate base on the existing access road and access path.

We would appreciate any information you could provide regarding cultural resources in the area. You may respond by phone, letter, fax, or e-mail.

Thank you for your assistance.  
Heidi Shaw

Enclosed: Project Location Map



*Quartz Valley Indian Reservation ♦ 13824 Quartz Valley Road ♦ Fort Jones, CA 96032*

May 14, 2015

Explan  
Heidi Shaw  
3179 Bechelli Lane Suite 100  
Redding, Ca 96002

**Re: "Wastewater Treatment and Disposal Improvement"**

Dear Heidi Shaw

Thank you for your notification regarding Sections 28 and 33 T40N, R04W.

At this time we have no knowledge of any cultural sites within or adjacent to the project area. However, the project area is in Tribal ancestral territory and we are very interested of any archeological findings.

**Would you please remove Evette Lewis off Quartz Valley Indian Reservation contact list?** Please forward all future mailings to Isaiah Williams the Environmental Field Technician, or Harold Bennett who is the current Chairman.

Thank you,

Isaiah Williams  
Environmental Field Technician

Date:	5-20-15	Record of Conversation/Notes
Project No.:	32-21	Called to follow-up Request for
Project Name:	Mt. Shasta WWRP	comment letter - Did not answer
Contact Name:	Sami Jo	left VM
Phone		
e-mail		
voicemail	X	
Date:	5-20-15	Record of Conversation/Notes Called to follow up
Project No.:	32-21	On request for comment letter - did
Project Name:	Mt. Shasta WWRP	not answer, but left VM
Contact Name:	Roy Hall	
Phone		
e-mail		
voicemail	X	
Date:	5-20-15	Record of Conversation/Notes Called to follow
Project No.:	32-21	up on request for comment letter -
Project Name:	Mt. Shasta WWRP	she had no comments, but asked to
Contact Name:	Mary Carpelan	be notified if anything was found.
Phone	X	
e-mail		
voicemail		
Date:		Record of Conversation/Notes
Project No.:		
Project Name:		
Contact Name:		
Phone		
e-mail		
voicemail		



**APPENDIX C: PHOTOS**

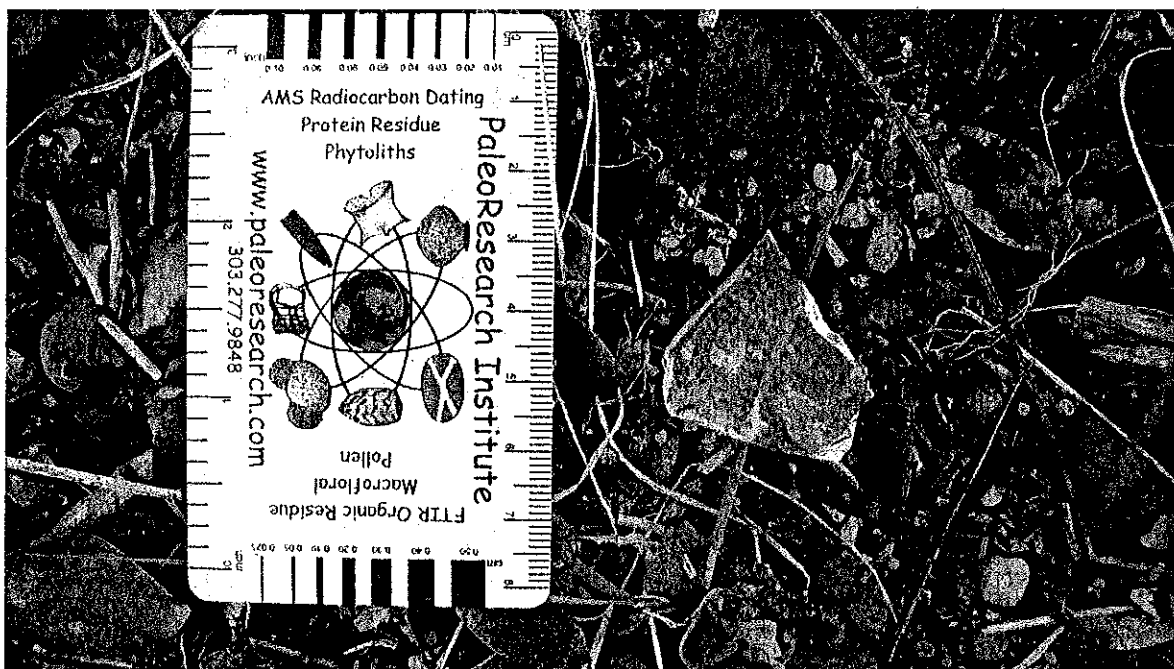


Photo # 1238- Stippled bottle base with Tygart Valley Glass Company maker's mark used from 1926-1959

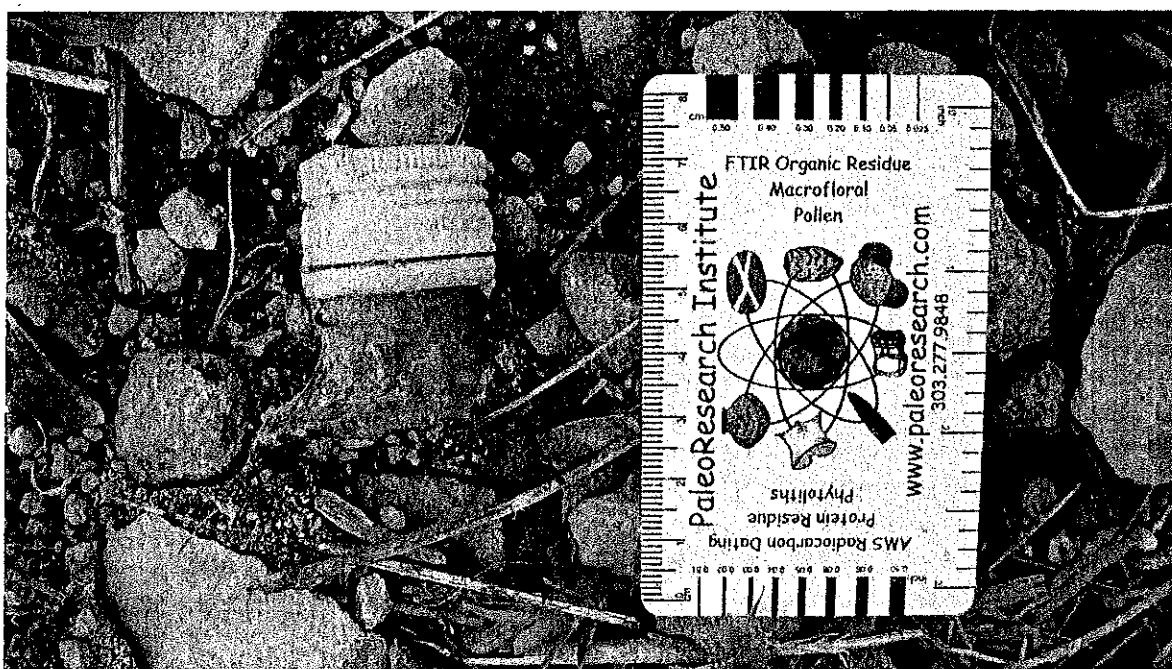


Photo # 1252- bottleneck with metal screw top inscribed "MADE AND SEALED BY GALLO IN CALIF"

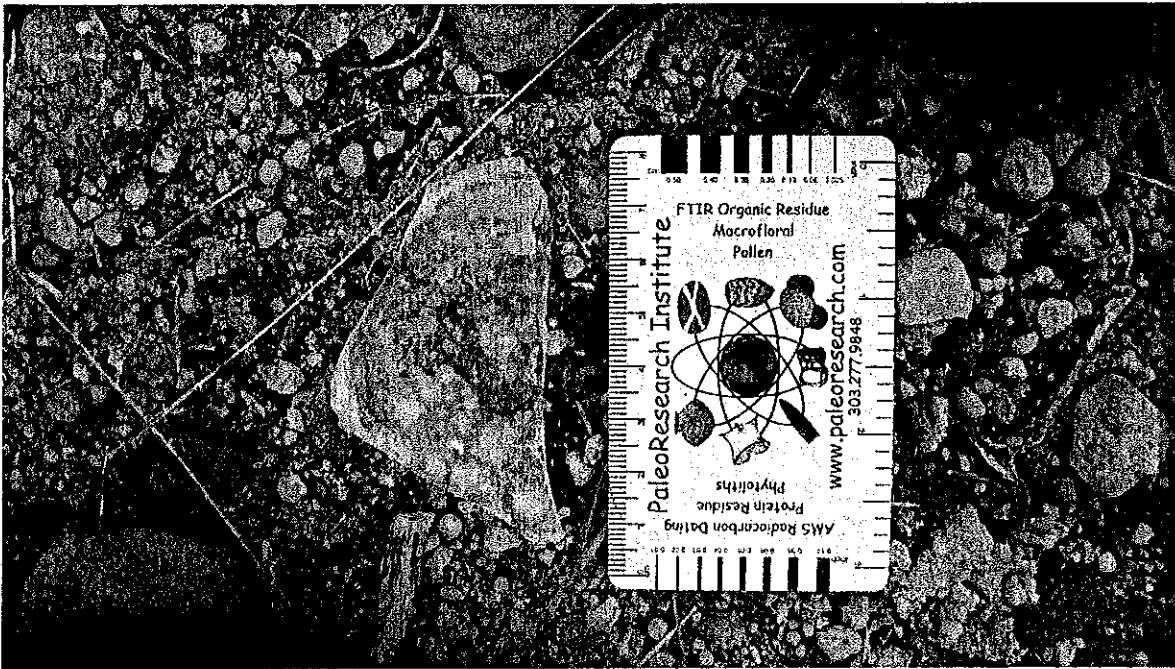


Photo # 1276- 12-quart bottle base with Owen's Illinois Glass Company maker's mark used from 1954 to present; maker's mark includes date code 68 and plant code 23

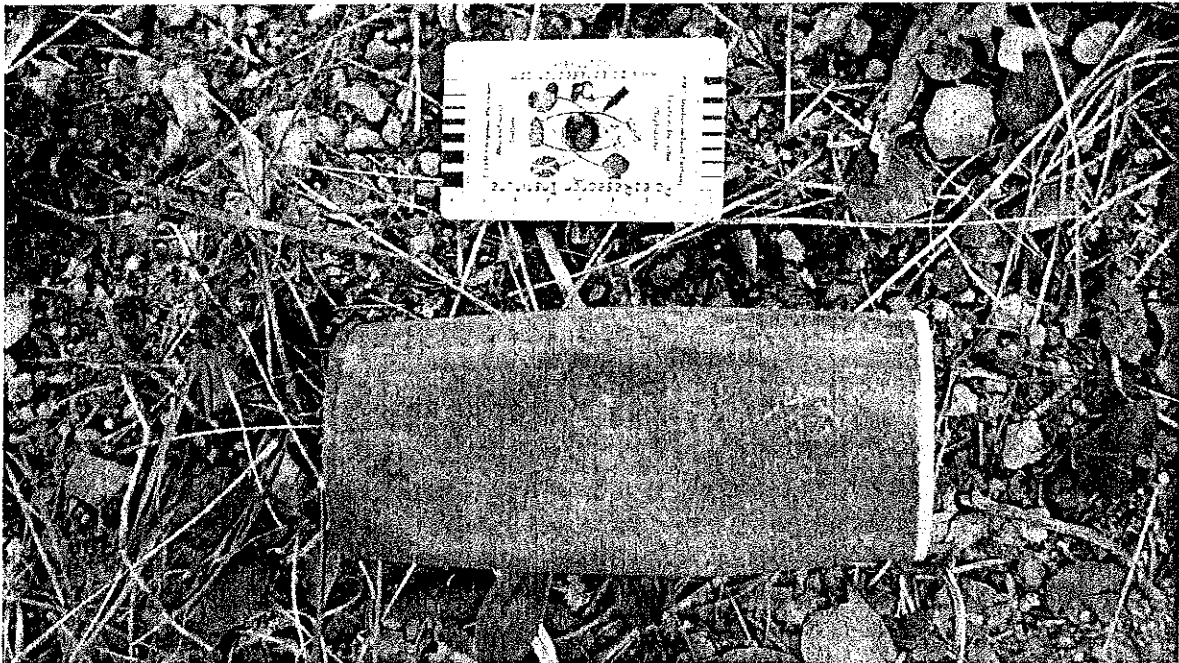


Photo # 1285- Olympia beer can with pull-tab opening

**APPENDIX D: SITE RECORD**

State of California  $\diamond$  The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # 47-005258

HRI #

Trinomial CA-SIS-5258H

NRHP Status Code

Other  
Review Code

Reviewer

Date

Listings

Page 1 of 9 \* Resource Name or #: (Assigned by recorder) MSWWTP-1

**P1. Other Identifier:**

\*P2. Location:  Not for Publication  Unrestricted

\* a. County Siskiyou and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\* b. USGS 7.5' Quad City of Mount Shasta Date 2015 T 40N ; R 4W ; of Sec 28 & 33 ; M.D.

**B.M.**

c. Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

d. UTM: (Give more than one for large and/or linear resources) Zone 10, 557135 mE 4569662 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)  
 APN: 036-450-230-000

\*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)  
 The Mt. Shasta Wastewater Treatment Plant (WWTP) refuse scatter consists of historic trash dispersed over approximately 160 meters along a dirt access road running downslope towards Box Canyon from the WWTP facilities. The scatter consists of 22 bottle glass fragments (colorless, amber, and green), 2 sherds of floral patterned white improved earthenware, and 4 ferrous metal objects including one complete pull-tab Olympia beer can. The glass fragments are all under 10cm in size and approximately 60% do not contain datable features. It is likely that the materials have come from further upslope on the terrace but have subsequently been washed downslope.



\*P3b. **Resource Attributes:** (List attributes and codes) AH4 Trash Scatter

\*P4. **Resources Present:**  Building  
 Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

\*P5b. **Description of Photo:** (view, date, accession #) P1080476 looking west (on file at ENPLAN)

\*P6. **Date Constructed/Age and Source:**  Historic  Prehistoric  Both

\*P7. **Owner and Address:**

City of Mt Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta CA 96067

\*P8. **Recorded by:**  
Jessica McCoy & Heidi Shaw  
ENPLAN, 3179 Bechelli Ln Ste.  
100, Redding, CA 96002

\*P9. **Date Recorded:** April 10, 2015

\*P10. **Survey Type:** Intensive Pedestrian survey

\*P11. **Report Citation:** (Cite survey report

and other sources, or enter "none.")

McCoy, J. and H. Shaw, 2015. Cultural Resources Inventory: Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou County, California. ENPLAN, Redding, CA.

\* **Attachments:**  NONE  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List): Site Sketch

State of California — Natural Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**ARCHAEOLOGICAL SITE RECORD**

Primary # 47-005258  
Trinomial CA-SIS-5258H

Page 2 of 9

\*Resource Name or #: MSWWTP-1

**\*A1. Dimensions:** a. Length: 140 m. ( N/S) x b. Width: 20 m. ( E/W)

**Method of Measurement:**  Paced  Taped  Visual estimate  Other: observed via GPS data  
**Method of Determination** (Check any that apply.):  Artifacts  Features  Soil  Vegetation  Topography  
 Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain):

**Reliability of Determination:**  High  Medium  Low Explain: visibility of natural soil was excellent (>90%)

**Limitations** (Check any that apply):  Restricted access  Paved/built over  Site limits incompletely defined  
 Disturbances  Vegetation  Other (Explain): site identified on graded dirt road during cultural resources survey for Mt. Shasta wastewater treatment plant improvements and may extend beyond the study area for this project

**A2. Depth:**  None  Unknown **Method of Determination:**

**\*A3. Human Remains:**  Present  Absent  Possible  Unknown (Explain): no subsurface investigation executed

**\*A4. Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):  
None

**\*A5. Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.): The cultural constituents consist of 28 pieces of historic refuse: 2 fragments of white improved earthenware with floral pattern, 1 solder dot can lid, 1 metal drum with folded edge, 1 metal sheet (90% buried), 1 Olympia beer can with pull tab (1960s-1970s) (Maxwell 1993), 1 bright green bottle shoulder fragment, 1 colorless stippled base fragment with Tygart Valley Glass maker's mark used from c. 1940-1960 (Toulouse 1971), 1 amber bottle shoulder and neck fragment, 1 green Gallo bottle neck with external threads and metal cap dating after 1966 (Toulouse 1971) 1 colorless base fragment with seam, 1 embossed amber base fragment, 1 bright green fragment with molded design, 1 colorless base of 12 qt bottle from Owen's Illinois Glass Company produced in 1968 according to maker's mark code (Toulouse 1971). Additional glass fragments without diagnostic features include: 7 colorless fragments, 6 bright green fragments, 1 amber fragment and 1 melted amalgam of amber and green glass.

**\*A6. Were Specimens Collected?**  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

**\*A7. Site Condition:**  Good  Fair  Poor (Describe disturbances.): Site is within the corridor of a graded dirt road and is likely a secondary deposit site that is the result of material washing downslope from a primary dump site.

**\*A8. Nearest Water** (Type, distance, and direction.): Sacramento River runs through Box Canyon approximately 130 meters downslope to the west of the site

**\*A9. Elevation:** 980 meters amsl

**A10. Environmental Setting** (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The soils consist of Neer-Ponto stony, sandy, loam which is well drained, volcanic derived soil with a slope of 15-50%. The site is on a slope with a southwest aspect. Vegetation adjoining the dirt road consists primarily of manzanita chaparral within a mixed conifer forest.

**A11. Historical Information:**

The Box Canyon Dam is approximately 0.6 miles northwest of the site. The dam was constructed in 1969 across the Sacramento River for flood control (Siskiyouhistory.org). The resulting lake engulfed the historic Spini Ranch, features of which are located above the water level northwest of the Mt Shasta WWTP refuse scatter and have been recorded as CA-SIS-2468/H. The current WWTP facilities were constructed in 1976. Presumably the road was graded around the same time to facilitate access to and installation of the diffuser in the Sacramento River.

**\*A12. Age:**  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945  Post 1945  Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:

**A13. Interpretations** (Discuss data potential, function[s], ethnic affiliation, and other interpretations):

The site appears to be an accumulation of mid-20<sup>th</sup> Century refuse. The majority of the material with datable features is attributable to the 1940s through the late 1960s.

**A14. Remarks:** The distribution of material combined with level of relief in the surrounding landscape indicates that the site may be a secondary deposit of cultural material that has washed downslope from a larger concentration.

**A15. References** (Documents, informants, maps, and other references):

Maxwell, D.B.S, 1993. Beer Cans: A Guide for the Archaeologist. *Historical Archaeology*, Vol 27, No. 1, pp. 95-113.  
"Building the dam for Lake Siskiyou". SiskiyouHistory.org. accessed July 2015.  
Toulouse, J.H., 1971. *Bottle Makers and Their Marks*. New Jersey: The Blackburn Press.

**A16. Photographs** (List subjects, direction of view, and accession numbers or attach a Photograph Record.): see photo record

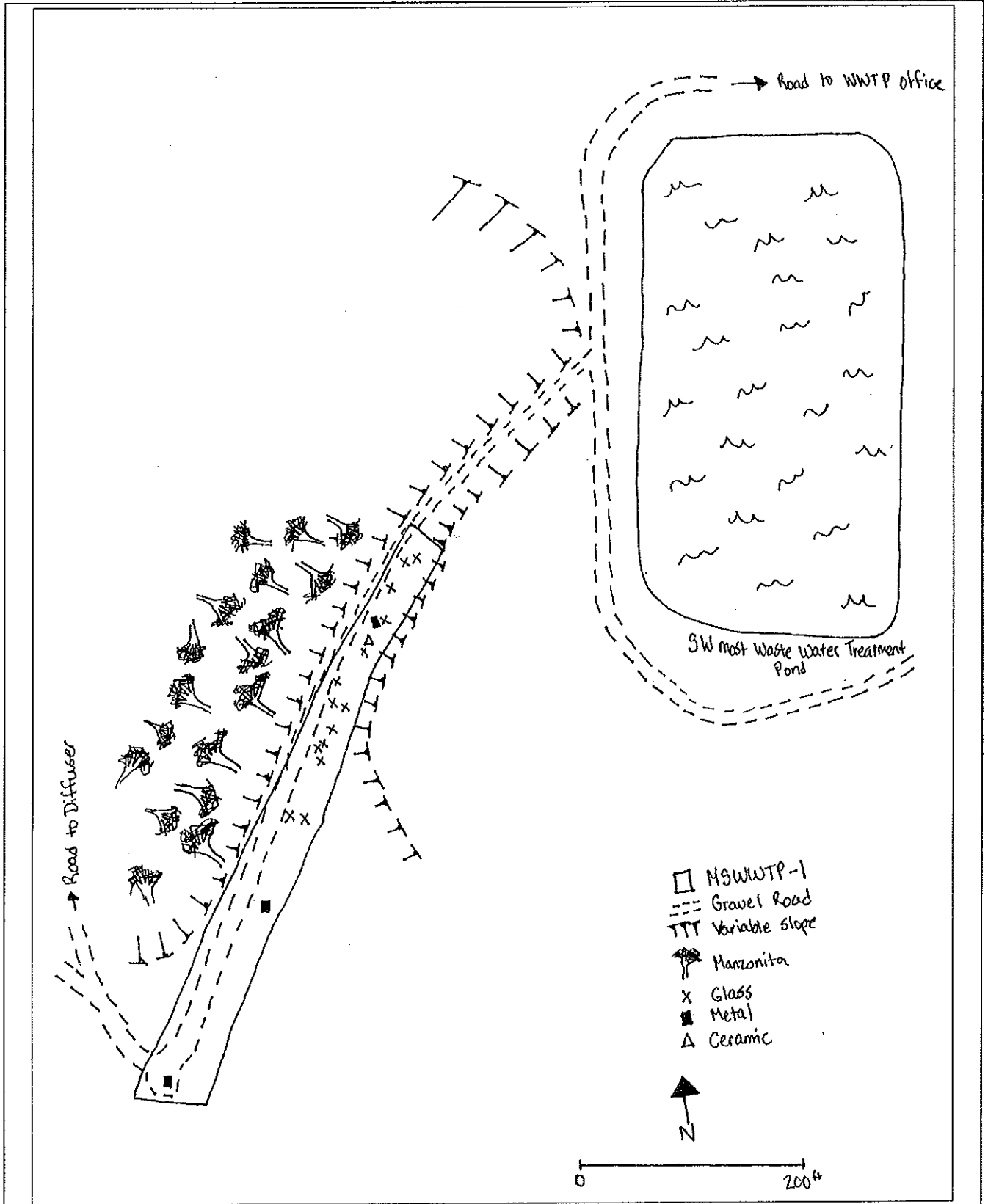
Original Media/Negatives Kept at: ENPLAN, Redding CA

\*A17. Form Prepared by: Jessica McCoy and Heidi Shaw

Date: July 2015

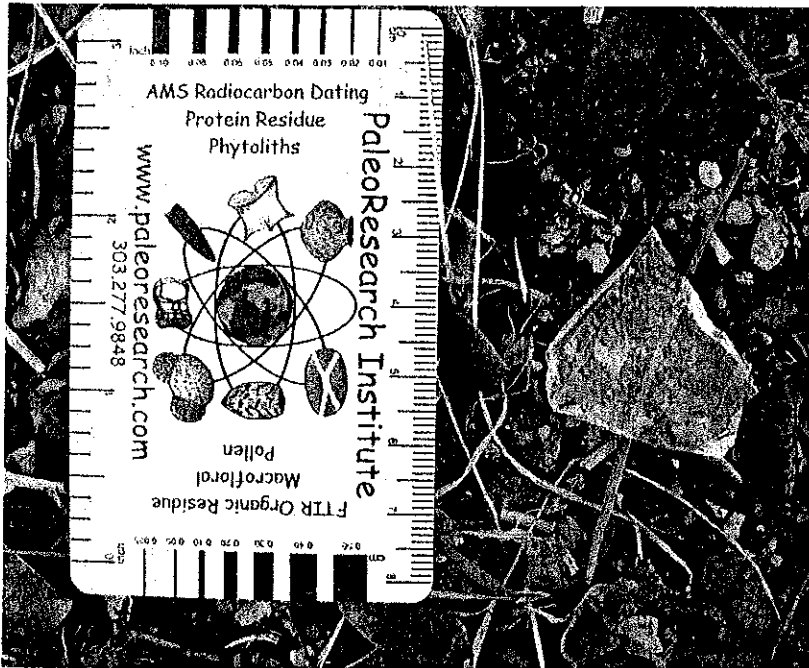
Affiliation and Address: ENPLAN, 3179 Bechelli Ln. Ste. 100, Redding, CA 96002

\*Required Information

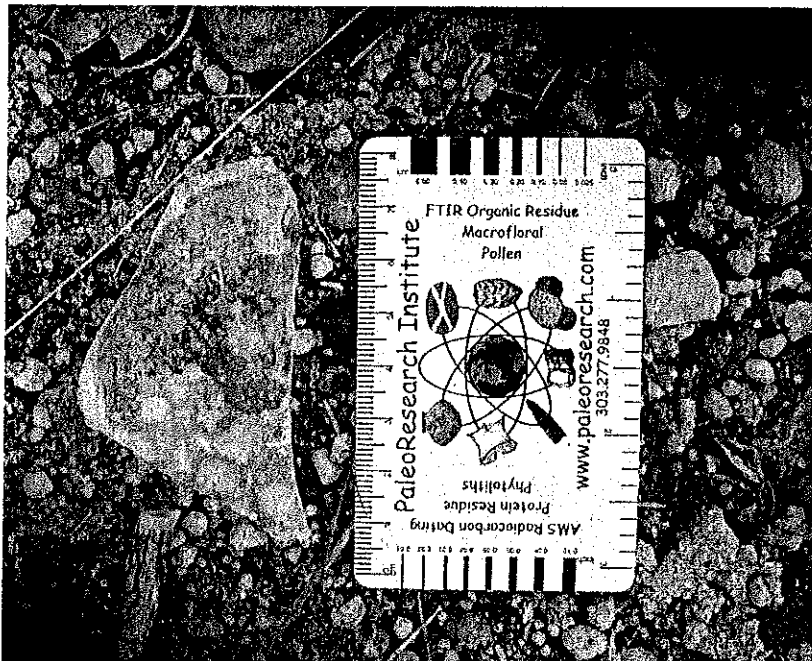




Page 5 of 9 Project Name: MSWWTP-1 Year 2015  
Camera Format: Digital Lens Size: 3.6x optical Film Type and Speed: N/A  
Negatives Kept at: ENPLAN, 3179 Bechelli Ln. Ste. 100, Redding, CA 96002

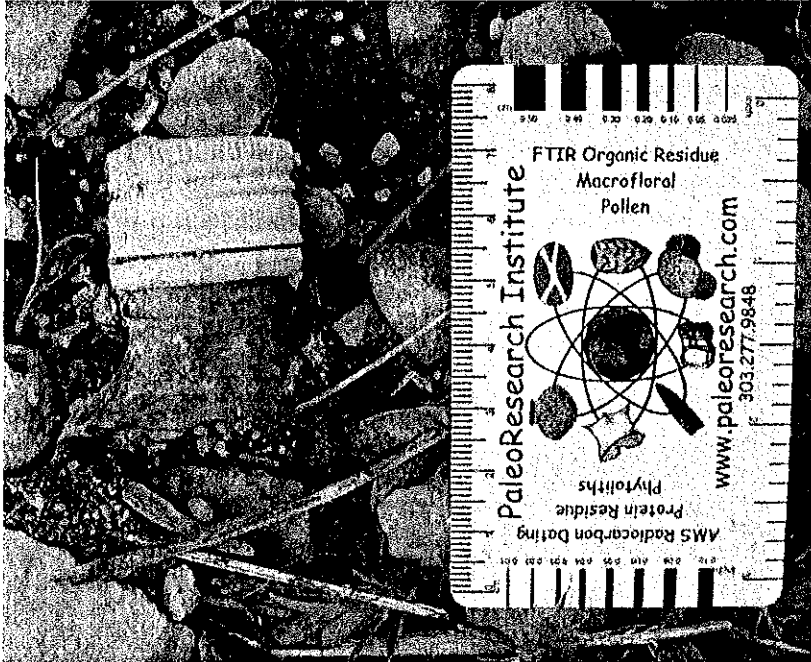


Date: April 10, 2015  
Exp/Frame: 1238  
Subject/Description:  
Colorless stippled base  
with Tygart Valley  
Glass Company maker's  
mark below used c.  
1940-1960

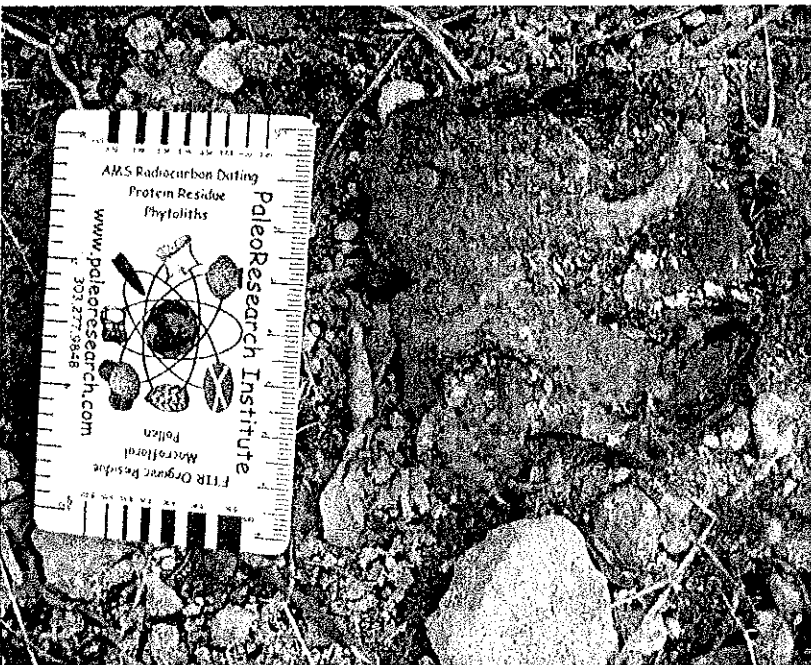


Date: April 10, 2015  
Exp/Frame: 1276  
Subject/Description:  
Colorless 12-qt bottle  
base with the Owens  
Illinois Glass Company  
maker's mark below  
and Plant code "23"



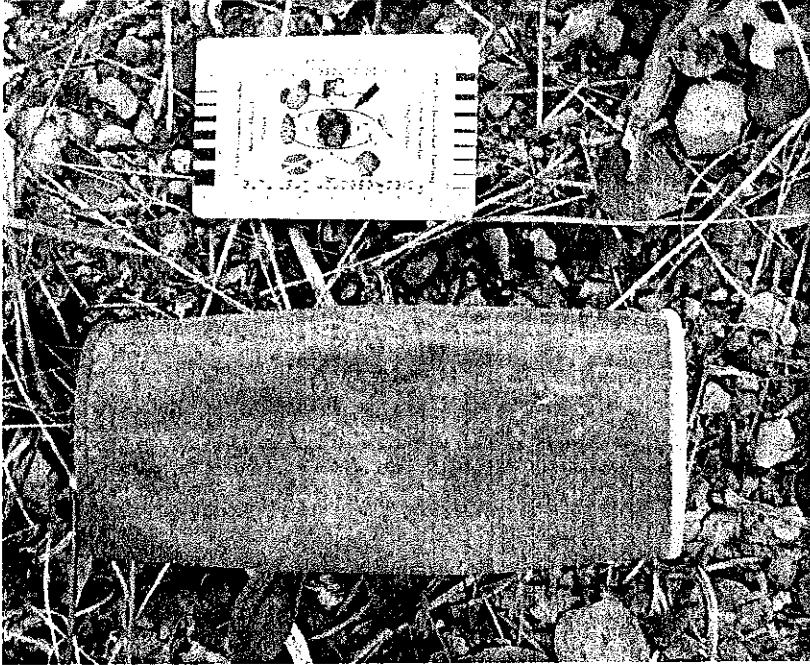


**Date:** April 10, 2015  
**Exp/Frame:** 1252  
**Subject/Description:**  
Bright green bottle neck  
with external thread and  
metal cap imprinted  
with "MADE AND  
SEALED BY GALLO  
IN CALIF"



**Date:** April 10, 2015  
**Exp/Frame:** 1267  
**Subject/Description:**  
Melted glass fragments  
of amber and green  
fused together

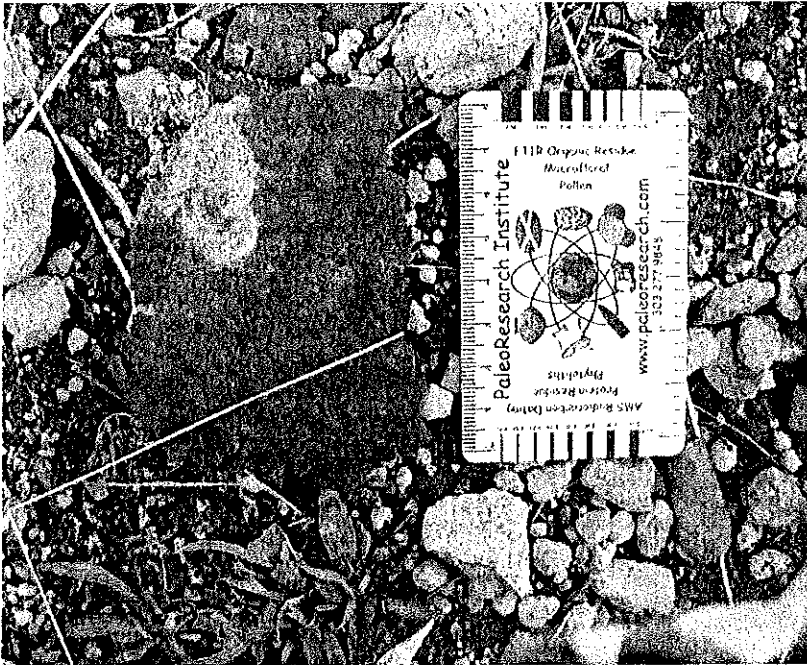
Page 7 of 9 Project Name: Mt Shasta WWTP refuse scatter Year 2015



**Date:** April 10, 2015  
**Exp/Frame:** 1285  
**Subject/Description:**  
Olympia beer can with  
interlocking side seam  
and pull-tab opening



**Date:** April 10, 2015  
**Exp/Frame:** 1248  
**Subject/Description:**  
2 fragments of white  
improved earthenware  
with floral pattern

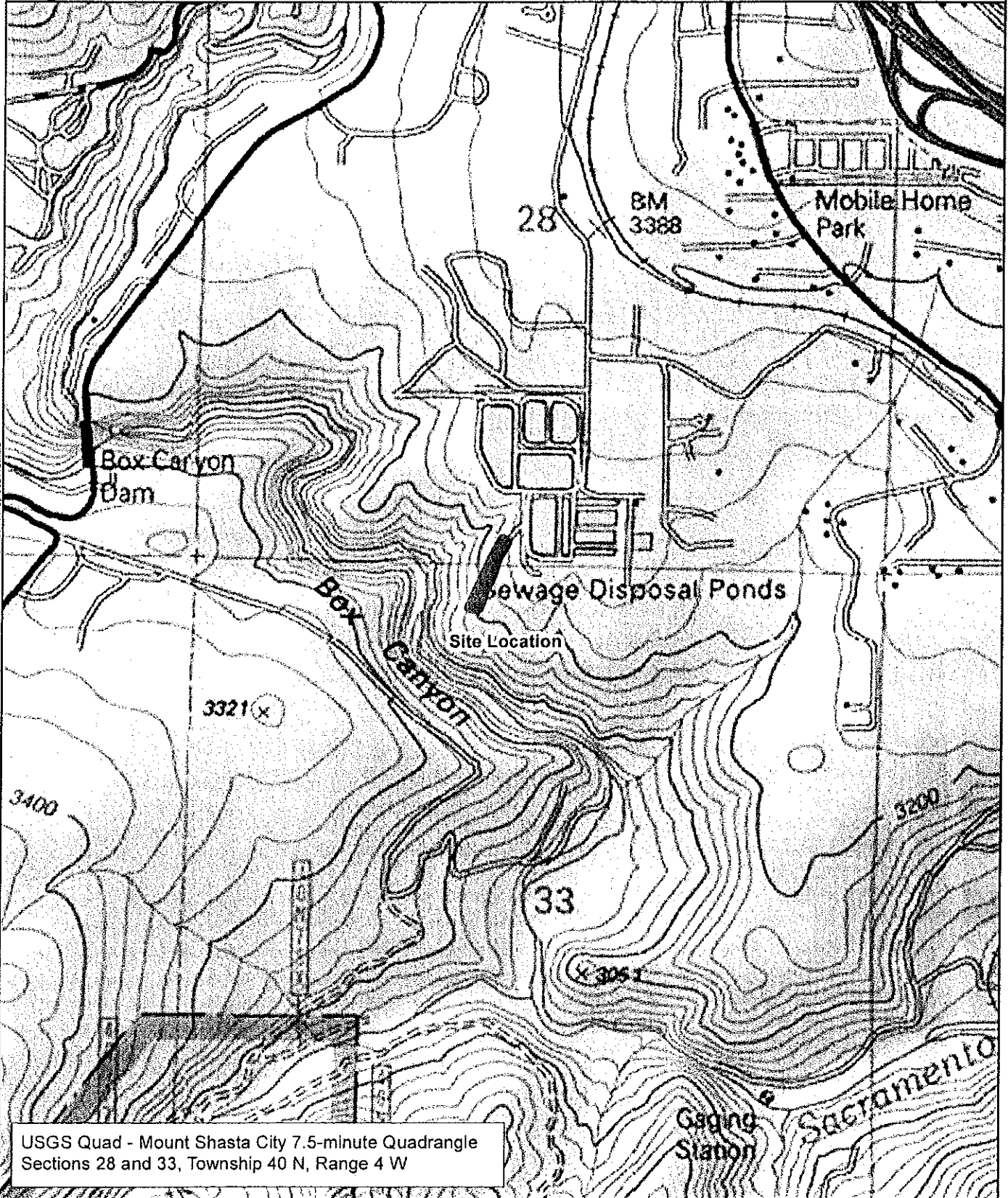


**Date:** April 10, 2015  
**Exp/Frame:**1241  
**Subject/Description:**  
Solder dot can lid



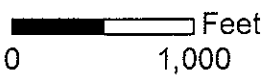
**Date:** April 10, 2015  
**Exp/Frame:**1258  
**Subject/Description:**  
Folded edge barrel,  
partially burried

Document Path: N:\complan\files\01-Jobs\_Acct\032-21-PAGE - Mt. Shasta WWTP CEQA\NEPA Permits\3-Project GIS\Map Documents\Cultural\DR Location Map 083115.mxd



USGS Quad - Mount Shasta City 7.5-minute Quadrangle  
Sections 28 and 33, Township 40 N, Range 4 W

All depictions are approximate. Not a survey product.



### MSWWTP-1 Site Location

**Accounting Reservations**

Project# 07660687902

EDA Reservations	\$125,000.00	Total Reservations	\$125,000.00
------------------	--------------	--------------------	--------------

Account#	Effective Date	Reservation
D14410000 47510	07/21/2014	\$125,000.00

**Accounting Obligations**

Project# 07660687902

EDA Obligations	\$125,000.00	Total Obligations	\$125,000.00
-----------------	--------------	-------------------	--------------

Account#	Effective Date	Obligation
D14410000 47510	08/13/2014	\$125,000.00

**Accounting Disbursements**

Project# 07660687902

EDA Disbursements	\$125,000.00	Total Disbursements	\$125,000.00
-------------------	--------------	---------------------	--------------

Account#	Effective Date	Disbursement
D14410000 47510	12/05/2014	\$13,726.32
D14410000 47510	03/10/2015	\$31,834.78
D14410000 47510	09/01/2015	\$79,438.90

EDA Balance:	\$0.00	Total Balance:	\$0.00
--------------	--------	----------------	--------

**FAS Summary** as of 09/30/1999  
project # 07660687902

Reservations:  
Obligations:  
Disbursements:  
Undisbursed:

**Accounting Reservations**

Project# 07660688201

EDA Reservations	\$125,000.00	Total Reservations	\$125,000.00
------------------	--------------	--------------------	--------------

Account#	Effective Date	Reservation
D13410000 47510	09/16/2013	\$125,000.00

**Accounting Obligations**

Project# 07660688201

EDA Obligations	\$125,000.00	Total Obligations	\$125,000.00
-----------------	--------------	-------------------	--------------

Account#	Effective Date	Obligation
D13410000 47510	09/20/2013	\$125,000.00

**Accounting Disbursements**

Project# 07660688201

EDA Disbursements	\$125,000.00	Total Disbursements	\$125,000.00
-------------------	--------------	---------------------	--------------

Account#	Effective Date	Disbursement
D13410000 47510	12/04/2014	\$125,000.00

EDA Balance:	\$0.00	Total Balance:	\$0.00
--------------	--------	----------------	--------

**FAS Summary** as of 09/30/1999

project # 07660688201

Reservations:

Obligations:

Disbursements:

Undisbursed:

**Accounting Reservations**

Project# 07660688502

EDA Reservations	\$125,000.00	Total Reservations	\$125,000.00
------------------	--------------	--------------------	--------------

Account#	Effective Date	Reservation
D14410000 47510	07/21/2014	\$125,000.00

**Accounting Obligations**

Project# 07660688502

EDA Obligations	\$125,000.00	Total Obligations	\$125,000.00
-----------------	--------------	-------------------	--------------

Account#	Effective Date	Obligation
D14410000 47510	08/13/2014	\$125,000.00

**Accounting Disbursements**

Project# 07660688502

EDA Disbursements	\$125,000.00	Total Disbursements	\$125,000.00
-------------------	--------------	---------------------	--------------

Account#	Effective Date	Disbursement
D14410000 47510	11/02/2014	\$10,471.00
D14410000 47510	01/14/2015	\$25,149.55
D14410000 47510	03/12/2015	\$3,988.56
D14410000 47510	09/11/2015	\$85,390.89

EDA Balance:	\$0.00	Total Balance:	\$0.00
--------------	--------	----------------	--------

**FAS Summary** as of 09/30/1999

project # 07660688502

- Reservations:
- Obligations:
- Disbursements:
- Undisbursed:



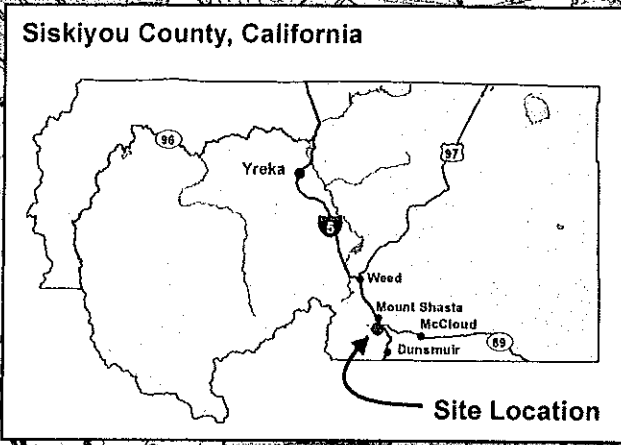
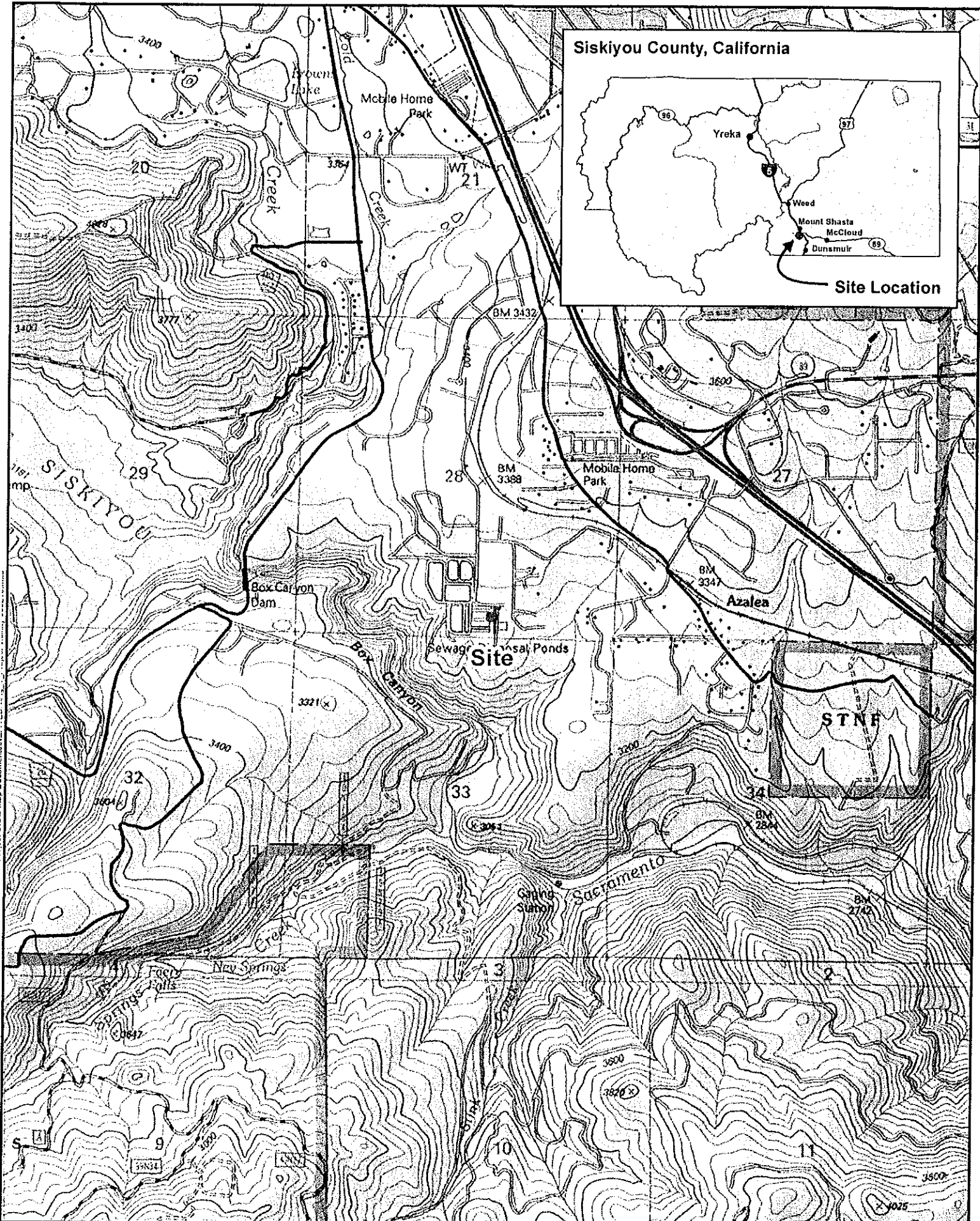


Figure 1

**Project Vicinity**

All depictions are approximate. Not a survey product. 09.02.15



**From:** [FitzGerald, Shannon](#)  
**To:** [Paul Eckert](#)  
**Cc:** [erin.ryan@mail.house.gov](mailto:erin.ryan@mail.house.gov); [Geoff Harkness](#); [Jeffrey Collings](#); [Kathy Morter](#); [Mike Burns](#) ([burnsmj5@sbcglobal.net](mailto:burnsmj5@sbcglobal.net)); [Tim's Gmail](#); [Good, Stan](#); [Chekouras, Katherine](#)  
**Subject:** RE: Mt Shasta FOIA Request  
**Date:** Thursday, February 11, 2016 1:50:30 PM

---

Hi Paul,

I've forwarded your FOIA request to Steve Kong, EDA's Chief Counsel in Washington, D.C. We'll start on that immediately.

Thank you for your time this morning. We appreciate working with you and Rod. –Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

---

**From:** Paul Eckert [<mailto:eckert@mtshastaca.gov>]  
**Sent:** Thursday, February 11, 2016 12:54 PM  
**To:** FitzGerald, Shannon; Good, Stan  
**Cc:** [erin.ryan@mail.house.gov](mailto:erin.ryan@mail.house.gov); [Geoff Harkness](#); [Jeffrey Collings](#); [Kathy Morter](#); [Mike Burns](#) ([burnsmj5@sbcglobal.net](mailto:burnsmj5@sbcglobal.net)); [Tim's Gmail](#)  
**Subject:** Mt Shasta FOIA Request

Hi Shannon,

Thank you for your follow-up call this morning. This email serves as a Freedom of Information Act request for electronic copies of all documents and correspondence including agreements, letters, phone logs, notes, and emails for the period of November 1, 2015 to February 11, 2016 at 1200 in connection with the City of Mount Shasta EDA Award No. 07-79-0700 – Upgrade of the Mount Shasta Wastewater Treatment Plant

Time is of the essence with this information request as the information is critically important as the City contemplates our legal options. Please let us know if we can provide additional information or clarification.

We are disappointed over the termination of the \$3M EDA Grant to the City of Mt. Shasta.

Again, we appreciate Stan Good's and your efforts.

Congressman LaMalfa's, Senator Feinstein, and Senator Boxer's Staff and our City Council Members are or will soon be copied on this request.

## **Crystal Geysler issues raised, meeting with supervisors planned**

Many citizens voiced questions and concerns about the Crystal Geysler water bottling plant during the Dec. 14 Mount Shasta City Council meeting.

Comments ranged from warnings about fines incurred by Crystal Geysler for construction without permits to worries about residents picking up the bill for the company's power and sewer needs.

The group WATER's first court hearing for their lawsuit against Crystal Geysler occurred a few days later.

In that same week, Siskiyou County Building Department issued a cease and desist order to halt the construction of a ph neutralization building at the plant.

District 2 County Supervisor Ed Valenzuela said a presentation by Crystal Geysler representatives regarding construction at the plant is tentatively scheduled for the Jan. 12 meeting in Yreka. The final agenda will be confirmed later this week.

### **Lawsuit**

Bruce Hillman of the WATER group said they had their first day in court Dec. 17 to present legal arguments about their lawsuit against Crystal Geysler and Siskiyou County.

According to Hillman, Judge Karen Dixon was unsure that judicial review was appropriate in this case. She allowed WATER's attorney Don Mooney to amend the complaint to clarify the legal issues. The group was given a deadline of Jan. 29, 2016 to submit amended arguments.

### **Construction trouble**

Crystal Geysler was fined \$1,000 after installing four of six planned propane-fueled boilers before the permit process was complete.

The total amount was a culmination of four separate fines of \$250, one for each boiler.

"This was a simple miscommunication between our company and a contractor, resulting in an oversight," Jill Harris of Crystal Geysler replied in response to questions regarding why the company proceeded with non-permitted construction.

A newsletter sent out by WATER includes a version of the anticipated emissions chart from Crystal Geysler's building permit, edited by Bruce Hillman in an effort to make the information easier for the public to understand.

The numbers in the newsletter correspond with the chart included in the boiler permit application, indicating over 17,000 tons of carbon dioxide that would be released per year from the four boilers.

This chart assumes all four boilers running 24 hours per day, but the permit application claims that only two boilers would be run full-time. "At full production, the CIP system may require the use of two boilers," states the permit application. "CGWC initially proposes to bottle sparkling water. During this phase, only one boiler will be operated full-time."

WATER claims Siskiyou County Air Pollution Control District is excusing Crystal Geyser from an EIR due to the fact that output from each individual boiler is below the requirement threshold. The application states, "The New Source Performance Standard applies to boilers with a maximum design heat input capacity greater than 10 MMBtu/hr. Since each of the boilers Crystal Geyser is proposing to install are 7.1 MMBtu/hr, NSPS does not apply."

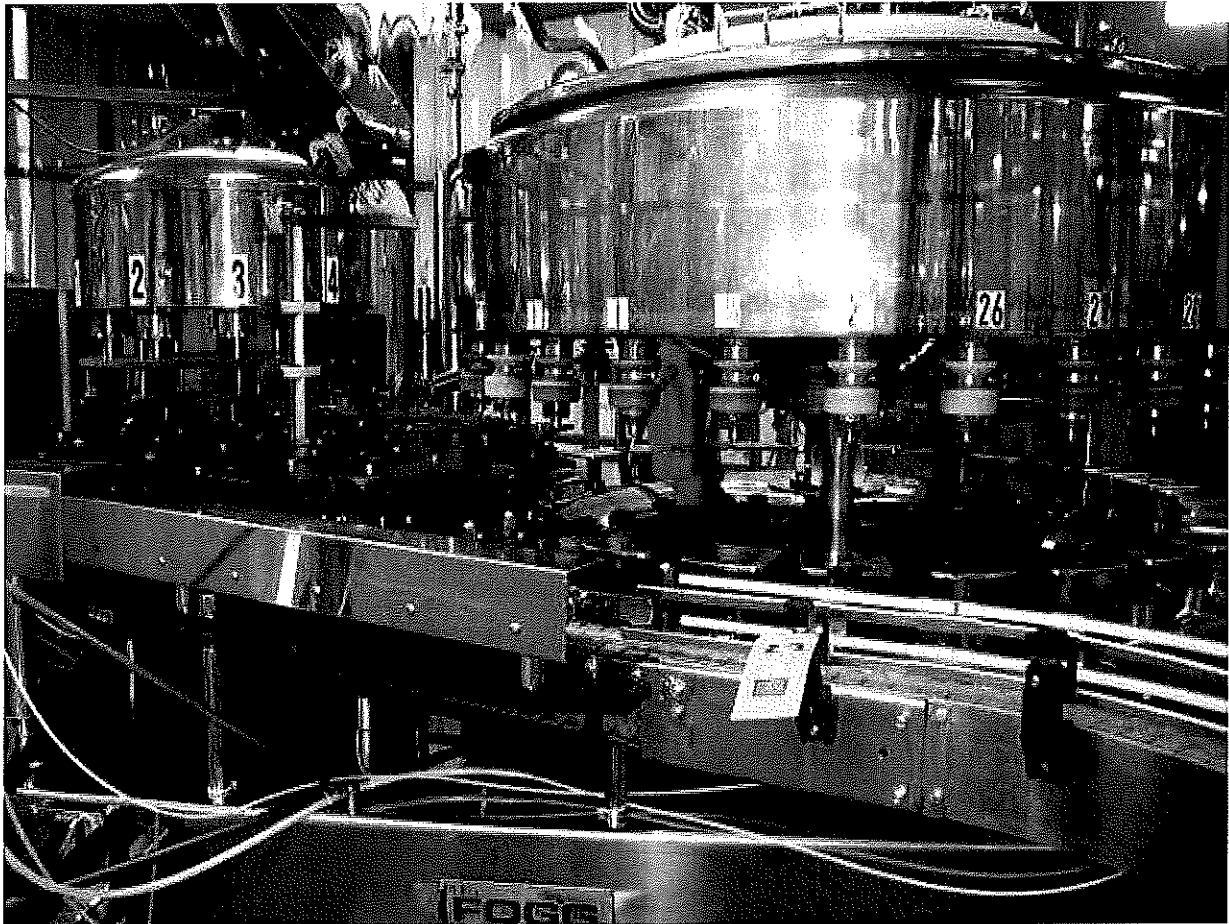
# Water Processing, Filling and Packaging Equipment Auction

Location:

Valencia, CA, USA

Available for:

00Days00Hours00Minutes00Seconds





**Name:**

Water Processing, Filling and Packaging Equipment Auction

**Auction Reference:**

HDC0002

**Auction Opens:**

Nov 17, 2015

**Auction Closes:**

Nov 20, 2015

**Location:**

Valencia, CA, USA

**Description:**

An online auction of assets from a water bottling plant located in California. The equipment is surplus to the requirements of Crystal Geysler / Metromint Water.

Equipment in this auction includes:

- 3-Tank Skid Mount All S/S CIP System
- 2009 1,720 GPH Skid Mounted All S/S HTST Pasteurization System
- S/S Skid Mounted Mint Flavor Injector/Extractor
- Fogg 30 Head Rotary Inverter Type Empty Bottler Rinser
- Empty Bottle Unscrambler Infeed Conveyor
- Sonic Air Systems Air Knife Bottle Dryer
- Hartness Model 835 Drop Case Packer
- CTM Series 360 Applicator Modular Labeling System
- Polymetrics Compressed Air Type Ozone Generator
- Aquafine S/S UV Sterilizer
- Plus a range of air compressors and facility support

SFGATE.com

# Crystal Geyser, small town locked in bitter water fight

By Peter Fimrite

Updated 12:33 pm, Wednesday, February 19, 2014

MOUNT SHASTA, Siskiyou County - The clean freshwater that squeezes out of the crags and burbles up into springs and creeks around Mount Shasta is cherished far and wide as a curative natural serum for every ailment short of hurt feelings.

That may explain why the mineral-rich water is now a source of so much pain in the picturesque city of Mount Shasta, at the base of the Siskiyou County volcano.

To the dismay of residents, Crystal Geyser recently came to town hoping to turn a profit. The Calistoga-based purveyor of water and juice wants to tap a local aquifer known as Big Spring, bottle the water and sell it.

The move has infuriated environmentalists, local American Indian tribes and residents of this city of 3,394, whose interest in the resource borders on the spiritual.

Opponents claim the bottling operation could suck wells dry and deplete the aquifer, which fills Siskiyou County rivers and streams and feeds the headwaters of the Sacramento River. Huge quantities of chemicals, juice and other runoff could overwhelm the wastewater treatment plant, which is barely big enough now for the locals, according to opponents.

Citizens group's fears

"It's serious, even more serious than we originally thought," said Vicki Gold, a member of the citizens group We Advocate Through Environmental Review, or WATER.



Gold's group says county officials are rubber-stamping an environmentally risky project without requiring an environmental impact report or getting assurances from Crystal Geysers that it won't ramp up water usage over time. This, she said, at a time when California is facing a potentially historic drought.

"This is the same aquifer that the homeowners who live nearby share," Gold said. "There is no environmental impact review, no restrictions on groundwater extraction and Crystal Geysers has carte blanche in terms of traffic and to build as many buildings as they want."

Doug MacLean, the chief executive officer for Crystal Geysers, said the WATER concerns are overblown. The plant the company will use, he said, was built by Coca-Cola to bottle water for Dannon and was vetted and permitted before the soft drink giant closed it four years ago.

"Our usage will be roughly half of what the Coke/Dannon plant was using, and they had no problems," MacLean said. "This is a very, very abundant water source. The amount we use will be very insignificant relative to the amount available."

The water fight is important because the area around 14,179-foot Mount Shasta is the source of much of California's drinking water. Melted glacier water and runoff from storms flows into a labyrinth of lava tubes and underground channels snaking through the mountainous region.

The cold, mineral-rich water filters through the porous soil and bubbles up into numerous creeks, springs and tributaries of the Sacramento, McCloud and Klamath rivers. Much of it is captured behind 602-foot-tall Shasta Dam, which is part of the Central Valley Project, a huge federal system that provides water for fish, irrigation, drinking water and hydropower.

Crystal Geysers paid \$5 million in October for the 145,000-square-foot bottling plant, which was once the site of a cedar lumber mill and is zoned for heavy industrial use. The

operation, which is on 266 acres, was abandoned by Coca-Cola in 2010 when the soda company stopped selling spring water.

#### Company's plans

The facility, which is under county jurisdiction but would have to use city services, must do approximately \$10 million in waste disposal system upgrades before it can open in 2015. Crystal Geysers has obtained a \$3 million federal grant for the work, which it is matching, MacLean said.

He said the initial plan is to have a single bottling line, which would use an average of 115,000 gallons of water a day to make mineral water, juice, flavored tea and mint drinks. A second line would be opened in five to seven years, bumping up water use to an average of 217,000 gallons, with a maximum of 365,000 gallons a day. Coca-Cola used 250,000 to 300,000 gallons a day, he said.

MacLean said the company will eventually phase out its Calistoga and Bakersfield plants and move its entire operation to Siskiyou County.

Greg Plucker, the Siskiyou community development director, said Crystal Geysers did not need county approval because bottling is a permitted use and his department does not have the authority to require an environmental review because an EIR was done when the facility was built.

#### Economic impact

The bottling plant could do wonders for the economy of the former lumber region, which now relies mostly on tourism, said Michael Kobseff, chairman of the Board of Supervisors.

"It will help the county and city, it will put people to work and it may bring people in to add to the workforce," Kobseff said. "Siskiyou County is the 14th most economically stressed county in the nation. We need family-wage-paying jobs year round, not unlike we had when we had mills in operation, but we lost that some time ago and never recovered."

Opponents, including the Winnemem Wintu Tribe, are skeptical given previous battles over water use. Residents of the nearby town of McCloud waged a bitter battle with Nestle Waters several years ago after the company proposed a 1 million-square-foot bottling facility. The plan then was to siphon 1,250 gallons per minute from tributaries feeding into the McCloud River, also an important feeder for Shasta Reservoir.

Nestle was forced to pull out in 2008 after sustained community resistance and a threat by then-Attorney General Jerry Brown to sue unless the county first evaluated the effects of global warming on the future water supply.

Environmental review push

Gold and her cohorts say county officials can require an environmental review of truck traffic and electrical, water and wastewater usage. Instead, she said, county officials are relying on "best-case scenario" estimates that can easily be flouted once the plant is up and running.

The lack of oversight is a reflection of a county overseen by supervisors who recently voted 4-1 to pursue secession because they don't like state regulations, particularly the California Environmental Quality Act, critics said.

"You have a resource-rich county and you have no regulation ... during a drought," Gold said. "It's all about jobs. What the county is saying, essentially, is that any dirty industry can come to the most pristine area that everyone in the state is dependent on."



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Central Valley Regional Water Quality Control Board

16 December 2015

Ms. Kristen Maze, City Planner  
City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

WDID 5A470105001

### **COMMENTS REGARDING PROPOSED MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY, CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT, MT. SHASTA, SISKIYOU COUNTY**

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has reviewed the November 2015 Proposed Mitigated Negative Declaration and Initial Study for the proposed improvements to the City of Mt. Shasta Wastewater Treatment Plant and Sacramento River outfall prepared by ENPLAN and received by the Central Valley Water Board Redding Office on 25 November 2015. The submittal includes, in part, a proposal for constructing facility improvements necessary to achieve compliance with regulatory requirements outlined in Waste Discharge Requirements (WDRs) Order R5-2012-0086, NPDES No. CA0078051, and Time Schedule Order (TSO) R5-2012-0087. Based on information provided in the submittal, Central Valley Water Board staff is providing the following comments.

The submittal states that construction of the new wastewater treatment facility will be completed by July 2019. In accordance with TSO Order R5-2012-0087, full compliance with final effluent limitations for ammonia, copper, and zinc must be achieved by 1 June 2017. It appears that the proposed construction schedule will not comply with regulatory requirements established in the TSO.

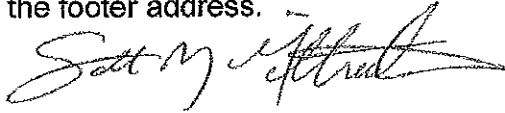
Two options are presented in the submittal with regard to decommissioning existing facility treatment lagoons: (1) abandon and allow to be naturally inundated by rain and snowmelt or (2) be supplemented with treated effluent. As specified in Provisions section VI of the WDRs, the facility is currently not permitted for long-term storage of remaining solid waste, biosolids, sludge, or other residues likely to have accumulated as a result of existing treatment lagoon processes. Therefore, these materials would need to be removed if the Discharger elected to pursue either option (1) or (2) as stated above. In addition, the facility is currently not permitted for land discharges of treated effluent to evaporation/percolation ponds for final disposal. If the Discharger elected to pursue option (2) as stated above, a Report of Waste Discharge (ROWD) application for waste discharge requirements would be required pursuant to California Water Code section 13260 prior to commencing any new land discharges.

Ms. Kristen Maze  
City of Mt. Shasta

2

16 December 2015

If you have any questions or concerns regarding the above comments, please contact me by telephone at (530) 224-4851, by email at [sgilbreath@waterboards.ca.gov](mailto:sgilbreath@waterboards.ca.gov), or at the footer address.



Scott M. Gilbreath  
Water Resource Control Engineer

SMG:reb

cc: Matt Kelley, U.S. Army Corps of Engineers, Redding  
California Department of Fish and Wildlife, Region 1, Redding  
State Clearinghouse, Sacramento  
Siskiyou County Environmental Health, Yreka  
Paul Eckert, City Manager, Mt. Shasta  
Rod Bryan, Public Works Director, Mt. Shasta

# The Siskiyou Daily News

## Crystal Geysers' plans for bottling in Mount Shasta

**The opening date for Crystal Geysers's Mount Shasta plant is tentatively scheduled for September 2015. The company will begin production with sparkling water, but future plans include also producing all its PET plastic bottled teas, flavored water, and juice products in the Mount Shasta facility.**

By Deborra Brannon

Posted Mar. 25, 2015 at 11:25 AM

Mount Shasta, Calif.

Crystal Geysers Executive Vice President of Marketing and Business Strategy Judy Yee said the Mount Shasta plant will bottle only sparkling water when it opens early this fall. Production of teas and flavored water beverages will be added at some point.

The company intends for its Mount Shasta facility to eventually produce all of Crystal Geysers PET plastic bottled beverages, according to Yee.

Currently the company's Valencia plant produces Metromint in PET (polyethylene terephthalate) plastic bottles. The plant in Calistoga produces sparkling water in PET bottles. The Bakersfield plant produces teas and flavored water beverages in glass bottles.

"We'll close the Valencia plant and will likely cease production at the Calistoga plant once the Mount Shasta plant is producing sparkling water, tea and juice at full capacity, while likely keeping a presence in Calistoga for warehousing and administrative functions," Yee confirmed.

She said while the company has no current plans for glass bottled products in Mount Shasta, Crystal Geysers will evaluate over time the size of the glass bottled beverage market before deciding what if any changes will be made concerning the Bakersfield facility.

### Operations

Final figures on effluent volume, supplementary power needs and the number of people to be employed at the plant, will all be based on a number of factors not yet known for certain, according to Yee.

"Right now many of our estimates are based on the manufacturer's specifications for the equipment, which is new to Crystal Geysers operations," she reported.

The equipment is familiar however, to parent company Otsuka Pharmaceutical based in Japan, and Yee confirmed that three representatives from that parent company have been in Mount Shasta for more than a year to help.

“They’ve been involved in early training and knowledge transfer and will help set the equipment up,” she said.

### **Effluent/power**

The Crystal Geysers facility will produce both domestic and industrial effluent.

The company is prepared to use both Mount Shasta City’s wastewater system, to which it is already connected, and the leach field permitted originally for Coca Cola/Danone and transferred to Crystal Geysers when it purchased the plant, according to Lee.

She said the city’s wastewater system will be the primary one used for effluent disposal.

Mount Shasta Mayor Geoff Harkness said right now the only effluent the company is permitted to send through the city system is its domestic waste.

“There is no permit for Mount Shasta City to treat effluent from industrial operations, such as bottle rinse water,” he stated in an email.

Harkness added that his understanding is Crystal Geysers wants the city to process its industrial effluent, is ready to begin the permitting process, and is “open to working with the city to find solutions given the current capacity of the sewage transport system between the plant and the wastewater treatment plant.”

The plant’s leach field permit specifications require that the effluent be food grade, Yee reported. “Because all products in use at the plant will be food grade, the effluent will be food grade as well.”

She added that the company estimates a “much lower volume” than the permit specifications allow will be released into the leach field.

Early projections of the effluent volume to be generated by plant operations were high because Crystal Geysers was planning on more water for bottle rinsing than will actually be used, according to Yee.

“New technology allows us to rinse with significantly less water,” she explained.

Crystal Geysers is considering solar and other renewable energy sources for what Yee described as “supplementary power” that may be needed during times of peak volume production.

She said plans for supplemental power are in the final stages of evaluation, pending data from actual production on the new equipment.

### **Jobs**

Yee said Crystal Geysers is basing its operations on the expectation that 60 people ultimately will be employed to staff one production line at full operation in the Mount Shasta plant. But she said it is still unclear how many people will be needed on “day one.”

Once production is underway, the company will determine how many bottles can be produced per hour with the new equipment, according to Yee. That will confirm how many work shifts must be established and how many people must be hired to fill those shifts.

Some employees will be people who opt to transfer from other Crystal Geysers plants, and some will be recruited locally.

She said while some skill sets will be required of job applicants, training will be provided for other skills.

“Our aim is to hire as many local residents as possible,” Yee said.

To that end, Crystal Geysers is one of several businesses working with the Mount Shasta Chamber of Commerce to plan a county-wide job fair for later this spring.

She said employees transferring from within the company will be familiar with bottling processes and procedures and “can help train those who are not.”

### **Start-up**

Yee said a “best estimate” for the Mount Shasta plant’s opening is September.

Most of the build-out underway is interior, with demolition work being done inside the facility and production equipment arriving for set up.

“We’ll be able to assess our opening date more accurately once those parts of the project are complete,” she said.



FEB 11 2016



U. S. DEPARTMENT OF COMMERCE  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Fax: 206.220.7669  
Voice: 206.220.7660

Mr. Paul Eckert  
City Manager  
City of Mount Shasta  
305 North Mt. Shasta Boulevard  
Mount Shasta, California 96067

Re: EDA Award No. 07-79-07000  
Upgrade of Mount Shasta Wastewater Treatment Plant

Dear Mr. Eckert:

This letter is to inform you that because the Economic Development Administration (EDA) has determined that an Environmental Impact Statement (EIS) under the National Environmental Policy Act of 1969 (42 U.S.C. § 4321 *et seq.*) (NEPA) must be prepared and considered in connection with the amendment of EDA Award No. 07-79-0700 (Award) for the upgrade of the Mount Shasta Wastewater Treatment Plant (WWTP), and because of the length of time required for such a review, EDA has determined that the Award must be terminated.

On September 27, 2013, the City of Mount Shasta (City) accepted the Award from EDA to fund the design and construction of the Mount Shasta Sewer Line and Wastewater Facilities Improvement Project (Project). Total costs under the Award were \$6,000,000 (Federal Share \$3,000,000; Recipient Share \$3,000,000). The original Project scope of work included expanding the capacity of a main sewer line and improving the Mount Shasta WWTP. The primary beneficiary of the Project was identified as Crystal Geysler, a spring water and beverage bottling and distributing company.

The initial EDA Environmental Assessment (EA) for the Project was based in part upon the lack of public comments received and, hence, EDA issued a Mitigated Finding of No Significant Impact (Mitigated FONSI) contingent upon the completion of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) and a determination that project impacts would not be significant. Relatedly, the Award also included a special award condition requiring a sufficient CEQA analysis before advertisement for construction bid.

In November of 2014, EDA learned that the City planned to use Award funds to prepare the EIR. As this was not an approved cost item under the Award's scope of work, EDA proposed amending the Award. The City Council voted to accept the proposed amendment in January 2015, which consisted of improvements to the WWTP, specifically new filtration and ultraviolet disinfection facilities. In October 2015, while in the process of issuing an amended EA and FONSI for the re-scope, EDA published a new NEPA notice seeking comments on the

amended scope of work. EDA received numerous public comments concerning the environmental impacts of Crystal Geysers' proposed renovation and expansion of the bottling plant to be serviced by the WWTP improvements.

Pursuant to CEQA, in November of 2015 the City issued its Proposed Mitigated Negative Declaration and Initial Study (MND/IS) for all improvements at the WWTP. Significantly, although anticipating the need for increased capacity at the WWTP from the Crystal Geysers facility, the MND/IS did not address any of the effects of the facility on the environment.

Here, NEPA requires EDA to factor environmental considerations into its decision whether to award financial assistance to the City by considering the direct, indirect, and cumulative effects on the environment as a result of the current Project, including those linked to the activities of a Project beneficiary like Crystal Geysers. The public comments have provided EDA with new and relevant information that was not taken into account when EDA issued its original EA and its amended EA. Among the significant concerns identified by the public are: impacts on existing water resources; groundwater extraction and subsequent impacts to private wells, creeks, and springs; industrial wastewater disposal; and the strain on WWTP capacity even with the expansion. Based on the public comments received and notwithstanding the City's MND/IS under CEQA, EDA has determined that it must withdraw the Mitigated FONSI issued for the Project and that an EIS is required before EDA can determine whether, and upon what conditions, EDA should amend the Award to upgrade the Mount Shasta WWTP.

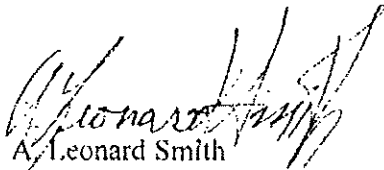
However, the Project development time table, which is incorporated under the Award, provides that construction was to have started on September 25, 2015 and must be completed before the Award end date, which is September 25, 2018. In addition, all Award funds must be used for approved construction expenses and no funds are available for the preparation of an EIS. Moreover, the projected time period required to complete an EIS makes it highly unlikely that the City will complete the Project before the Award end date. Under these circumstances, EDA has concluded that the intent and purpose and/or economic feasibility of the Project have changed substantially so as to affect significantly the accomplishment of the Project as intended. Therefore, pursuant to Section C.18.a.(ii) of the EDA Standard Terms and Conditions for Construction Projects (March 12, 2013), which were incorporated into the Award, EDA is terminating the Award.

Within 30 calendar days of this letter, please submit a final Form SF-425, as well as a Form SF-271 with supporting documentation, to close out this award. EDA will review and approve all eligible Project costs incurred by the City before the termination in accordance with 15 C.F.R. § 24.43(c).

EDA also wishes to emphasize this termination does not impact the City's eligibility or competitiveness for future funding consideration. Malinda Matson, EDA's Economic Development Representative (EDR) for Coastal and Northern California, will continue to work with the City to meet its regional economic development needs.

Thank you for your attention and we look forward to supporting the City in its future economic development efforts.

Sincerely,

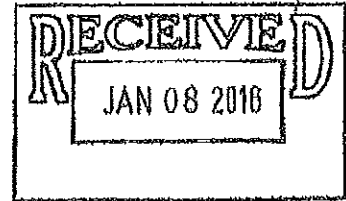


A. Leonard Smith  
Regional Director



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

*Dedicated to restoring the outstanding natural and cultural values  
of Mount Shasta and the surrounding bioregion*



Kristin Maze, City Planner  
City Councilmembers  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd  
Mount Shasta, CA 96067

[kmaze@mtshasta.gov](mailto:kmaze@mtshasta.gov)

January 7, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated  
Wastewater Treatment and Outfall Improvement Project.

Dear Ms. Maze and City Councilmembers,

The Mount Shasta Bioregional Ecology Center is a nonprofit organization dedicated to protecting and restoring the outstanding natural environment and cultural values around Mount Shasta, California. The Mount Shasta bioregion is of great importance locally, nationally and internationally. It provides water to millions of Californians locally and downstream, millions of acres of forested public lands, habitat for plant and wildlife, remarkable recreational opportunities, and areas of high significance to Native American and other cultures near and far. Mount Shasta Ecology is considered a voice for grassroots citizens and has represented public interests in natural resource decision-making process in the region for more than 25 years since we were established in 1989.

We are writing regarding the Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project. Since we are very concerned with protecting the Mount Shasta bioregion, including its water resources, we of course want to see the best possible outcome for both local groundwater and the Sacramento River. There is no doubt that upgrades to the city's wastewater treatment plant are necessary and the proposed improvements themselves are not in question.

The problem is that the upgrades proposed in this project will also benefit the controversial Crystal Geyser Water Company project which has thus far proceeded with construction without appropriate environmental review. This leaves the City of Mount Shasta vulnerable to accusations of 'piecemealing' the Crystal Geyser project by segmenting environmental review into smaller pieces to save time, save costs, and salvage the previously rejected \$3,000,000 EDA grant application. Our organization, is truly concerned that the EDA might someday require the City to refund the full amount of the \$3,000,000 Grant if the irregularities with this Project become more obvious in violation of federal law.



MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER  
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Piecemealed environmental review is prohibited by California law:

"Courts have considered separate activities as one CEQA Project and required them to be reviewed together where, for example, the second activity is a reasonably foreseeable consequence of the first activity [citation]; the second activity is a future expansion of the first activity that will change the scope of the first activity's impacts [citation]; or both activities are integral parts of the same project [citation]." (*Sierra Club v. West Side Irrigation Dist.* (2005) 128 Cal.App.4th 690, 698 (*Sierra Club*)).

Accordingly, "CEQA forbids 'piecemeal' review of the significant environmental impacts of a project." (*Berkeley Jets, supra*, 91 Cal.App.4th at p. 1358.) Agencies cannot allow "environmental considerations [to] become submerged by chopping a large project into many little ones — each with a minimal potential impact on the environment — which cumulatively may have disastrous consequences." (*Bozung, supra*, 13 Cal.3d at pp. 283-284 [EIR required when city annexed land for anticipated development].)

The California Supreme Court set forth a piecemealing test in *Laurel Heights*. "We hold that an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (*Laurel Heights, supra*, 47 Cal.3d at p. 396.) "Under this standard, the facts of each case will determine whether and to what extent an EIR must analyze future expansion or other action." (*Ibid.*)

Crystal Geysers Water Company might request to initially discharge a somewhat limited amount of rinsewater (i.e. 0.05 MGD) in its first few years here such that its discharge contribution does not push the City's total flows into the WWTP above 0.9 MGD. However, the assurance that future upgrades to increase WWTP capacity to fulfill the needs of CGWC's expansion and sewage increase requests will be subject to a separate EIR are hollow if CGWC will be able to initially rely on the proposed upgrades described in the IS/MND for initial operations and discharges<sup>1</sup>.

Although CGWC has not yet filed a formal application to connect to the City's sewer system, it applied with the City of Mt. Shasta for a \$3,000,000 grant in 2013 in order to connect to the sewer system, continues to assert its plans to connect, and has not indicated any other means available to handle its effluents. Thus Crystal Geysers' proposed full-scale effluent discharges to the WWTP are *reasonably foreseeable* consequences of improvements at the WWTP, and these consequences must be addressed in an Environmental Impact Review according to CEQA.



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

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The Mount Shasta Bioregional Ecology Center strongly recommends that the City and the BDA evaluate the whole of this Project in an EIR/EIS, including the WWTP improvements and expansion, the Interceptor line enlargement and Crystal Geysers' plant because CGWC is a beneficiary and a driver for some of these expanded sewage facilities.

Although Crystal Geysers stated in September 2015 that the company intended to complete an Environmental Impact Report for its Mt. Shasta plant operations, its actions since then (installing propane boilers without the proper permits, building wastewater pre-treatment facilities without permits) seem to indicate that it does not have time for environmental regulations or doing the right thing by the law and the public so it is unlikely that it will make good on this promise.

The BDA and the City must demand more information from the engineers working for Crystal Geysers in order to determine realistic future growth for the rest of the community. We feel that ENPLAN should insist that the City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent. They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent.

Thank you for considering these comments on the IS/MND and the larger issues involved.

Sincerely,

Phoenix Lawhon Isler

Program Director  
Mount Shasta Bioregional Ecology Center



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

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of Mount Shasta and the surrounding bioregion*

<sup>1</sup> See IS/MND (November 2015):

pg. 10 "With implementation of the proposed improvements, the capacity of the WWTP would increase to accommodate an ADWF of 0.9 MGD. This increase in capacity accounts for existing needs plus an allocation for anticipated future growth at a rate of one percent over the next 20 years. Further expansion of the treatment and disposal system to accommodate addition of 0.15 MGD from Crystal Geysers would be possible in the future if approved by the City of Mt. Shasta."

pg. 51 "A new industrial user, Crystal Geysers, plans to expand its bottling operations at the former Coca-Cola facility just outside of the city limits of Mt. Shasta on Ski Village Drive. According to Crystal Geysers, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed."



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUES  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

**State Water Resources Control Board**

**DEC 28 2015**

Kristen Maze  
City of Mt. Shasta  
305 N Mt. Shasta Blvd  
Mt. Shasta, CA 96067

Dear Ms. Maze:

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND) FOR CITY OF MOUNT SHASTA (CITY); STATE-MANDATED WASTEWATER TREATMENT AND OUTFILL IMPROVEMENT PROJECT (PROJECT); SISKIYOU COUNTY; STATE CLEARINGHOUSE NO. 2015112045

We understand that the City may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information and comments for the environmental document prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:  
[www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml).

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/srf\\_forms.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml). The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoi, at (916) 341-5855.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)



- C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
- F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.
- G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the City draft IS/MND:

- 1. Section a, b, d in the Cultural Resources section does not explicitly mention human remains. Please ensure that each category is addressed in the subsequent discussion.
- 2. Section a-d in the Air Quality section does not explicitly address each of the questions in the air quality impacts table. Please ensure that each category is addressed in the subsequent discussion.
- 3. If seeking CWSRF funding:
  - a. Please include a floodplain map from the Federal Emergency Management Agency for the Project area.
  - b. Please include dates for which the species lists were accessed for review. The species lists include United States Fish and Wildlife Service, California Natural Diversity Database, and California Native Plant Society Rare Finds Database.
  - c. Please supply a copy of any required permits for the Project to the State Water Board.
  - d. In support of Section 106 documentation, include detailed, properly scaled maps indicating the location of the half-mile search radius in relation to the Project APE. Provide labeled locations of any archaeological properties located within the APE and search area.
  - e. Please provide a phone/contact log documenting the Native American consultation efforts within a table for each attempted contact, including all responses, dates, and follow-up.
  - f. Provide documentation of the cultural resources report authors' qualifications according to the Secretary of the Interior's Professional Qualifications Standards.



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Central Valley Regional Water Quality Control Board

16 December 2015

Ms. Kristen Maze, City Planner  
City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067

WDID 5A470105001

### COMMENTS REGARDING PROPOSED MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY, CITY OF MT. SHASTA WASTEWATER TREATMENT PLANT, MT. SHASTA, SISKIYOU COUNTY

Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has reviewed the November 2015 Proposed Mitigated Negative Declaration and Initial Study for the proposed improvements to the City of Mt. Shasta Wastewater Treatment Plant and Sacramento River outfall prepared by ENPLAN and received by the Central Valley Water Board Redding Office on 25 November 2015. The submittal includes, in part, a proposal for constructing facility improvements necessary to achieve compliance with regulatory requirements outlined in Waste Discharge Requirements (WDRs) Order R5-2012-0086, NPDES No. CA0078051, and Time Schedule Order (TSO) R5-2012-0087. Based on information provided in the submittal, Central Valley Water Board staff is providing the following comments.

The submittal states that construction of the new wastewater treatment facility will be completed by July 2019. In accordance with TSO Order R5-2012-0087, full compliance with final effluent limitations for ammonia, copper, and zinc must be achieved by 1 June 2017. It appears that the proposed construction schedule will not comply with regulatory requirements established in the TSO.

Two options are presented in the submittal with regard to decommissioning existing facility treatment lagoons: (1) abandon and allow to be naturally inundated by rain and snowmelt or (2) be supplemented with treated effluent. As specified in Provisions section VI of the WDRs, the facility is currently not permitted for long-term storage of remaining solid waste, biosolids, sludge, or other residues likely to have accumulated as a result of existing treatment lagoon processes. Therefore, these materials would need to be removed if the Discharger elected to pursue either option (1) or (2) as stated above. In addition, the facility is currently not permitted for land discharges of treated effluent to evaporation/percolation ponds for final disposal. If the Discharger elected to pursue option (2) as stated above, a Report of Waste Discharge (ROWD) application for waste discharge requirements would be required pursuant to California Water Code section 13260 prior to commencing any new land discharges.

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA D. CREBBON P.E., BOEE, EXECUTIVE OFFICER

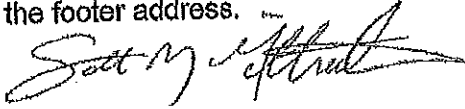
384 Knollcrest Drive, Suite 205, Redding, CA 96002 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

Ms. Kristen Maze  
City of Mt. Shasta

2

16 December 2015

If you have any questions or concerns regarding the above comments, please contact me by telephone at (530) 224-4851, by email at [sgilbreath@waterboards.ca.gov](mailto:sgilbreath@waterboards.ca.gov), or at the footer address.



Scott M. Gilbreath  
Water Resource Control Engineer

SMG:reb

cc: Matt Kelley, U.S. Army Corps of Engineers, Redding  
California Department of Fish and Wildlife, Region 1, Redding  
State Clearinghouse, Sacramento  
Siskiyou County Environmental Health, Yreka  
Paul Eckert, City Manager, Mt. Shasta  
Rod Bryan, Public Works Director, Mt. Shasta

## **FitzGerald, Shannon**

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**From:** Good, Stan  
**Sent:** Tuesday, October 13, 2015 1:33 PM  
**To:** FitzGerald, Shannon  
**Subject:** Mt. Shasta stuff  
**Attachments:** EDA Engineering Narrative-COMPLETE.pdf; Amended EA.docx; IRC Scope Change approval scan 04 21 15.pdf; ED-506 Memo Template.doc

Shannon:

I did find several documents. I just asked Paul Eckert for the total area of the WWTP improvements. I still need to do an Engineering Summary and after I get the area from Paul I can do a quick summary.

Stan Good, P.E.

Civil Engineer

Seattle Regional Office

Ph: 206-220-7701

Email: [sgood@eda.gov](mailto:sgood@eda.gov)

Join EDA's mailing list today to get the latest agency news and grant opportunity information!

City of Mt. Shasta  
State-Mandated WWTP Improvements  
Economic Development Agency (EDA) Grant Application  
ENGINEERING NARRATIVE

1. Project Background

The subject project is the result of State-mandated requirements set forth in the City of Mt. Shasta's National Pollution Discharge Elimination System (NPDES) wastewater discharge permit, issued by the California State Water Resources Control Board in October 2012. In part, the permit imposed more stringent effluent limits for Copper, Zinc, ammonia, Title 22 disinfection requirements, and other constituents. As a condition of the NPDES permit, the City hired PACE Engineering to prepare a Feasibility Study/Preliminary Engineering Report (PER) to evaluate effluent disposal and treatment alternatives to address the newly imposed requirements. The draft report was completed in June 2014 and has since been reviewed by the Regional Board and an independent "Peer Reviewer," Dr. Michael Stenstrom, Ph.D., P.E., Consulting Engineer and Distinguished Professor from UCLA.

After considering multiple effluent disposal alternatives and seven different treatment alternatives, the recommended project consists of a "packaged" biological nutrient removal-activated sludge process (BNR-ASP), utilizing the City's existing discharge to the Upper Sacramento River and Mt. Shasta Golf Course irrigation. Additional project specifics will be discussed below.

The Feasibility Study/PER will be finalized in the coming weeks to reflect the regulatory and peer review comments. The City is seeking project funding from the California Clean Water State Revolving Fund (CWSRF) and USDA Rural Development funding programs to supplement the expected EDA funding. Applications for these sources are being prepared. Enplan, Redding, CA has begun the environmental review process. It is expected that an Initial Study/Mitigated Negative Declaration (IS/MND) will be adequate to approve the project. A more detailed project schedule will be discussed below.

2. Project Elements

The City's existing wastewater treatment process consists of a series of oxidation ponds, dissolved air flotation thicker (DAF), effluent filtration and disinfection facilities. The ponds do not provide adequate nitrogen removal to promote reduction of ammonia. As such, the proposed BNR-ASP process is necessary to remove nitrogen compounds to below effluent limits. The proposed process by AeroMod utilizes common-wall construction, side-cast aeration and air-lift pumping which leads to a smaller footprint and lower construction cost. In addition, the side-cast aeration facilities are accessible from catwalks above the basins so it is not necessary to dewater a tank to perform routine maintenance on the aeration system.

City of Mt. Shasta  
State-Mandated WWTP Improvements  
Economic Development Agency (EDA) Grant Application  
ENGINEERING NARRATIVE

Secondary effluent from the BNR-ASP process will be conveyed through either, 1) travelling bridge sand filters or, 2) disk-type filters. The recommended filtration technology will be evaluated as part of a Preliminary Design Development Report (PDDR) prior to design of the facilities. Filtered effluent will be disinfected utilizing ultra-violet (UV) radiation.

Wasted solids will be oxidized in an aerobic digester and conveyed to a sludge dewatering facility utilizing a centrifuge to remove water to around 20% solids. Dewatered sludge would be hauled off-site. Refer to attached Figures 16, 17 and 28 from the Feasibility Study/PER.

### 3. Feasibility Analysis

The *Draft* Feasibility Study/PER, prepared by PACE, contains extensive analysis and alternative comparison tools used to evaluate the various treatment and disposal options. An electronic copy of the draft report is available upon request. The final report will be completed within the next several weeks.

#### a. Method of Construction

Project implementation will be in accordance with Design-Bid-Build procedures. The project will be advertised for public bidding in accordance with California Public Contract Code requirements and a construction contract awarded to the lowest responsive and responsible bidder. The Contract Documents will contain provisions for payment of prevailing wages, and any other requirements of the EDA and other applicable funding agencies.

#### b. Estimate of Useful Life

The useful life of the wastewater treatment plant (WWTP) infrastructure will be approximately 50 years. Pumps, blowers and other mechanical equipment will have useful lives of about 25 year and electrical and controls equipment approximately 10 to 15 years. There will be some surplus capacity built into the WWTP to accommodate future growth. The timing of exhaustion of this surplus will be dictated by local growth and addition of non-residential dischargers into the system.

#### c. Cost Estimate

The total estimated project cost for the project is approximately \$16.478M (March 2017 Dollars.) Refer to attached Tables 23 and 24 from the Feasibility Study/PER.

City of Mt. Shasta  
State-Mandated WWTP Improvements  
Economic Development Agency (EDA) Grant Application  
ENGINEERING NARRATIVE

d. Permits

The required project permits will be minimal. However, there is some minor work required at the City's diffuser into the Sacramento River. Thus, it will be necessary to obtain permits from the California Department of Fish and Wildlife, US Army Corps of Engineers and California Regional Water Quality Control Board. However, there will be very little disturbance, so it is expected the permit process will be relatively smooth.

Finally, it will be necessary to obtain an NPDES and General Construction Activity Storm Water permit for the construction activities on the existing WWTP site. Enplan has been contracted to perform permit acquisition services along with completion of the IS/MND for the project.

e. Timeline

The attached project schedule shows the important project milestones necessary to implement the subject project. Key critical path elements are the environmental and funding agency commitments such that Proposition 218 rate increase proceeding can begin by late 2015. As such, design and bid document preparation could begin by early spring 2016 and construction following by early fall 2017.

**Table 23: Total Recommended Project Cost Estimate**

ITEM	Subtotal	Total
Property Purchase / Lease Agreements		\$0
Easement Acquisition / Right of Way / Water Rights		\$0
Bond Counsel		\$50,000
Legal Counsel		\$30,000
Interest/Refinancing Expense		\$0
Other (identify)		\$0
<b>Environmental Services</b>		
- CEQA Environmental Report	\$80,000	
- NEPA Environmental Report	\$30,000	
- Environmental Mitigation Contract Services	\$10,000	
<b>Total - Environmental Services:</b>		\$120,000
<b>Engineering Services</b>		
<i>Basic Services:</i>		
- Preliminary Engineering Report (PER)	\$120,000	
- Preliminary and Final Design Phase Services	\$1,000,000	
- Bidding/Contract Award Phase Services	\$50,000	
- Construction and Post-Construction Phase Services (w/o inspection)	\$400,000	
- Resident Project Representative Services (resident inspector)	\$500,000	
<i>Additional Services:</i>		
- Permitting	\$0	
- Regulatory Compliance Reports	\$10,000	
- Environmental Mitigation Services (Construction Phase)	\$20,000	
- Easement Acquisition/ROW's Services (Construction Phase)	\$0	
- Surveying Services (Construction Phase)	\$25,000	
- Operation & Maintenance Manual(s)	\$50,000	
- Geotechnical Services	\$20,000	
- Hydrogeologist Services	\$0	
- Materials Testing Services (Construction Phase)	\$10,000	
- Other Services (describe)		
<b>Total – Engineering Services:</b>		\$2,205,000
Equipment/Materials (Direct purchase using approved methods, separate from construction bid/cost)		\$0
Construction Cost Estimate (Attach breakdown)		\$12,238,000
Contingency		\$1,835,000
<b>TOTAL PROJECT COST ESTIMATION:</b>		\$16,478,000

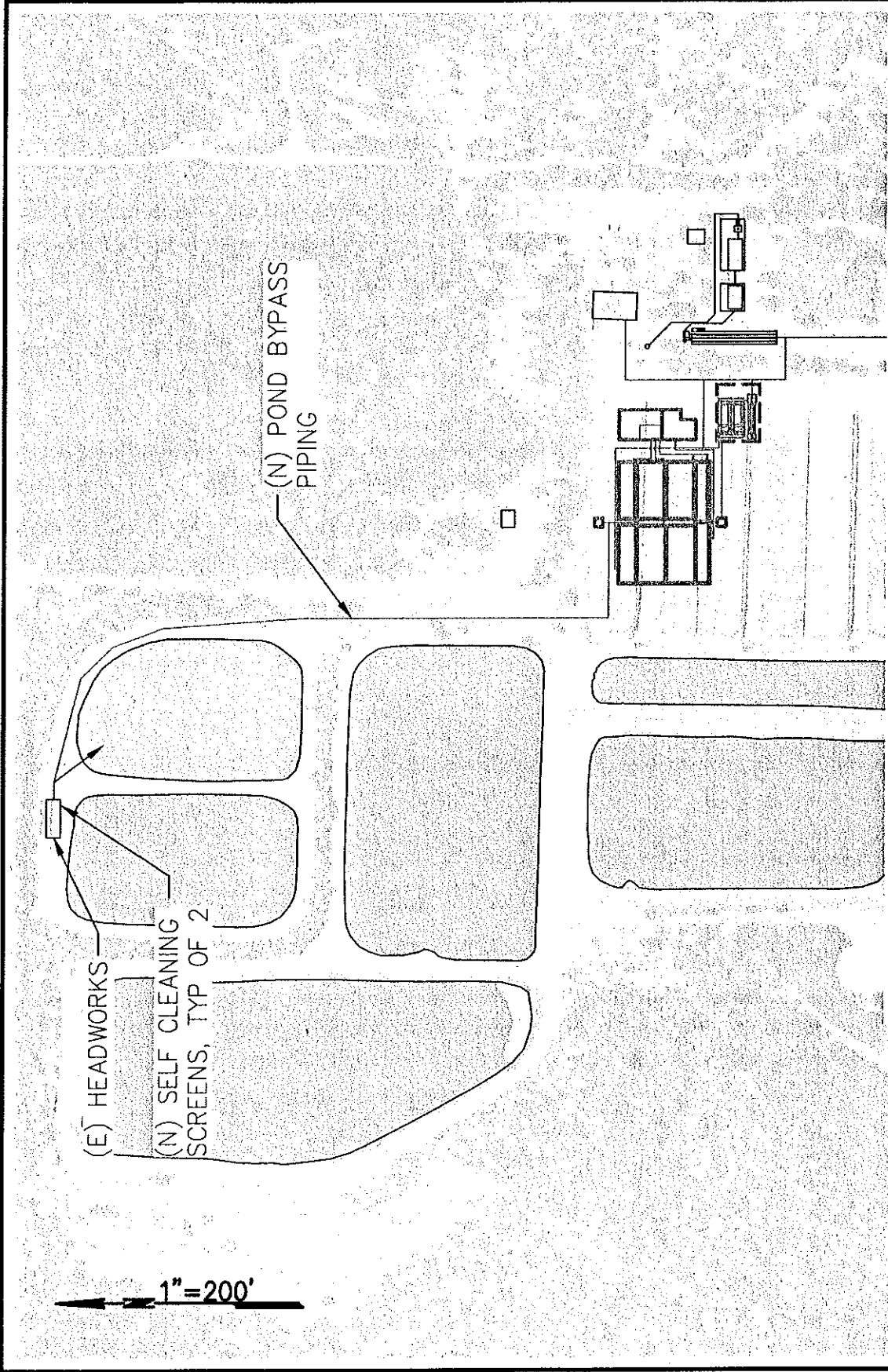


**Table 24: Recommended Project Cost Estimate**

Item	Amount	Units	Unit Cost	ADWF = 1.2 MGD Total Cost
<b>Civil Site Work &amp; Miscellaneous</b>				
1 Mobilization & Demobilization	1	LS	\$100,000	\$100,000
2 Site Grading and Aggregate Base	1	LS	\$20,000	\$20,000
3 Erosion Control SWPPP & Implementation	1	LS	\$25,000	\$25,000
4 Shop Drawings/Testing/Equipment Manuals	1	LS	\$50,000	\$50,000
5 Cleanup	1	LS	\$20,000	\$20,000
Subtotal				\$215,000
<b>1.2 MGD ADWF Aero-Mod Equipment</b>				
6 Excavation (Selector, CAS, Clarifier & Digester)	12200	CY	\$30	\$366,000
7 Headworks Excavation	63	CY	\$30	\$1,880
8 Headworks Screen	2	EA	\$95,000	\$190,000
9 Headworks Concrete	1	LS	\$57,659	\$57,659
10 Parshall Flume	1	LS	\$6,000	\$6,000
11 Pond Bypass Piping	1100	LF	\$240	\$264,000
12 Aero-Mod Equipment	1	LS	\$2,190,000	\$2,190,000
13 Aero-Mod Equipment & Interior Piping Installation Cost	1	LS	\$360,000	\$360,000
14 Concrete (Selector, Aeration Tank, Clarifier & Digester)	2100	CY	\$1,200	\$2,520,000
15 Aero-Mod Grout	242	CY	\$800	\$193,600
16 Aero-Mod Yard Piping	577	LF	\$240	\$138,000
17 12" Air Manifold, Process & Utility Piping	560	LF	\$150	\$84,000
18 Blowers Building	400	SF	\$150	\$60,000
19 Blower Building HVAC	1	LS	\$20,000	\$20,000
20 Soda Ash or Lime Dosing Station	1	LS	\$130,000	\$130,000
21 Generator & Ancillary Equipment	1	LS	\$84,000	\$84,000
Subtotal				\$6,665,139
<b>2.1 MGD ADWF 16'x46' TBF Equipment</b>				
22 TBF Equip, Including Ancillary Equip, Instr/Controls	2	LS	\$251,000	\$502,000
23 TBF Concrete Basin	1	LS	\$416,000	\$416,000
24 TBF Excavation	1200	CY	\$30	\$36,000
25 Process & Utility Piping	240	LF	\$175	\$42,000
26 Metal Enclosure	4800	SF	\$25	\$120,000
Subtotal				\$1,116,000
<b>1.6 MGD PWWF UV Equipment</b>				
27 UV Disinfection System Equipment	1	LS	\$570,000	\$570,000
28 UV Concrete Treatment Basins	1	LS	\$130,000	\$130,000
29 Electrical Controls	1	LS	\$250,000	\$250,000
Subtotal				\$950,000

Item	Amount	Units	Unit Cost	ADWF = 1.2 MGD Total Cost
<b>1.55 MGD ADWF Dewatering Equipment</b>				
30 Dewatering Equipment	1	LS	\$1,018,000	\$1,018,000
31 Electrical	1	LS	\$250,000	\$250,000
32 Building	1	LS	\$381,000	\$381,000
			Subtotal	\$1,649,000
<b>New Lab &amp; Control Building</b>				
33 New Control Building	2500	SF	\$250	\$625,000
34 Laboratory Equipment	1	LS	\$50,000	\$50,000
			Subtotal	\$675,000
<b>Outfall Improvements</b>				
35 New Diffuser and Ancillary Improvements	1	LS	\$93,000	\$93,000
Total Estimated Construction Cost without Contingency				\$11,364,000
Inflation to March 2017 @ 2.5% per year				\$874,000
Construction Contingency @ 15%				\$1,835,000
Indirect/Engineering				\$2,405,000
Subtotal				\$4,240,000
<b>Total Estimated Project Cost (June 2014 Dollars)</b>				<b>\$16,478,000</b>





1" = 200'



CITY OF MT. SHASTA  
AEROMOD ALTERNATIVE

FIGURE 7B  
DATE: 2/14  
JOB #111.44

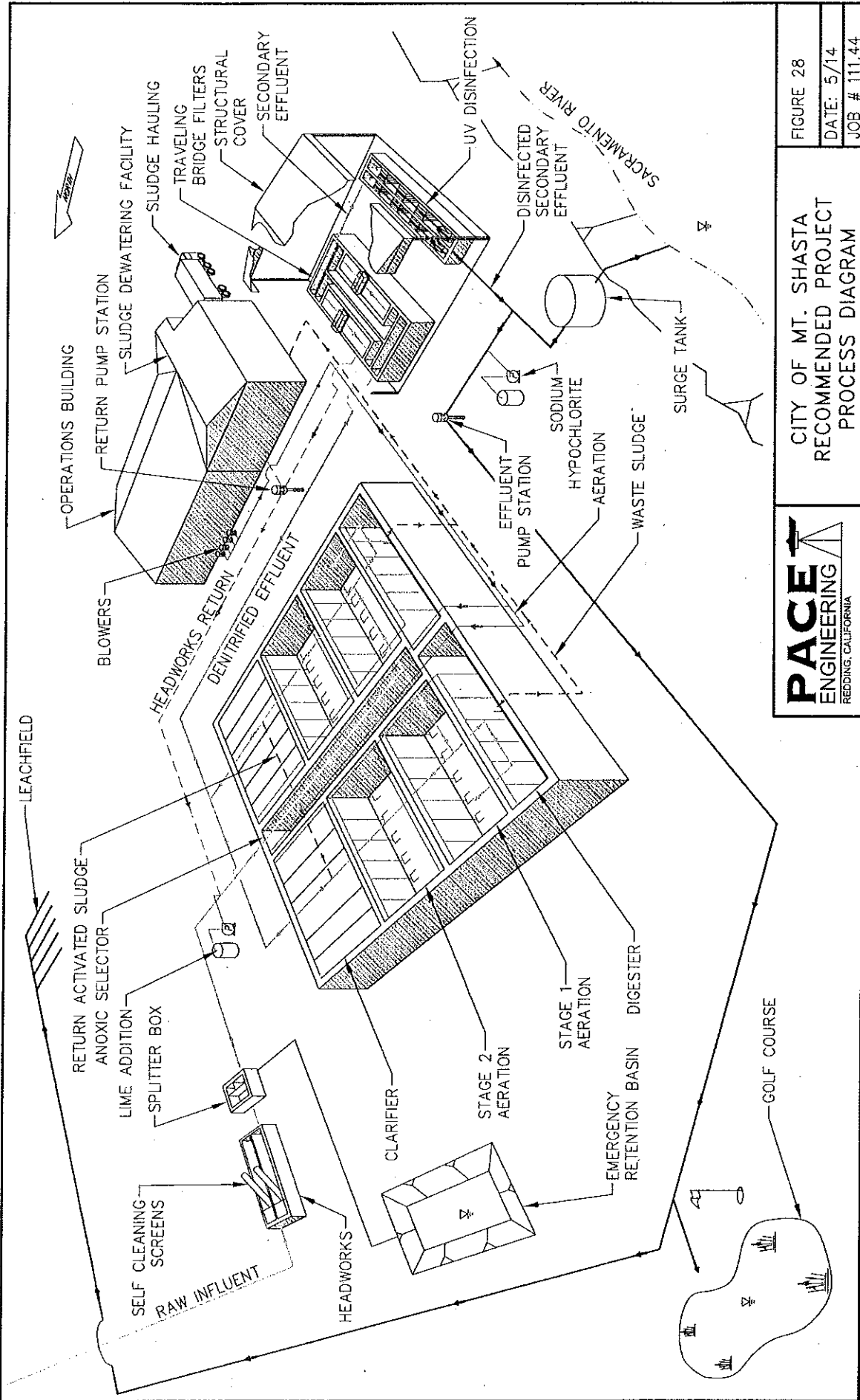


FIGURE 28  
 DATE: 5/14  
 JOB # 111.44

CITY OF MT. SHASTA  
 RECOMMENDED PROJECT  
 PROCESS DIAGRAM





10.27.15

**MEMORANDUM FOR:** A. Leonard Smith  
Regional Director

**FROM:** Shannon FitzGerald  
Regional Environmental Officer

**SUBJECT:** Proposed Re-scope for Wastewater Treatment Plant Improvements  
City of Mt. Shasta, California  
EDA Project Number 07-79-07000  
Control Number 102889  
Environmental Analysis AMENDED

On September 25, 2013, EDA made a grant award to the City of Mt. Shasta to expand the capacity of a main sewer line and make improvements (e.g., headworks and two new sewage lagoons) at the Mt. Shasta Wastewater Treatment Plant (WWTP). The project has experienced significant controversy involving the primary beneficiary, Crystal Geysers, and the concern that groundwater extraction could impact nearby private wells, Big Springs Creek, and Big Springs which is the main source of drinking water for the City. This resulted in the City's request to amend the project budget to fund a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR). Funding to prepare a CEQA EIR was not part of the approved scope of work. EDA sent a letter to the City on December 19, 2014 stating that EDA was not in a position to approve the proposed budget revision and offered that the EDA funds could be used to fund state-mandated improvements at the WWTP which would benefit infill development within the entire city.

On January 26, 2015, the City Council voted to accept an amended scope of work which consisted solely of improvements to the WWTP. On April 6, 2015, the City submitted an incomplete Environmental Narrative (EN) for the new scope of work which also contained elements of the old scope of work. That EN noted that three studies, including a cultural resources assessment, needed to be completed prior to finalizing the EN. The final EN was submitted on September 21, 2015 and is the basis of this amended Environmental Assessment.

In the amended scope of work, EDA grant funds would be used for the upgrade of the WWTP, specifically the addition of filtration and ultraviolet (UV) light disinfection facilities as associated piping. The location of these facilities would be on abandoned intermittent sand filters that extend twelve (12) feet below ground surface (bgs). The depth of excavation for the new facilities would be approximately 15 feet bgs. Trenching for the piping that would connect these facilities to others would extend to approximately 4.5 feet bgs.

The applicant states that the same recipients will benefit from this WWTP project in addition to the entire city. However, the primary beneficiary, Crystal Geysers, has stated in the newspaper that they may use their existing leachfield for effluent disposal.

This revised project is considered similar to the original in that the Recipient will utilize the grant funds to construct infrastructure improvements to the WWTP.

Based on applicant submittals specific to the project location, the following review elements are noted:

**PUBLIC NOTICE:** On January 26, 2015, the City Council held a public meeting that included the proposed scope modification. The City provided the agenda and minutes for this City Council meeting where the proposal was heard and approved by the City Council.

**U.S. ARMY CORPS OF ENGINEERS (ACOE):** For the original scope of work, an ACOE Clean Water Act Section 404 permit was required because the sewer main would transect Cold Creek and two wetlands, one of which has been set aside as a wetland conservation area. The amended project occurs entirely on the existing developed WWTP site. Therefore, the original ACOE special condition is no longer applicable.

**U.S. FISH AND WILDLIFE (FWS):** The original grant award included a special condition requiring the completion of the Endangered Species Act (ESA) Section 7 consultation that the City had begun with the FWS. The proposed work in the wetlands and Cold Creek had prompted the preparation of a preliminary biological review. The FWS noted that if there were indirect and cumulative impacts to Big Springs and Big Springs Creek from groundwater extraction by the primary beneficiary, those impacts could effect on listed species dependent on the springs and creek. Additionally, the removal of black oaks for the new sewage lagoons required consulting under the Migratory Bird Treaty Act with the FWS. The modified scope of work occurs entirely within the WWTP in an area that was once intermittent sand filters. No trees will be removed as part of this project. A June 1, 2015 IPaC Trust Resource Report from the FWS indicated that there are endangered and threatened species in Siskiyou County, in addition to critical habitat for the spotted owl; however, there is no habitat for these within the WWTP. Therefore, a determination is being made that the EDA-funded filtration and UV disinfection facilities will have no effect on listed species. Therefore, this special condition is no longer applicable.

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW):** The original grant award also included a special condition requiring the procurement of a Streambed Alteration Agreement from the CDFW for work in Cold Creek. Because the modified scope of work does not contain work within the creek, this special condition is no longer applicable.

**CALIFORNIA STATE HISTORIC PRESERVATION OFFICER (SHPO):** The City had consulting archaeologists prepare a Cultural Resources Inventory for several WWTP upgrades included the EDA-funded one. The archaeological consultant for the City also consulted with the leaders and cultural resource contacts of Tribes identified by the Native American Heritage commission on April 1, 2015. These included: the Shasta Indian Nation; the Quartz Valley



Indian Community; and the Butte Valley Indian Community. Both the Shasta Indian Nation and the Quartz Valley Indian Tribe responded that they knew of no cultural resources there but were interested in being notified if there are any archaeological finds. After reviewing several draft consultation letters to the State Historic Preservation Officer (SHPO), EDA sent a consultation letter directly to the SHPO on October 21, 2015. This special condition will be retained until the National Historic Preservation Act Section 106 consultation with the SHPO has been completed.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):** In the original grant award, there was a special condition regarding the completion of the CEQA environmental review because the City had said that the CEQA review would be used to assess impacts to groundwater, wells, springs, streams, and the CDFW Mount Shasta Fish Hatchery. That information was required before the ESA Section 7 consultation could be completed. The construction of filtration and UV disinfection facilities on a disturbed area of the WWTP will not have the same impacts as the original project. Therefore this special condition has been removed. However, the City will still need to comply with CEQA as required by state law.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES):** The original scope of work disturbed over an acre of land, therefore a special condition was included that requiring the grantee to obtain a Stormwater NPDES Permit for General Construction from the California Regional Water Quality Control Board (RWQCB). In the amended scope of work, the area that will be disturbed is 0.8 acre. Therefore, a NPDES Permit for General Construction will not be required and this special condition is no longer applicable.

**WASTE DISCHARGE REQUIREMENTS (WDR):** On October 27, 2015, I spoke with Stacy Gotham (530-224-4993) at the RWQCB in Redding who had written the 2012 WDR for the WWTP. The City is under a RWQCB order to come into compliance with effluent limits. Ms. Gotham said that the WDR will be renewed in 2017 and that all requirements must be met by 2019.

With inclusion of the recommended "Special Condition" listed below, the proposed revision:

1. Does not appear to be major in scope;
2. Does not appear to create additional environmental impacts that would have the potential to create a significant effect on the quality of the human environment.

Approval of the revised scope of work would not violate the 24 Acts and Executive Orders required for environmental review. Thus, the following determination is still recommended:

**[XXX] FINDING of NO SIGNIFICANT IMPACT (FONSI) - Class II Action per EDA Directive 17.02-2, Chapter II.3.**

SPECIAL CONDITIONS:

**CALIFORNIA STATE HISTORIC PRESERVATION OFFICER (SHPO):** Prior to any earth-disturbing activities, the Recipient shall provide evidence satisfactory to the EDA that the National Historic Preservation Act Section 106 consultation has been completed.

Prepared by: *Shannon Kelly Gerald*  
Regional Environmental Officer

10.27.15  
Date

**REGIONAL DIRECTOR:**

Concur: *[Signature]*

10.27.2015  
Date

Not Concur: \_\_\_\_\_

## **FitzGerald, Shannon**

---

**From:** Vicki Gold [REDACTED]  
**Sent:** Thursday, October 29, 2015 3:53 PM  
**To:** FitzGerald, Shannon  
**Subject:** Mt Shasta WWTP grant

Hi Shannon,

Thank you for sending me the <sup>original</sup> amended EA per our conversation today.

See the public notice below from the 10.28.15 Mt Shasta Herald. If they publish again next week, I assume there will be 15 days from that day for responses. Is that correct?

Vicki

### **PUBLIC NOTICE**

The U.S. Department of Commerce, Economic Development Administration (EDA) is considering a request from the City of Mt. Shasta to amend the scope of work for an existing grant. The proposed scope of work would fund the construction of new filtration and ultraviolet (UV) disinfection facilities and associated piping at the Mt. Shasta Waste Water Treatment Plant (WWTP) in Siskiyou County, California. Pursuant to the **National Environmental Policy Act (NEPA)** and the National Historic Preservation Act (NHPA), EDA is conducting an assessment of the potential of the proposed project to affect the environment and/or historic properties.

Under the proposed project, filtration and UV disinfection facilities would be constructed at the Mt. Shasta WWTP on Grant Road to the southwest of the City of Mt. Shasta. The filtration and UV disinfection facilities would be located where abandoned intermittent sand filters currently exist. Project information is available for review at the City of Mt. Shasta, 305 N. Mt. Shasta Boulevard, Mt.

Shasta, CA. 96067, or by calling (530) 926-7510.

If you have any information regarding potential impacts environmental resources or historic properties associated with this proposed project, please provide it in writing to:  
Regional Environmental Officer  
US Department of Commerce  
Economic Development  
Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

Comments received in the EDA Regional Office by 5:00 pm on November 12, 2015 will be considered. A **copy of the NEPA/NHPA decisional document will be available upon request from the above EDA Regional Office.**

7406 msan oc21,28c

## **FitzGerald, Shannon**

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**From:** FitzGerald, Shannon  
**Sent:** Thursday, October 29, 2015 4:26 PM  
**To:** 'Vicki Gold'  
**Subject:** RE: Mt Shasta WWTP grant

Hi Vicki,

Thanks for sending the public notice. It is the Environmental Narrative for the amended scope of work that is available at the City of Mt. Shasta. I will have the City publish the public notice a total of three times. Fifteen days after the publication of the last public notice, the public comment period will end. Then EDA will consider the public comments that we receive. Following that, the amended EA will be issued and I can send you a copy per the public notice. We are in the process of consulting with the State Historic Preservation Officer on the proposed amendment and I can send you that information once the SHPO concurs with a determination.

Thanks again, Shannon 206-220-7703

**From:** Vicki Gold [REDACTED]  
**Sent:** Thursday, October 29, 2015 3:53 PM  
**To:** FitzGerald, Shannon  
**Subject:** Mt Shasta WWTP grant

Hi Shannon,

Thank you for sending me the amended EA per our conversation today. See the public notice below from the 10.28.15 Mt Shasta Herald. If they publish again next week, I assume there will be 15 days from that day for responses. Is that correct?

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7406 msan oc21,28c

## **FitzGerald, Shannon**

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**From:** Paul Eckert <eckert@mtshastaca.gov>  
**Sent:** Friday, October 30, 2015 3:50 PM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan; Rod Bryan; Paul Reuter (preuter@paceengineering.us)  
**Subject:** RE: public notice

Hi Shannon,

Thank you for the follow-up. I have asked City Engineer Paul Reuter to respond directly. I think we've done much of what you suggested. We will follow-up very soon.

Thank you for your leadership with this effort!

Paul

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Friday, October 30, 2015 3:09 PM  
**To:** Paul Eckert <eckert@mtshastaca.gov>  
**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>  
**Subject:** public notice

Hi Paul,

Yesterday afternoon I got a call from Vicki Gold who saw the public notice that was published on Wednesday, October 28, for the proposed amended scope of work (filtration and UV disinfection at the WWTP) for the EDA-funded project. Last we emailed, I thought the agenda and minutes from the City Council meeting on January 26 could be used in lieu of a public notice because the minutes did not reflect any controversy regarding the proposed upgrades to the WWTP. I did not realize that you were also going to publish a public notice. From what Vicki said, it sounds like there were comments at the City Council meeting regarding the proposed WWTP upgrade. In light of that, it makes sense to publish the public notice to see what the comments are.

Normally, the public notice would be published for three consecutive days, but because the Mt. Shasta Herald is a weekly newspaper, please publish the public notice a total of three times in the Mt. Shasta Herald. From the attached public notice, it looks like it might have been published on October 21 and 28. Please confirm what the publication dates are. Did you publish it in any other newspapers? Also, please revise the comment period deadline to 15 days after the last publication of the public notice. Once EDA has had a chance to review public comments, we will issue the final NEPA document.

On another note, I sent the National Historic Preservation Action Section 106 consultation letter to the State Historic Preservation Officer on October 21. So we should be receiving a letter back before the end of November. I will share the SHPO's letter with you once I receive it.

Thanks for doing this. –Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174

Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)



## **FitzGerald, Shannon**

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**From:** Rod Bryan <[rbryan@mtshastaca.gov](mailto:rbryan@mtshastaca.gov)>  
**Sent:** Friday, October 30, 2015 4:22 PM  
**To:** FitzGerald, Shannon; Good, Stan  
**Cc:** Paul Reuter; Paul Eckert  
**Subject:** RE: public notice  
**Attachments:** FW: draft NEPA public notice for EDA scope amendment; 7406 - nepa notice - affidavit.pdf; CITYOFMTSH-1-754224-1.pdf

Per the attached email, we published the public notice. I have also attached the affidavit from the Herald and the proof from the Record Searchlight-we have not yet received the legal affidavit from the RS.

Thanks

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

**From:** Paul Reuter [<mailto:preuter@paceengineering.us>]  
**Sent:** Friday, October 30, 2015 3:56 PM  
**To:** Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)>  
**Cc:** Rod Bryan <[rbryan@mtshastaca.gov](mailto:rbryan@mtshastaca.gov)>  
**Subject:** RE: public notice

Paul,

I'm not sure what arrangements city staff made to publish said public notice. I can respond to Shannon, but you'll need to tell me what City staff did.

### **Paul J. Reuter, P.E.**

**Managing Engineer**  
PACE Engineering, Inc.  
1730 South St.  
Redding, CA 96001  
[preuter@paceengineering.us](mailto:preuter@paceengineering.us)  
Ph: 530-244-0202

**From:** Paul Eckert [<mailto:eckert@mtshastaca.gov>]  
**Sent:** Friday, October 30, 2015 3:50 PM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan; Rod Bryan; Paul Reuter  
**Subject:** RE: public notice

Hi Shannon,

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Paul

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**Sent:** Friday, October 30, 2015 3:09 PM  
**To:** Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)>  
**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>  
**Subject:** public notice

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Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## FitzGerald, Shannon

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**From:** Paul Eckert <eckert@mtshastaca.gov>  
**Sent:** Wednesday, October 14, 2015 10:11 AM  
**To:** Rod Bryan  
**Subject:** FW: draft NEPA public notice for EDA scope amendment  
**Attachments:** Mt. Shasta NEPA Public Notice(2).docx

Making certain you received this...

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Wednesday, October 14, 2015 10:06 AM  
**To:** Paul Eckert <eckert@mtshastaca.gov>  
**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>; [bryan@ci.mt-shasta.ca.us](mailto:bryan@ci.mt-shasta.ca.us); Paul Reuter ([preuter@paceengineering.us](mailto:preuter@paceengineering.us)) <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)>; Lindsay Kantor ([lkantor@enplan.com](mailto:lkantor@enplan.com)) <[lkantor@enplan.com](mailto:lkantor@enplan.com)>  
**Subject:** draft NEPA public notice for EDA scope amendment

Hi Paul,

Before EDA finalized its Environmental Assessment for the original scope of work, we published a NEPA public notice. For the scope amendment, we will issue another NEPA public notice. Please fill in the attached public notice and publish it in a local newspaper (Mt. Shasta Herald) for three consecutive days. I vaguely recall that the Mt. Shasta Herald may be a weekly newspaper. If that is the case, you could also publish the public notice in a county-wide newspaper.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

*Publish this notice in the daily newspaper with the greatest local circulation for three (3) consecutive days. Provide an affidavit of publication to EDA upon publication.*

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Under the proposed project, filtration and UV disinfection facilities would be constructed at the Mt. Shasta WWTP on Grant Road to the southwest of the City of Mt. Shasta. The filtration and UV disinfection facilities would be located where abandoned intermittent sand filters currently exist. Project information is available for review at applicant's office, address and phone number.

If you have any information regarding potential impacts environmental resources or historic properties associated with this proposed project, please provide it in writing to:

Regional Environmental Officer  
US Department of Commerce  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
sfitzgerald@eda.gov

Comments received in the EDA Regional Office by 5:00 pm on insert date 15 days after the third day of publication of this notice. If the newspaper is not a daily, please contact the Regional Environmental Officer prior to publication to determine the deadline for comments will be considered. A copy of the NEPA/NHPA decisional document will be available upon request from the above EDA Regional Office.

**PROOF OF PUBLICATION**  
(2015.5 C.C.P.)

**Mt. Shasta Area Newspapers**  
**Mount Shasta Herald,**  
**Weed Press, Dunsmuir News**  
STATE OF CALIFORNIA,  
County of Siskiyou

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the Administrative Assistant of the Mt. Shasta Area Newspapers, newspapers of general circulation, published weekly in the cities of Mount Shasta, Weed and Dunsmuir, County of Siskiyou, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Siskiyou, State of California, under the dates of: Mount Shasta Herald-July 9, 1951, Case Number 14392; Weed Press-June 22, 1953, Case Number 15231; Dunsmuir News-May 25, 1953, Case Number 15186; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspapers and not in any supplement thereof on the following dates, to-wit:

October 21, 28,

all in the year 2015

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Mount Shasta, California,

this 28th day of October

2015.

/s/ Marcella Gerace  
Authorized Signature

**PROOF OF PUBLICATION OF**

**PUBLIC NOTICE**

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Regional Environmental Officer  
U.S. Department of Commerce  
Economic Development  
Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
sfitzgerald@eda.gov

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7406 msan oc21,28c

# Record Searchlight

Ad Proof

Sales Rep: Lorene Liebespeck (R9103)

Phone: (530) 225-8229

Email: [lorene.liebespeck@redding.com](mailto:lorene.liebespeck@redding.com)

## Account Information

Date: 10/20/15

Account Number: 550020 (R00601097)

Company Name: CITY OF MT SHASTA

Contact Name:

Email: [lproulx@mtshastaca.gov](mailto:lproulx@mtshastaca.gov)

Address: 305 N MT SHASTA BLVD, MT SHASTA, CA, 96067

Phone: (530) 926-3464

Fax: (000) 000-0000

## Use Information

This is a proof of your ad scheduled to run on the dates indicated below.

Please confirm placement prior to deadline by contacting your account rep at (530) 225-8229 .

Ad Id: 754224      P.O. Number:      Total Cost: \$202.10

Tag Line: PUBLIC NOTICE The U.S. Department of

Start Date: 10/26/15

Stop Date: 10/28/15

Number of Times: 3

Class: 16100 - Legal Notices

Publications: RR-Record Searchlight, RR-Internet-redding.com

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I agree this ad is accurate and as ordered.

**PUBLIC NOTICE**

The U.S. Department of Commerce, Economic Development Administration (EDA) is considering a request from the City of Mt. Shasta to amend the scope of work for an existing grant. The proposed scope of work would fund the construction of new filtration and ultraviolet (UV) disinfection facilities and associated piping at the Mt. Shasta Waste Water Treatment Plant (WWTP) in Siskiyou County, California. Pursuant to the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), EDA is conducting an assessment of the potential of the proposed project to affect the environment and/or historic properties.

Under the proposed project, filtration and UV disinfection facilities would be constructed at the Mt. Shasta WWTP on Grant Road to the southwest of the City of Mt. Shasta. The filtration and UV disinfection facilities would be located where abandoned intermittent sand filters currently exist. Project information is available for review at the City of Mt. Shasta, 305 N. Mt. Shasta Boulevard, Mt. Shasta, CA. 96067, or by calling (530) 926-7510.

If you have any information regarding potential impacts environmental resources or historic properties associated with this proposed project, please provide it in writing to:

Regional Environmental Officer  
US Department of Commerce  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
sfitzgerald@eda.gov

Comments received in the EDA Regional Office by 5:00 pm on November 12, 2015 will be considered. A copy of the NEPA/NHPA decisional document will be available upon request from the above EDA Regional Office.

October 26, 27, and 28, 2015

754224

## FitzGerald, Shannon

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**From:** FitzGerald, Shannon  
**Sent:** Friday, October 30, 2015 6:23 PM  
**To:** Rod Bryan (RBryan@mtshastaca.gov) (RBryan@mtshastaca.gov)  
**Cc:** Good, Stan; Paul Eckert (eckert@ci.mt-shasta.ca.us); Paul Reuter (preuter@paceengineering.us)  
**Subject:** FW: agenda and minutes of public meeting can substitute for public notice  
**Attachments:** cc01.26.15\_FINALnumbered.pdf; cc01.26.15\_MINUTES Approved.pdf

Hi Rod,

Thanks for your work on this and the documentation. Thanks, too, for forwarding the affidavit from the Record Searchlight when you receive it.

After I sent that email on 10/14/15, I remembered that there had been a City Council public meeting on the WWTP upgrade. I let Paul know that the agenda and minutes could be used in lieu of a public notice. We've done that before on projects. It looks like you got the email eventually, but I should have copied you on the original email. Well, at least the project can't be challenged for not having a public notice.

Thanks again, Shannon 206-220-7703

**From:** Paul Eckert [<mailto:eckert@mtshastaca.gov>]  
**Sent:** Sunday, October 18, 2015 4:38 PM  
**To:** FitzGerald, Shannon; Good, Stan  
**Cc:** Paul Reuter ([preuter@paceengineering.us](mailto:preuter@paceengineering.us)); Rod Bryan; Muriel Howarth Terrell; Larisa Proulx  
**Subject:** FW: agenda and minutes of public meeting can substitute for public notice

Greetings Shannon and Stan;

Please find attached the requested documentation. Thank you for your ongoing assistance.

Paul Eckert  
City Manager

**From:** Larisa Proulx  
**Sent:** Thursday, October 15, 2015 4:17 PM  
**To:** Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)>  
**Subject:** RE: agenda and minutes of public meeting can substitute for public notice

Is this what he is looking for?

The agenda packet and minutes are also posted on the City's website:

minutes: [http://ci.mt-shasta.ca.us/clerk/council/cc01.26.15\\_MINUTES\\_Aproved.pdf](http://ci.mt-shasta.ca.us/clerk/council/cc01.26.15_MINUTES_Aproved.pdf)

agenda packet: [http://ci.mt-shasta.ca.us/clerk/council/CC\\_09.28.15\\_AgendaPacket.pdf](http://ci.mt-shasta.ca.us/clerk/council/CC_09.28.15_AgendaPacket.pdf)

Larisa



**From:** Paul Eckert  
**Sent:** Thursday, October 15, 2015 8:31 AM  
**To:** Larisa Proulx <[lproulx@mtshastaca.gov](mailto:lproulx@mtshastaca.gov)>  
**Cc:** Paul Reuter ([preuter@paceengineering.us](mailto:preuter@paceengineering.us)) <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)>; Rod Bryan <[rbryan@mtshastaca.gov](mailto:rbryan@mtshastaca.gov)>  
**Subject:** FW: agenda and minutes of public meeting can substitute for public notice

Hi Larisa,  
Can you please search for the information requested below when you have time.

Thank you!

Paul

**From:** FitzGerald, Shannon [<mailto:SFitzGerald@eda.gov>]  
**Sent:** Wednesday, October 14, 2015 2:18 PM  
**To:** Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)>  
**Cc:** Good, Stan <[SGood@eda.gov](mailto:SGood@eda.gov)>; Paul Reuter ([preuter@paceengineering.us](mailto:preuter@paceengineering.us)) <[preuter@paceengineering.us](mailto:preuter@paceengineering.us)>; Lindsay Kantor ([lkantor@enplan.com](mailto:lkantor@enplan.com)) <[lkantor@enplan.com](mailto:lkantor@enplan.com)>  
**Subject:** agenda and minutes of public meeting can substitute for public notice

Hi Paul,

I was just rereading the history of the project. It looks like there was a City Council public meeting on January 26, 2015 regarding the proposed amended scope of work. If you can send me the agenda and minutes for that meeting which document that the proposed project was discussed and it was a public meeting, then that can substitute in lieu of a public notice.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## Mt. Shasta City Council Regular City Council Meeting Agenda

Mt. Shasta Community Center, 629 Alder Street

Monday, January 26, 2015; 5:30 p.m.

"Our mission is to maintain the character of our "small town" community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence."

Page	Item	STANDING AGENDA ITEMS
	1.	Call to Order and Flag Salute
	2.	Roll call
	3.	Special Presentations & Announcements: Water Conservation- Meadow Fitton
	4.	City Council Interviews of Board/Commission /Commissioner Candidates:
P 5-7	a.	Melanie Findling – Planning Commission
P 9-10	b.	Lorie Saunders – Beautification Committee
P 11-14	c.	Alexis Meadows – Beautification Committee
P 15-18	d.	Leslie Holland – Beautification Committee
P 19-20	e.	Terez Maniatis – Beautification Committee
	5.	<p>Public Comment:</p> <p>Welcome to our City Council meeting. The Council invites the public to address the Council on matters on the Consent Agenda and matters not listed on the agenda that are within the Council's subject matter jurisdiction. If the Public wishes to comment on matters that are on the agenda, the Council will request comment when the matter is heard. The Council reserves the right to limit public comment on matters that are outside its subject matter jurisdiction.</p> <p>The City Council may regulate the total amount of time on particular issues and for speakers (typically 3 minutes). The Council may place additional time limits on comments, to ensure members of the public have an opportunity to speak and the Council is able to complete its business. A group may be asked to choose a spokesperson to address the Council on a subject matter, or the Council may limit the number of persons addressing the Council whenever a group of persons wishes to address the council on the same subject matter. Speakers may not cede their time to another.</p> <p>The Mayor manages the City Council meeting with a commitment to effective engagement while maintaining a positive, respectful decorum. The Mayor will typically start the Public Comment period sharing the following reminders relating decorum and Brown Act compliance efforts:</p> <ul style="list-style-type: none"> <li>✓ This is the time for the public to address the Council on matters on the Consent Agenda or matters NOT on the Council Agenda. This will be a comment period only. If the public wishes a response they may provide their contact information to the Deputy City Clerk.</li> <li>✓ The Mayor will recognize each speaker in an orderly fashion. Most often, the Mayor will call the speakers whom have signed in first and shall then call for those who would like to address the Council but whom did not sign in by inviting them to come to the front of the room and wait to be recognized to speak. Once the speaker is recognized, the speaker will address the Council only and shall provide comment from the public microphone. Public Comment will typically not be taken from any</li> </ul>

	<p>person shouting from the audience.</p> <ul style="list-style-type: none"> <li>✓ No heckling or shouting from the audience at a speaker shall be permitted.</li> <li>✓ The City Council may ask "clarifying" questions only. Due to equity and Brown Act concerns, the Council will avoid engaging in dialogue or debate.</li> <li>✓ If there is an item of great community significance/interest and is within the Council's subject matter jurisdiction, the Council may request the item be agendaized for further consideration at a subsequent Council meeting.</li> </ul>
	6. Meeting Recess (As Necessary)
	<b>CITY COUNCIL BUSINESS</b>
P 21 P 23-25 P 27-30 P 31-34 P 35 P 37 P 39-46	<p>7. Consent Agenda - The City Manager recommends approval of the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.</p> <ul style="list-style-type: none"> <li>a. Approval of Minutes: December 16, 2014 Special City Council Meeting</li> <li>b. Approval of Minutes: January 12, 2015 Regular City Council Meeting</li> <li>c. Acceptance of Brown Act Committee Minutes: <ul style="list-style-type: none"> <li>ATC Regular Meeting Minutes of November 21, 2014</li> <li>ATC Regular Meeting Minutes of December 19, 2014</li> <li>Beautification Committee Regular Meeting Minutes of October 8, 2014</li> <li>Beautification Committee Special Meeting Minutes of October 8, 2014</li> </ul> </li> <li>d. Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director)</li> <li>e. City Council Committee Assignments: <ul style="list-style-type: none"> <li>i. LTC – Michael Burns Sr.</li> <li>ii. ATC – Michael Burns Sr.</li> <li>iii. Beautification Committee – Jeffrey Collings</li> <li>iv. CEDAC – Tim Stearns &amp; Geoff Harkness</li> <li>v. LTAC – Geoff Harkness</li> <li>vi. DEAC – Michael Burns Sr.</li> <li>vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings</li> <li>viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings</li> <li>ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. &amp; Jeffrey Collings</li> <li>x. SAGE – Tim Stearns</li> <li>xi. Solid Waste JPA – City Manager</li> </ul> </li> </ul>
P 47	<p>8. Prop 84 Water Meters and Pipeline Projects funded through the Regional Water Management Group (RWMG)- Project Process and Update</p> <p><i>Background:</i> Staff will provide an update on the progress on the proposed projects and summarize next steps.</p> <p><i>Report By:</i> Rod Bryan, Public Works Director</p>

	<p><u>Council Action:</u> Provide direction to staff in selection of a water meter.</p>
P 49	<p>9. Selection of a project alternative for the Caltrans SR 89/South Mt. Shasta Boulevard Intersection Improvement Project Concepts.</p> <p><u>Background:</u> Caltrans will present alternatives and seek Council input on alternatives for improving the Highway 89/South Mt. Shasta Boulevard intersection.</p> <p><u>Report By:</u> Rod Bryan, Public Works Director and Caltrans Representatives</p> <p><u>Council Action:</u> City Council direction regarding preferred alignment on Highway 89.</p>
P 51-61	<p>10. City response to U.S. Economic Development Administration (EDA).</p> <p><u>Background:</u> City Staff will provide and update regarding the U.S. Economic Development Administration (EDA) Grant Award changes. The City Council will be asked to consider and decide among two alternatives, returning the funds or directing the funds to the Mt. Shasta State Mandated Waste Water Treatment Plant Project.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> City Council to provide direction regarding U.S. Economic Development Administration (EDA) alternatives stated above.</p>
P 63-64	<p>11. Efforts to obtain funding from various sources <u>for the well documents necessary to complete</u> repairs to the City's Interceptor Line.</p> <p><u>Background:</u> The Interceptor Line Repair has been a top priority in the City's Sewer Master Plan for several decades. Completing the project remains a top priority of the City Council. The loss of the EDA funding requires that alternative funding sources be identified.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> Provide direction to staff regarding exploring and obtaining funding sources for repairs to the City's Interceptor Line.</p>
<b>CITY COUNCIL/STAFF REPORTING PERIOD</b>	
	12. Council Reports on Attendance at Appointed/Outside Meetings
	13. Council and Staff Comments
	<p>14. Future Agenda Items (Appearing on the agenda within 60-90 days):</p> <ul style="list-style-type: none"> <li>a. Review of Ordinance #275 with the intent to add language allowing the inclusion of downtown property owners to be eligible to sit on the DEAC – 2/2015 (Waiting for legal review)</li> <li>b. LED Light System Update – 2/2015</li> </ul>

	<ul style="list-style-type: none"><li>c. Overview of election process for Councilmembers – 2/2015</li><li>d. ATC jurisdiction review – 2/2015</li><li>e. Water conservation communication efforts – 3/2015</li><li>f. Commercial Recycling Oversight Requirements – 3/2015</li><li>g. Updates from Council appointed committees – 4/2015</li></ul>
	<p><b>15. Adjourn</b></p> <p>Availability of Public Records: All public records related to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at City Hall located at 305 North Mt. Shasta Blvd., Mt. Shasta, CA at the same time the public records are distributed or made available to the members of the legislative body. Agenda related writings or documents provided to a majority of the legislative body after distribution of the Agenda packet will be available for public review within a separate binder at City Hall at the same time as they are made available to the members of the legislative body.</p> <p>The City of Mt. Shasta does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or provision of services. In compliance with the Americans with Disabilities Act, persons requiring accommodations for a disability at a public meeting should notify the City Clerk or Deputy City Clerk at least 48 hours prior to the meeting at (530) 926-7510 in order to allow the City sufficient time to make reasonable arrangements to accommodate participation in this meeting</p>

## Mt. Shasta City Council Regular Meeting Minutes

Mt. Shasta Community Center, 629 Alder Street

Monday, January 26, 2015 - 5:30 p.m.

Approved as submitted February 9, 2015

"Our mission is to maintain the character of our "small town" community while striking an appropriate balance between economic development and preservation of our quality of life. We help create a dynamic and vital City by providing quality, cost-effective municipal services and by forming partnerships with residents and organizations in the constant pursuit of excellence."

Page	Item	STANDING AGENDA ITEMS
	1.	<p>Call to Order and Flag Salute</p> <p>At the hour of 5:35 p.m., Mayor Geoffrey Harkness called the meeting to order and led the audience in the Pledge of Allegiance.</p>
	2.	<p>Roll Call</p> <p>Councilmembers Present: Mayor Pro Tem Jeffrey Collings, Burns, Stearns, Mayor Harkness Councilmembers Absent: None</p>
	3.	<p>Special Presentations and Announcements: Water Conservation - Meadow Fitton</p> <p>Meadow Fitton, Water Education Consultant, gave a brief presentation on the preparations being made with the City of Mt. Shasta to advise its citizens about water conservation in drought conditions. An informational brochure will be mailed to City utility customers in the third week of February, 2015. Three "water talks," which will include an informational video, have been scheduled in the City of Mt. Shasta for March 10, May 21, and October 21, 2015.</p>
	4.	<p>City Council Interviews of Board/Commission /Commissioner Candidates:</p> <ul style="list-style-type: none"><li>a. Melanie Findling – Planning Commission</li><li>b. Lorie Saunders – Beautification Committee</li><li>c. Alexis Meadows – Beautification Committee</li><li>d. Leslie Holland – Beautification Committee</li><li>e. Terez Maniatis – Beautification Committee</li></ul> <p>MOTION to fill the four (4) vacancies on the Planning Commission with Melanie Findling, Alan Pardee, Emily Derby, and Casey Clure.</p> <p>Motion by: Councilmember Stearns Second by: Councilmember Burns 4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)</p>

	<p>MOTION to fill existing two (2) vacancies on the Beautification Committee with Terez Maniatis and Leslie Holland.</p> <p>Motion by: Councilmember Stearns  Second by: No second on motion.</p> <p>Council Action: This item was postponed for a future regular meeting of the City Council.</p>
	<p>5. Public Comment:</p> <p>Members of the audience voiced their comments and concerns regarding: geo engineering; the Interceptor Line Project, an Environmental Impact Report (EIR); logging at Lake Siskiyou campground; the impact on the health and welfare of the community with installation of smart water meters; and Caltrans SR 89/South Mt. Shasta Boulevard Intersection Project.</p>
	<p>6. Meeting Recess: A brief recess was taken at 7:45 p.m.</p>
<p><b>CITY COUNCIL BUSINESS</b></p>	
	<p>7. Consent Agenda - The City Manager recommends approval of the following Consent Agenda items. All Resolutions and Ordinances on this agenda, or added hereto, shall be introduced or adopted, as applicable, by title only, and the full reading thereof is hereby waived.</p> <ul style="list-style-type: none"> <li>a. Approval of Minutes: December 16, 2014 Special City Council Meeting</li> <li>b. Approval of Minutes: January 12, 2015 Regular City Council Meeting</li> <li>c. Acceptance of Brown Act Committee Minutes: <ul style="list-style-type: none"> <li>ATC Regular Meeting Minutes of November 21, 2014</li> <li>ATC Regular Meeting Minutes of December 19, 2014</li> <li>Beautification Committee Regular Meeting Minutes of October 8, 2014</li> <li>Beautification Committee Special Meeting Minutes of October 8, 2014</li> </ul> </li> <li>d. Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director)</li> <li>e. City Council Committee Assignments: <ul style="list-style-type: none"> <li>i. LTC – Michael Burns Sr.</li> <li>ii. ATC – Michael Burns Sr.</li> <li>iii. Beautification Committee – Jeffrey Collings</li> <li>iv. CEDAC – Tim Stearns &amp; Geoff Harkness</li> <li>v. LTAC – Geoff Harkness</li> <li>vi. DEAC – Michael Burns Sr.</li> <li>vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings</li> <li>viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings</li> </ul> </li> </ul>

- ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. & Jeffrey Collings
- x. SAGE – Tim Stearns
- xi. Solid Waste JPA – City Manager

MOTION to approve consent agenda item 7(a) Approval of Minutes: December 16, 2014 Special City Council Meeting; 7(b) Approval of Minutes: January 12, 2015 Regular City Council Meeting; 7(c) Acceptance of Brown Act Committee Minutes: ATC Regular Meeting Minutes of November 21, 2014; ATC Regular Meeting Minutes of December 19, 2014; Beautification Committee Regular Meeting Minutes of October 8, 2014; Beautification Committee Special Meeting Minutes of October 8, 2014; and 7(d) Approval of Disbursements: Accounts Payable: 1/9/15; 1/9/15; and 1/12/15; Total Gross Payroll and Taxes: For Period Ending 1/7/15 (Finance Director); and 7(e) City Council Committee Assignments: i. LTC – Michael Burns Sr.; ii. ATC – Michael Burns Sr.; iii. Beautification Committee – Jeffrey Collings; iv. CEDAC – Tim Stearns and Geoff Harkness; v. LTAC – Geoff Harkness; vi. DEAC – Michael Burns Sr.; vii. Crystal Geyser Communications Ad Hoc Committee – Jeffrey Collings; viii. Water Main and Water Meters Ad Hoc Committee – Jeffrey Collings; ix. Waste Water Treatment Plant Construction (WWTP) Ad Hoc Committee – Michael Burns Sr. and Jeffrey Collings; x. SAGE – Tim Stearns; and xi. Solid Waste JPA – City Manager

Motion by: Councilmember Stearns, with one exception. Item 7(e) City Council Committee Assignments, Item i., LTC – Michael Burns, Sr. This committee position is assigned by the Mayor's Committee of the League of Local Agencies (LOLA). Councilmember Stearns reported that Michael Burns, Sr. was appointed to fill one of two vacancies on the LTC by that Committee in their meeting the previous week.

MOTION to accept consent agenda items, with the exception of item 7(e)i:

Motion by: Councilmember Stearns  
Second by: Councilmember Burns  
4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)

8. Prop 84 Water Meters and Pipeline Projects funded through the Regional Water Management Group (RWMG)- Project Process and Update

Background: Staff will provide an update on the progress on the proposed projects and summarize next steps.

Report By: Rod Bryan, Public Works Director

Council Action: Provide direction to staff in selection of a water meter.

Mayor Pro Tem Collings gave a presentation on his extensive research regarding various types of water meters, their safety and efficiency, benefits, costs, and role in water conservation, now and for the long-term.



	<p>In order to minimize health impacts on the City of Mt. Shasta's utility customers, labor and maintenance costs to the City, in addition to providing ongoing data to promote water conservation, City Council unanimously directed the Public Works Department to move forward with the installation of the <i>Census / Pearl</i> "drive-by" Automatic Meter Reading (AMR) system, which is not a smart meter.</p>
	<p>9. Selection of a project alternative for the Caltrans SR 89/South Mt. Shasta Boulevard Intersection Improvement Project Concepts.</p> <p><u>Background:</u> Caltrans will present alternatives and seek Council input on alternatives for improving the Highway 89/South Mt. Shasta Boulevard intersection.</p> <p><u>Report By:</u> Rod Bryan, Public Works Director and Caltrans Representatives</p> <p><u>Council Action:</u> City Council direction regarding preferred alignment on Highway 89.</p> <p>No direction was given or action taken by City Council on this project at this meeting.</p>
	<p>10. City response to U.S. Economic Development Administration (EDA).</p> <p><u>Background:</u> City Staff will provide and update regarding the U.S. Economic Development Administration (EDA) Grant Award changes. The City Council will be asked to consider and decide among two alternatives, returning the funds or directing the funds to the Mt. Shasta State Mandated Waste Water Treatment Plant Project.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> City Council to provide direction regarding U.S. Economic Development Administration (EDA) alternatives stated above.</p> <p>MOTION to redirect grant award funds from the U.S. Economic Development Administration (EDA) to the State Mandated Waste Water Treatment Plant Project for the City of Mt. Shasta.</p> <p>Motion by: Mayor Pro Tem Collings Second by: Councilmember Stearns 4 Ayes – (Burns, Mayor Pro Tem Collings, Stearns, Mayor Harkness)</p>
	<p>11. Efforts to obtain funding from various sources necessary to complete repairs to the City's Interceptor Line.</p> <p><u>Background:</u> The Interceptor Line Repair has been a top priority in the City's Sewer Master Plan for several decades. Completing the project remains a top priority of the City Council. The loss of the EDA funding requires that alternative funding sources be identified.</p> <p><u>Report By:</u> Paul Eckert, City Manager</p> <p><u>Council Action:</u> Provide direction to staff regarding exploring and obtaining funding sources for repairs to the City's Interceptor Line.</p>

	<p>City Council tasked City Manager Eckert with exploring and obtaining alternative funding for the City of Mt. Shasta's Interceptor Line, and to keep Council apprised of those ongoing efforts.</p>
	<p><b>CITY COUNCIL/STAFF REPORTING PERIOD</b></p>
	<p>12. Council Reports on Attendance at Appointed/Outside Meetings</p> <p>Councilmember Stearns reported that he has been elected as Chair of the League of Local Agencies (LOLA).</p>
	<p>13. Council and Staff Comments</p> <p>City Manager Eckert reported that the Public Works Department is doing an exceptional job on improving the City's infrastructure. The City's mechanic must also be commended for his expertise and efforts in saving the City substantial costs associated with vehicle maintenance.</p> <p>Public Works Director Rod Bryan addressed the ongoing improvements to City water lines and pressure regulators. Future coliform samples will be taken from the City's water mains instead of residential or commercial samplings, as in the past.</p>
	<p>14. Future Agenda Items (Appearing on the agenda within 60-90 days):</p> <ul style="list-style-type: none"> <li>a. Review of Ordinance #275 with the intent to add language allowing the inclusion of downtown property owners to be eligible to sit on the DEAC – 2/2015 (Waiting for legal review)</li> <li>b. LED Light System Update – 2/2015</li> <li>c. Overview of election process for Councilmembers – 2/2015</li> <li>d. ATC jurisdiction review – 2/2015</li> <li>e. Water conservation communication efforts – 3/2015</li> <li>f. Commercial Recycling Oversight Requirements – 3/2015</li> <li>g. Updates from Council appointed committees – 4/2015</li> </ul>
	<p>15. Adjourn</p> <p>There being no further business before the City Council, the meeting was adjourned by Mayor Harkness at the hour of 11:15 p.m.</p>

**FitzGerald, Shannon**

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**From:** Vicki Gold [REDACTED]  
**Sent:** Friday, October 30, 2015 8:52 PM  
**To:** FitzGerald, Shannon  
**Subject:** Re: EDA NEPA public notice

Thank you Shannon,  
We simply didn't see it last week.  
Have a great week end. Snow is predicted here Monday & Tuesday, a welcome relief if it produces snowpack.  
Vicki  
On Oct 30, 2015, at 6:42 PM, "FitzGerald, Shannon" <[SFitzGerald@eda.gov](mailto:SFitzGerald@eda.gov)> wrote:

Hi Vicki,

In my earlier email, I thought the NEPA public notice had just been published on October 28, 2015 and I was going to have the City publish it two more times. Late this afternoon I received information from Rod Bryan with the City that the public notice was published in the Mt Shasta Herald, Weed Press and Dunsmuir News on October 21 and 28. It was also published in the Record Searchlight on October 26, 27 and 28. So there won't be any other publications and November 12, 2015 is the deadline for comments.

Thanks, Shannon

## FitzGerald, Shannon

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**From:** FitzGerald, Shannon  
**Sent:** Thursday, November 12, 2015 1:33 PM  
**To:** Vicki Gold [REDACTED]  
**Subject:** fax # and snail mail

Hi Vicki,

I got your voicemail message. I tried calling 530-926-4260 but got the message that the number has been disconnected. I will try finding another number for you.

I did not receive your email. I have contacted DOC IT and there is a system-wide problem that they are working on. In the meantime, please use our fax 206-220-7657 or regular mail.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**FitzGerald, Shannon**

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**From:** FitzGerald, Shannon  
**Sent:** Thursday, November 12, 2015 2:03 PM  
**To:** Vicki Gold [REDACTED]  
**Cc:** Good, Stan  
**Subject:** extension of public comment period for City of Mt. Shasta scope amendment

The U.S. Economic Development Administration (EDA) is experiencing problems with its email system. Unrecognized email addresses are being bounced. Several incident reports have been filed with IT which is working to resolve it.

Today was to be the last day for public comments on the amended scope of work of the grant that the City of Mt. Shasta received from the EDA. The proposed amended scope of work is for the construction of filtration and UV disinfection facilities at the Mt. Shasta Wastewater Treatment Plant. Due to the problem with the email system, the public comment period will be extended until the end of Friday, November 13, 2015. If the email problem is not resolved by then, there will be a further extension. I will provide you with a status update when I receive one from IT.

Thanks for your patience.

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## **FitzGerald, Shannon**

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**From:** FitzGerald, Shannon  
**Sent:** Thursday, November 12, 2015 3:17 PM  
**To:** Paul Eckert (eckert@ci.mt-shasta.ca.us); Rod Bryan (RBryan@mtshastaca.gov) (RBryan@mtshastaca.gov)  
**Cc:** Good, Stan; Skrinde, Kristine  
**Subject:** extension of the public comment period

Hi Paul and Rod,

EDA's email system appears to be bouncing emails that don't have an EDA address (I was hoping that it was just a nice quiet day). I called our IT desk and they confirmed that there have been several complaints about this. In addition to your voicemail message about this, Rod, I also got a message from Vicki Gold regarding the same thing. When I called her back, she said that several people had contacted her about their emails bouncing. She suggested that the public comment period be extended until tomorrow. I agreed to that. I had suggested to Vicki that people use fax (as you did) or snail mail. She said that people no longer have faxes or printers, so we will wait until email works. If the problem isn't resolved by tomorrow, I will continue to extend the public comment period until it is and we can get people's email comments.

Thanks for posting the public notice and also for faxing your comments. -Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

## FitzGerald, Shannon

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**From:** Vicki Gold [REDACTED]  
**Sent:** Friday, November 13, 2015 9:27 AM  
**To:** FitzGerald, Shannon  
**Cc:** Good, Stan  
**Subject:** IT problems with emails

Hi Shannon & Stan,

I'm just checking in to see if you are able to receive emails yet. Please respond asap so I can let others know when to send their responses in.

Thanks so much,

Vicki Gold

530.926.4206

**FitzGerald, Shannon**

---

**From:** MountShasta Water <mountshastawater@gmail.com>  
**Sent:** Friday, November 13, 2015 9:58 AM  
**To:** FitzGerald, Shannon; Good, Stan  
**Subject:** Re: Comments on Mt. Shasta WWTP EDA grant

Can you please confirm that your email system is working and you received the email and attachments sent by us earlier today?

Emails were being rejected yesterday.

Thank you,

Bruce Hillman

On Fri, Nov 13, 2015 at 7:29 AM, MountShasta Water <[mountshastawater@gmail.com](mailto:mountshastawater@gmail.com)> wrote:

Hello,

Attached are comments by We Advocate Thorough Environmental Review (W.A.T.E.R) on the grant to the City of Mount Shasta. Also attached is a letter from our attorney referenced in the comments letter and the Public Notice announcement we are commenting on.

Thank you,

Bruce Hillman

President, W.A.T.E.R.



## **FitzGerald, Shannon**

---

**From:** FitzGerald, Shannon  
**Sent:** Friday, November 13, 2015 10:52 AM  
**To:** 'MountShasta Water'  
**Subject:** RE: Comments on Mt. Shasta WWTP EDA grant

Hi Bruce,

IT fixed the problem and we are receiving email comments including yours and the three attachments.

Thanks for checking, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** MountShasta Water [<mailto:mountshastawater@gmail.com>]  
**Sent:** Friday, November 13, 2015 9:58 AM  
**To:** FitzGerald, Shannon; Good, Stan  
**Subject:** Re: Comments on Mt. Shasta WWTP EDA grant

Can you please confirm that your email system is working and you received the email and attachments sent by us earlier today?

Emails were being rejected yesterday.

Thank you,  
Bruce Hillman

On Fri, Nov 13, 2015 at 7:29 AM, MountShasta Water <[mountshastawater@gmail.com](mailto:mountshastawater@gmail.com)> wrote:  
Hello,

Attached are comments by We Advocate Thorough Environmental Review (W.A.T.E.R) on the grant to the City of Mount Shasta. Also attached is a letter from our attorney referenced in the comments letter and the Public Notice announcement we are commenting on.

Thank you,  
Bruce Hillman  
President, W.A.T.E.R.

## FitzGerald, Shannon

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**From:** FitzGerald, Shannon  
**Sent:** Friday, November 13, 2015 6:31 PM  
**To:** 'Angelina Cook'; Good, Stan  
**Subject:** RE: Mt. Shasta City WWTP Grant - Public Comment

Hi Angelina,

The deadline for comments was yesterday but we extended it through today because of an email glitch yesterday. Having an organization provide comments, versus an individual, doesn't give them extra weight. So that was good thinking to get them in today as a concerned citizen.

Thanks, Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

**From:** Angelina Cook [<mailto:renewsiskiyou@gmail.com>]  
**Sent:** Friday, November 13, 2015 5:12 PM  
**To:** FitzGerald, Shannon; Good, Stan  
**Subject:** Mt. Shasta City WWTP Grant - Public Comment

Greetings,

I wanted to submit the following comments on behalf of my organization, but did not get approval in time. So I am submitting these as a concerned citizen. Would you still accept a revised version of these comments on behalf of the organization on Monday?

Thank you.  
Angelina Cook  
###

November 12, 2015

US Department of Commerce  
Economic Development Administration  
Regional Director A. Leonard Smith  
915 Second Avenue, Room 1890  
Seattle, WA 98174

U.S. Department of Commerce  
Economic Development Administration  
Regional Environmental Officer  
915 Second Avenue, Room 1890  
Seattle, WA 98174

Dear Regional Director Smith, Mr. Good and Ms. Fitzgerald,

First, I would like to thank you for your support in Mt. Shasta City's sewerage treatment facilities much-needed repairs. The limited capacity and environmental sensitivities surrounding the existing plant have thwarted economic activity in the region for many years. I am grateful that federal

agencies such as yours are in a position to facilitate meaningful expansion in our community, which has been dealing with decades of economic contraction.

I have been working to represent public interests in natural resource decision-making processes in the region for more than 10 years. Due to a remarkable lack of leadership addressing urgent issues associated with our changing physical and economic landscapes, I teamed up last year with the Mount Shasta Bioregional Ecology Center to draft a collaborative climate adaptation plan in 2014. The living document, entitled "*Renew Siskiyou - Roadmap to Resilience*" addresses the impacts of rising temperatures in our bioregion and sets forth recommended adaptation priorities. Because rising temperatures entail increased forest morbidity and less precipitation falling as snow, water conservation and forest restoration are paramount in safeguarding the region and downstream watershed stakeholders against catastrophic fire and persistent drought.

As you can agree, industrial water extraction and export in little toxic bottles using untold amounts of fossil fuels for global distribution is clearly not compatible with drought relief or climate adaptation and mitigation. Though it is unsurprising that Crystal Geyser does not want to undergo an Environmental Impact Review (EIR) or Environmental Impact Statement (EIS), it is appalling that local and state government representatives are conspiring with another private sector attempt to forego environmental review at the community's expense.


Dianne Feinstein's and Wally Herger's letters to the EDA in 2012 not only undermine our regions ability to uphold their own states climate and groundwater sustainability legislation (Global Warming Solutions Act - AB 32 and the Groundwater Sustainability Management Act) but they perpetuate a dysfunctional democracy and a economic power structure that is designed to favor multinational corporate development while marginalizing active and caring citizens who simply want to know what is going on in their communities, much less have a say in how it gets done. No wonder smaller agencies, such as Mt. Shasta City and Siskiyou County, with limited capacity and resources, shirk from their duty to protect public interests and go with the default, albeit defunct, mechanisms of the status quo.

Because the EDA is mandated to review project proposals in a comprehensive manner, and prohibited from advancing fragmented components of projects to avoid environmental review, I trust that your assistance of the treatment plant upgrade will be predicated upon adherence to federal and state environmental quality laws, thereby ensuring the durability of the grant itself and well as economic development associated with the treatment plant improvements.

Unfortunately, many of the project components remain obscure, due to non-transparency and short timelines between announcements requesting public comment and relevant document availability. From what I was able to gather, I request that you pursue the following course of action in response to Mt. Shasta City's EDA 2015 grant application; Prepare an Environmental Impact Statement (EIS) to assess the direct, indirect and cumulative impacts of the proposed industrial development to be connected to Mt. Shasta City's Waste Water Treatment Plant, and request that the City revise their grant application to include the Crystal Geyser Water Company's project components in their treatment plant upgrades.

I fully support every point raised in Mt. Shasta Tomorrow's very thorough comment letter to the EDA in regard to this matter. Thankfully, this region is well endowed with natural assets and has many opportunities for community revitalization and sustainable economic development, which you will hopefully get a chance to see in the "alternatives analysis" of the EIS. I urge you to ensure the efficacy of this project by requiring the highest level of environmental review possible.

Thank You.

Angelina Cook  
Resilient Watershed & Community Advocate  
(530) 926-5655 office  


**FitzGerald, Shannon**

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**From:** Rod Bryan <rbryan@mtshastaca.gov>  
**Sent:** Wednesday, November 18, 2015 5:52 AM  
**To:** Good, Stan; FitzGerald, Shannon  
**Cc:** Larisa Proulx  
**Subject:** FW: proofs of posting  
**Attachments:** 7406 - nepa notice - affidavit.pdf; SKM8T\_C55015111214020.pdf

Trying this again...  
Hopefully your email issues are worked out!  
Please confirm receipt of this.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

**From:** Rod Bryan  
**Sent:** Thursday, November 12, 2015 1:13 PM  
**To:** 'SGood@eda.gov' <SGood@eda.gov>  
**Cc:** Paul Eckert <eckert@mtshastaca.gov>  
**Subject:** proofs of posting

Mr. Good,  
Please see attached proof of publications for the EDA scope of work amendment public notice.

Let me know if any questions.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

CERTIFICATE OF PUBLICATION  
RECORD SEARCHLIGHT

CITY OF MT SHASTA  
ATTN: LARISA PROULX CITY OF MT SHASTA  
305 N MT SHASTA BLVD  
MT SHASTA CA 96067

REFERENCE: 550020 2015  
754224

State of California  
County of Shasta

I hereby certify that the Record Searchlight is a newspaper of general circulation within the provisions of the Government Code of the State of California, printed and published in the city of Redding, County of Shasta, State of California; that I am the principal clerk of the printer of said newspaper; that the notice of which the annexed clipping is a true printed copy was published in said newspaper on the following dates, to wit;

FILED ON: 11/12/15

PUBLISHED ON:  
10/26/2015, 10/27/2015, 10/28/2015

**PUBLIC NOTICE**

The U.S. Department of Commerce, Economic Development Administration (EDA) is considering a request from the City of Mt. Shasta to amend the scope of work for an existing grant. The proposed scope of work would fund the construction of new filtration and ultraviolet (UV) disinfection facilities and associated piping at the Mt. Shasta Waste Water Treatment Plant (WWTP) in Siskiyou County, California. Pursuant to the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), EDA is conducting an assessment of the potential of the proposed project to affect the environment and/or historic properties.

Under the proposed project, filtration and UV disinfection facilities would be constructed at the Mt. Shasta WWTP on Grant Road to the southwest of the City of Mt. Shasta. The filtration and UV disinfection facilities would be located where abandoned intermittent sand filters currently exist. Project information is available for review at the City of Mt. Shasta, 305 N. Mt. Shasta Boulevard, Mt. Shasta, CA, 96067, or by calling (530) 926-7510.

If you have any information regarding potential impacts environmental resources or historic properties associated with this proposed project, please provide it in writing to:

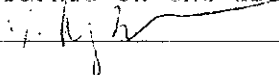
Regional Environmental Officer  
US Department of Commerce  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
slitzgerald@eda.gov

Comments received in the EDA Regional Office by 5:00 pm on November 12, 2015 will be considered. A copy of the NEPA/NHPA decisional document will be available upon request from the above EDA Regional Office.

October 26, 27, and 28, 2015

754224

I certify under penalty of perjury that the foregoing is true and correct, at Redding, California on the above date.



RECORD SEARCHLIGHT  
1101 Twin View Blvd; Redding, CA 96003

## **FitzGerald, Shannon**

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**From:** FitzGerald, Shannon  
**Sent:** Wednesday, November 18, 2015 8:48 AM  
**To:** 'Rod Bryan'; Good, Stan  
**Cc:** Larisa Proulx  
**Subject:** RE: proofs of posting

Hi Rod,

Thanks for resending them. It did come through this time. -Shannon

P.S. FYI. We received about three dozen comment letters/email. I've been preparing for an IRC that's today, but after that I will focus on going through the comment letters.

**From:** Rod Bryan [<mailto:rbryan@mtshastaca.gov>]  
**Sent:** Wednesday, November 18, 2015 5:52 AM  
**To:** Good, Stan; FitzGerald, Shannon  
**Cc:** Larisa Proulx  
**Subject:** FW: proofs of posting

Trying this again...  
Hopefully your email issues are worked out!  
Please confirm receipt of this.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

**From:** Rod Bryan  
**Sent:** Thursday, November 12, 2015 1:13 PM  
**To:** 'SGood@eda.gov' <[SGood@eda.gov](mailto:SGood@eda.gov)>  
**Cc:** Paul Eckert <[eckert@mtshastaca.gov](mailto:eckert@mtshastaca.gov)>  
**Subject:** proofs of posting

Mr. Good,  
Please see attached proof of publications for the EDA scope of work amendment public notice.

Let me know if any questions.

Thanks,

Rod Bryan  
Public Works Director  
City of Mt. Shasta  
(530) 926-7526

## **FitzGerald, Shannon**

---

**From:** Vicki Gold [REDACTED]  
**Sent:** Wednesday, November 18, 2015 9:51 AM  
**To:** FitzGerald, Shannon  
**Subject:** Fwd: talked with Shannon at EDA

Hi Shannon,

I stand corrected on my comment yesterday regarding the Central Valley Regional Water Quality Control Board. Raven is head of the Gateway Neighborhood Association where they are doing CASGEM testing of between 20-30 local residential wells surrounding the plant as baseline studies for 18 months now.

Thank you,  
Vicki

Begin forwarded message:

**From:** Raven [REDACTED]

The Board has been responsive Vicki. They reviewed it and have chosen to do nothing! But they did not ignore the requests. They just didn't find any issue with the permit.

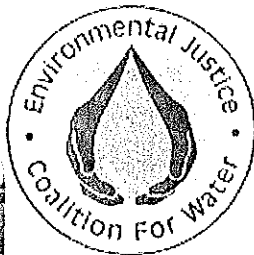


## FitzGerald, Shannon

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**From:** Vicki Gold [REDACTED]  
**Sent:** Saturday, November 21, 2015 9:08 AM  
**To:** FitzGerald, Shannon  
**Subject:** Mt Shasta EDA grant response

Water Flows Free



Hello Shannon,

I am hoping you will include these comments with the public responses which closed last week. There is new relevant information. PacifiCorp just agreed with our complaint that their public notices were misleading and contained errors that were substantive. While they are reposting their notices in the Mt Shasta Herald on 11/25 and 12/2, I am not convinced that the clock will start over after reading the "public guidelines" online (which win the award for the most user unfriendly document I've ever encountered). The timing of the upgrade at the "Lassen" Substation is clearly driven by the Crystal Geysers operation. As you recall Dianne Feinstein specifically mentioned in her letter of support for the EDA grant that CGWC would provide a substation on their property. This is quite obviously a strategy to avoid CEQA which we have been anticipating having read through all the emails among Siskiyou County, PacifiCorp, GoBiz office and the SCEDC from 2012 and 2013.

I understand that the EDA cannot and should not be the lead agency for an EIR. Yet perhaps a single EIR and EIS, jointly prepared by the EDA and both the County and the City, could provide the necessary review of the various pieces of Crystal Geysers' to date secret project puzzle? The City, County and Central Valley Regional Water Quality Control Board claim they have no hooks with which to cause Crystal Geysers to pay for an EIR which would reveal their full operational goals. The City paid lip service to the concept of the EDA grant for the Interceptor Line being the vehicle for the EIR. Yet as we followed all the city council meetings and statements, it was clear that they were not eager to make clear demands of CGWC. Or at least they didn't share them with the public. Perhaps they would actually be relieved if the EDA encouraged proper review. The County has not determined if the permits for the generators are discretionary and thus would trigger the APCD to take the lead. None of us feel the APCD is equipped to handle the overall project. I'm sure you read the article in the Mt. Shasta Herald 9/23/15 in which Judy Yee, at a press conference, states that CGWC will pay for the EIR. Many of us think it was a PR move because of the major water event planned for 9/26/15 at City Park with so many speakers and the Winnemem Wintu Chief as keynote speaker, addressing our water and the Sacramento River.

A joint EIS/EIR's was recently mentioned in a new court decision issued last week that also involved federal funding. This case revolved around a hotel suing L.A. because of a subway project's environmental impacts:

<http://www.courts.ca.gov/opinions/nonpub/B260855M.PDF>

### Today's IV v. Los Angeles County Metropolitan Transp. Authority

Because of partial federal funding for the project, the Federal Transit Administration was required to conduct environmental review pursuant to the National Environmental Policy Act. (42 U.S.C. § 4321 et

seq.) Apart from a dispute concerning public record disclosure, plaintiff's challenges arise under the California Environmental Quality Act. (Pub. Resources Code, § 21000 et seq.) **Under these circumstances, an environmental impact report/environmental impact study must be jointly prepared by federal and local authorities.** (Environmental Protection Information Center v. California Dept. of Forestry and Fire Protection (2008) 44 Cal.4th 459, 472; Cal. Code of Regs., tit. 14, § 15220 et seq. (Guidelines2).) For clarity's sake, the final environmental impact report/environmental impact study will be referred to as the environmental impact report.

(Excerpt from EPIC v. CDFG case):

Because the state SYP and federal HCP contained overlapping and interrelated analyses and provisions, a decision was made to prepare for both of these documents a single joint environmental impact report (EIR) under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and an environmental impact statement (EIS) under the National Environmental Policy Act (42 U.S.C. § 4321 et seq.).

Bottom line: maybe we could urge the EDA's attorneys to press for the EDA to become the Lead Agency since our local agencies are unwilling?

In my many years of experience in watching local jurisdictions deal with large corporate projects, I have never seen a small town allow itself to become financially so vulnerable to the whims of a corporation with deep pockets. Of the \$262,000 already spent on the Interceptor Line NOP of which \$62,000 was billed to CGWC, not a dime has been paid and the public is left holding this bag. The PacifiCorp project would again leave the ratepayers subsidizing the CGWC's wants for more power. ***If there is anything the EDA can do to extend the time for the grant to be implemented and to encourage the jurisdictions to work together to cause CGWC to comply with statements in its press release in September, they would come out looking like an agency truly responsible and responsive to the public.*** I am aware that the EDA's mission is about economics, community vitality and jobs, yet in extreme drought in a state where everyone knows the challenges we are all facing in California, perhaps this is an opportune moment for the EDA to act as guardian of the public funds and public welfare.

In the excellent film "Thirsty for Justice" linked here: [www.ejcw.org](http://www.ejcw.org) even Jerry Brown tells the people suffering in the Central Valley to "go and make me do the right thing". It is about our water; it is about the purity of the Sacramento River; it is about justice. The residents of the City of Mt Shasta have conserved water (45% decreased use per Mayor Harkness at a recent Water Talk). Why should an international Japanese pharmaceutical conglomerate be allowed to take up to 1 million gallons/ day, unregulated and dump up to 750,000 gallons per day into an already challenged collector system and WWTP? I believe the total output daily of Cold Spring that serves the city is 2 million gpd. While it isn't the same spring tapped by the plant, the hard rock lava geology has not been adequately studied. Many independent PhD geologists have concurred that little is known of the hydrogeology of the area. This CGWC project could give a whole new meaning to the phrase being "left high and dry" here in Mt Shasta.

Thank you for considering these thoughts about transparency, public funding, corporate welfare and the possibility of a solution for a very special community. You don't hear from the hundreds of people on a spiritual path who are praying in their various ways, who never write letters or engage at this level of public government deliberation. I assure you they are there and they are sending light from this beacon of Mount Shasta.

In Gratitude, always,

Vicki Gold

Water Flows Free

**FitzGerald, Shannon**

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**From:** Vicki Gold [REDACTED]  
**Sent:** Saturday, November 21, 2015 9:14 AM  
**To:** FitzGerald, Shannon  
**Subject:** Fwd: Public Notice Re: Lassen Substation upgrade

Just to keep you in the latest PacifiCorp loop.  
Vicki

Begin forwarded message:

**From:** Vicki Gold [REDACTED]  
**Subject:** Re: Public Notice Re: Lassen Substation upgrade  
**Date:** November 21, 2015 8:13:54 AM PST  
**To:** "Allen, Cathie" <Cathie.Allen@pacificorp.com>  
**Cc:** "jarmstrong@goodinmacbride.com" <jarmstrong@goodinmacbride.com>, "Michael.Rosauer@cpuc.ca.gov Rosauer" <Michael.Rosauer@cpuc.ca.gov>

<http://www.cpuc.ca.gov/NR/rdonlyres/B1C2F5B2-8A22-492B-B695-8751AE7FBA76/0/GuidePblcPrctptnApr10.pdf>

Now with the link. Apparently the numbing of my mind after reading it led me to omit it from the email. Humor is the saving grace in my life.

On Nov 21, 2015, at 8:12 AM, Vicki Gold <[REDACTED]> wrote:

Cathie,

I forgot to ask the most important question for the community. Will the time allowed for responses to the PEA and application be extended as determined by the new public notice dates, in this case 12/2/15? I read through the link below and frankly found it to be one of the most user unfriendly documents I've ever encountered in my many years. It appears to be equally burdensome for utilities as for the public, yet the public usually has fewer legal and financial resources with which to address such a bureaucratic maze. I can only assume that the Daily Calendar date of 11/2 cannot remain as the start of the clock for the 30 day protest period. Please clarify this most important point.

Thank you,  
Vicki

On Nov 20, 2015, at 4:09 PM, "Allen, Cathie" <Cathie.Allen@pacificorp.com> wrote:

Vicki

Thank you for your email and interest in the Lassen Substation project. I appreciate you notifying us that the street name stated in the newspaper notice was incorrect. We will be making a correction to the notice that will run in the weekly paper on November 25 and December 2. The notice is meant to inform the public that Pacific Power is proposing to build a new substation and how they may participate in the process so we do want the location to be accurate.

As I noted in an earlier email, Pacific Power has been planning to construct a new substation for several years. We hosted an open house in 2010 to talk with the community about the planned project. As stated in the fact sheet

provided at the open house, the Lassen substation is necessary to address capacity needs; importantly, while specific customer demands (e.g., from individual customers) may drive the timing of the construction of the Lassen substation, Pacific Power's decision to construct the Lassen substation is driven by system reliability needs. The Mt. Shasta Substation is a severely deteriorated wood structure. Rot and damage caused by birds have brought the structure to near the end of its useful life. This situation has prompted concerns about the Mt. Shasta Substation being able to safely and reliably meet current and future local and contractual system demand.

If you would like to participate in the process at the California Public Utilities Commission, please contact the Public Advisor's Office at:

Public Advisor's Office  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Or by email to: [public.advisor@cpuc.ca.gov](mailto:public.advisor@cpuc.ca.gov)

415-703-2074  
1-866-849-8390  
TTY 415-703-5282  
TTY toll free 1-866-836-7825

Regards,  
Cathie

**From:** Vicki Gold [REDACTED]  
**Sent:** Monday, November 16, 2015 11:34 AM  
**To:** Allen, Cathie  
**Cc:** [jarmstrong@goodinmacbride.com](mailto:jarmstrong@goodinmacbride.com); [Michael.Rosauer@cpuc.ca.gov](mailto:Michael.Rosauer@cpuc.ca.gov) Rosauer  
**Subject:** Public Notice Re: Lassen Substation upgrade

<image001.png><image002.png>

[Cathie.Allen@pacificcorp.com](mailto:Cathie.Allen@pacificcorp.com)  
[cc:jarmstrong@goodinmacbride.com](mailto:cc:jarmstrong@goodinmacbride.com)  
"Michael.Rosauer@cpuc.ca.gov Rosauer" <[Michael.Rosauer@cpuc.ca.gov](mailto:Michael.Rosauer@cpuc.ca.gov)>

November 16, 2015

Dear Cathie,

I represent Water Flows Free, a group of almost 700 people, both local Mt Shasta residents and visitors who frequent our internationally renowned tourist town. We are very concerned about the Crystal Geyser Water Company/ Otsuka Holdings (CGWC) plant and the quite obvious lack of environmental review surrounding the project by all agencies: Siskiyou County, the City of Mt Shasta and the Central Valley Regional Water Quality Control Board. Now there is a recent application filed which will give the local APCD an opportunity to review what we also consider to be discretionary permits. We are not optimistic that they will step up either. But I digress.

The Public Notice filed in the Mt Shasta Herald last week appears to have been designed to misinform the public. First, the name: renaming of the Mt Shasta Substation to Lassen creates a misconception that this is not even in Siskiyou County. Why is there a name change when Dunsmuir and Weed Substations retain their original names? Is it because CGWC originally intended to have a substation on their 262 acre property as stated in Dianne Feinstein's 2012 letter of support to the EDA during their granting process? We are in receipt of many emails from 2012 to present, among Jason Rancadore in the GoBiz office, the SCEDC, the CPUC regarding the potential CEQA implications of the CGWC's stated desired PacifiCorp power needs for future expansion. All of these can easily be provided to you, but since Monty Mendenhall was probably party to many of those phone calls and communications, the email trail should be available in your PacifiCorp records.

We know that this project is driven by an effort to serve "a light industrial consumer" not named. It is clearly inequitable to ask the public ratepayers to cover PacifiCorp's "upgrade" to accommodate CG's wants of 4 times the power used by the prior CocaCola plant operators. Lines are clearly to be installed to serve the plant (shown on the maps, but not named), yet the Public Notice fails to name CGWC as a primary beneficiary of the upgrade. This is corporate welfare. If the PEA evaluation is \$518,000 for a Mitigated Negative Declaration, plus the costs of the CPUC review by Dudek and the construction costs, this is a significant subsidy by the ratepayers and taxpayers. My group is only one of many who are tracking this issue.

The public has not been apprised of the true nature of the Substation upgrade and we feel this should be remedied first by a new public notice. We also feel **the name of the project should be kept as Mt Shasta Substation Project**. The street mentioned is also in error; it is not the correct name of the street which is South Old Stage Road, not Old Stage Coach Road, which is in Redding. This is another

error that must be corrected. Why was the end of the comment period not listed as 12/4/15? This makes it very difficult for the public to perceive the urgency of their responses.

I would appreciate your reply to my email.

Thank you,

Vicki Gold

Water Flows Free

Mt Shasta

## FitzGerald, Shannon

---

**From:** FitzGerald, Shannon  
**Sent:** Wednesday, November 25, 2015 11:04 AM  
**To:** 'Vicki Gold'  
**Subject:** RE: Mt Shasta EDA grant response

Hi Vicki,

I tried returning your voice mail message, but I keep getting the message that "You have reached a number that has been disconnected or is no longer in service...."

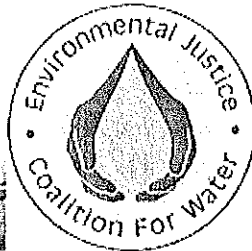
Per your voice mail question, I have not spoken with the City recently.

Regarding the comments below, they came a week after the close of the public comment period. So we are not going to include them in the public comments. But you are correct—to streamline the federal and state environmental review processes, a NEPA EIS can be combined with a CEQA EIR. I believe the CEQA regulations cover this and it is referred to as "CEQA Plus."

Thanks, Shannon 206-220-7703

**From:** Vicki Gold [REDACTED]  
**Sent:** Saturday, November 21, 2015 9:08 AM  
**To:** FitzGerald, Shannon  
**Subject:** Mt Shasta EDA grant response

Water Flows Free



Hello Shannon,

I am hoping you will include these comments with the public responses which closed last week. There is new relevant information. PacifiCorp just agreed with our complaint that their public notices were misleading and contained errors that were substantive. While they are reposting their notices in the Mt Shasta Herald on 11/25 and 12/2, I am not convinced that the clock will start over after reading the "public guidelines" online (which win the award for the most user unfriendly document I've ever encountered). The timing of the upgrade at the "Lassen" Substation is clearly driven by the Crystal Geysers operation. As you recall Dianne Feinstein specifically mentioned in her letter of support for the EDA grant that CGWC would provide a substation on their property. This is quite obviously a strategy to avoid CEQA which we have been anticipating having read through all the emails among Siskiyou County, PacifiCorp, GoBiz office and the SCEDC from 2012 and 2013.

I understand that the EDA cannot and should not be the lead agency for an EIR. Yet perhaps a single EIR and EIS, jointly prepared by the EDA and both the County and the City, could provide the necessary review of the various pieces of Crystal Geysers' to date secret project puzzle? The City, County and Central Valley Regional Water Quality Control Board claim they have no hooks with which to cause Crystal Geysers to pay for an EIR which would reveal their full operational goals. The City paid lip service to the concept of the EDA grant for the Interceptor Line being the vehicle for the EIR. Yet as we followed all the city council meetings and statements, it was clear that they were not eager to make clear demands of CGWC. Or at least they didn't share

them with the public. Perhaps they would actually be relieved if the EDA encouraged proper review. The County has not determined if the permits for the generators are discretionary and thus would trigger the APCD to take the lead. None of us feel the APCD is equipped to handle the overall project. I'm sure you read the article in the Mt. Shasta Herald 9/23/15 in which Judy Yee, at a press conference, states that CGWC will pay for the EIR. Many of us think it was a PR move because of the major water event planned for 9/26/15 at City Park with so many speakers and the Winnemem Wintu Chief as keynote speaker, addressing our water and the Sacramento River.

A joint EIS/EIR's was recently mentioned in a new court decision issued last week that also involved federal funding. This case revolved around a hotel suing L.A. because of a subway project's environmental impacts:

<http://www.courts.ca.gov/opinions/nonpub/B260855M.PDF>

### Today's IV v. Los Angeles County Metropolitan Transp. Authority

Because of partial federal funding for the project, the Federal Transit Administration was required to conduct environmental review pursuant to the National Environmental Policy Act. (42 U.S.C. § 4321 et seq.) Apart from a dispute concerning public record disclosure, plaintiff's challenges arise under the California Environmental Quality Act. (Pub. Resources Code, § 21000 et seq.) **Under these circumstances, an environmental impact report/environmental impact study must be jointly prepared by federal and local authorities.** (Environmental Protection Information Center v. California Dept. of Forestry and Fire Protection (2008) 44 Cal.4th 459, 472; Cal. Code of Regs., tit. 14, § 15220 et seq. (Guidelines2).) For clarity's sake, the final environmental impact report/environmental impact study will be referred to as the environmental impact report.

(Excerpt from EPIC v. CDFG case):

Because the state SYP and federal HCP contained overlapping and interrelated analyses and provisions, a decision was made to prepare for both of these documents a single joint environmental impact report (EIR) under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and an environmental impact statement (EIS) under the National Environmental Policy Act (42 U.S.C. § 4321 et seq.).

Bottom line: maybe we could urge the EDA's attorneys to press for the EDA to become the Lead Agency since our local agencies are unwilling?

In my many years of experience in watching local jurisdictions deal with large corporate projects, I have never seen a small town allow itself to become financially so vulnerable to the whims of a corporation with deep pockets. Of the \$262,000 already spent on the Interceptor Line NOP of which \$62,000 was billed to CGWC, not a dime has been paid and the public is left holding this bag. The PacifiCorp project would again leave the ratepayers subsidizing the CGWC's wants for more power. ***If there is anything the EDA can do to extend the time for the grant to be implemented and to encourage the jurisdictions to work together to cause CGWC to comply with statements in its press release in September, they would come out looking like an agency truly responsible and responsive to the public.*** I am aware that the EDA's mission is about economics, community vitality and jobs, yet in extreme drought in a state where everyone knows the challenges we are all facing in California, perhaps this is an opportune moment for the EDA to act as guardian of the public funds and public welfare.

In the excellent film "Thirsty for Justice" linked here: [www.ejew.org](http://www.ejew.org) even Jerry Brown tells the people suffering in the Central Valley to "go and make me do the right thing". It is about our water; it is about the purity of the Sacramento River; it is about justice. The residents of the City of Mt Shasta have conserved water (45% decreased use per Mayor Harkness at a recent Water Talk). Why should an international Japanese

pharmaceutical conglomerate be allowed to take up to 1 million gallons/ day, unregulated and dump up to 750,000 gallons per day into an already challenged collector system and WWTP? I believe the total output daily of Cold Spring that serves the city is 2 million gpd. While it isn't the same spring tapped by the plant, the hard rock lava geology has not been adequately studied. Many independent PhD geologists have concurred that little is known of the hydrogeology of the area. This CGWC project could give a whole new meaning to the phrase being "left high and dry" here in Mt Shasta.

Thank you for considering these thoughts about transparency, public funding, corporate welfare and the possibility of a solution for a very special community. You don't hear from the hundreds of people on a spiritual path who are praying in their various ways, who never write letters or engage at this level of public government deliberation. I assure you they are there and they are sending light from this beacon of Mount Shasta.

In Gratitude, always,

Vicki Gold

Water Flows Free



## **FitzGerald, Shannon**

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**From:** FitzGerald, Shannon  
**Sent:** Wednesday, November 25, 2015 2:50 PM  
**To:** 'mark@miyoshidaiko.com'  
**Subject:** NHPA Section 106 consultation  
**Attachments:** Mt Shasta - NAHC Native American Contact List.pdf

Dear Mr. Miyoshi,

Thank you for forwarding the letter from Spiritual Leader and Chief Caleen Sisk. We also received the hardcopy in the mail. The Economic Development Administration (EDA) will send a formal response to Chief Sisk, but I wanted to share this information with you before things slow down for the holiday.

First of all, I want to apologize for not including the Winnemem Wintu Tribe in the National Historic Preservation Act (NHPA) Section 106 consultation regarding EDA's grant to the City of Mt. Shasta (City) for filtration and UV disinfection facilities at the City's wastewater treatment plant. A consultant hired by the City had contacted the Native American Heritage Commission (NAHC) for a Sacred Lands File Search and Native American Contact List (see attached reply from the NAHC). The NAHC provided a contact list, but it does not include the Winnemem Wintu Tribe. Following the receipt of the letter from Chief Sisk, I called and left a message with Ms. Sanchez at the NAHC letting her know to add the Winnemem Wintu Tribe to the Native American Contact List for the Mt. Shasta area.

Should the EDA proceed with this project, EDA will consult with the Winnemem Wintu Tribe government-to-government under Section 106 of the NHPA.

I want to thank you for bringing this to our attention. -Shannon

Shannon FitzGerald  
Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Phone: 206-220-7703  
Fax: 206-220-7657  
[sfitzgerald@eda.gov](mailto:sfitzgerald@eda.gov)

STATE OF CALIFORNIA

Edmund G. Brown, Jr. Governor

## NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., ROOM 100  
West SACRAMENTO, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



April 23, 2015

Heidi Shaw  
ENPLAN  
3179 Bechell Ln., Ste 100  
Redding, CA 96002

Sent by Fax: (530) 221-8963  
Number of Pages: 2

Re: City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou  
County.

Dear Ms. Shaw,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez  
Associate Government Program Analyst

**Native American Contact List  
Siskiyou County  
April 23, 2015**

Quartz Valley Indian Community  
Harold Bennett, Chairperson  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
tribalchair@qvir.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

Shasta Indian Nation  
Sami Jo Difuntorum, Cultural Resources  
P.O. Box 634 Shasta  
Newport , OR 97365  
samijodif@yahoo.com  
(530) 643-2463 Cell

Shasta Nation  
Mary Carpelan, Cultural & Archaeological Res.  
P.O. Box 1054 Shasta  
Yreka , CA 96097  
(530) 842-5654

Shasta Nation  
Roy V. Hall, Jr, Chairperson  
P.O. Box 1054 Shasta  
Yreka , CA 96097  
(530) 468-2314

Quartz Valley Indian Community  
Evette Lewis, Cultural Resources Coordinator  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
qvirnichelle@yahoo.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

Butte Valley Indian Community  
Sami Jo Difuntorum, Administrator  
P.O. Box 100 Shasta  
Macdoel , CA 96058  
samijodif@gmail.com  
(530) 643-2463

Quartz Valley Indian Community  
Rebekah Sluss, Environmental Coordinator  
13601 Quartz Valley Road Karuk  
Fort Jones , CA 96032 Shasta  
qvirnichelle@yahoo.com Upper Klamath  
(530) 468-5907

(530) 468-5908 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed City of Mt. Shasta Wastewater Treatment and Disposal Improvement Project, Siskiyou County.

Larisa Proulx

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**From:** marsha yates [REDACTED]  
**Sent:** Sunday, January 10, 2016 8:38 PM  
**To:** Kristen Maze  
**Subject:** public comment on water projects, wastewater treatment and Outfall Improvement Project.

Kristin Maze  
Mt Shasta City Planner  
kmaze@mtshastaca.gov  
January 10, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

Dear Kristin,

I would like to add my voice of agreement to Vicki Gold's [Waters Flow Free]. She said "There are problems associated with the wastewater treatment plant that clearly must be addressed. We all want to see the best possible outcome for local groundwater and the Sacramento River..." a

I would like to state that I also agree "that ENPLAN should insist that the City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent. They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent. With money in an impound account to cover such costs it would be easier to approach lenders to fund the public project. Without this account, it will be clear to all funders, as it is to the community, that CG is seeking yet another gift from the ratepayers and taxpayers to accommodate their desired project needs. This is a conundrum. There have been over 3 years of staff time at city, county, state and federal levels, legal consultations not only by city attorney, county counsel, but outside CEQA law firms consulting to address the CG issue. How is this not corporate welfare and misuse of public funds? Where is the "good corporate neighbor"? Actions speak louder than words. No amount of bottled water for events can compensate for the hundreds of thousands of dollars spent on CG to date. This is an opportunity to insist that they pay their own way.

If they do not provide the necessary information and the City's project is delayed causing fines for NPDES permit violations by 2017, then those bills should be sent to CGWC. Had they cooperated with the public's demands for an EIR from December 2013, none of these questions would still be circling."

Further, I would like to add my request for greater transparency in all these issues among the city and county employees and their participation in this process as individuals, employees, groups, and committee members, so that citizens do not have work so hard to grasp all the issues and facts.

Respectfully submitted,

Marsha Yates  
[REDACTED]  
Mt. Shasta, CA 96067

Marsha Yates

**Larisa Proulx**

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**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Monday, December 14, 2015 4:13 PM  
**To:** Kristen Maze  
**Subject:** RE: WWTP\_IS commentsGNA.pdf

Thanks for sending this. Feel free to send others as they come.

Thanks,  
Lindsay

**From:** Kristen Maze [mailto:kmaze@mtshastaca.gov]  
**Sent:** Monday, December 14, 2015 11:47 AM  
**To:** Don Burk <DBurk@enplan.com>; Lindsay Kantor <lkantor@enplan.com>; Paul Reuter <preuter@paceengineering.us>  
**Subject:** FW: WWTP\_IS commentsGNA.pdf

Greetings,

I just received these comments for the WWTP IS/MND.

*Kristen Maze, City Planner*



**From:** Raven [REDACTED]  
**Sent:** Monday, December 14, 2015 11:34 AM  
**To:** Kristen Maze <kmaze@mtshastaca.gov>  
**Subject:** WWTP\_IS commentsGNA.pdf

Kristen,  
Can you confirm receipt of this document for comments for the WWTP\_IS from the Gateway Neighborhood Association.

thank you,  
Raven Stevens  
Community Liaison, Gateway Neighborhood Association

**Larisa Proulx**

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**From:** Raven [REDACTED]  
**Sent:** Monday, December 14, 2015 11:34 AM  
**To:** Kristen Maze  
**Subject:** WWTP\_IS commentsGNA.pdf  
**Attachments:** WWTP\_IS commentsGNA.pdf; ATT00001.htm

Kristen,  
Can you confirm receipt of this document for comments for the WWTP\_IS from the Gateway Neighborhood Association.

thank you,  
Raven Stevens  
Community Liaison, Gateway Neighborhood Association

**The Gateway Neighborhood Association**

P.O. Box 1556, Mount Shasta, CA, 96067

[msgatewayna@gmail.com](mailto:msgatewayna@gmail.com)

12/14/15

Kristen Maze, City Planner  
City of Mt. Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, CA 96067  
(530) 926-7510  
[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)

Comments on the WWTP\_IS-MND for the City of Mt. Shasta.

The Gateway Neighborhood Association is glad that the City of Mt. Shasta is going to comply with the State Mandated Wastewater Treatment upgrades because we believe that we have a responsibility to release the cleanest water into the Sacramento River and Hwy 89 leachfield. Being at the top of the Watershed, we have a unique responsibility to the rest of the State and the River and Ecosystem to release this effluent in as pure a condition as humanly possible.

The GNA is mainly concerned that this project is going to allow for future industrial growth in the area without a proper CEQA review. In this document, prepared by ENPLAN for the City of Mt. Shasta, avoiding this crucial piece is not acceptable. The document alludes to 'other CEQA review' for the Crystal Geyser Plant 'somewhere down the line.' Responsibility for working with Crystal Geyser cannot be shirked. The City must step up and take responsibility for a full CEQA review.

*"Uniting our neighborhood for our common good,  
to insure our safety, security and quality of life."*

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Here are the detailed comments on the IS/MND document.

1) On page 8 of document, the black boundary is huge and includes a large area in the sphere of influence, including the Crystal Geysers plant. We are all on septic tanks and live on Deetz 125 soil. According to updated information, no domestic homes should be using septic tanks. Why aren't our homes in the area of the Crystal Geysers plant, afforded the same consideration and able to use the WWTP?

2) Page 11:

**B. Project Need and Objectives**

Improvements to the WWTP and Sacramento River outfall are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) increase the wet weather treatment capacity of the facility. These needs are discussed in detail below.

Comment: Shouldn't there be an additional "(3) to allow increased capacity for industrial users?"

3) Page 12

*Aging Infrastructure.*

To comply with the NPDES permit, new treatment facilities are needed to provide wintertime filtration and improved disinfection of effluent when Sacramento River flows exceed 400 CFS. Under current conditions, the dissolved air flotation thickener and rapid sand filtration system would have to be operated during the winter months in order to remove additional solids from treated effluent. These facilities are located above ground and outdoors, under a steel roof structure with no walls. Consequently, the equipment is exposed to the harsh winter cold and freezing conditions. Therefore, it is not practical to operate these facilities during the winter months. In addition, these facilities were designed for smaller, summertime flows, and thus, there is inadequate capacity to treat the higher flows that occur during the winter.

**Comment: Additionally, it would also be inadequate for the constant flows from future Industrial Users.**

4) Page 12:

**2. Treatment and Disposal Capacity Expansion**

For major infrastructure projects, it is considered reasonable and prudent planning to provide adequate growth capacity for a 20-year period. A 20-year growth projection is typically accepted as "funding eligible" by the major potential funding agencies, such as U.S. Department of Agriculture, Rural Development, and the Clean Water State Revolving Fund. Given that the WWTP is nearing its capacity threshold, expansion would be needed within the next several years regardless of the State-mandated system improvements, which focus on the quality of effluent being discharged. The principal factor driving the need for expansion is anticipated population growth within the WWTP service area. A secondary consideration is the possibility that Crystal Geysers may apply for additional capacity in order to expand its bottling operation.

**Comment: We believe the most accurate statement would be the that "The principal factor driving the need for expansion is that Crystal Geysers will apply for additional capacity in order to expand its bottling operation and population growth within the WWTP service area is a far second. As pointed out on page 13**

*"Anticipated Crystal Geysers Treatment and Disposal Requirements.*

Crystal Geysers owns a ±145,000 square-foot bottling facility just outside of the city limits of Mt. Shasta on Ski Village Drive. The facility is within the service area of the WWTP. Crystal Geysers is proposing to manufacture its Juice Squeeze, Sparkling Mineral Water, Tejava Premium Iced Tea, and Metromint products from the facility. According to Crystal Geysers, the facility would contribute approximately 0.05 MGD of wastewater to the WWTP during the first five years of operation. At full build-out, Crystal Geysers has indicated it could contribute up to 0.15 MGD to the WWTP. Accordingly, if the City were to serve Crystal Geysers, the planned treatment and disposal capacity would need to be increased from 0.9 MGD to 1.05 MGD to serve the anticipated 2039 demand."

**and because on page 56 they state that the population growth factor is actually not an issue...**

"The population growth rate used to determine the number of future sewer services, one percent, is lower than the two percent population growth rate that was considered in the City of the Mt. Shasta General Plan Draft EIR. Further, under the higher growth rate, considered in itself a high-end estimate, the General Plan EIR concluded that there was adequate land to meet local housing needs, and that the goals and policies contained in the General Plan would not substantially change or result in further inducement of substantial population growth."

5) Page 13: A complete application from Crystal Geysers requesting authorization to discharge wastewater to the City's wastewater collection, treatment, and disposal system has not yet been received by the City of Mt. Shasta. Likewise, the specific constituents that may be included in the wastewater stream have not been identified. The City of Mt. Shasta anticipates that, if it were to allow Crystal Geysers to connect to the City's wastewater system, pre-treatment of the wastewater by Crystal Geysers would be required to remove any unique constituents (i.e., sugars with a high biological oxygen demand). Further, the City would require that Crystal Geysers pay for its full share of the costs of expanding the facility to handle an additional 0.15 MGD of wastewater. Preparation of a separate environmental document pursuant to CEQA is needed to address the proposed Crystal Geysers operation. In September 2015, Crystal Geysers announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations.

**Comment: This cannot be pushed off on some "plans to prepare and Environmental Impact Report" as one is not forthcoming by the County and therefore the City must do it.**

**Does this paragraph mean that the city can't ever expand beyond 0.9MGD then?**

6) Further on page 13:  
With respect to Crystal Geysers, the scope of this Initial Study is limited

to addressing the potential full-buildout volume of wastewater that could be generated by existing and foreseeable growth, i.e., 1.05 MGD. The City's approval of this Initial Study and adoption of a Mitigated Negative Declaration would not include or constitute approval for Crystal Geysers to connect to the City's wastewater system. Rather, the current CEQA coverage would allow the City to proceed with the State-mandated treatment and disposal improvements. The results of this Initial Study could also be included in a broader environmental document addressing the whole of the Crystal Geysers project. It is the City's intent, following CEQA approvals, to improve the WWTP to meet the new discharge requirements and provide a capacity of 0.9 MGD. Further improvements to increase the capacity to 1.05 MGD would be made only following separate CEQA approval for connection of Crystal Geysers to the City's wastewater system and receipt of financial assurance from Crystal Geysers that they would cover the cost of the expansion.

**Comment: If it can be expected that this project would allow for future growth (i.e. Crystal Geysers) then it must be included in the scope of this project.**

7) Page 15:

**2. Proposed Operational Procedures** With implementation of the proposed improvements, the capacity of the WWTP would increase to accommodate an ADWF of 0.9 MGD. This increase in capacity accounts for existing needs plus an allocation for anticipated future growth at a rate of one percent over the next 20 years. Further expansion of the treatment and disposal system to accommodate addition of 0.15 MGD from Crystal Geysers would be possible in the future if approved by the City of Mt. Shasta.

**Comment: Does this paragraph mean that the city can't ever expand beyond 0.9MGD then?**

8) Page 19: Treated Effluent Discharge With implementation of the proposed improvements, the WWTP discharge locations and periods of discharge would stay the same. However, with an ultimate treatment capacity of 1.05 MGD, the volume of treated effluent discharged to the Sacramento River and golf course

would increase by up to 85 percent, while the leach field would likely receive an approximate 50 percent decrease in volume of discharged effluent.

**Comment: So know you are admitting that the improvements of the "Treated Effluent Discharge" will have the capacity to include Crystal Geysers at the 1.05MGD amount, but don't want to include them in this CEQA document? You can't have it both ways.**

9) Page 19 3. Construction Considerations *Demolition and Abandonment* Existing WWTP structures such as the operations building, chlorine basin, dissolved air flotation thickener, rapid sand filtration system, chlorine contact basin, and their associated buildings, may be demolished or repurposed once the new WWTP facility is operational. Solids contained in the "backwash pond," west of the old intermittent sand filters, may be removed for abandonment of the pond. All the lagoons, with the exception of the northeastern-most lagoon, would be either: 1) abandoned and allowed to be naturally inundated by rain and snowmelt, whereas they would continue to support waterfowl and other wildlife species, or 2) be supplemented with treated effluent which would enhance the habitat for waterfowl and other wildlife species. According to hydraulic balance computations by PACE Engineering, Inc., provided that the lagoons are approximately 70 percent full or less at the start of the wet season, the lagoons would not be expected to overflow as a result of rainfall and snowmelt.

**Comment: Wouldn't these "abandoned structures" then be used to accommodate Crystal Geysers increased effluent flow? Why isn't this clearly stated? Or what would be used if not these abandoned areas?**

10) Page 22: D. Permits and Approvals: The following permits and approvals will be needed prior to implementation of the proposed project with a treatment capacity of 0.90 MGD ADWF. If an additional 0.15 MGD capacity were to be provided to accommodate Crystal Geysers, additional permits and approvals would be required.

**Comments: Those additional permits and approvals should be listed here because this project paves the way for Crystal Geysir to operate.**

11) Page 26; C. Evaluation of Environmental Impacts This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Circulation
- Utilities and Service Systems
- Mandatory Findings of Significance

**Comment: We object to the fact that "Future Growth" is not listed and must be included because this project paves the way for Crystal Geysir to operate. It must be included.**

12) Page 37 Open Water: Although not subject to state or federal jurisdictional as wetlands or "Other Waters," the existing six unlined treatment lagoons are considered open-water habitat. The westernmost lagoon is the lowest-elevation lagoon, and the last lagoon in the treatment chain, and thus, contains the highest-quality effluent. This lagoon features emergent vegetation that provides cover for waterfowl and other wildlife. Waterfowl, as well as some unidentified turtles were

observed during the field survey conducted by ENPLAN. As described in Section I.C, "Project Description," all of the lagoons, with the exception of the northeastern-most lagoon, would be either be: 1) abandoned and allowed to be naturally inundated by rain and snowmelt, whereas the lagoons would continue to support waterfowl and other wildlife; or 2) supplemented with treated effluent which would enhance the habitat for waterfowl and other wildlife. In either case, the lagoons would continue to provide wildlife habitat. If the lagoons are not supplemented with treated effluent, they may dry out during the dry season, but would be filled back up with rain and snowmelt during the wet season. As a result, the lagoons would convert to a seasonal open-water habitat, but would still support waterfowl and provide suitable nesting habitat in the early spring and early summer months, when the majority of the birds would be nesting. If the lagoons are supplemented with treated effluent, they would likely not dry out, and instead, feature year-round open-water habitat. Additionally, the primary lagoons that held the lowest-quality effluent would receive higher quality effluent, and, thus, would be more likely to support emergent vegetation and improved wildlife habitat.

**Comment:** Again this shows that there will be unused areas that can support Crystal Geyser at a later date.

13) Page 40 Discussion a, b, d. A cultural resources study, including a records search, Native American consultation, and field survey, was completed for the project by ENPLAN. Consultation with the Native American Heritage Commission and local Native American community did not reveal any known sacred sites or cultural resources in the project area.

**Comment:** As a recognized California Tribe, The Winnemem Wintu were not consulted with, for this project.

14) Page 45 7. GREENHOUSE GAS EMISSIONS. Would the project:  
Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?  
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Comments: Under "mitigations" none necessary is checked off. This does not consider future growth as a result of the project. The operation of Crystal Geysers would have significant greenhouse gas emissions.**

15) Page 56 13. POPULATION AND HOUSING. A new industrial user, Crystal Geysers, plans to expand its bottling operations at the former Coca-Cola facility just outside of the city limits of Mt. Shasta on Ski Village Drive. According to Crystal Geysers, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed. At full build-out, after at least five years of operation, Crystal Geysers has indicated it would contribute up to 0.15 MGD to the City's wastewater system. If Crystal Geysers is allowed to connect to the City's wastewater system, the treatment capacity of the WWTP would be modified to accommodate an ADWF of 1.05 MGD in order to serve both the full build-out of Crystal Geysers and the projected population growth. However, as stated in Section I.B.2, under "Project Need and Objectives," improvements to increase the capacity to accommodate Crystal Geysers would be made following separate CEQA approval for connection of Crystal Geysers to the City's wastewater system and receipt of financial assurance from Crystal Geysers that they would cover the cost of the expansion.

**Comment: This project, as stated here, allows Crystal Geysers to open because they need the WWTP to do so. Crystal Geysers must be considered.**

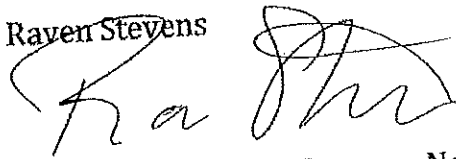
16) page 56 : Because the increase in treatment capacity would be based on a projected population growth rate that is half the projected population growth rate analyzed in the City of Mt. Shasta General Plan and General Plan EIR, and because the potential additional capacity for Crystal Geysers would be evaluated under separate CEQA review, project implementation would not be expected to induce population growth in the project vicinity beyond that currently anticipated.



**Comment: The City finds that there is "No Mitigation" needed. Crystal Geysers must be considered here because a separate CEQA is not guaranteed. You can't skip it because you think that some other agency is going to do it or because Crystal Geysers has told the press that they are going to do it or comply. You must become the lead agency and include Crystal Geysers.**

The Gateway Neighborhood Association thanks you for the opportunity to comment on the Initial Study/Mitigated Negative Declaration for the WWTP.

Raven Stevens



Community Liaison, Gateway Neighborhood Association  
724 Butte Ave.  
Mt. Shasta, Ca 96067

## Larisa Proulx

**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Friday, December 11, 2015 8:40 AM  
**To:** Kristen Maze  
Don Burk  
**Cc:** FW: [Mt. Shasta WWTP] Advance copy of response letter  
**Subject:** EDA\_2015\_1102\_001 - Mt. Shasta WWTP expansion project, Siskiyou County - ltr of OCT  
**Attachments:** 2.1, 2015 - signed.pdf

Hi Kristen,

I got your voicemail. Thanks for the follow-up regarding the comment letters on the IS/MND.

To keep you in the loop--below is the email from EDA that I mentioned. We got a concurrence from SHPO (attached) and EDA will be consulting with the Winnemen Wintu tribe. We weren't sure if the City will be requesting the comment letters/emails with a FOIA request or if we should. Seems like a good idea to see what they contain...although I am sure we can guess.

We can talk on Monday. Have a good weekend!

Thanks,  
Lindsay

■  
Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

**Wildfire Viewer:** [wv.enplan.com](http://wv.enplan.com)  
*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

**From:** FitzGerald, Shannon [mailto:SFitzGerald@eda.gov]  
**Sent:** Wednesday, December 09, 2015 5:58 PM  
**To:** Paul Eckert (eckert@ci.mt-shasta.ca.us) <eckert@ci.mt-shasta.ca.us>; Rod Bryan (RBryan@mtshastaca.gov) (RBryan@mtshastaca.gov) <RBryan@mtshastaca.gov>; Paul Reuter (preuter@paceengineering.us) <preuter@paceengineering.us>; Lindsay Kantor <lkantor@enplan.com>  
**Cc:** Good, Stan <SGood@eda.gov>; Matson, Malinda <MMatson@eda.gov>  
**Subject:** FW: Advance copy of response letter

Hi All,

Here is the concurrence letter from the SHPO. Normally we would be done with the consultation at this point. However, one of the comment letters that we received was from the Winnemen Wintu Tribe. The Native

American Heritage Commission did not identify them as a Tribe to consult with, so they were not consulted with. However, they have requested that EDA consult with them so we will do that.

Regarding the comment letters, all told, there were about three dozen comment letters/emails. Some individuals sent in multiple letters. I asked our legal folks in Washington, DC if we could provide them to you. They said that you would need to send a FOIA request if you wanted copies. Please let me know what you want to do. I imagine that they are similar to comments that you have received.

Thanks for your help with these. -Shannon 206-220-7703

---

**From:** Marti, Duane@Parks [mailto:[Duane.Marti@parks.ca.gov](mailto:Duane.Marti@parks.ca.gov)]  
**Sent:** Tuesday, December 08, 2015 11:23 AM  
**To:** FitzGerald, Shannon  
**Cc:** Tozer, Tristan@Parks  
**Subject:** Advance copy of response letter

Original letter sent via USPS.

Duane Marti  
Archaeologist  
Office of Historic Preservation  
1725 23<sup>rd</sup> Street, Suite 100  
Sacramento, California 95816  
Telephone: 916-445-7030  
Fax: 916-445-7053

Please note the new e-mail address: [Duane.Marti@parks.ca.gov](mailto:Duane.Marti@parks.ca.gov)



OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION

1725 23<sup>rd</sup> Street, Suite 100  
SACRAMENTO, CA 95816-7100  
(916) 445-7000 Fax: (916) 445-7053  
calshpo@parks.ca.gov  
www.ohp.parks.ca.gov

December 8, 2015

Reply to: EDA\_2015\_1102\_001

Shannon Fitzgerald, Regional Environmental Officer  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, Washington 98174

RE: Section 106 Consultation for proposed EDA Grant Assistance to construct Filtration and UV Disinfection Facilities at the Mt. Shasta Wastewater Treatment Plant in Siskiyou County; (your letter of October 21, 2015)

Dear Ms. Fitzgerald:

Thank you for requesting my comments on the above cited undertaking, in accordance with Section 106 of the *National Historic Preservation Act*, as amended. The City of Mt. Shasta (City) has applied for a grant from the Economic Development Administration (EDA) to construct filtration and UV disinfection facilities at the Mt. Shasta Wastewater Treatment Plant (WWTP)

The City will construct new filtration and UV disinfection facilities and associated piping in the existing footprint of the abandoned intermittent sand filters, which are located within the existing WWTP. The new facilities will be located in a single building and approximately 540 feet of new piping would be constructed to connect the new facility with the existing dissolved air flotation thickener pump station to the north and the existing effluent pipeline to the south. The ground was disturbed to a depth of 12 feet during the construction of the sand filters. The new construction will extend to a depth of 15 feet for the building and 4½ feet for the new piping. Originally constructed in 1976, the WWTP has undergone several treatment modifications and upgrades since then. The area of potential effects (APE) consists of the above described elements and encompasses 0.8 acres. Access to the APE will be by existing paved roads.

As documentation for your finding of effect, you provided a cultural resources survey report, which was prepared by Jessica McCoy and Heidi Shaw of ENPLAN and dated September 2015. A records review was conducted at the Northeast Information Center at CSU - Chico, which identified no cultural resources as being located with the APE, but three prehistoric isolates within a ½-mile radius of the APE. Mses. McCoy and Shaw conducted a pedestrian survey of the APE on April 10 and September 3, 2015 with negative results for the APE, but did identified one prehistoric isolate and one historic-period refuse scatter outside of the APE.

Ms. Shaw contacted the American Heritage Commission (NAHC) and requested a record search of their sacred land file. The NAHC responded that their search did not indicate the presence of Native American cultural resources in the APE. Subsequently, she sent request for comment letters were sent to the Native American contacts provided by NAHC. Mary Carpelan (Shasta Nation) and Isaiah Williams (Quartz Valley Indian Reservation) responded that they had no

EDA\_2015\_1102\_001

comments on the proposed project, but did request that they be notified if archaeological resources were discovered within the APE.

Based on the information provided by Mses. McCoy and Shaw, EDA has determined that no historic properties will be affected by the proposed undertaking. EDA has requested me to review and comment on their identification of the APE and their determination of No Historic Properties Affected for the project.

After reviewing the information submitted with your letter, I offer the following comments:

- I have no objections to your identification and delineation of the APE, pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(d); and
- I do not object to your determination of No Historic Properties Affected for the project, as described above.

Be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, you may have additional future responsibilities for this undertaking under 36 CFR Part 800. Should you encounter cultural artifacts during ground disturbing activities, please halt all work until a qualified archaeologist can be consulted on the nature and significance of such artifacts.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you have any questions or concerns, please contact the following member of my staff: Tristan Tozer at (916) 445-7027 or via e-mail at [Tristan.Tozer@parks.ca.gov](mailto:Tristan.Tozer@parks.ca.gov).

Sincerely,



Jullanne Polanco  
State Historic Preservation Officer

Larisa Proulx

---

**From:** Craig Alan Cerney [REDACTED]  
**Sent:** Saturday, January 09, 2016 12:01 PM  
**To:** Kristen Maze  
**Subject:** Crystal Geysers

I am in favor of a thorough environmental review of the proposed expansion of this facility, and I am also opposed to any corporate welfare being granted (they should pay for all the added costs incurred to the city for water and sewage).

Craig Cerney  
I live in Mt Shasta, CA.

Larisa Proulx

---

**From:** [REDACTED]pamtilden [REDACTED]  
**Sent:** Saturday, January 09, 2016 8:01 AM  
**To:** Kristen Maze  
**Subject:** Fwd: Urgent! Crystal Geysers: 2nd Letter in reply to MND WWTP  
**Attachments:** MND 2nd letter reply 1816.pdf

----- Forwarded message -----

**From:** Vicki Gold [REDACTED]  
**Date:** Fri, Jan 8, 2016 at 3:24 PM  
**Subject:** Urgent! Crystal Geysers: 2nd Letter in reply to MND WWTP  
**To:** Vicki Gold [REDACTED]

**From:** Vicki Gold [REDACTED]  
**Subject:** Urgent! Crystal Geysers: 2nd Letter in reply to MND WWTP  
**Date:** January 8, 2016 3:18:41 PM PST  
**To:** Vicki Gold [REDACTED]

Hello Friends of Mount Shasta,  
There is still time for you to send a few lines in to the City Planner to express your concerns over the Crystal Geysers Project's connection to the wastewater sewer system. I have included some bullet points in this, my 2nd letter to the City. They may accept letters after 5pm, but try to get them in soon.

Always in Gratitude,  
Vicki

Water Flows Free  
Begin forwarded message:

**From:** Vicki Gold [REDACTED]  
**Subject:** Letter in reply to MND WWTP  
**Date:** January 8, 2016 2:01:13 PM PST  
**To:** "[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)" <[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)>

Hello Kirsten,  
Attached are some additional thoughts in response to the MND/IS on the WWTP.  
Thank you for attaching to my earlier letter.  
Vicki

Kristen Maze, City Planner  
Phone: (530) 926-7510  
305 N. Mt. Shasta Boulevard, Mt. Shasta,  
California 96067

January 8, 2016

RE: Public Comments on IS/ MND for City of  
Mt. Shasta Upgrades to WWTP and Outfall  
Improvement Project

Dear Ms. Maze,

This is an addendum to my letter submitted earlier today.

By now it should be clear to the entire state of California that the Crystal Geyser Project is highly controversial and has many potentially significant environmental impacts. Perhaps in an industrial area in times of abundant rain and snow, a project of this nature would be less problematic. Here in the Mount Shasta bioregion, in the midst of a 500-1200 year drought (per arborists'/ biologists' scientific peer reviewed reports), there is no question that water extraction with greatly diminished snowpack and local residential wells suffering for over two years, has consequences.

- *If there is to be a project of this magnitude Mount Shasta deserves the highest degree of environmental oversight. We have an obligation to our residents and tourists from all around the planet.*
- *Why would the City hesitate to use every tool possible to encourage a foreign corporation to cooperate with a comprehensive EIR when the entire state is watching?*

What is troubling is that when the prior corporation Danone/ CocaCola was brought in by Siskiyou County, there was generally little awareness about the 5 gyres, the plastic pollution in landfills and the oceans. Less was known of the endocrine disruption effects of phthalates from plastics in our water, soil, air and foods. That is no longer the case; this is an opportunity to revisit the original decision. These considerations alone merit a full environmental review. We have learned many environmental lessons since 1997.

When the Crystal Geyser PR firm Burson Marsteller issued a press release on September 16th, 2015 stating that they would be doing an EIR, it surprised the community. It appears to have been just that, a PR move designed to shock and to take



the wind out of the sails of the rapidly growing movement questioning the feasibility of this type of industry in our community. The Water Every Drop Sacred event was scheduled the following week, attracting widespread interest. Now we see that there is no movement in the direction of an EIR.

- *The City has an opportunity to finesse the EIR at this stage, yet this IS/MND does nothing to encourage the EIR process.*

At the 12/14/15 City Council meeting, ENPLAN representative Don Burke claimed that an EIR is not appropriate because CGWC has not yet filed an application to connect to the WWTP. He mentioned the words "idle speculation" claiming that the City of Mt. Shasta cannot invoke CEQA to mandate an EIR. The entire state knows that the City and County have been in communication with CG since 2012. The need for the sewer connection was the driving force for the EDA grant in September 2013 for the Interceptor Line. CG has now illegally begun construction of a new building and pre-sewer treatment pH Neutralization facility onsite to process rinse water before discharge into the sewers.

- *Can denial of the 3 long years of staff time planning for the Crystal Geyser project represent standard accepted engineering practice?*

We now see that PacifiCorp is also in denial of the need to perform an EIR on the power expansion needed to serve the Crystal Geyser facility. We have abundant email confirmation from public record requests documenting CGWC's desire for 4-5 times the power used by CocaCola. The rate payers should not have to pay for this just as they should not in the case of the sewer and collection system upgrades.

- *Who is watching out for the public, the citizens, the broader community?*

Since no agency has taken the responsibility of "lead agency" to properly address the multiple very serious potential consequences to our quality of life, the health of the Sacramento River, our aquifers and underground hard rock volcanic tubes and subsurface streams feeding our residential wells,

- *If not now WHEN? If not the City of Mt Shasta, WHO?*

See the link below to understand the many options open to the City to support and demand an EIR. To fail to address CG's needs based upon worst case scenario at full build out over 5-20 years is negligent. ENPLAN and PACE have a responsibility to be creative in the use of the various options below to support the EIR process. To deny the very real problems associated with operation of a water and sugary sweet beverage

bottling plant, producing more plastics than ever before, is not state of the art engineering advice. The public is paying for this advice and deserves to have a voice. While we appreciate the opportunity to comment on the process, we appear to have not been heard over the past two years of constant public comments, newspaper interviews and conversations with City Council Members.

- *There is every reason to begin an EIR process which allows for amendments to be added later as more information becomes available.*

This is not only about the City of Mt Shasta; this is about water privatization and water bottling by a foreign and domestic corporations with deep pockets. This is just one example among hundreds all over the planet. Nestle in Cascade Locks OR, in San Bernardino, CocaCola in India and Africa, Pepsi and Snapple and many more corporate water pirates.

- *Water extraction for profit and provision of a few entry level jobs in an automated industry does not economic development make!*
- *Ascertaining that CGWC pays their own way and does not rely on public funding of their projects is the very least the City must demand to be in integrity and to show commitment to fiduciary responsibility.*

Simply stating that will be the case with no clear plan of enforcement is less than transparent. The costs associated with the project and the collector system needed to ascertain that the new WWTP will be able to accommodate the wet and dry weather effluent loads must be paid for by CG/ Otsuka Holdings. Dividing the project into small bites, none of which triggers an EIR, is not acceptable.

Respectfully Submitted,  
Vicki Gold  
Water Flows Free  
Mt Shasta CA

<http://www.calrecycle.ca.gov/SWFacilities/Permitting/ceqa/Documents/EIR/Types.htm>  
CEQA Toolbox  
Types of EIR Documents

This article describes a number of examples of variations in an EIR, as the documents are tailored to different situations and intended uses. These variations are not exclusive. Lead agencies may use other variations consistent with the Guidelines to meet the needs of other circumstances. An EIR must meet the content requirements discussed in Article 9

beginning with Section 15120.

- Project EIR
- Subsequent EIR
- Supplemental EIR
- Addendum
- Multiple and Phased Projects
- General Plan
- Staged EIR
- Program EIR
- Joint EIR

#### **Project EIR**

The most common type of EIR examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.

#### **Subsequent EIR**

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, based on substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted, shows any of the following:
  - The project will have one or more significant effects not discussed in the previous EIR or ND;
  - Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If changes to a project or its circumstances occur, or new information becomes available after adoption of a ND, the lead agency shall prepare a subsequent EIR if required under [14 CCR Section 15162(a)]. Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration or an addendum, or no further documentation.

A subsequent EIR or subsequent ND shall be given the same notice and public review as required under CBQA Guidelines Section 15072 or Section 15087. A subsequent EIR or ND shall state where the previous documents are available and may be reviewed.

#### **Supplement to an EIR**

The lead or responsible agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

- Any of the conditions described in 14 CCR Section 15162 would require the preparation of a subsequent EIR, and
- Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised, shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087, and may be circulated by itself without re-circulating the previous draft or final EIR.

When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under 14 CCR Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

#### **Addendum to an EIR or Negative Declaration**

The lead or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in 14 CCR Section 15162 calling for preparation of a subsequent EIR have occurred. An addendum to an adopted ND may be prepared if only minor technical changes or additions are necessary or none of the conditions described in 14 CCR Section 15162 calling for the preparation of a subsequent EIR or ND have occurred. An addendum need not be

circulated for public review, but can be included in or attached to the final EIR or adopted ND. The decision making body shall consider the addendum with the final EIR or adopted ND prior to making a decision on the project. A brief explanation of the decision not to prepare a subsequent EIR pursuant to 14 CCR Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

### **Multiple and Phased Projects**

Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the lead agency shall prepare a single program EIR for the ultimate project as described in 14 CCR Section 15168. Where an individual project is a necessary precedent for action on a larger project, or commits the lead agency to a larger project, with significant environmental effect, an EIR must address itself to the scope of the larger project. Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.

### **EIR as Part of a General Plan**

The requirements for preparing an EIR on a local general plan, element, or amendment thereof will be satisfied by using the general plan, or element document, as the EIR and no separate EIR will be required, if:

- The general plan addresses all the points required to be in an EIR by Article 9 of the CEQA Guidelines, and
- The document contains a special section or a cover sheet identifying where the general plan document addresses each of the points required.

Where an EIR rather than a ND has been prepared for a general plan, element, or amendment thereto, the EIR shall be forwarded to the State Clearinghouse for review. The requirement shall apply regardless of whether the EIR is prepared as a separate document or as a part of the general plan or element document.

### **Staged EIR**

Where a large capital project will require a number of discretionary approvals from government agencies and one of the approvals will occur more than two years before construction will begin, a staged EIR may be prepared covering the entire project in a general form. The staged EIR shall evaluate the proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of the entire project. The aspect of the project before the public agency for approval shall be discussed with a greater degree of specificity.

When a staged EIR has been prepared, a supplement to the EIR shall be prepared when a

later approval is required for the project, and the information available at the time of the later approval would permit consideration of additional environmental impacts, mitigation measures, or reasonable alternatives to the project.

### **Program EIR**

A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either:

- Geographically,
- As logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual activities carried out under the same authorizing statutory or regulatory authority, and having generally similar environmental effects which can be mitigated in similar ways.

The use of a program EIR can provide the following advantages. The program EIR can:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
- Avoid duplicative reconsideration of basic policy considerations,
- Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
- Allow reduction in paperwork.

A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:

- Provide the basis in an initial study for determining whether the later activity may have any significant effects.
- Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program

as a whole.

- Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

### **Joint EIR-EIS**

A lead agency under CEQA may work with a federal agency to prepare a joint document that will meet the requirements of both CEQA and the NEPA. Use of such a joint document is described in Article 14, beginning with Section 15220.

Reference: CEQA Guidelines, Types of Environmental Impact Reports

### **EIR Home**

Last updated: September 6, 2013

Permit Toolbox, <http://www.calrecycle.ca.gov/SWFacilities/Permitting/>

Kevin Taylor: [Kevin.Taylor@calrecycle.ca.gov](mailto:Kevin.Taylor@calrecycle.ca.gov) (916) 341-6582

Larisa Proulx

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**From:** Sonia Novick <Info@SoniaNovick.com>  
**Sent:** Friday, January 08, 2016 5:19 PM  
**To:** Kristen Maze  
**Subject:** Failure of Crystal Geysers to produce data required for the proper planning of this upgrade and its your fiduciary duty as a PUBLIC SERVANT to SERVE AND PROTECT THE PUBLIC!  
**Attachments:** WWTP MND letter 1\_7\_16 .pdf

My I remind you Miss Kristine Maze that your job as a PUBLIC SERVANT is to **"SERVE AND PROTECT THE PUBLIC that voted you in"** since your salary and your pension is paid through the collections of citizen taxes, meaning the citizenry of California pay your wages and they elected *you as a PUBLIC SERVANT to protect us!*

There are many questions surrounding the failure of Crystal Geysers to produce data required for the proper planning of this upgrade. The City is held hostage and the rate and taxpayers may end up holding the bag once again.

As stated in the attached PDF file included with this email!

It is the intention with honor of a concerned citizen and neighbors to ask questions in order to encourage ENPLAN, PACE Engineering and the City to demand the necessary data from CGWC in order to allow for proper planning. To fail to include this data in hopes of dealing with it in the future when they are in full operation is to not address the elephant in the room.

Fiduciary responsibility requires that our city leaders YOU VOTED IN PUBLIC OFFICIALS to step up to the plate and state their case clearly and powerfully with the foreign corporation's executive officers.

Having a large corporation such as Crystal Geysers hoodwink you PUBLIC SERVANTS into the City of Mt. Shasta and the county of Siskiyou, comprising the citizenry to pay all their expenses and their studies and all of their costs???

THIS is THEFT and claims may be filed for HARM AND TRESSPASS committed by the owners of Crystal Geysers and you county or city officials /public servants which will be held liable and will be named if OUR PUBLIC SERVANTS fail to SERVE THE PUBLIC since it is your fiduciary duty to do so.

Any improper use of power in the positions of Public Servants you or any of you currently hold will make you liable for these individual and organizational potential lawsuits regarding the probity concerning Crystal Geysers, a usurping exploitative corporate entity.



We look forward to all being on the same page ethically morally and legally concerning this matter as it is in all of our best interests being that we all share these water resources that are so limited du to this long standing drought with serious ecological consequences to all concerned!

Respectfully

Sonia Novick

  
Email: [Info@SoniaNovick.com](mailto:Info@SoniaNovick.com)

Watch your thoughts; they become words. Watch your words; they become actions.  
Watch your actions; they become habits. Watch your habits; they become character.  
Watch your character; it becomes your destiny.

- The Buddha-

Kristin Maze  
Mt Shasta City Planner  
kmaze@mtshastaca.gov  
January 7, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

Dear Kristin,

There are problems associated with the wastewater treatment plant that clearly must be addressed. We all want to see the best possible outcome for local groundwater and the Sacramento River. Clearly ENPLAN and PACE have endeavored to come up with a plan to upgrade the very archaic wastewater system now in operation. My comments will focus primarily on the obvious continued attempt (now by the City) to avoid accusations of piecemealing the Crystal Geysers Water Company project by basically excluding them from this MND.

On page 28 it is stated that "It is expected that new wastewater infrastructure, constructed with modern materials and workmanship, will create a "tighter" less leak-prone collection system". *Where is the funding for the improvements in the collection system?* In the 2007 study a figure of \$6 million is given for expected improvements in the city collection system. Was this done? We know that the EDA grant initially indicated a price of \$6 million for the Interceptor Line to accommodate Crystal Geysers. I assume that would be in addition to this previously identified \$6 million for other city lines to be replaced. If the intention is to abandon use of the leach field on USFS land to the greatest extent possible to avoid downstream groundwater contamination, does this not assume funding of these additional improvements? *Is the collection system addressed in this MND?*

On page 30 reference is made to alkalinity being important in Nitrogen removal. "Adequate alkalinity in the wastewater is necessary to maximize nitrification. It may be necessary to add alkalinity upstream of the biological treatment process." We have shared with the City and with PACE the history

of the CocaCola plant in Northampton MA and the fouling of the wastewater treatment plant near the Connecticut River with sugary effluent when they switched from water to Minute Maid Lemonade and juice bottling. See link: <http://www.triplepundit.com/2012/03/northampton-coca-cola/> *Clearly this would contribute to acidification and will affect the pH and nitrification process down the line when the CG plant is at full operation.*

*The City appears to be held hostage by the CGWC as it attempts to complete a very necessary improvement to the wastewater management system. How can the largest capital project in the history of the City of Mt. Shasta (\$16.5 million) go forward with a wholly inadequate database regarding their effluent? From the figures given in the MND the recommendation is to use the figures given in the Herald by the corporation (50 MGD for 5 years and then 150 MGD at full buildout). We know the initial EDA grant was predicated upon the estimate of 250 MGD at start up and 750 MGD at full build out. How can we determine what is a true estimate of CG's needs and the effects on the capacity at the WWTP?*

There is also raw land at Spring Hill and The Landing owned by developers and by the City waiting for connection to the city sewer . If CG is up and running and uses all the capacity at the plant, then the City will have a harder time selling and developing The Landing for potentially much more desirable end uses, perhaps a performance and convention center. This is corporate welfare if we allow CG to conceal the data associated with their expected production and to use the capacity that might otherwise be for future residential and commercial growth.

Another concern is that apparently it is difficult to obtain loans and grants for capital expansion that will accommodate a large industrial consumer. Everyone knows that CG is waiting on the sidelines for the WWTP and Interceptor Line to be funded by state or federal funders. We are told that they will be charged a \$3 million connection fee when they apply for a permit. But they haven't applied and there isn't even a permit application process completed by the City to our knowledge. By preliminary calculations below, CGWC should pay for all of the Interceptor Line expansion (with pro-rata share paid by local raw landowners benefiting such as CDMS). In

addition they should pay for a share of the WWTP upgrade to accommodate their needs. Let's see what this might be:

If Household Equivalents (HE) are used of approximately 250 GPD/EU based upon 2700 EUs and 0.67 billable sewer accounts, then CG's effluent would be: 50K GPD= 200 EUs; 150K GPD=600 EUs; 250K GPD=1000 EUs and 750K= 3000 EUs. This is an unacceptably wide range in long term planning! This is a range of from 7.5% of the capacity to 100% of capacity.

The EDA and the City must demand more information from the engineers working for CG in order to determine realistic future growth for the rest of the community. The City received a letter from Crystal Geyser's attorney Barbara Brenner 12/1/14 (replying to the NOP for the EIR for the Interceptor Line) maintaining that CG was entitled to the remaining present capacity of the WWTP of 100,000 GPD. Is this not a red flag?

To proceed with inadequate future growth capacity and to virtually exclude CG's effluent in the mix, both quality and quantity, is illogical. It is clear that improvements must be made, *but how will the City assign a cost value to the CG component?*

Page 13 states: "The City of Mt. Shasta anticipates that, if it were to allow Crystal Geyser to connect to the City's wastewater system, pre-treatment of the wastewater by Crystal Geyser would be required to remove any unique constituents (i.e., sugars with a high biological oxygen demand). Further, the City would require that Crystal Geyser pay for its full share of the costs of expanding the facility to handle an additional 0.15 MGD of wastewater. Preparation of a separate environmental document pursuant to CEQA is needed to address the proposed Crystal Geyser operation. In September 2015, Crystal Geyser announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations."  
*But how will this be accomplished?*

Yes, it is reasonable and apparently necessary and prudent planning for major infrastructure projects to provide adequate growth capacity for a 20 year period in order to be "funding eligible" by the major potential funding

agencies, such as USDA, RDA and Clean Water State Revolving Fund.

We feel that ENPLAN should insist that the *City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent.* They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent. *With money in an impound account to cover such costs it would be easier to approach lenders to fund the public project.*


*Without this account, it will be clear to all funders, as it is to the community, that CG is seeking yet another gift from the ratepayers and taxpayers to accommodate their desired project needs. This is a conundrum.* There have been over 3 years of staff time at city, county, state and federal levels, legal consultations not only by city attorney, county counsel, but outside CEQA law firms consulting to address the CG issue. *How is this not corporate welfare and misuse of public funds? Where is the "good corporate neighbor"?* Actions speak louder than words. No amount of bottled water for events can compensate for the hundreds of thousands of dollars spent on CG to date.

This is an opportunity to insist that they pay their own way. *If they do not provide the necessary information and the City's project is delayed causing fines for NPDES permit violations by 2017, then those bills should be sent to CGWC.* Had they cooperated with the public's demands for an EIR from December 2013, none of these questions would still be circling. As Brock Dolman Permaculturist says "Planning is best done in advance!"

Respectfully submitted,

Vicki Gold

Water Flows Free

  
Mt Shasta CA 96067

**Larisa Proulx**

---

**From:** Wildlife R1 Correspondence <R1Correspondence@wildlife.ca.gov>  
**Sent:** Friday, January 08, 2016 5:01 PM  
**To:** Kristen Maze  
**Subject:** FW: CDFW letter re: Review of the Initial Study/Mitigated Negative Declaration for the State-Mandated Wastwater Treatment and Outfall Improvement Project, State Clearinghouse Number 2015112045, City of Mt. Shasta, Siskiyou County  
**Attachments:** CEQA-2015-0306\_COMS\_SIS\_State-Mandated Wastewater Treatment Outfall Project\_MND.LTR.pdf

Sorry to send this again; I would like to have a 'delivery receipt' and I forgot to indicate this. I want to make sure I've sent it to the correct e-mail address.

Nancy Rich

---

**From:** Wildlife R1 Correspondence  
**Sent:** Friday, January 08, 2016 4:58 PM  
**To:** 'kmaze@mtshastaca.gov'  
**Subject:** FW: CDFW letter re: Review of the Initial Study/Mitigated Negative Declaration for the State-Mandated Wastwater Treatment and Outfall Improvement Project, State Clearinghouse Number 2015112045, City of Mt. Shasta, Siskiyou County

Please see attached.

Nancy Rich  
Office Technician (RA)  
CA Department of Fish and Wildlife  
601 Locust St  
Redding, CA 96001

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**From:** Wildlife R1 Correspondence  
**Sent:** Friday, January 08, 2016 4:54 PM  
**To:** 'kmaze@mtshasta.ca.gov'; 'dburk@enplan.com'; [state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov); Cobb, Donna@Wildlife; [Kristin.Hubbard@wildlife.ca.gov](mailto:Kristin.Hubbard@wildlife.ca.gov); Henderson, Amy@Wildlife; Grossman, Katherine@Wildlife; [Rachelle.Pike@wildlife.ca.gov](mailto:Rachelle.Pike@wildlife.ca.gov); 'Turek, Suzanne@Wildlife'; 'Harris, Michael R.@Wildlife'  
**Subject:** CDFW letter re: Review of the Initial Study/Mitigated Negative Declaration for the State-Mandated Wastwater Treatment and Outfall Improvement Project, State Clearinghouse Number 2015112045, City of Mt. Shasta, Siskiyou County

Please see attached. All service is by e-mail.

Nancy Rich  
Office Technician (RA)  
CA Department of Fish and Wildlife  
601 Locust St  
Redding, CA 96001

Every Californian should conserve water. Find out how at:



[SaveOurWater.com](http://SaveOurWater.com) · [Drought.CA.gov](http://Drought.CA.gov)



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Region 1 – Northern  
601 Locust Street  
Redding, CA 96001  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



January 7, 2016

Ms. Kristen Maze  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd  
Mt. Shasta, CA 96067

**Subject: Review of the Initial Study/Mitigated Negative Declaration for the State-Mandated Wastewater Treatment and Outfall Improvement Project, State Clearinghouse Number 2015112045, City of Mt. Shasta, Siskiyou County**

Dear Ms. Maze:

The California Department of Fish and Wildlife (Department) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) dated November 2015, State Clearinghouse Number 2015112045, for the above-referenced project (Project). As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and their habitat. As a responsible agency, the Department administers the California Endangered Species Act and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. The Department offers the following comments and recommendations on this Project in our role as a trustee and responsible agency pursuant to the California Environmental Quality Act (CEQA), California Public Resource Code section 21000 et seq.

### **Project Description**

The Project, as described in the IS/MND, involves improvements to the Mt. Shasta Wastewater Treatment Plant (WWTP) and Sacramento River outfall. These improvements are necessary to comply with Central Valley Regional Water Quality Control Board requirements for wastewater discharge. The proposed improvements would be located within the footprint of the existing facilities and would include a replacement treatment plant and a new diffuser at the river outfall.

### **Comments and Recommendations**

The Department requests that the Mitigation Measures be rewritten to include more detailed information (Attachment 1). The mitigation measures must clearly describe what the impact is, how it will be mitigated, and who will be enforcing

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compliance. Additionally, mitigation measures must indicate what performance standards have been selected, the timing, and remediation/contingency measures in the event the mitigation fails. For example, Mitigation Measure 4.4 could be rewritten as follows:

Impact	Mitigation Measure	Level of Significance After Mitigation
<p><b>Biological Resources</b></p> <p>Implementation of the proposed project has the potential to result in impacts to biological resources related to federally and state protected riverine systems, riparian, and special status biological resources.</p> <p>Implementation of the project has the potential to result in impacts to riparian vegetation during the construction phase.</p> <p>Implementation of the project will impact **acre of stream which are subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Department of Fish and Game Code that require the approval of CDFW in the form of a Streambed Alteration Agreement.</p>	<p><b>Construction Measures</b></p> <p>MM 4.4 – Riparian Vegetation</p> <ul style="list-style-type: none"> <li>• To minimize potential direct impacts to ** acres of riparian habitat (list species present) along the Sacramento River, the City of Mount Shasta will ensure that the construction zone is clearly marked using construction fencing or stakes.</li> <li>• Riparian species within the construction zone (List the species here) will be clearly marked for removal or preservation.</li> <li>• For riparian species that have the ability to re-sprout after ground-level pruning (List species that re-sprout), they will be pruned at or above ground level in lieu of removing the entire plant and root system. For those species that do not respond to ground level pruning, the area will be revegetated with the same species removed or suitable local, native plant species.</li> <li>• A written mitigation plan must be submitted to the California Department of Fish and Wildlife following the completion of construction. The mitigation plan must contain a schedule and performance criteria for achieving revegetation within xx years of any impacts to vegetation.</li> </ul>	<p>Mitigation Measure 4.4 is capable of reducing impacts to sensitive habitats to less than significant.</p>

The Department recommends that all of the mitigation measures be rewritten.

Ms. Kristen Maze  
City of Mt. Shasta  
January 7, 2016  
Page 3

The Department has these additional comments:

- 1) Please provide descriptive text for each of the Best Management Practices (BMPs) that will be used so the Department can evaluate whether these measures protect aquatic and terrestrial resources.
- 2) On page 4, under Introduction and Treated Effluent Discharge, the text states *"The WWTP is allowed extended periods of discharge to the Sacramento River in the spring and fall, provided that a higher quality of effluent is produced."* Please describe what is meant by a higher quality of effluent, including which water quality parameters must be met to make the effluent a higher quality.
- 3) On pages 4 and 5, under Introduction and Treated Effluent Discharge, the text states: *"As mandated by the NPDES permit, during the non-recreation season and extended periods when discharged to the Sacramento River is allowed, specific standards apply"* and the text goes on to describe dilution ratios the discharge must meet. While it is important to include the dilution ratios, there are many additional standards the effluent discharge must meet, with regards to water quality. All of the effluent limitations that the Mt. Shasta WWTP must abide by (Biochemical Oxygen Demand, Total Suspended Solids, pH, copper, zinc, etc.) are listed in Table 6 in the Waste Discharge Requirements Order R5-2012-0086 (Order), National Pollutant Discharge Elimination System permit CA0078051 (Permit). The IS/MND text only describes one standard, while many more standards are included in the Order and Permit; the additional effluent limitations should be included in the text.
- 4) Throughout the document, the phrases "General Construction Permit", "Construction General Permit" and "Construction General Permit Order" are used. The Department recommends consistency throughout the document and an explanation as to what a "General Construction Permit" entails.
- 5) Under Section B. Project Needs and Objectives, Subsection 1. State-Mandated Treatment and Discharge Requirements, the document states that *"Per the Time Schedule Order, the treatment and discharge facilities must be upgraded to meet the new standards no later than November 2017."* Further in the document, under Subsection 2. Treatment and Disposal Capacity Expansion, the text states that *"completion of construction for the new WWTP is scheduled for July 2019."* Please explain how the new discharge standards will be met by 2017, if construction is not complete until 2019.
- 6) Under the Proposed Physical Improvements section it states that *"some submerged rock would be shifted to allow the new diffuser to be installed."*

Ms. Kristen Maze  
City of Mt. Shasta  
January 7, 2016  
Page 4

Please quantify the amount of rock, what type of rock and whether or not it would be hazardous if drilled into in order to break apart. Please also describe how the submerged rock in the riverbed would be shifted to allow the new diffuser to be installed and if it is to be done with a winch, manual labor or drilling. Avoidance measures may be needed if amphibian eggs are present, attached to, or under submerged rocks at the time of disturbance.

- 7) Under the Sacramento River Outfall section it states that "Some vegetation may need to be cleared to facilitate path construction." Please quantify how much and what type of vegetation would be cleared.
- 8) Footnote #3, on page 13 states:

*"The City of Mt. Shasta has applied for a \$3,000,000 grant from the U.S. Department of Commerce, Economic Development Administration. If awarded, this grant would provide for replacement of the filtration and disinfection systems, which would then be constructed in advance of the other treatment and discharge improvements described in this Initial Study."*

Please explain how the replacement of the filtration and disinfection systems will be accomplished, if the grant is not funded. Improvements to the disinfection process are only one of the new requirements as outlined in the Order. Will additional funding be needed to complete the improvements to the WWTP?

- 9) Under Biological Resources section of the checklist, it states that

*"potential direct impacts on foothill yellow-legged frogs (*Rana Boylii*), Pacific tailed frogs (*Ascaphus montanus*), and western pond turtles (*Actinemys marmorata*) will be avoided/minimized by having a qualified biologist conduct a pre-construction survey for these species immediately prior to the start of in-water work each day that in-water work would occur and relocating frogs, eggs [sic] masses, tadpoles, and turtles to a safe location outside of the work area."*

The Department does not recommend relocation of egg masses. They should be left in place and avoided or the project delayed.

Relocating western pond turtles is not recommended either as they have a high site fidelity and will often travel back to where they were removed. Relocated individuals may have difficulty competing with conspecifics or non-native turtles that may inhabit the relocation site, may become prey for non-native species

such as bullfrogs or centrarchids, or may succumb to lack of resources. If relocation is contemplated, the mitigation measure should require a plan to be developed that discusses how the turtles will be relocated and describes the relocation site. The Relocation Plan should be approved by the Department prior to approving the Project.

- 10) Section 4, Riverine states that the proposed Project will comply with requirements contained in the NPDES permit, such as monitoring for toxic substances, satisfying criteria for the mixing zone, and meeting dilution standards to protect aquatic life and biologically sensitive or critical habitats. The Department recommends providing more detail with regards to monitoring (i.e. toxic substances to be monitored, number of sampling sites, location of sampling sites, time of year monitoring will take place, how frequently samples will be collected, etc.). Please discuss what will be done to satisfy criteria for the mixing zone and what the dilution standards are and how will they be met.
- 11) Under Section 6, Geology and Soils, the text states that one of the measures that could be implemented to minimize erosion include limiting construction to the dry season. Please specify when and where this measure could be implemented.
- 12) Under Section 6, Geology and Soils, the text states that National Resource Conservation District data shows that soils in the Project site have some potential for expansion/contraction, but that any such limitations can be overcome or minimized through proper planning, design and/or construction. The Department requests that this section be discussed in more detail to allow the Department to determine any potential effects to fish and wildlife resources.
- 13) Under Section 8, Hazardous Materials, discussion for items a. and b., the text states that

*"Project construction would involve use of relatively small quantities of materials such as diesel, gasoline, oils, and other engine fluids. Existing State standards govern the transport, use, and disposal of hazardous materials; because work would be conducted in accordance with these existing requirements, potential impacts would be less than significant and no mitigation measures are warranted."*

Please expand on what the existing State standards and requirements are with regards to the use of hazardous materials and which BMPs will be implemented to prevent potential spills of hazardous materials into the Sacramento River. If hazardous materials are spilled into the Sacramento River, what BMPs will be implemented to contain the spill?

- 14) Under Section 9, Hydrology and Water Quality, question f, the box for "Potentially Significant unless Mitigation Incorporated" should be checked,

rather than "Less than Significant", as the IS identifies that specific BMPs would reduce impacts to less than significant.

15) In Section 9, subsection a, states that "*current regulations include measures to routinely monitor incidental runoff.*" Please describe what is meant by "routinely monitor."

16) Under the discussion in Section 12, Noise, the text states that "if bedrock is present, and rocks cannot be rolled away, a rock drill, or similar tool that can be used by hand, may be necessary to break the rock." While this text is in reference to exposure to persons, this noise element is not mentioned anywhere in reference to aquatic resources. If a rock drill is used on submerged bedrock, there could be percussive impacts to aquatic resources, including the eggs of yellow-legged frogs and native fish species. Please elaborate on these potential impacts and what would be done to minimize the percussive impacts. A hand-held rock drill is not mentioned in the noise emission levels included in Table 6 of this section. This is another element that should be brought up within the IS/MND if it is to be used as part of the Project.

17) The NPDES permit is mentioned in various sections of the IS/MND checklist. However, the discussion is vague and mentions such things as "higher effluent treatment standard must be met when river flows are conducive to kayaking" or "routine monitoring for toxic substances, effluent mixing and dilution standards is required." Please provide explanations as to what higher effluent treatment standards consist of, or which toxic substances will be monitored. In addition, who's responsible for the monitoring and how will the results be analyzed? Please describe how the potential impacts will be mitigated if the sampling shows that the standards are not being met.


This Project will require the Project Applicant to notify the Department for a Lake or Streambed Alteration Agreement (LSAA) prior to the commencement of any activity that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank (which may include riparian resources) of a river, stream or lake, or use material from a streambed. The Department's issuance of a LSAA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA may consider the Lead Agency's environmental document for the project. To minimize additional requirements by the Department pursuant to FGC section 1600 et seq. and/or under CEQA, the document should fully identify the potential impacts to wetland, stream, or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSAA.

The final IS/MND should be sent to the Department prior to filing of the Notice of Determination.

Ms. Kristen Maze  
City of Mt. Shasta  
January 7, 2016  
Page 7

If you have any questions, please contact Suzanne Turek, Senior Environmental Scientist (Specialist), at (530) 225-2282, or by e-mail at [Suzanne.Turek@wildlife.ca.gov](mailto:Suzanne.Turek@wildlife.ca.gov).

Sincerely,



**Curt Babcock**  
Habitat Conservation Program Manager

Attachment 1: CEQA-Developing Adequate and Successful Mitigation Measures

cc: Kristen Maze  
City of Mt. Shasta  
[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)

Don Burk  
ENPLAN  
[dburk@enplan.com](mailto:dburk@enplan.com)

State Clearinghouse  
[State.clearinghouse@opr.ca.gov](mailto:State.clearinghouse@opr.ca.gov)

Donna L. Cobb, Kristin Hubbard, Amy Henderson, Katherine (Grossman) Blanchard, Rachelle Pike, Suzanne Turek, Michael R. Harris  
California Department of Fish and Wildlife  
[Donna.Cobb@wildlife.ca.gov](mailto:Donna.Cobb@wildlife.ca.gov), [Kristin.Hubbard@wildlife.ca.gov](mailto:Kristin.Hubbard@wildlife.ca.gov),  
[Amy.Henderson@wildlife.ca.gov](mailto:Amy.Henderson@wildlife.ca.gov), [Katherine.Grossman@wildlife.ca.gov](mailto:Katherine.Grossman@wildlife.ca.gov),  
[Rachelle.Pike@wildlife.ca.gov](mailto:Rachelle.Pike@wildlife.ca.gov), [Suzanne.Turek@wildlife.ca.gov](mailto:Suzanne.Turek@wildlife.ca.gov)  
[Michael.R.Harris@wildlife.ca.gov](mailto:Michael.R.Harris@wildlife.ca.gov)

CHRON

## CEQA Developing Adequate and Successful Mitigation Measures

### Evaluation Checklist

Definitional Factors	Questions to ask when writing, evaluating, or reviewing mitigation	Comments
	Does the measure clearly do one or more of the following:	
	Avoid the impact?	
	Reduce the impact?	
	Rectify the impact?	
	Eliminate the impact over time?	
	Compensate for the impact?	
<b>Specificity Factors</b>		
	Does the mitigation contain specifics about the following:	
	<i>Why</i> is that particular measure recommended?	
	<i>What</i> is specifically being proposed? <ul style="list-style-type: none"> <li>• <i>What</i> are the success criteria?</li> <li>• <i>What</i> contingency measures will be required if initial success is not being achieved?</li> </ul>	
	<i>Where</i> will the mitigation occur?	
	<i>Who</i> is responsible for implementation?	
	<i>When</i> will the mitigation occur?	
<b>Feasibility Factors</b>		
	<b>Economic Feasibility</b> <ul style="list-style-type: none"> <li>• Does the proponent have the money to implement the measure?</li> <li>• If the measure included pay of fees, is the financing program active and effective? Will there be sufficient funds to ensure success?</li> </ul>	

	<b>Legal Feasibility</b> <ul style="list-style-type: none"> <li>• Does the agency have the legal authority to require implementation?</li> <li>• Has a proper "nexus" been established between the impact and the mitigation measure?</li> <li>• Is the mitigation measure "roughly proportional" to the impact? (e.g., has "pro-rata" share been established?)</li> </ul>	
	<b>Social feasibility</b> Is the mitigation measure acceptable to affected parties (e.g., neighbors, the community)	
	<b>Political feasibility</b> <ul style="list-style-type: none"> <li>• Is the measure acceptable to the decision-makers</li> <li>• Are they likely to require it?</li> </ul>	
<b>Timing</b>		
	Will there be appreciable time gaps between project completion and mitigation implementation?	
<b>Monitorability</b>		
	Can the measure be monitored for: <ul style="list-style-type: none"> <li>• Implementation</li> <li>• Success</li> </ul> Does the mitigation measure contain measurable performance standards?	
<b>Proponent Concurrence (Required for Mitigated Negative Declarations)</b>		
	Before the release of the draft ND, has the proponent (applicant or agency) agreed to implement the measure?	



**Larisa Proulx**

---

**From:** lookingup@finestplanet.com  
**Sent:** Friday, January 08, 2016 4:58 PM  
**To:** Kristen Maze  
**Subject:** Thoughts on the Crystal Geysir Water situation

Greetings, Kirsten,

This is my contribution concerning the ongoing Crystal Geysir situation.

I can only imagine what went on in the boardroom when the parent company of CG was being discussed. It might have been something like this:

"Well, we've found a great location for the development and expansion of CG. There's another sleepy town in northern California that already has a perfect facility that we could update and improve. The main challenge is to get the city council and the county board of supervisors to come on board. This shouldn't be too difficult as that area could use more employment as the town and county are ripe for promises of jobs.

We could do the usual. Promise jobs, offer free bottled water for their 4th of July celebration among other activities and co-sponsor and support events where we could get our name frequently in their papers. People would see us as the 'good guys'. If that weren't enough, there are ways that we could 'encourage' cooperation (wink, wink). Use your imagination.

Now, there are surely some legal requirements, but being somewhat desperate for jobs, the city council and county supervisors might look the other way so that those requirements could be ignored as has been the case for other water companies. If we can get delays extended long enough they might just tire of the situation and give up. Maybe those delays can allow us to get the citizens to pick up the tab for most of the infrastructure costs. After all it will be only a few dollars\* per month added to the appropriate bills. It's looking better all the time.

Now, should there be some opposition, we can flex our monetary muscles because 'we are big and they are small and we can squash them like a bug'. Many people in America are unaware of what's going on even in their own communities. Shall we vote on making Mount Shasta, California our next conquest?"

Disgusting, isn't it? Personally, I despise those companies that try to take advantage of people. In many cases it shows their arrogance and greed. And imagine this, many, if not most, of these types of companies are very or extremely profitable and can afford doing things RIGHT. That is particularly true of pharmaceutical companies. (These companies are among the most profitable companies in the world).

Wouldn't it be refreshing if there were some way that someone had the courage and the legal ability to say, "There's a padlock and restricted entry sign on your property and you will NOT be able to enter until all permits and legal requirements are submitted and approved. Get it done NOW or show us the progress!!!"

\*The actual amount would probably be somewhere between \$10-20 just for the MND WWTP. Then there could be another increase compliments of Pacific Power if CG passes the buck to the citizens of Mount Shasta.

Are we happy for this new neighbor, yet?

Sincerely,

Cecil Wilkerson

  
Mount Shasta

Sent from Finest Planet WebMail.

Larisa Proulx

---

**From:** Dennis P King [REDACTED]  
**Sent:** Friday, January 08, 2016 4:43 PM  
**To:** kmaze@mtshastca.gov  
**Subject:** Crystal Geysers

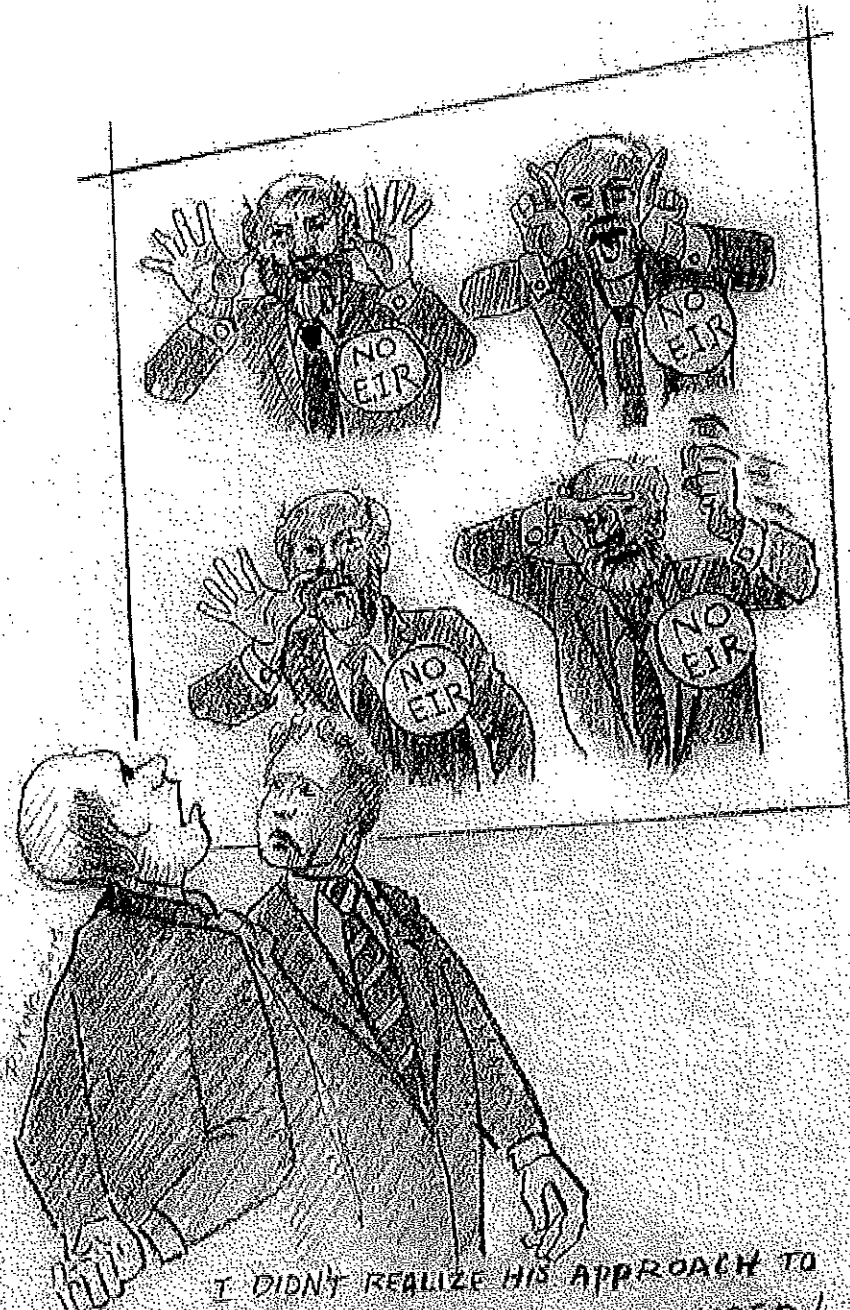
Ms. Maze,

I have been following the process of Crystal Geysers first purchasing the former Coca Cola-Dannon plant, then getting the green light to begin operating their water extraction business for three years now. I have attended countless City Council meetings and a number of the County Board of Supervisors meetings during this time. I have listened to a lot of concerned citizens speak up for a full EIR. I have personal friends who's wells were damaged when the former Dannon plant was in operation. I have read all of the editorial pieces in the Mount Shasta Herald as well as guest opinions. What's missing? During all of this time I have never heard one elected official voice any support for the citizens concerns. Every elected official in this county only cares about the business interest, and some small number of potential jobs that will be offered to local population. I think this is a clear violation of what representative democracy is all about. The people who vote in these local elections should have a voice in the way things are run in their communities. These elected officials are not listening to the people who elected them.

It's about time someone stood up for the local concerned citizens, and demanded a full EIR paid for by Crystal Geysers, and stop the charade of business as usual in this county ! It's time for you Kristen Maze, "City Planner", to step up for your community and demand a full and transparent EIR !

Respectfully,

Dennis King  
96067



I DIDN'T REALIZE HIS APPROACH TO THE CONFLICT WAS SO NUANCED!

Larisa Proulx

---

**From:** Laraine Lewis [REDACTED]  
**Sent:** Friday, January 08, 2016 4:49 PM  
**To:** Kristen Maze  
**Subject:** WASTEWATER SEWER SYS

Hello - I am very concerned about the wastewater system and CG's connection (albeit not admitted, but certainly beneficiary to it). Why should we the citizens have to pay for a privately owned companies gain. It's about time our City started protecting our rights. It's an outrageous situation that will only benefit a foreign owned company who can well afford whatever upgrades, etc. are needed for their plant. The whole project to me is questionable when they refuse to do an EIR - I want to know what are they hiding? Thank you. Laraine Lewis [REDACTED], Mt. Shasta

Larisa Proulx

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From: Molly Brown [REDACTED]  
Sent: Friday, January 08, 2016 4:41 PM  
To: Kristen Maze  
Subject: RE: Public Comments on IS/ MND for City of Mt. Shasta Upgrades to WWTP and Outfall Improvement Project

Kristen Maze, City Planner

Phone: (530) 926-7510

305 N. Mt. Shasta Boulevard, Mt. Shasta, California 96067

Dear Ms. Maze,

Please get real about the impacts of the Crystal Geyser project on the WWTP. The City knows full well that CGWC plans to apply for a sewer hook-up that will take up a great deal of the improved capacity of the plant. The excuses offered by CGWC for not having applied are patently bogus. It is clear the company is waiting for the improvements to be made before applying, most likely to avoid paying its fair share of the costs.

Please consider recommending that the City inform CGWC that the company will be denied a hook-up unless it applies NOW, so the WWTP upgrades can include CGWC's demands on capacity, and the company can be required to pay for a full EIR and any necessary expansion of the system to accommodate these needs.

Sincerely,

Molly Brown

--  
Molly Young Brown, M.A., M.Div

[REDACTED]

MollyYoungBrown.com



Larisa Proulx

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From: Beverly Jean Harlan [REDACTED]  
Sent: Friday, January 08, 2016 4:27 PM  
To: Kristen Maze  
Cc: Beverly Harlan  
Subject: Crystal Geysler

Kirsten Maze, City Planner  
<[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)>

Dear Ms Maze:

I am extremely concerned about Crystal Geysler's attempt to syphon off our water in unlimited quantities during a time of extreme drought in California.

Also, I am extremely concerned about CG's attempt to make Mt Shasta tax payers pay for additions to the sewage system.

CG has said they will do an EIR — but since that statement, what action have they done? Nothing. They were only trying to assuage public opinion and look good themselves.

I am not alone.

Many Mt Shasta residents are extremely concerned about CG's actions and their ignoring the concerns of residents.

I want you to do everything you can to stop CG from starting their plant because I feel that it will create disastrous consequences for Mt Shasta City and its citizens.

Sincerely,

Beverly Harlan  
[REDACTED]

Mt Shasta, CA 96067  
[REDACTED]



**Larisa Proulx**

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**From:** phoenix@mountshastaecology.org  
**Sent:** Friday, January 08, 2016 4:22 PM  
**To:** Kristen Maze  
**Subject:** Comments from Mount Shasta Bioregional Ecology Center on Proposed Mitigated Negative Declaration And Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California  
**Attachments:** MSBEC Comments on IS-MND.docx

Dear Ms. Maze,

Please find attached our organization's comments on the IS/MND. I am also submitting a hard copy (signed) to the City of Mt. Shasta office.

Sincerely,

Phoenix Lawhon Isler

Phoenix Lawhon Isler, PhD  
Program Director  
Mount Shasta Bioregional Ecology Center  
(530) 926-5655 (office)  
(530) 925-1648 (mobile)  
phoenix@mountshastaecology.org  
www.mountshastaecology.org



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

*Dedicated to restoring the outstanding natural and cultural values  
of Mount Shasta and the surrounding bioregion*

Kristin Maze, City Planner  
City Councilmembers  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd  
Mount Shasta, CA 96067

[kmaze@mtshasta.gov](mailto:kmaze@mtshasta.gov)

January 7, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated  
Wastewater Treatment and Outfall Improvement Project.

Dear Ms. Maze and City Councilmembers,

The Mount Shasta Bioregional Ecology Center is a nonprofit organization dedicated to protecting and restoring the outstanding natural environment and cultural values around Mount Shasta, California. The Mount Shasta bioregion is of great importance locally, nationally and internationally. It provides water to millions of Californians locally and downstream, millions of acres of forested public lands, habitat for plant and wildlife, remarkable recreational opportunities, and areas of high significance to Native American and other cultures near and far. Mount Shasta Ecology is considered a voice for grassroots citizens and has represented public interests in natural resource decision-making process in the region for more than 25 years since we were established in 1989.

We are writing regarding the Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project. Since we are very concerned with protecting the Mount Shasta bioregion, including its water resources, we of course want to see the best possible outcome for both local groundwater and the Sacramento River. There is no doubt that upgrades to the city's wastewater treatment plant are necessary and the proposed improvements themselves are not in question.

The problem is that the upgrades proposed in this project will also benefit the controversial Crystal Geyser Water Company project which has thus far proceeded with construction without appropriate environmental review. This leaves the City of Mount Shasta vulnerable to accusations of 'piecemealing' the Crystal Geyser project by segmenting environmental review into smaller pieces to save time, save costs, and salvage the previously rejected \$3,000,000 EDA grant application. Our organization, is truly concerned that the EDA might someday require the City to refund the full amount of the \$3,000,000 Grant if the irregularities with this Project become more obvious in violation of federal law.



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

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Piecemealed environmental review is prohibited by California law:

"Courts have considered separate activities as one CEQA Project and required them to be reviewed together where, for example, the second activity is a reasonably foreseeable consequence of the first activity [citation]; the second activity is a future expansion of the first activity that will change the scope of the first activity's impacts [citation]; or both activities are integral parts of the same project [citation]." (*Sierra Club v. West Side Irrigation Dist.* (2005) 128 Cal.App.4th 690, 698 (*Sierra Club*).

Accordingly, "CEQA forbids 'piecemeal' review of the significant environmental impacts of a project." (*Berkeley Jets, supra*, 91 Cal.App.4th at p. 1358.) Agencies cannot allow "environmental considerations [to] become submerged by chopping a large project into many little ones — each with a minimal potential impact on the environment — which cumulatively may have disastrous consequences." (*Bozung, supra*, 13 Cal.3d at pp. 283-284 [EIR required when city annexed land for anticipated development].)

The California Supreme Court set forth a piecemealing test in *Laurel Heights*. "We hold that an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (*Laurel Heights, supra*, 47 Cal.3d at p. 396.) "Under this standard, the facts of each case will determine whether and to what extent an EIR must analyze future expansion or other action." (*Ibid.*)

Crystal Geysers Water Company might request to initially discharge a somewhat limited amount of rinsewater (i.e. 0.05 MGD) in its first few years here such that its discharge contribution does not push the City's total flows into the WWTP above 0.9 MGD. However, the assurance that future upgrades to increase WWTP capacity to fulfill the needs of CGWC's expansion and sewage increase requests will be subject to a separate EIR are hollow if CGWC will be able to initially rely on the proposed upgrades described in the IS/MND for initial operations and discharges<sup>1</sup>.

Although CGWC has not yet filed a formal application to connect to the City's sewer system, it applied with the City of Mt. Shasta for a \$3,000,000 grant in 2013 in order to connect to the sewer system, continues to assert its plans to connect, and has not indicated any other means available to handle its effluents. Thus Crystal Geysers' proposed full-scale effluent discharges to the WWTP are *reasonably foreseeable* consequences of improvements at the WWTP, and these consequences must be addressed in an Environmental Impact Review according to CEQA.



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

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of Mount Shasta and the surrounding bioregion*

The Mount Shasta Bioregional Ecology Center strongly recommends that the City and the EDA evaluate the whole of this Project in an EIR/EIS, including the WWTP improvements and expansion, the Interceptor line enlargement and Crystal Geysers' plant because CGWC is a beneficiary and a driver for some of these expanded sewage facilities.

Although Crystal Geysers stated in September 2015 that the company intended to complete an Environmental Impact Report for its Mt. Shasta plant operations, its actions since then (installing propane boilers without the proper permits, building wastewater pre-treatment facilities without permits) seem to indicate that it does not have time for environmental regulations or doing the right thing by the law and the public so it is unlikely that it will make good on this promise.

The EDA and the City must demand more information from the engineers working for Crystal Geysers in order to determine realistic future growth for the rest of the community. We feel that ENPLAN should insist that the City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent. They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent.

Thank you for considering these comments on the IS/MND and the larger issues involved.

Sincerely,

Phoenix Lawhon Isler

Program Director  
Mount Shasta Bioregional Ecology Center



## MOUNT SHASTA BIOREGIONAL ECOLOGY CENTER

*Dedicated to restoring the outstanding natural and cultural values  
of Mount Shasta and the surrounding bioregion*

<sup>i</sup> See IS/MND (November 2015):

pg. 10 "With implementation of the proposed improvements, the capacity of the WWTP would increase to accommodate an ADWF of 0.9 MGD. This increase in capacity accounts for existing needs plus an allocation for anticipated future growth at a rate of one percent over the next 20 years. Further expansion of the treatment and disposal system to accommodate addition of 0.15 MGD from Crystal Geyser would be possible in the future if approved by the City of Mt. Shasta."

pg. 51 " A new industrial user, Crystal Geyser, plans to expand its bottling operations at the former Coca-Cola facility just outside of the city limits of Mt. Shasta on Ski Village Drive. According to Crystal Geyser, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed.

Larisa Proulx

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**From:** [REDACTED]  
**Sent:** Friday, January 08, 2016 4:13 PM  
**To:** Kristen Maze  
**Subject:** Chrystal Geysler and waste water treatment plant

Kristen Maze, City Planner  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, Ca. 96067

RE: Public comments on IS/MND for City of Mt. Shasta Upgrades to WWTP and Outfall Improvement Project

Dear Ms. Maze,

As a concerned and taxpaying citizen of Mt. Shasta I am extremely dismayed about the Chrystal Geysler Project and its potential environmental impacts on this pristine land that we live in. It makes no sense to me, that in a time of extreme drought, that this foreign company would be able to come and take our water, at a time that the people who live here are being asked to cut their water usage by 25%. Chrystal Geysler is not even being asked to do an EIR. Of course, I am not against the necessary upgrades of the WWTP but I am concerned that the impact that the Crystal Geysler plant will have on this and that they will not be held responsible for providing the appropriate information or funding for what will potentially be more use of this WWTP than all the citizens of Mt. Shasta.

Who is going to represent the interests and advocate for the citizens of Mt. Shasta?

Sincerely yours,

Beth Wadman, M.D.  
[REDACTED]  
Mount Shasta  
Ca. 96067

Larisa Proulx

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From: Stephan Norswing [REDACTED]  
Sent: Friday, January 08, 2016 4:12 PM  
To: Kristen Maze  
Subject: Fwd: Crystal Geysers

----- Forwarded message -----

From: Stephan Norswing [REDACTED]  
Date: Fri, Jan 8, 2016 at 4:03 PM  
Subject: Crystal Geysers  
To: [kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)

Hello Kirsten,

I am a 5 year resident of Mt. Shasta. We came to this beautiful town because of the community and wonderful clear blue sky's .  
A project of this magnitude and the impact on our people and land is not welcome here.. It is an abomination to even think of! We are in the mists of a 1200 year drought and just the water extraction alone that C.G. is wanting to take is fueled by pure GREED. Let alone all the other things that they are trying to take.

We the PEOPLE have a right to have to say NO! And I say NO!. Infact, because of their GREED and MANIPULATIVE behavior I ask why don't they tap into their own mountains in Japan?

-Sincerely,-

Stephanie Norswing

--

Stephanie

**Larisa Proulx**

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**From:** Peggy Risch/Stefan Schittko [REDACTED]  
**Sent:** Friday, January 08, 2016 3:50 PM  
**To:** Kristen Maze  
**Subject:** WWTP IS/MND comments  
**Attachments:** WWTP MND comments.doc

Hi Kristen  
please find my comments attached as a word document on the IS/MND for the City's WWTP and Outfall  
Improvement Project.  
Thank you  
Peggy Risch



January 8, 2016

**To:** Kristen Maze, Mt Shasta City Planner, via e-mail to: kmaze@mtshastaca.gov  
**Re:** City of Mt Shasta  
STATE MANDATED WASTEWATER TREATMENT AND OUTFALL  
IMPROVEMENT PROJECT  
Initial Study November 2015

Thank you for consideration of my timely submitted written comments. They supplement my previous oral comments at the Mt Shasta City Council meeting on December 14, 2015.

These comments focus on a few aspects of the above mentioned Project, whose description is misleading the public to believe that it is *solely* '..to improve treatment and discharge capabilities of the Waste Water Treatment Plant (WWTP) in order to comply with the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) requirements.' [See Project Introduction at page 1 of the IS/MND] However, the IS/MND contains many of the statements that demonstrate that this is not the case.

First off, the City's WWTP NPDES permit mandates key changes by November 2017 -- such as for ammonia, zinc, and copper limits-- but the IS/MND states that this proposed Project would *not* be completed until July 2019. [See page 14 of the IS/MND].

As the IS/MND states: "On October 4, 2012, the Central Valley RWQCB adopted Waste Discharge Requirement Order No. R5-2012-0086 for the WWTP and concurrently issued Time Schedule Order No. R5-2012-0087. The requirements include limitations and provisions for wastewater discharge, some of which the WWTP cannot meet without improvements to the treatment and discharge facilities. **Per the Time Schedule Order, the treatment and discharge facilities must be upgraded to meet the new standards no later than November 2017.**

The fact is Crystal Geysers needs these improvements to the WWTP in order to operate despite the limited Project description in the IS/MND and gibberish throughout the faulty environmental document. For example, under the IS/MND's Heading of *Population and Housing*, the IS/MND erroneously concludes that: "According to Crystal Geysers, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed." [See page 51-52 of the IS/MND]. Obviously, this is not true --the proposed WWTP construction would not even be completed until July 2019 and the NPDES permit *mandates* the more stringent limits on copper, zinc, and ammonia by November 2017. The heart of CEQA is to inform the public, not misinform.

As described in the February 13, 2015 *City of Mt Shasta Review from Michael K. Stenstrom* PhD, P.E. Consulting Engineer to *PACE Engineering*: The City's five lagoons

treatment system removes BOD, TSS, and provides secondary treatment. A second challenge to the existing system is the removal of nitrogen....and it is believed that nitrogen, *specifically ammonia*...from secondary effluents is shifting the species to blue green algae.' The Stenstrom Review goes on to state that:

**"The current system *cannot* be expected to remove nitrogen for two reasons:..."** [Emphasis added, see page 3 or the Stenstrom Review]

As we see sprinkled throughout the IS/MND that there are real problems with the *existing* WWTP in meeting the limits of 'zinc and copper during high flows, ammonia, effluent limits for 5-day biochemical oxygen demand, total suspended solids, and pH levels, as identified in the NPDES permit'. [See page 6].

It is illogical and irrational (as well as inaccurate) for the IS/MND to conclude that Crystal Geysers can utilize Mt Shasta City's WWTP for years *before* the proposed WWTP improvements are completed *as it would expose the city to financial fines/penalties for exceeding the mandated 2017 more stringent limits on ammonia, copper, and zinc.*

The proper action here is for the City to mandate an EIR that analyzes, discloses, and mitigates for a Project Description of the WWTP improvements that *includes* Crystal Geysers' operations. The current IS/MND has piece-mealed this to some future date and thus has avoided the analysis of an action that is reasonable and foreseeable in the future. The on-going discussions between Crystal Geysers with the City and the Regional Water Board for pre-treatment facility in order to comply with the Clean Water Act, Crystal Geysers' actions on-the-ground with boilers, and the issuance of a cease & desist order by Siskiyou County all ascertain that their operation is no longer 'speculative'. Many of the concerned citizens of Mount Shasta have voiced this need for a complete EIR for years. Their comments are much more extensive on this topic and have been submitted to you on this IS/MND and I will not repeat what has been so eloquently written. I only ask you to read and decide carefully. This decision will have great financial, legal, and economic ramifications for our town. The time and trigger for the comprehensive EIR is now.

Thank you,  
Peggy Risch  
Mount Shasta CA

Please keep me informed of all notices and public meetings on this issue.

Larisa Proulx

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**From:** shannon hacker [REDACTED]  
**Sent:** Friday, January 08, 2016 3:23 PM  
**To:** Kristen Maze  
**Subject:** Public comment for new WWTP

Dear Ms. Maze,

I really feel the WWTP I heard about as presented by PACE engineering at the Community Center last month needs to be more thoroughly thought out. An EIR/EIS may really be necessary.

Also, I am very concerned that if Crystal Geysers does hook up to it, they will use up all the sewer capacity that may be used for other developments much more beneficial to our community and our economic development. A performance venue would be one of those that comes to my mind. This could potentially bring in much more tourism and make much more money for our town than a foreign industrial user like Crystal Geysers. I really don't think it's a good idea to let Crystal Geysers hook up to the new plant if and when it does get built.

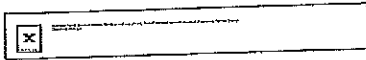
Sincerely,  
Shannon Hacker

**Larisa Proulx**

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**From:** Jessica Martinez <Jessica@churchwellwhite.com>  
**Sent:** Friday, January 08, 2016 3:20 PM  
**To:** Kristen Maze  
**Cc:** Barbara Brenner; Robin Baral  
**Subject:** Comments to Initial Study and Mitigated Negative Declaration - State-Mandated Wastewater Treatment and Outfall Improvement Project, Siskiyou County, CA  
**Attachments:** Comments to Initial Study and Mitigated Negative Declaration.pdf

On behalf of Crystal Geysers please see attached comments letter.



Jessica Martinez | Administrative Clerk  
916.468.0950 | [jessica@churchwellwhite.com](mailto:jessica@churchwellwhite.com)

**Churchwell White LLP**  
1414 K Street, 3<sup>rd</sup> Floor, Sacramento, CA 95814  
F 916.468.0951  
[churchwellwhite.com](http://churchwellwhite.com)



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Churchwell White LLP

churchwellwhite.com

1414 K Street, 3<sup>rd</sup> Floor  
Sacramento, CA 95814  
T 916.468.0950 | F 916.468.0951

Barbara A. Brenner  
T 916.468.0625  
Barbara@churchwellwhite.com

January 8, 2016

VIA EMAIL ([kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov))

City of Mount Shasta  
305 North Mount Shasta Boulevard  
Mount Shasta, CA 96067  
Attn: Kristen Maze, City Planner

**Re: *Comments to Initial Study and Mitigated Negative Declaration – State-Mandated Wastewater Treatment and Outfall Improvement Project, Siskiyou County, CA***

Dear Ms. Maze:

This comment letter is submitted on behalf of Crystal Geysers Water Company (“Crystal Geysers”) in connection with the above-referenced Initial Study and Mitigated Negative Declaration (“IS/MND”). Crystal Geysers understands the importance of this project, which will assist the City of Mount Shasta (“City”) in meeting final effluent limits for ammonia, copper, zinc and other conditions of the City’s NPDES permit and compliance orders issued by the California Regional Water Quality Control Board (“Regional Board”).

We would like to review the underlying technical data that supports the IS/MND’s assumptions of the existing capacity of the City’s wastewater treatment facility (“WWTF”). The IS/MND provides that the current dry-weather design capacity of the WWTF is 0.75 million gallons per day (“MGD”), and that on average the WWTF processes 0.7 MGD in dry weather.

We would appreciate the City providing specific references to the underlying data that supports the above-referenced WWTF design capacity and average dry-weather treatment figures in the IS/MND.

Since acquiring the facility in 2013, Crystal Geysers has made significant investments in aseptic, in-place cleaning and rinsing technology, to reduce the estimated discharges from the facility from 500,000 gallons per day (“GPD”) to a maximum of 108,000 GPD, once two bottling lines reach full production.

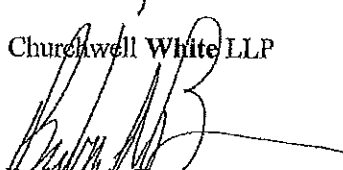
Ms. Kristen Maze  
January 8, 2016  
Page 2

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Thank you for the opportunity to provide comments to the IS/MND, so that Crystal Geysers can better understand the WWTF's existing treatment and design capacity, and its historical average dry-weather flows.

Regards,

Churchwell White LLP



Barbara A. Brenner

BAB/rrb

cc: John Kenny

**Larisa Proulx**

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**From:** Vicki Gold [REDACTED]  
**Sent:** Friday, January 08, 2016 2:01 PM  
**To:** Kristen Maze  
**Subject:** Letter in reply to MND WWTP  
**Attachments:** MND 2nd letter reply 1816.pdf

Hello Kirsten,  
Attached are some additional thoughts in response to the MND/IS on the WWTP.  
Thank you for attaching to my earlier letter.  
Vicki

Kristen Maze, City Planner  
Phone: (530) 926-7510  
305 N. Mt. Shasta Boulevard, Mt. Shasta,  
California 96067

January 8, 2016

RE: Public Comments on IS/ MND for City of  
Mt. Shasta Upgrades to WWTP and Outfall  
Improvement Project

Dear Ms. Maze,

This is an addendum to my letter submitted earlier today.

By now it should be clear to the entire state of California that the Crystal Geysers Project is highly controversial and has many potentially significant environmental impacts. Perhaps in an industrial area in times of abundant rain and snow, a project of this nature would be less problematic. Here in the Mount Shasta bioregion, in the midst of a 500-1200 year drought (per arborists'/ biologists' scientific peer reviewed reports), there is no question that water extraction with greatly diminished snowpack and local residential wells suffering for over two years, has consequences.

- *If there is to be a project of this magnitude Mount Shasta deserves the highest degree of environmental oversight. We have an obligation to our residents and tourists from all around the planet.*
- *Why would the City hesitate to use every tool possible to encourage a foreign corporation to cooperate with a comprehensive EIR when the entire state is watching?*

What is troubling is that when the prior corporation Danone/ CocaCola was brought in by Siskiyou County, there was generally little awareness about the 5 gyres, the plastic pollution in landfills and the oceans. Less was known of the endocrine disruption effects of phthalates from plastics in our water, soil, air and foods. That is no longer the case; this is an opportunity to revisit the original decision. These considerations alone merit a full environmental review. We have learned many environmental lessons since 1997.

When the Crystal Geysers PR firm Burson Marsteller issued a press release on September 16th, 2015 stating that they would be doing an EIR, it surprised the community. It appears to have been just that, a PR move designed to shock and to take



the wind out of the sails of the rapidly growing movement questioning the feasibility of this type of industry in our community. The Water Every Drop Sacred event was scheduled the following week, attracting widespread interest. Now we see that there is no movement in the direction of an EIR.

- *The City has an opportunity to finesse the EIR at this stage, yet this IS/MND does nothing to encourage the EIR process.*

At the 12/14/15 City Council meeting, ENPLAN representative Don Burke claimed that an EIR is not appropriate because CGWC has not yet filed an application to connect to the WWTP. He mentioned the words "idle speculation" claiming that the City of Mt. Shasta cannot invoke CEQA to mandate an EIR. The entire state knows that the City and County have been in communication with CG since 2012. The need for the sewer connection was the driving force for the EDA grant in September 2013 for the Interceptor Line. CG has now illegally begun construction of a new building and pre-sewer treatment pH Neutralization facility onsite to process rinse water before discharge into the sewers.

- *Can denial of the 3 long years of staff time planning for the Crystal Geyser project represent standard accepted engineering practice?*

We now see that PacifiCorp is also in denial of the need to perform an EIR on the power expansion needed to serve the Crystal Geyser facility. We have abundant email confirmation from public record requests documenting CGWC's desire for 4-5 times the power used by CocaCola. The rate payers should not have to pay for this just as they should not in the case of the sewer and collection system upgrades.

- *Who is watching out for the public, the citizens, the broader community?*

Since no agency has taken the responsibility of "lead agency" to properly address the multiple very serious potential consequences to our quality of life, the health of the Sacramento River, our aquifers and underground hard rock volcanic tubes and subsurface streams feeding our residential wells,

- *If not now WHEN? If not the City of Mt Shasta, WHO?*

See the link below to understand the many options open to the City to support and demand an EIR. To fail to address CG's needs based upon worst case scenario at full build out over 5-20 years is negligent. ENPLAN and PACE have a responsibility to be creative in the use of the various options below to support the EIR process. To deny the very real problems associated with operation of a water and sugary sweet beverage

bottling plant, producing more plastics than ever before, is not state of the art engineering advice. The public is paying for this advice and deserves to have a voice. While we appreciate the opportunity to comment on the process, we appear to have not been heard over the past two years of constant public comments, newspaper interviews and conversations with City Council Members.

- *There is every reason to begin an EIR process which allows for amendments to be added later as more information becomes available.*

This is not only about the City of Mt Shasta; this is about water privatization and water bottling by a foreign and domestic corporations with deep pockets. This is just one example among hundreds all over the planet. Nestle in Cascade Locks OR, in San Bernardino, Coca Cola in India and Africa, Pepsi and Snapple and many more corporate water pirates.

- *Water extraction for profit and provision of a few entry level jobs in an automated industry does not economic development make!*
- *Ascertaining that CGWC pays their own way and does not rely on public funding of their projects is the very least the City must demand to be in integrity and to show commitment to fiduciary responsibility.*

Simply stating that will be the case with no clear plan of enforcement is less than transparent. The costs associated with the project and the collector system needed to ascertain that the new WWTP will be able to accommodate the wet and dry weather effluent loads must be paid for by CG/ Otsuka Holdings. Dividing the project into small bites, none of which triggers an EIR, is not acceptable.

Respectfully Submitted,  
Vicki Gold  
Water Flows Free  
Mt Shasta CA

<http://www.calrecycle.ca.gov/SWFacilities/Permitting/ceqa/Documents/EIR/Types.htm>  
CEQA Toolbox  
Types of EIR Documents

This article describes a number of examples of variations in an EIR, as the documents are tailored to different situations and intended uses. These variations are not exclusive. Lead agencies may use other variations consistent with the Guidelines to meet the needs of other circumstances. An EIR must meet the content requirements discussed in Article 9

beginning with Section 15120.

- Project EIR
- Subsequent EIR
- Supplemental EIR
- Addendum
- Multiple and Phased Projects
- General Plan
- Staged EIR
- Program EIR
- Joint EIR

#### **Project EIR**

The most common type of EIR examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.

#### **Subsequent EIR**

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, based on substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted, shows any of the following:
  - The project will have one or more significant effects not discussed in the previous EIR or ND;
  - Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If changes to a project or its circumstances occur, or new information becomes available after adoption of a ND, the lead agency shall prepare a subsequent EIR if required under [14 CCR Section 15162(a)]. Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration or an addendum, or no further documentation.

A subsequent EIR or subsequent ND shall be given the same notice and public review as required under CEQA Guidelines Section 15072 or Section 15087. A subsequent EIR or ND shall state where the previous documents are available and may be reviewed.

#### Supplement to an EIR

The lead or responsible agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

- Any of the conditions described in 14 CCR Section 15162 would require the preparation of a subsequent EIR, and
- Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised, shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087, and may be circulated by itself without re-circulating the previous draft or final EIR.

When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under 14 CCR Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

#### Addendum to an EIR or Negative Declaration

The lead or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in 14 CCR Section 15162 calling for preparation of a subsequent EIR have occurred. An addendum to an adopted ND may be prepared if only minor technical changes or additions are necessary or none of the conditions described in 14 CCR Section 15162 calling for the preparation of a subsequent EIR or ND have occurred. An addendum need not be

circulated for public review, but can be included in or attached to the final EIR or adopted ND. The decision making body shall consider the addendum with the final EIR or adopted ND prior to making a decision on the project. A brief explanation of the decision not to prepare a subsequent EIR pursuant to 14 CCR Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

### **Multiple and Phased Projects**

Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the lead agency shall prepare a single program EIR for the ultimate project as described in 14 CCR Section 15168. Where an individual project is a necessary precedent for action on a larger project, or commits the lead agency to a larger project, with significant environmental effect, an EIR must address itself to the scope of the larger project. Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.

### **EIR as Part of a General Plan**

The requirements for preparing an EIR on a local general plan, element, or amendment thereof will be satisfied by using the general plan, or element document, as the EIR and no separate EIR will be required, if:

- The general plan addresses all the points required to be in an EIR by Article 9 of the CEQA Guidelines, and
- The document contains a special section or a cover sheet identifying where the general plan document addresses each of the points required.

Where an EIR rather than a ND has been prepared for a general plan, element, or amendment thereto, the EIR shall be forwarded to the State Clearinghouse for review. The requirement shall apply regardless of whether the EIR is prepared as a separate document or as a part of the general plan or element document.

### **Staged EIR**

Where a large capital project will require a number of discretionary approvals from government agencies and one of the approvals will occur more than two years before construction will begin, a staged EIR may be prepared covering the entire project in a general form. The staged EIR shall evaluate the proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of the entire project. The aspect of the project before the public agency for approval shall be discussed with a greater degree of specificity.

When a staged EIR has been prepared, a supplement to the EIR shall be prepared when a

later approval is required for the project, and the information available at the time of the later approval would permit consideration of additional environmental impacts, mitigation measures, or reasonable alternatives to the project.

### **Program EIR**

A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either:

- Geographically,
- As logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual activities carried out under the same authorizing statutory or regulatory authority, and having generally similar environmental effects which can be mitigated in similar ways.

The use of a program EIR can provide the following advantages. The program EIR can:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
- Avoid duplicative reconsideration of basic policy considerations,
- Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
- Allow reduction in paperwork.

A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:

- Provide the basis in an initial study for determining whether the later activity may have any significant effects.
- Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program

as a whole.

- Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

### **Joint EIR-EIS**

A lead agency under CEQA may work with a federal agency to prepare a joint document that will meet the requirements of both CEQA and the NEPA. Use of such a joint document is described in Article 14, beginning with Section 15220.

Reference: CEQA Guidelines, Types of Environmental Impact Reports

### **EIR Home**

Last updated: September 6, 2013

Permit Toolbox, <http://www.calrecycle.ca.gov/SWFacilities/Permitting/>

Kevin Taylor: [Kevin.Taylor@calrecycle.ca.gov](mailto:Kevin.Taylor@calrecycle.ca.gov) (916) 341-6582

Larisa Proulx

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**From:** Geneva Omann [REDACTED]  
**Sent:** Friday, January 08, 2016 1:57 PM  
**To:** Kristen Maze  
**Subject:** Comments on the MND/IS for the WWTP  
**Attachments:** WATER Comments on the MND\_IS-final.docx; Harris email.docx; CG application to RWQCB\_9-25-15.pdf

Dear Ms. Maze,

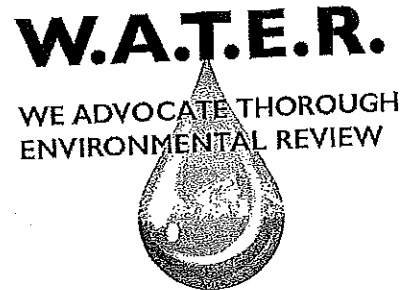
On behalf of We Advocate Thorough Environmental Review, I am submitting comments on the "Proposed Mitigated Negative Declaration and Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta CA, November 2015." There are three documents attached: The one titled "WATER Comments on the MND\_IS-final" contains our comments. The remaining two documents "Harris email," and CG application to RWQCB\_9-25-15," are submitted in support of our Comments, as referenced therein.

Please acknowledge receipt of these documents.

Wishing You the Best for the New Year,  
Geneva M. Omann, Ph. D.  
Secretary  
We Advocate Environmental Review



We Advocate Thorough Environmental Review  
P.O. Box 873  
Mt. Shasta, CA 96067  
mountshastawater@gmail.com



January 8, 2016

Kristen Maze  
City Planner  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd  
Mt. Shasta, CA 96067  
kmaze@mtshastaca.gov

Dear Ms. Maze:

We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501c3 non-profit corporation incorporated to promote quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within the Siskiyou County area.

We are responding to a request for public comment on the "Proposed Mitigated Negative Declaration and Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta CA, November 2015," a 99 page document prepared by ENPLAN, a subcontractor for the City's engineering firm, PACE Engineering (for the remainder of this document, we will refer to the ENPLAN document as MND/IS). The MND/IS refers to a second document entitled, "Draft Preliminary Engineering Report and Feasibility Study for the City of Mt. Shasta State Mandated Wastewater Treatment and Disposal Improvement Project," (referred to here as "PER") prepared by PACE Engineering which we have also referred to in our analysis of the WWTP project.

We herein refer to several other documents that are either City documents or newspaper articles that are easily available to the readers of this document. In addition, we include two documents referred to in this letter as email attachments since they may not be as easily accessed (see email attachments "Harris email," and "CG application to RWQCB\_9-25-15").

We thank you for the opportunity to provide input on this very important project for the Mt. Shasta Community. We request a written response to all comments/questions/concerns and please provide an estimate of when we will receive your response.

## I. General Comments

**A). Foreseeable consequences: California Environmental Quality Act (CEQA) requires that the MND/IS must take into account all *reasonably foreseeable consequences of improvements to the WWTP.*** There are glaring deficiencies in this document in this regard because Crystal Geysers beverage bottling plant (CG), the development of property between Interstate 5 and Old Stage Road north of Hatchery Lane, and the proposed development of The Landing are not evaluated as major consequences that might be enabled by the expanded WWTP.

**Crystal Geysers:** Clearly Crystal Geysers will be hooking up to the city sewer system and cannot do so without the WWTP improvements. There are multiple sources of evidence in the public record (paragraphs below) that confirm CG will be hooking up to the City Sewer. CG's delay in submitting to the City an application to connect does NOT constitute uncertainty that CG will connect.

Evidence showing that CG will hookup to the City sewer system is:

- (1). The City's original EDA grant application was for a waste water interceptor line that would allow Crystal Geysers to hook up to the City Sewer system. The grant application documents CG's need for the City sewer services, clearly lists CG as the primary beneficiary of the project, and clearly states that CG is committed to the project, with signatures from CG representatives. The fact that the dollars were not granted for the interceptor line does NOT negate CG's needs for the City sewer connection.
- (2). The revised application to the EDA clearly states that CG is still the primary beneficiary of the upgrades to the WWTP. The "Preliminary Engineering Report for the EDA-Funded Wastewater Treatment Plant Improvements" explicitly states in section 3 that "The project beneficiaries are unchanged from the original Form ED-900". Attachments to that document clearly identify Crystal Geysers as the primary beneficiary, and states that Crystal Geysers is committed to the project.
- (3) CG requested from the City an application form for permit to hook up to the sewer system, which the city then spent thousands of dollars creating (on June 23, 2015, a check # 36203, for \$14,198.50 was written to Pioneer Law Group, LLP for "Crystal Geysers Ind. User Permit" as reported in the City Council Agenda Packet dated 7-13-2015, page 15). Now CG withholds submission of the application. Again, CG's delay in submitting an application does NOT constitute uncertainty that CG will connect.

(4). CG has requested of Siskiyou County a building permit that will house equipment to neutralize the pH of wastewater that will go into the City sewer system. Jill Harris, a representative from CG, has circulated information via email, December 7, 2015 (see attachment: Harris email.docx), explicitly stating:

"... The Neutralization system is being installed to ensure that all discharge going to the City Wastewater Treatment Plant has been effectively neutralized to a customary and treatable level..."

"We will not proceed with wastewater discharges from the Neutralization system to the City sewer until we have obtained a City Wastewater Permit. We understand that this permit is discretionary and will require environmental review..."

"Only water as approved by the RWQCB will be discharged to the leachfield. All other discharge will be sent to the City Wastewater Treatment facility with the appropriate permit...."

(5). RWQCB documents (see attachment: CG application to RWQCB\_9-25-15.pdf): In CG's revised application to the RWQCB it is stated:

"Crystal Geysers has decided to send all wastewater from the flavored water production line and associated CIP activities to the City sanitary sewer system to be treated at the City's wastewater treatment plant. This wastewater will not go to the leach field. Therefore we did not include the MSDS for the flavoring chemicals and the food grade sanitizing chemicals used in the CIP process." (CG application to RWQCB\_9-25-15.pdf, pdf page 4)

"This wastewater will be directed to the floor drains where it will be centralized and directed through a pH neutralization system before discharging to the City sanitary sewer." (CG application to RWQCB\_9-25-15.pdf, pdf page 8)

Note that the first statement is not one just of intent but of commitment, since this commitment allowed CG's application to be approved without data that would otherwise have been required by the RWQCB (MSDS for flavoring chemicals and food grade sanitizing chemicals).

(6). The MND/IS itself documents that CG operations are a foreseeable consequence of the WWTP upgrades. On page 8, 4th paragraph: "With respect to Crystal Geysers, the scope of this Initial Study is limited to addressing the potential full-buildout volume of wastewater that could be generated by existing and foreseeable growth, i.e., 1.05 MGD." The fact that Crystal Geysers is mentioned but not excluded from "the scope of this Initial Study..." implies that a reasonably foreseeable consequence of this project is CG operations.

Additionally, the document acknowledges the inevitability that CG will hook up to the sewer system:

Page 7--"A secondary consideration is the possibility that Crystal Geysers may apply for additional capacity in order to expand its bottling operation."

Page 8--Nearly a full page of "Anticipated Crystal Geysers Treatment and Disposal Requirements" are discussed.

Page 10, last paragraph--"Further expansion of the treatment and disposal system to accommodate addition of 0.15 MGD from Crystal Geysers would be possible in the future..."

Page 17--"If an additional 0.15 MGD capacity were to be provided to accommodate Crystal Geysers, additional permits and approvals would be required."

Page 25--"Operational emissions are based on full buildout of the proposed project, including the potential Crystal Geysers contribution (0.15 MGD)".

Pages 40-41--Here the greenhouse gas emissions include a calculation for the extra 0.15MGD of wastewater that CG is expected to contribute.

Page 51--Here we see a paragraph that explain how Crystal Geysers is expected to hook up to the WWTP. "A new industrial user, Crystal Geysers, plans to expand its bottling operations at the former Coca-Cola facility just outside of the city limits of Mt. Shasta on Ski Village Drive. according to Crystal Geysers, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed. At full build-out, after at least five years of operation, Crystal Geysers has indicated it would contribute up to 0.15 MGD to the City's wastewater system. If Crystal Geysers is allowed to connect to the City's wastewater system, the treatment capacity of the WWTP would be modified to accommodate an ADWF of 1.05 MGD in order to serve both the full build-out of Crystal Geysers and the projected population growth. However, as stated in Section I.B.2, under "Project Need and Objectives," improvements to increase the capacity to accommodate Crystal Geysers would be made following separate CEQA approval for connection of Crystal Geysers to the City's wastewater system and receipt of financial assurance from Crystal Geysers that they would cover the cost of the expansion." This implies that at least one CG production line - at 0.05 MGD - would be accommodated by the existing lagoon system. Does that mean that the City plans no CEQA approval requirements to allow CG to hook up "before improvements to increase the capacity"?

Page 59--"The effects of increased wastewater generation by a potentially foreseeable project, Crystal Geysers, are also addressed."

(7). In a letter written by CG's Judy Yee and Jill Harris to the editor of the Siskiyou Daily (December 22, 2015) it is stated, "Mt. Shasta City officials have been fully briefed about our plans to submit an application for an industrial wastewater connection to the City sewer."

In the Mt. Shasta City Council meeting on December 14, 2015, when asked about including Crystal Geysers in an EIR, ENPLAN scientist Don Burk said

"We don't have a project definition at this point. We don't know what's going to be in the wastewater. Right now, there's a lot of rumor about what may happen, but without an application in front of you, there is no project," (as reported in the Mt Shasta Herald article by Dec 16, 2015 by Lauren Steinheimer).

We challenge Mr. Burk's statement. Clearly the above documented evidence is far more than "rumor." Mr. Burk may not have what he needs to include CG in the plan details of the MND/IS. However he does NOT have the authority to declare that "there is no project." It is the City's responsibility to mandate that CG be included (not ENPLAN's). Mr. Burk's opinion does NOT mean the City is without recourse for mandating that full CG operations be included in this MND/IS.

**Other Anticipated Development:** The MND/IS must include the undeveloped property North of Hatchery Lane and West of the highway. Signage on that property clearly states the intent to hook up to the City sewer system ("Water and Sewer! City Limits - Highway Commercial"). Development of this property is clearly a reasonably foreseeable consequence of improvements to the WWTP, yet there is no mention of it in the MND/IS. There appears to be significant wetland areas on this property that would need to be environmentally reviewed to meet CEQA requirements.

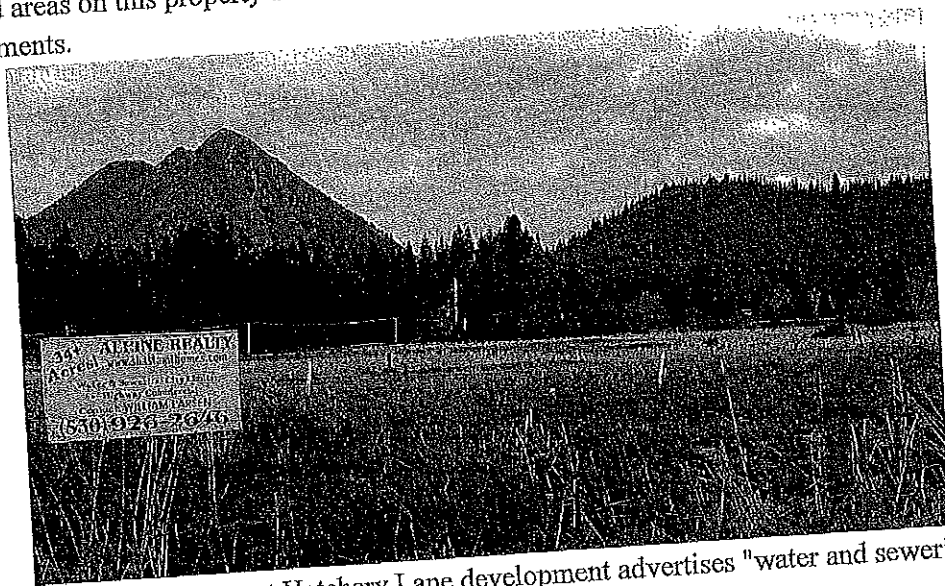


Photo 1. Poster at Hatchery Lane development advertises "water and sewer".

The City also appears to be actively pursuing development of The Landing on the south side of town. The implications for development here also need to be addressed in the MND/IS.



Photo 2. Poster at The landing development advertises "electrical, water, sewer".

## B). Capacity Enhancement or Not??

At the December 14, 2015 City Council meeting, PACE Engineering gave a presentation on the WWTP in which they talked about the EDA-Funded part of the project, stating that they would obtain a "CEQA Class 2 categorical exclusion." That exclusion appears to be inappropriate.

This is what CEQA says about that exclusion:

### "15302. Replacement or Reconstruction

Class 2 consists of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including but not limited to:

- (a) Replacement or reconstruction of existing schools and hospitals to provide earthquake resistant structures which do not increase capacity more than 50 percent.
- (b) Replacement of a commercial structure with a new structure of substantially the same size, purpose, and capacity.
- (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.
- (d) Conversion of overhead electric utility distribution system facilities to underground including connection to existing overhead electric utility distribution lines where the surface is restored to the condition existing prior to the undergrounding.

Note: Authority cited: Section 21083, Public Resources Code; Reference: Section 21084, Public Resources Code. "

(<http://resources.ca.gov/ceqa/guidelines/art19.html>)

Note that this exclusion is only valid when there is "negligible or no expansion of capacity" (the yellow highlights above are ours).

However, the MND/IS for the WWTP clearly states that one of the two purposes for the WWTP improvements is to increase capacity.

"Improvements to the WWTP and Sacramento River outfall are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) increase the treatment capacity of the facility." (Page 6).

How can it be claimed in one breath that there is no expansion and in another that half the reasons for the improvements is expansion? Moreover, on page 7, specifically in reference to the filtration system, the MND/IS says, "these facilities were designed for smaller, summertime flows, and thus, there is inadequate capacity to treat the higher flows that occur during the winter." In other words, the document specifically states that the **capacity of the filtration system must be increased**. Given the definition of a Class 2 CEQA Category exemption and the indisputably documented intent to expand capacity of the WWTP, it appears that there is no basis for such an exemption and to request one would be in violation of CEQA.

In addition, clearly the filtration system and UV treatment components of the WWTP improvements are part of the whole WWTP project and they will be adequate to accommodate the increased capacity described in the MND/IS. Separating out the filtration and UV components, declaring they are not for expansion of capacity in order to obtain CEQA exemption (when in fact they will allow expansion), clearly represents "piecemealing" that is in violation of CEQA.

### C). Estimate of Increased Capacity Needs

"The principal factor driving the need for expansion is anticipated population growth within the WWTP service area. A secondary consideration is the possibility that Crystal Geysers may apply for additional capacity in order to expand its bottling operation." (page 7).

The estimates for increased capacity needs due to population growth are poorly researched and argued. The analysis assumes a need to accommodate growth for a 20 year period, which is fine, but it assumes a 1% growth rate based on estimates from the City's General Plan of 2006 (page 7, footnote 2; "Growth rates are based on data provided in Table 1-1 of the 2006 City of Mt. Shasta

General Plan"). This data is 10 years old! More recent population trends show a decrease in population: US Census data show that from 2000 to 2014 the population of Mt. Shasta City has dropped by 8% (<http://www.california-demographics.com/mount-shasta-demographics>). The population of Siskiyou County also has been decreasing: between 2010 and 2014 the population dropped by 2.8% ([www.census.gov/quickfacts/table/PST045215/06093,00](http://www.census.gov/quickfacts/table/PST045215/06093,00)). A real assessment of the need for increased capacity needs to be performed based on these negative population growth figures.

The estimates of WWTP capacity also need to take into account the implications of failing infrastructure in the waste water collection system. On page 1, in paragraph 1 it is stated, "The WWTP serves approximately 1,777 connections, consisting mainly of single-family residential and commercial uses." Yet on in paragraph 2 it states: "The WWTP currently manages an ADWF of 0.7 MGD. This wastewater flow is equal to approximately 2,700 equivalent dwelling units (EDUs)." Why does the amount going into the WWTP appear to be so much higher than what comes out of the connections? We understand that EDU is an estimate, but there should not be that much of a discrepancy (approximately 30%). The document gives no further consideration to this discrepancy. However, it brings up several questions that need to be addressed to determine what the actual capacity needs are for the WWTP. Are there leaks in the collection system that allow infiltration of ground water (Mt. Shasta City is located in a relatively marshy area such that there could be seepage even in dry weather)? Does this explain why the wet weather capacity is so much higher (3.56 MGD)? Is there a problem that needs to be fixed first, before the WWTP upgrade is designed? What effect is the drought having on all of the above?

The Document referred to in the MND/IS, "Draft Preliminary Engineering Report and Feasibility Study For City Of Mt. Shasta State Mandated Wastewater Treatment And Disposal Improvement Project" contains data of the annual total WWTP discharge and precipitation (figure 5, page 28)

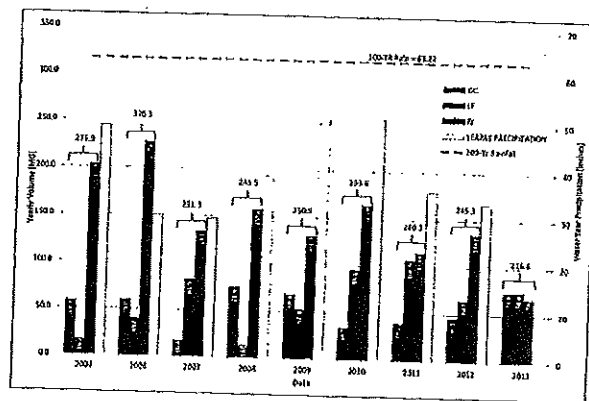
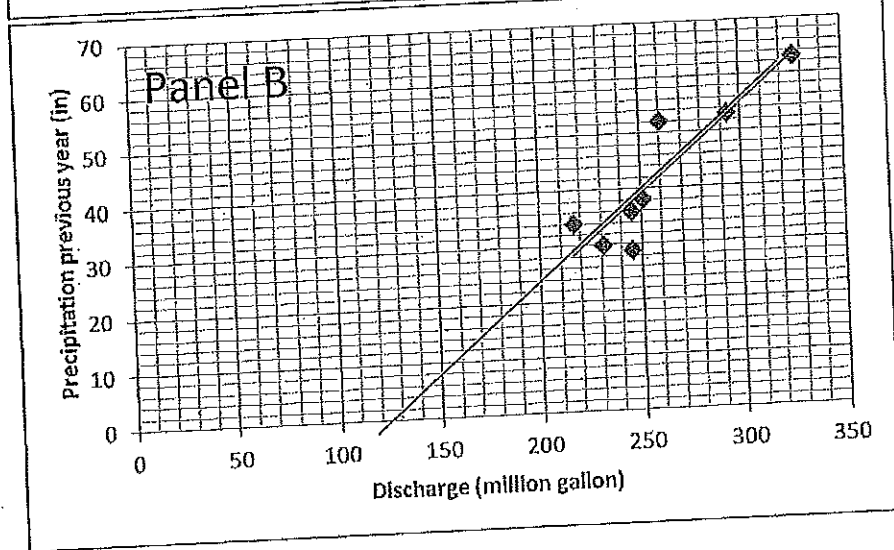
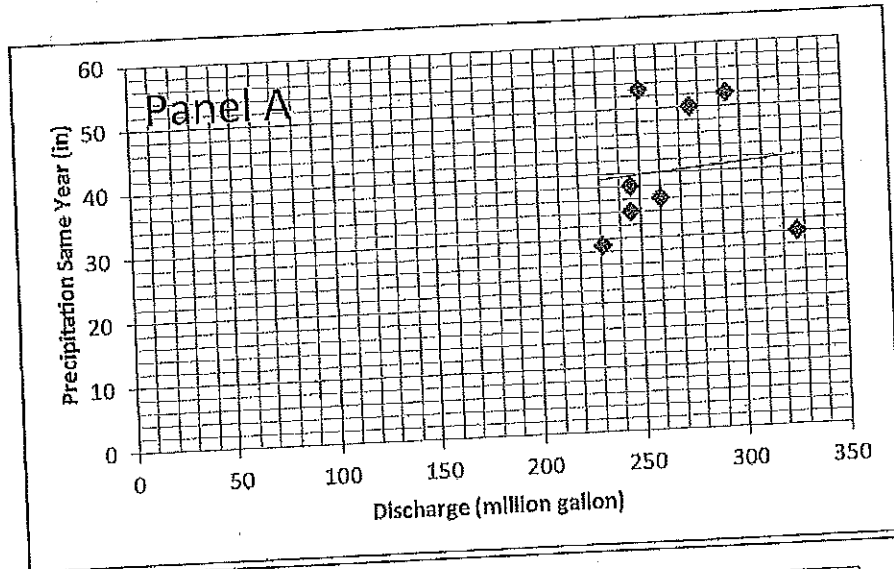


Figure 5 - Historic Effluent Disposal Volumes



This data can be plotted as a line graph of precipitation vs discharge as seen below: Panel A is with discharge and precipitation for the same year. Panel B shows the discharge data plotted with precipitation from the previous year.



Panel A shows no apparent relationship between WWTP discharge and current year precipitation. In contrast, Panel B shows a strong linear relationship between WWTP discharge and precipitation from the PREVIOUS year. There are two significant implications from this data: 1). When the line of the best linear fit to the data is extended it intercepts the x-axis at about 125 million gallons, implying that if there were no precipitation, the WWTP would only

need to processes approximately 125,000,000 gallons per year, 1/2 to 1/3 of the historical need over the past 10 years. 2). The fact that there is a strong relationship between annual discharge and precipitation from the PREVIOUS year, and no relationship between discharge and precipitation from the same year, suggests that the contribution of precipitation to the discharge volume is not due to immediate run-off, but rather water that is in the ground. Although we acknowledge that correlation does not mean causation, this analysis points again to the likelihood that problems with the collection system are significant and have implications for the accurate analysis of needed WWTP capacity, and more research needs to be undertaken to fully and accurately understand the capacity needs of the WWTP.

In addition, this past summer the City initiated a campaign for citizens to reduce water consumption. In October, the City boasted that there had been a 45% reduction in City water use! (October 21, 2015 Water Talks presentation by Geoff Harkness, as reported in the Mt. Shasta Herald October 28, 2015, by Lauren Steinheimer). Whereas we acknowledge that part of this reduced use is because of fixed leaks in the water infrastructure, it is also likely that household water conservation methods would reduce the amount of effluent going into the WWTP. What impact does this have on the amount of waste that is going to the WWTP? These are all questions that must be addressed in this MND/IS.

Additional capacity needs that have not been addressed in this MND/IS are the needs for any hook up permits granted that have not yet hooked up and the needs for development along Hatchery Lane and at The Landing.

Also stated on page 8 of the MND/IS: if the City were to allow CG to hook up to the WWTP, "the City would require that Crystal Geyser pay for its full share of the costs of expanding the facility to handle an additional 0.15 MGD of wastewater." This is not an acceptable arrangement. What if, because of all the issues previously raised about the estimation of capacity needs, there is no need for additional capacity to handle CG's wastewater? Paul Reuter in his presentation at the City Council meeting on Dec 14<sup>th</sup> implied that this could be the case. That would be a great situation for CG, since they will avoid paying for their share of the WWTP upgrades. Would the upgrades then be paid for by the taxpayers (EDA) and ratepayers?

Alternatively, let's assume a 1% growth rate over the next 20 years is reasonable. Given the current capacity of 0.7 MGD and the Crystal Geyser flow estimated in the range of 0.05 MGD (one production line) to 0.15 MGD (three production lines), that means that Crystal Geyser will use from 7% to 21% of the WWTP capacity when they hook up. This is a significant portion. If the "1% population growth/year"-related expansion is used by Crystal Geyser, that will use (roughly) 7 to 21 years of growth-related capacity that would otherwise be available to other users. In other words, further expansion to accommodate "population growth" would need to occur that much sooner. If such further expansion is not done (say because funds could not be

raised), then population growth would need to be blocked. If such further expansion is done by raising rates, then the general public would essentially be paying for an expansion necessitated by CG's hogging the available capacity. If, on the other hand, CG is NOT allowed to shoehorn its effluent into the 1% growth capacity, then they must be forbidden from any hook-up until a further WWTP expansion specifically dedicated to them, which should by itself trigger a CEQA process on all aspects of their facility. In either case, the population-growth capacity should not be used as an excuse to allow CG to use increased capacity without paying for it and without undergoing full environmental review.

**D). Piecemeal Review:**

CEQA clearly states that projects cannot be broken down into small steps in order to avoid CEQA review, yet that appears to be happening with this project. The MND/IS describes in numerous places how CG will be hooking up to the WWTP. The attempt to separate out the WWTP project from the CG project is an example of piecemeal review that is in violation of CEQA.

On page 8, 4th paragraph, it states, "With respect to Crystal Geysler, the scope of this Initial Study is limited to addressing the potential full-buildout volume of wastewater that could be generated by existing and foreseeable growth, i.e., 1.05 MGD." Here again, we see "piecemeal" review as defined by CEQA. Stating that only one aspect of CG operations (volume of wastewater) will be considered, when clearly CEQA requires all aspects of CG operation at full buildout, is piecemealing.

Page 11: Regarding the collection system: "Potential future improvements related to the capacity or structural components of the collection system would be evaluated as separate projects, and thus, require separate CEQA review and approval." Here again we see "piecemeal". The original EDA grant for upgrade and rerouting of the interceptor line (part of the collection system) was to facilitate CG hooking up to the WWTP. Trying to cut CG out of the WWTP project, with all of its many environmental impacts including the collection system, is piecemealing.

The City's responsibility for initiating CEQA-mandated environmental review that would include the CG plant is nicely swept under the rug with the statement on page 8, "Preparation of a separate environmental document pursuant to CEQA is needed to address the proposed Crystal Geysler operation." More piecemeal is implied. The document goes on to say, "In September 2015, Crystal Geysler announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations." (page 8, 3rd paragraph). CG, their PR firm, City officials, ENPLAN staff, and PACE engineers know this statement means nothing. An environmental review needs a public agency to be "lead agency." In contrast to their September 15 statement, Crystal Geysler

appears to be delaying the submission of an application to hook up to the WWTP to make it difficult for the City to assume lead agency status and initiate an EIR. Crystal Geysers' announcement that they would do an EIR appears to be a publicity stunt designed to mislead the public.

## II. The WWTP Upgrades:

Page 6: "Improvements to the WWTP and Sacramento River outfall are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) increase the treatment capacity of the facility."

### A). Current System (pages 1-5):

In the current plant, wastewater is processed through a series of lagoons for biological treatment: "As waste water progresses through the series of lagoons, organic and suspended solids are removed through a combination of aerobic and anaerobic processes, as well as aeration." (page 1). Since removal of sludge from the lagoons is required very infrequently, it appears that most of the organic matter is released as CO<sub>2</sub>, possibly with some conversion of nitrogen containing compounds to N<sub>2</sub> gas. During the spring, summer, and fall, effluent from the lagoons is treated and filtered to remove remaining suspended solids and disinfected with chlorine gas before being pumped to the golf course or leach field.

In the late fall, winter, and early spring, because it is outside, the filter system does not work, so the filtering step is skipped, the lagoon effluent disinfected with chlorine gas, and discharged to the Sacramento River.

This system is deficient because:

- (1). the lagoon system does not adequately remove nitrogen (no data is given);
- (2). the treatment process does not adequately remove copper and zinc (no data is given) ;
- (3). the current system cannot consistently meet effluent limits for biochemical oxygen demand, total suspended solids, and pH levels (no data is given) ;
- (4). Chlorine gas disinfection is problematic because it alters effluent pH and creates chlorinated byproducts that exceed acceptable limits (no data is given) ;
- (5). A new biosolids use or disposal plan must be developed.

There are failing infrastructure problems:

- (1). a year-round filtration system is needed with increased capacity;
- (2). a new operations building is needed;
- (3). the outfall system has leaks;

(4). if the lagoons were to remain in service, repairs would be needed to meet permit requirements.

Whereas the MND/IS provides little data substantiating these needs, we note that the PER prepared by PACE Engineering does include some additional information. It is of note what has been left out of the MND/IS. Specifically, the PER states on page 17 that new NPDES permit presents new effluent limits for among other things, bis 2 phthalate. However, the remainder of the PER and all of the MND/IS say nothing about bis 2 phthalate. There is no data to reflect monitoring of bis 2 phthalate, no WWTP components designed to specifically remove bis 2 phthalate. This leaves one to believe that the new plant will not be able to address phthalate contaminants and leaves one wondering why it has been left out. Removal of bis 2 phthalate must be addressed in this project. Bis 2 phthalate is used in plastics and is known to leach from PVC plastics which are commonly used in industrial manufacturing equipment and plumbing as well as household plumbing. The possible presence of bis 2 phthalate in wastewater from both residential and industrial sources must be considered.

#### **B). New WWTP system:**

The new system (MND/IS, page 11-14) will eliminate the lagoons, and replace them with a Sequential Oxidation Activated Sludge (SEQUOX) system. This system appears to consist of concrete-lined basins that facilitate alternating aeration and anoxic treatment for removal of ammonia and nitrates, consumption of biochemical oxygen demand, and settling and removal of sludge. There will be two outputs from the SEQUOX system; 1) denitrified effluent will go to the new filtration system followed by UV treatment. 2). Sludge will be pumped to the dewatering facility for water removal, then shipped away.

Regarding the data of ammonia, dissolved oxygen, pH, alkalinity, and nitrate (Figures 1-5, Appendix A of the PER), the format in which the data is presented makes it incomprehensible. Line graphs are ill-suited for displaying this type of data: some graphs have so much data, it is impossible to identify individual data points (for example, Figures 2- 4 have data from 20-22 different dates); smoothed fits are misleading when some data points are missing (for example in Figure 4 about half of the dates are missing data for sample site 2); there is so much variability in the data it appears that data for any given site should be averaged; if there is seasonal variation in the data, it is not obvious from the way the data is plotted, and data is missing from January through mid-July. We do not see how any meaningful conclusions can be drawn from this presentation of the data and request that further data analysis be completed.

There does not appear to be any component of this proposed WWTP that is designed to remove metals like copper and zinc. We can find no statement in the MND/IS document that indicates where in the new system these metals will be removed. UV treatment most certainly will not

destroy them. The filtration system is not definitively described, but is stated to be designed "for further removal of total suspended solids". The WWTP design appears to be lacking a function it is supposed to be designed to carry out. Ionic metals could remain dissolved in the effluent. Data about what form of the metals detected in the effluent would be helpful here. Do the tests for metals detect them in their soluble ionic form? Is there evidence that the metals are particulate? Are there certain seasons when metals are more abundant in the effluent? Moreover, there is no discussion of how the removed metals (which are toxic) will be handled and disposed of in an environmentally safe manner.

The Document referred to in the MND/IS, "Draft Preliminary Engineering Report and Feasibility Study for City of Mt. Shasta State Mandated Wastewater Treatment and Disposal Improvement Project" contains data for copper, zinc, and total suspended solids (TSS) (figure 2 and 3, page 20) for 2012 (note figure 2 is mislabeled).

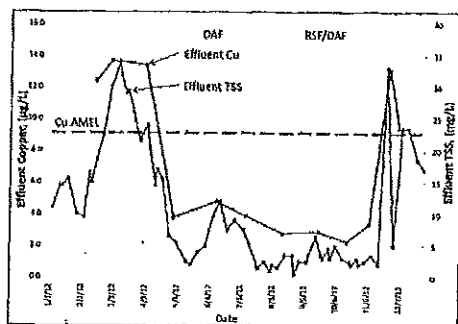


Figure 2 -- Effluent Copper & Zinc Comparison

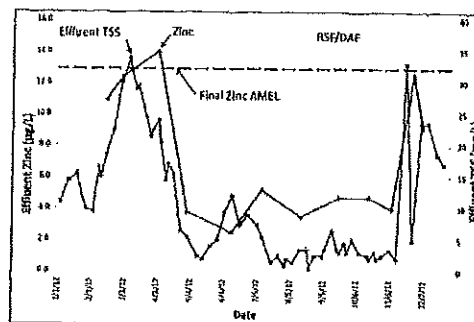


Figure 3 -- Effluent Zinc & TSS Comparison

In this document we are told there is "a strong correlation between TSS and copper and zinc, suggesting removal of TSS through efficient biological treatment and effluent filtration will be required in order to comply with [copper and zinc requirements of] the new permit." This statement does not logically follow from the data presented nor is it substantiated by the data. Yes, there is an apparent correlation between TSS and copper and TSS and zinc in the data that is given, but correlation does NOT mean causation. The data in figures 2 and 3 are incomplete. We have been told that TSS increases in the winter because the filtering system cannot operate in the winter months, yet the TSS data in figures 2 and 3 show peaks in TSS in November and March, but a substantial valley in December through February when the filters are not functioning. Also of importance is that there are no data for copper and zinc from mid-December through mid-February when the TSS is relatively low. Why not? Surely that data must have been collected. And certainly there must be data sets for additional years. Why not include them? We request more thorough and definitive chemical analyses be done of the effluents that contain high levels of copper and zinc to determine if the copper and zinc are indeed bound up in the TSS and will indeed be removed by the filtration system.

It is not clear where in the system the effluent pH will be monitored and adjusted to comply with NPDES standards.

UV treatment appears to be a suitable means for disinfection of the effluent. The description of the UV treatment is very brief. Will LED lights be utilized? There are now LED lights that emit in the ultraviolet range. If not planned, the use of LED lights for the UV treatment needs to be explored since they would be significantly less expensive to operate and maintain than the more typical ARC-lamp.

The amount of sludge produced in this proposed system is significantly larger than sludge from the current plant (from rarely needing to be removed to being shipped out every three days!), yet no explanation for the difference is given. We can surmise that in the current plant in the lagoons there is significantly greater degradation of organic material to CO<sub>2</sub> than occurs in the SEQUOX system (perhaps because of a greater residence time in the lagoons?). The carbon-rich sludge from the SEQUOX system could be vermicomposted into a useful product! It is possible that replacement of the dewatering facility with a composting facility would be less expensive and it would create a product that could offset the cost of the total operation. Such an option needs to be explored.

Cleaning up the output of the WWTP could also be greatly facilitated by a campaign to educate the public about what is appropriate and inappropriate to dump down our drains. This, coupled with an enhanced hazardous waste disposal service, could go a long way in keeping our water ways clean.

### **C). Environmental Checklist and Beyond**

In the checklist on page 20, four of eighteen categories for potential environmental effects are checked (Biological Resources, Cultural Resources, Utilities and Service Systems, and Mandatory Findings of Significance). Inclusion of Crystal Geyser operations and the developments along Hatchery Lane and at The Landing would add many more of the categories: Aesthetics, Air Quality, Geology and Soils, Green House Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Transportation/Circulation...). We find this checklist to be incomplete, leaving the remainder of the MND/IS woefully inadequate.

Specifically:

Page 25: The air quality assessment indicates that "Operational emissions are based on full buildout of the proposed project, including the potential Crystal Geyser contribution (1.05MGD)." This seems misleading, certainly the calculation of emissions does not include the

emissions from the operation of the plant (since so little is known about what that will be), only the emissions from processing an additional 0.15 MGD. Yet at the same time it acknowledges that Crystal Geyser will inevitably hook up to the system.

Page 26: It is stated "Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments. According to the engineer, with the proposed improvements, the project would result in minimal hydrogen sulfide production; therefore, the potential for hydrogen sulfide emissions is less than significant." The new system will include anaerobic decomposition cycles, so it is not clear why the new system will produce minimal hydrogen sulfide. It is important to have substantiation of this claim.

Page 26: Vinyl chloride is a potential contaminant that could be produced by the plant because "vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agents, adhesive solvents, paint removers, etc). ...."With respect to the breakdown of chlorinated solvents, the proposed project would not result in an increase in such solvents being discharged to the facility..." However, industrial use of such solvents by an operation like Crystal Geyser and/or commercial use of such solvents by a new development along Hatchery Lane could result in significant increases in their presence in the waste water. We won't know unless these projects are covered in this Initial Study.

Page 27: In analyzing the air quality impact of the sludge treatment facility, it is stated that "sludge would be dried and processed using an enclosed centrifuge or sludge blower dewatering facility." The document goes on to say, "Potentially objectionable odors resulting from the facility operation and sludge hauling would be less than significant." We can see how an enclosed centrifugation system that returns the supernatant water to the treatment facility for reprocessing would likely result in minimal odor. However, a "sludge blower" implies that a blower would be used, involving evaporation and the potential release of odors outside the enclosed area. There needs to be a definitive description of the dewatering process and a real assessment of possible odors generated by the facility.

Page 28: The Biological Resources section (page 28-34) appears to be deficient in the analysis of things that live in the river other than anadromous fish. Mollusks have been notably left out. It appears the wildlife analysis has relied solely on one document, "IPaC Trust Resource Report" from USFWS. However, the IPaC website very specifically states a disclaimer (in bold, red, capital letters): "IPaC will never replace our trained biological experts. It cannot perform complex biological analyses" ([http://www.fws.gov/ipac/ipac\\_basics.html](http://www.fws.gov/ipac/ipac_basics.html)). In other words, someone sitting in front of a computer searching a data base is NOT a substituted for an expert out in the field doing an onsite assessment.



Local USFS wildlife biologists have found numerous mollusk species in the river in the Box Canyon area including *Anodonta californiensis*, *Gonidea angulata*, *Margaritifera falcata*, *Pisidium ultramontanum*; and *Fluminicola seminalis*.

A thorough survey was done in 1999 by the USFWS, "Mollusk Species of the Upper Sacramento," identifying numerous mollusk species in the upper Sacramento River, some of which are **threatened, endangered or sensitive**. There needs to be **expert, onsite** analysis of what is in the river in the area where the diffuser replacement work will be done and appropriate mitigations developed for their protection.

Pages 33-34: Mitigations for Biological Resources are given. Mitigation 4.3 states, "To ensure that active nests of migratory birds are not disturbed, vegetation removal and construction activities shall occur between August 31 and February 1, if feasible." The term, "if feasible" has the effect of negating the mitigation in front of it. The phrase, "if feasible" must be deleted to make this a real mitigation.

Page 35: Cultural Resources: Contrary to what is implied, the Winnemem Wintu Tribe was NOT consulted by ENPLAN.

Page 40-41: Greenhouse gas emissions: Discussion here is misleading with regard to Crystal Geysers contribution to greenhouse gas emissions. Whereas it makes it sound like the total greenhouse gas emissions from CG operations is included, only the greenhouse gases released from treating an additional 0.15MGD is included. So here we again see misrepresentation of GC impacts, and a clear indication that hookup of CG is clearly a foreseeable event.

Why will the greenhouse gas emissions be so much greater for the new plant compared with the current plant (from table 5, existing condition = 1,588 metric tons/year; proposed project = 3,130 metric ton/year)?

Page 43: In the first paragraph there is a discussion about the proximity of schools which states that Mt. Shasta Elementary School is the nearest school. This is not true. Golden Eagle Charter School, the Seventh Day Adventist School, and Siskiyou Christian School are all significantly closer (there may be others)

Page 51: Here again is discussion about Crystal Geysers and population growth, with claims that CG's needs will be accommodated after a separate CEQA process (referring back to Section I.B.2). Again, this is misleading, making it sound like Crystal Geysers will pay for the capacity they need, but there is no guarantee that they will do so.

Page 59, paragraph b: "The effects of increased wastewater generation by a potentially foreseeable project, Crystal Geysler, are also addressed." Here again is a misleading statement, making it sound like the environmental impacts of CG operations have been considered, where what has been considered is just the impact of increasing the capacity of the plant to process an additional 0.15 MGD. Also imbedded in this statement is the fact that CG is a foreseeable consequence of improvements to the WWTP.

A few last questions: Figures 3 and 4 of the MND/IS show an "emergency retention basin." What emergencies are anticipated?

Figure 4 shows items labeled "Lime addition" and "Sodium Hypochlorite." What are these items and how are they involved in processing effluent?

### **III. Summary**

In conclusion, we find unresolved issues in the MND/IS that we believe must be addressed to ensure the new WWTP will meet the real needs of our community. These include the need to consider additional foreseeable consequences of the upgrade (Crystal Geysler hookup, development of the Landing and developments along Hatchery Lane), inconsistencies between the EDA-funded portion of the project and the full project with respect to increased capacity needs, lack of a thorough analysis of capacity needs, concerns about the appearance of piecemealing to avoid CEQA review, and numerous questions/concerns/issues regarding the data used to justify the new WWTP design and the environmental assessment.

We offer these comments with a genuine interest in the development of a WWTP that is functionally, environmentally, and economically appropriate for our Community.

We would like to have responses to our questions/comments/concerns in writing. Please let us know what the timeline will be for obtaining your response.

Respectfully Submitted by

Geneva M. Omann, Ph.D. (Biochemistry)

Secretary

for We Advocate Thorough Environmental Review

**From:** Jill Harris [<mailto:jillh@crystalgeyser.com>]  
**Sent:** Monday, December 07, 2015 1:26 PM  
**To:** Jill Harris <[jillh@crystalgeyser.com](mailto:jillh@crystalgeyser.com)>  
**Subject:** Construction update

Hello,

Some of you may have noticed, or have been made aware of a new building being constructed just to the south of the Crystal Geyser facility. Undoubtedly, this has raised some questions. We wanted to provide you with the facts regarding this structure should you be curious or if you've been asked to provide information regarding this construction. We are in the process of updating our website and plan to make this and more information available there soon. In the meantime, you may share this information as needed. If you have any additional questions, please don't hesitate to call me. Thank you.

**Q:** What is the new building next to the Crystal Geyser Plant?

**A:** Crystal Geyser is constructing a 20x40x21 building that will house a Wastewater pH Neutralization system. This is being installed for the purpose of neutralizing the pH of the industrial wastewater discharges to the sewer system in order to avoid discharging acidic or basic (caustic) solutions from our cleaning. This system needs to have a building around it to protect from weather.

**Q:** Is this an expansion of the bottling facility?

**A:** This building will house the pH Neutralization system and is not an expansion of the facility. The Neutralization system is being installed to ensure that all discharge going to the City Wastewater Treatment Plant has been effectively neutralized to a customary and treatable level. Crystal Geyser has obtained a permit to construct the building.

**Q:** Will this discharge go to the leachfield if you do not have a City Wastewater permit?

**A:** Crystal Geyser will not discharge anything but water as approved by the California Regional Water Quality Control Board (RWQCB) to the leachfield. We will not proceed with wastewater discharges from the Neutralization system to the City sewer until we have obtained a City Wastewater Permit. We understand that this permit is discretionary and will require environmental review. We are prepared to address this and all other environmental impacts in the course of the previously announced EIR.

**Q:** Will any of this discharge "leak" into the existing groundwater and affect neighborhood wells.

**A:** Only water as approved by the RWQCB will be discharged to the leachfield. All other discharge will be sent to the City Wastewater Treatment facility with the appropriate permit.

**Q:** Is this building and pH Neutralization System covered by the existing mitigated negative declaration with the Regional Water Quality Control Board?

**A:** Yes. The MND addresses the leachfield and we have verified that we are in compliance with the approved use of the leachfield from the RWQCB. The building and the pH Neutralization system are for the purpose of meeting the requirements of the City Wastewater Treatment Facility.

**Q:** Is the pH Neutralization system currently hooked up to the City Wastewater System?

**A:** It has not been connected to the City wastewater system and there will be no connection until we obtain an Industrial Wastewater Permit from the City.

**Q:** Are you in violation of the County Groundwater Management Ordinance?

**A:** Siskiyou County has stated that we are in full compliance with the ordinance.

Jill Harris  
Communications Manager  
Crystal Geysers Water Company  
210 Ski Village Drive  
Mt. Shasta, CA 96067  
530-340-1000  
[jillh@crystalgeysers.com](mailto:jillh@crystalgeysers.com)

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



State of California  
Regional Water Quality Control Board  
**APPLICATION/REPORT OF WASTE DISCHARGE**  
**GENERAL INFORMATION FORM FOR**  
**WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT**



I. FACILITY INFORMATION

**A. Facility:**

Name: Crystal Geysler Water Company			
Address: 210 Ski Village Drive		County: Siskiyou	State: CA
City: Mount Shasta		Zip Code: 96067	
Contact Person: Richard Weklych		Telephone Number: 707-942-0500	

**B. Facility Owner:**

Name: Crystal Geysler Water Company				Owner Type (Check One)	
Address: 501 Washington Street		State: CA	Zip Code: 94515	1. <input type="checkbox"/> Individual	2. <input checked="" type="checkbox"/> Corporation
City: Calistoga		Telephone Number: 707-942-0500		3. <input type="checkbox"/> Governmental Agency	4. <input type="checkbox"/> Partnership Agency
Contact Person: Richard Weklych		Federal Tax ID:		5. <input type="checkbox"/> Other:	

**C. Facility Operator (The agency or business, not the person):**

Name: Crystal Geysler Water Company				Operator Type (Check One)	
Address: 210 Ski Village Drive		State: CA	Zip Code: 96067	1. <input type="checkbox"/> Individual	2. <input checked="" type="checkbox"/> Corporation
City: Mount Shasta		Telephone Number: 530-859-7195		3. <input type="checkbox"/> Governmental Agency	4. <input type="checkbox"/> Partnership Agency
Contact Person: Zach Snure		Federal Tax ID:		5. <input type="checkbox"/> Other:	

**D. Owner of the Land:**

Name: Crystal Geysler Water Company				Owner Type (Check One)	
Address: 501 Washington Street		State: CA	Zip Code: 94515	1. <input type="checkbox"/> Individual	2. <input checked="" type="checkbox"/> Corporation
City: Calistoga		Telephone Number: 707-942-0500		3. <input type="checkbox"/> Governmental Agency	4. <input type="checkbox"/> Partnership Agency
Contact Person: Richard Weklych		Federal Tax ID:		5. <input type="checkbox"/> Other:	

**E. Address Where Legal Notice May Be Served:**

Address: 501 Washington Street		State: CA	Zip Code: 94515
City: Calistoga		Telephone Number: 707-942-0500	
Contact Person: Kevin Moloughney			

**F. Billing Address:**

Address: PO Box 304		State: CA	Zip Code: 94515-0304
City: Calistoga		Telephone Number: 707-942-0500	
Contact Person: Debi Best			



State of California  
Regional Water Quality Control Board  
APPLICATION/REPORT OF WASTE DISCHARGE  
GENERAL INFORMATION FORM FOR  
WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT



II. TYPE OF DISCHARGE

Check Type of Discharge(s) Described in this Application (A or B):

- A. WASTE DISCHARGE TO LAND
- B. WASTE DISCHARGE TO SURFACE WATER

Check all that apply:

<input type="checkbox"/> Domestic/Municipal Wastewater Treatment and Disposal	<input type="checkbox"/> Animal Waste Solids	<input type="checkbox"/> Animal or Aquacultural Wastewater
<input type="checkbox"/> Cooling Water	<input type="checkbox"/> Land Treatment Unit	<input type="checkbox"/> Biosolids/Residual
<input type="checkbox"/> Mining	<input type="checkbox"/> Dredge Material Disposal	<input type="checkbox"/> Hazardous Waste (see instructions)
<input type="checkbox"/> Waste Pile	<input type="checkbox"/> Surface Impoundment	<input type="checkbox"/> Landfill (see instructions)
<input type="checkbox"/> Wastewater Reclamation	<input type="checkbox"/> Industrial Process Wastewater	<input type="checkbox"/> Storm Water
<input checked="" type="checkbox"/> Other, please describe: <u>Land Application of Bottling Processing Rinse Water</u>		

III. LOCATION OF THE FACILITY

Describe the physical location of the facility.

1. Assessor's Parcel Number(s) Facility: 037-140-010 Discharge Point: 037-140-010	2. Latitude Facility: +41° 19' 33.11" Discharge Point: +41° 19' 29.12"	3. Longitude Facility: -122° 19' 2.39" Discharge Point: -122° 19' 6.77"
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IV. REASON FOR FILING

New Discharge or Facility

Change in Design or Operation

Change in Quantity/Type of Discharge

Changes in Ownership/Operator (see instructions)

Waste Discharge Requirements Update or NPDES Permit Reissuance

Other: \_\_\_\_\_

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Name of Lead Agency: Central Valley Regional Water Quality Control Board

Has a public agency determined that the proposed project is exempt from CEQA?  Yes  No

If Yes, state the basis for the exemption and the name of the agency supplying the exemption on the line below.  
Basis for Exemption/Agency: \_\_\_\_\_

Has a "Notice of Determination" been filed under CEQA?  Yes  No

If Yes, enclose a copy of the CEQA document, Environmental Impact Report, or Negative Declaration. If no, identify the expected type of CEQA document and expected date of completion.

Expected CEQA Documents:  
 EIR  Negative Declaration

Expected CEQA Completion Date: Completed Aug 2001

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



State of California  
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE  
GENERAL INFORMATION FORM FOR  
WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT



VI. OTHER REQUIRED INFORMATION

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to, design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods.

Also include a site map showing the location of the facility and, if you are submitting this application for an NPDES permit, identify the surface water to which you propose to discharge. Please try to limit your maps to a scale of 1:24,000 (7.5' USGS Quadrangle) or a street map, if more appropriate.

VII. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:  
Technical Memorandum dated September 25, 2015: Crystal Geysler Request to Commence Operations Under Existing Waste Discharge Requirement Order No. 5-01-233, stamped by registered Professional Engineer.

Response to RWQCB Review of Report of Waste Discharge, letter dated September 25, 2015, stamped by registered Professional Engineer.

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your Application/Report of Waste Discharge, pursuant to Division 7, Section 13260 of the California Water Code.

VIII. CERTIFICATION

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name: Richard Weklych

Title: Vice President, Crystal Geysler Water Co.

Signature: [Handwritten Signature]

Date: 9/29/15

FOR OFFICE USE ONLY

Date Form 200 Received:	Letter to Discharger:	Fee Amount Received:	Check #:
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CH2M HILL  
2525 Airpark Drive  
Redding, CA 96001-2443  
Tel 530.243.5831  
Fax 530.243.1654

September 30, 2015

Mr. Bryan J. Smith, P.E.  
Central Valley Regional Water Quality Control Board  
364 Knollcrest Drive, Suite 205  
Redding, California 96002

**Subject:** Response to Review of Report of Waste Discharge, Crystal Geyser Water Company,  
Mount Shasta, Siskiyou County

Dear Mr. Smith:

Thank you for your letter of August 21, 2015, which provided review comments on the July 24, 2015, Report of Waste Discharge (ROWD) and technical memorandum (*Crystal Geyser Request to Commence Operations under the Existing Waste Discharge Requirements Order No. 5-01-233*) submitted by CH2M on behalf of Crystal Geyser Water Company (CGWC). We have revised the ROWD and technical memorandum based on your comments, discussions we had at a joint site visit in Mt. Shasta on September 1, 2015, and internal corporate discussions. The revised ROWD and technical memorandum are provided separately for your review.

The following are your comments on the July 24 ROWD and our responses:

1. Section VII of the ROWD indicates that the following document was submitted in support of your submittal, Draft Technical Memorandum dated July 8, 2015: *Crystal Geyser Request to Commence Operations Under Existing Waste Discharge Requirement Order No. 5-01-233*. Please revise Section VII of ROWD to indicate the final technical memorandum with appropriate date.

**CGWC Response:** Completed as requested.

2. The Crystal Geyser Water Company Operation Description section of the Technical Memorandum indicates flavoring will be used in the bottling of "flavored water". Additionally the section also states that "food-grade sanitizing chemicals" would be used during the Clean In Place (CIP) activities associated with the sparkling and flavored water production line(s). Please provide Safety Data Sheets (SDSs) formerly known as Material Safety Data Sheets (MSDSs) for flavoring chemicals used in flavored water production and for food grade sanitizing chemicals used in CIP cleaning activities.

**CGWC Response:** Crystal Geyser has decided to send all wastewater from the flavored water production line and associated CIP activities to the City sanitary sewer system to be treated at the City's wastewater treatment plant. This wastewater will not go to the leach field. Therefore we did not include the MSDS for the flavoring chemicals and the food grade sanitizing chemicals used in the CIP process.

3. The Estimated Water Quality of Wastewater Discharges to the Leach Field section of the Technical Memorandum states that the Calistoga source mineral water as a natural Total Dissolved Solids (TDS) concentration of 540 milligrams per liter (mg/L). However Table 2 General Water Quality and Metals indicates that the TDS source water concentration from Calistoga is 160 mg/L. Please provide an explanation for this discrepancy and revised table if necessary.



**CGWC Response:** The Calistoga source mineral water is trucked to the plant and has a natural TDS concentration of 540 mg/L. The general Calistoga source water is from the City of Calistoga, and it has a TDS of 160 mg/L. This section has been revised to estimate the water quality from just the sparkling water line going to the leach field.

4. An additional concern regarding the ROWD and Technical Memorandum is the lack of projected effluent water quality projected for the facility. Please provide an evaluation and or comparison of previous facility effluent data, source water, product data, and similar facility operation data. This evaluation should provide an estimate or range of anticipated concentrations that could be expected in effluent that would be discharged to the facility's onsite leach field. All assumptions using in this evaluation should also be clearly detailed as well. Also include a proposed monitoring and characterization program to confirm the projected characterization.

**CGWC Response:** The projected effluent water quality going to the leach field from the sparkling water line has been addressed in the revised ROWD and technical memorandum. We have also added a new section for the proposed monitoring and characterization program.

5. The current Waste Discharge Requirement (WDR) Order 5-01-233 does not allow for degradation of underlying groundwater. Please provide detail explanation for why proposed discharge will not result in degradation of underlying groundwater.
6. **CGWC Response:** This concern has been addressed in the revised ROWD and technical memorandum.
7. The Technical Memorandum prepared by your consultant CH2M was not originally signed or stamped by a registered professional. Per the California Business and Professions Code Sections 6735, 7835, and 7835.1, please have a licensed professional sign and stamp the Technical Memorandum to validate evaluations and assumptions provided in the document.

**CGWC Response:** The technical memorandum has been stamped by a registered Professional Engineer.

Sincerely,  
CH2M HILL, INC.



Peter H. Rude, P.E.  
Project Manager

WT0626151046RDD

Cc: George Low/Regional Water Quality Control Board  
Richard Weklych/Crystal Geyser Water Company  
Barbara Brenner/Churchwell & White  
Nolan Randall/CH2M HILL, Inc.





# Crystal Geyser Request to Commence Operations under Existing Waste Discharge Requirement Order No. 5-01-233

PREPARED FOR: Central Valley Regional Water  
Quality Control Board

SUBMITTED BY: Crystal Geyser Water Company

PREPARED BY: Peter Rude/CH2M  
Michael Randall/CH2M  
Heather Waldrop/CH2M

DATE: July 24, 2015  
(revised September 30, 2015)

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This technical memorandum provides information to substantiate the request of Crystal Geyser Water Company (CGWC) to discharge industrial process wastewater to their existing leach field as regulated by the Central Valley Regional Water Quality Control Board (RWQCB) under Waste Discharge Requirement (WDR) Order No. 5-01-233. There is no material change in the volume or characteristics of the water that would be discharged to the leach field between Coca-Cola Dannon operations and CGWC proposed operations.

## Background

In 2013, CGWC purchased the former Coca-Cola Dannon (CCDA Waters) water bottling facility (Plant) located at 210 Ski Village Drive in Mt. Shasta, Siskiyou County, California. The Plant is adjacent to the northern portion of the city, on the southwestern flank of Mt. Shasta; it is bordered by Ski Village Drive to the north, Mount Shasta Boulevard to the west, McCloud Railroad to the south, and low-density residential development to the east. The facility is located outside the City of Mt. Shasta in Siskiyou County.

The existing infrastructure at the Plant was constructed between 2000 and 2002 by Dannon, prior to becoming CCDA Waters, and it consists of a 145,000 square foot building, a domestic well pump house, an approximately 228,000-gallon fire suppression tank, a deep groundwater production well (Dex-6), a leach field, and associated monitoring wells (see Figures 1 and 2 at the end of the technical memorandum). CCDA Waters closed the Plant in 2010, and it has remained closed until now. CGWC is currently remodeling the plant for their bottling lines. Equipment testing is expected in October through December, 2015, with production to start in spring 2016.

Dannon previously worked with the RWQCB to conduct an environmental analysis suitable for compliance with the California Environmental Quality Act (CEQA) to support the issuance of the WDR. A Mitigated Negative Declaration (MND) was prepared with the RWQCB acting as the CEQA state lead agency (State Clearinghouse Number 2001082005 listed as a Negative Declaration). The document was approved by the RWQCB on July 30, 2001.

CCDA Waters ceased operations in late 2010, and quarterly monitoring required by the WDR halted at that time. CCDA Waters conducted post operations monitoring in Q4 2012 and Q1 2013 per the WDR. CGWC resumed quarterly monitoring, per the WDR, in Q2 2014 even though operations have not started.

### Dannon and CCDA Waters Operations Description in WDR Order No. 5-01-233

The following is excerpted from WDR Order No. 5-01-233:

The Discharger operates an existing natural spring water bottling facility that involves groundwater extraction, water bottling, and equipment cleaning. The facility's water supply is pumped from a well (Dex-6) approximately 2,000 feet north of the bottling facility. Water is also hauled to the bottling facility by truck from Mosbrae [sic] Springs in Dunsmuir. Water bottling operations consist of water processing, blow molding of plastic bottles, washing bottles, and filling bottles with processed water. Water processing includes proprietary micro-filtration, ozonation, and ultraviolet treatment. Approximately 12 percent of individual bottle volume of ozonated water is flushed through the bottle to wash the bottles clean of any residue left from the blow molding process. A very small volume of spillage and floor wash is also mixed with the bottle rinse wastewater.

The Discharger presently operates two bottling lines that discharge an average of 20,000 gpd with peak discharges up to 36,000 gpd of bottle rinse/floor wash wastewater per bottling line. The Discharger is currently discharging the bottle rinse/floor wash wastewater to the City of Mt. Shasta (City) wastewater treatment system. The City has determined that it cannot accept long term discharge of bottle rinse/floor wash wastewater because of concerns with the collection system and treatment plant capacity. The Discharger has stated that over the next 5 years the operations could be expanded by one additional bottling line. The proposed third line is estimated to have an average discharge of 20,000 gpd with a maximum peak discharge of 36,000 gpd. The expansion would result in a total average flow of 60,000 gpd and a total maximum flow of 108,000 gpd for the three lines. The Report of Waste Discharge describes the discharge as follows:

**Table 1**

Constituent	Bottle Rinse Water	Floor Water
Specific Conductance	95 µmhos/cm	113 µmhos/cm
Total Dissolved Solids	100 mg/L	140 mg/L
pH	7.2	6.9
COD	--	64 mg/L
Acetone	--	109 µg/L
Arsenic, Total	1.2 µg/L	--
2-Butanone	--	11 µg/L
Zinc, Total	--	29 µg/L

Analyses of the bottle rinse water and floor water for priority pollutant metals and organics indicated no other constituents were detected.

CCDA Waters only operated two bottling lines through 2010, they did not expand to include a third bottling line as contemplated.

## Crystal Geysler Water Company Operation Description

As previously discussed, after testing CGWC plans to begin operations at the Plant in spring 2016. CGWC will use existing natural spring water at the Plant for bottling sparkling water (flavored and unflavored), teas, juice beverages, and equipment cleaning. The sole water supply for bottling operations will be pumped from production well DEX-6, which is approximately 2,000 feet north of the Plant. The Plant will operate one bottling line that will produce three different types of products: sparkling water, tea, and juice beverages. The operations consist of water processing and carbonating, tea brewing, juice beverage batching, blow molding of polyethylene terephthalate (i.e., PET) plastic bottles, and filling bottles with product. Water processing for all the products includes proprietary ozonation, carbon filtration, micro-filtration, ultraviolet treatment, softening, deionizing, flavor injection, and carbonation. It is anticipated that the facility will start production of sparkling water with five production days per week, but in the future that may increase to seven production days per week. Currently, tea and juice beverage production is not scheduled to start until 2017 or 2018. Within 5 to 7 years, a second bottling line may be installed in the Plant.

CGWC has remodeled the Plant to have three separate systems for collecting and conveying wastewater:

1. A domestic sanitary sewer system that discharges to the city sanitary sewer
2. An industrial process wastewater system for tea and juice bottling that discharges to the City of Mt. Shasta (City) sanitary sewer
3. An industrial process wastewater system for production water and sparkling water that discharges to the leach field or to the City sanitary sewer

The Plant's domestic wastewater system (e.g., faucets, drinking fountains, sinks, bathrooms, and shower facilities) conveys domestic wastewater through a separate sanitary sewer system that connects directly to the City sanitary sewer system.

Industrial process wastewater will be collected by two separate drain systems within the Plant, depending on which product is being bottled. One drain system will be used during cleaning and sanitizing operations; tea brewing and bottling; and juice batching and bottling. This includes all of the wastewater containing higher levels of spilled product and internal and external cleaning and sanitizing chemicals (e.g., clean-in-place [CIP], sodium hydroxide, and acids); flavor change rinse water (ranging from trace amounts of flavor to plain water); final rinses after CIP (may contain trace amounts of food-grade sanitizing chemicals); and final water rinses of product lines and tanks. This wastewater will be directed to the floor drains where it will be centralized and directed through a pH neutralization system before discharging to the City sanitary sewer.

The second drain system is an isolated system that collects relatively clean wastewater from the water processing and production of bottling sparkling water. The types of wastewater directed to this system include filter backwash water from the filtering of DEX 6 source water; and ozonated water rinse (0.4 part per million [ppm] ozone or less) from line rinses. This wastewater will be discharged to the leach field (with optional discharges to the City sanitary sewer, if needed).

## Estimated Wastewater Flows

The domestic sanitary sewer flows from CGWC are expected to be about the same as from the CCDA Waters operations. CGWC will start operations in spring 2016, with approximately 30 employees; this will eventually increase to approximately 60 employees. This will result in an average daily flow to the sanitary sewer system of about 10,000 to 25,000 gallons per day.

Industrial wastewater discharged to the leach field will range from 5,000 gallons per production day (gppd) to infrequent peaks of up to 25,000 gppd. In 5 to 7 years, when a second bottling line is added, discharges will approximately double, ranging from 10,000 gppd to infrequent peaks of up to

50,000 gppd. Currently, the leach field is designed to accommodate 72,000 gpd. CCDA Waters operated two bottling lines and used the leach field to its capacity; CGWC will send less water to the leach field at maximum production.

Industrial wastewater discharged to the City sanitary sewer will range from approximately 20,000 gppd to approximately 54,000 gppd for one product line. In 5 to 7 years, when a second bottling line is added, discharges will approximately double, ranging from 40,000 to 100,000 gppd. It is unknown how much industrial wastewater CCDA Waters sent to the City sewer system.

The industrial wastewater peak discharge rates to the leach field and to the City sanitary sewer will not be additive; they will not occur at the same time.

### Estimated Water Quality of Wastewater Discharges to the Leach Field

The water quality of industrial wastewater discharges to the leach field for CCDA Waters is shown in Table 1.

Since CGWC is not in operation we have to try to predict what the industrial wastewater quality may be for sparkling water production. One way to do this is to look at industrial wastewater quality from CGWC's two other bottling facilities. CGWC in Bakersfield only produces tea and juice so we did not look at that data. CGWC in Calistoga only produces sparkling and flavored water, so this is the data we initially reviewed. The Calistoga facility has a combined wastewater system for domestic sanitary sewer and industrial process wastewater. The two systems are not separated as they will be at the Plant. Therefore, effluent water from the Calistoga facility is expected to have higher concentrations of some constituents than what would be expected in the industrial wastewater going to the leach field at the Plant.

Water quality information from the Calistoga facility and from the Plant (Dex-6 source water) is provided in Tables 2 and 3 located at the end of this technical memorandum for information purposes. Table 2 shows sample results for various constituents, general minerals, and metals in samples collected from source water, effluent, and bottled product water. Table 3 shows analytical results for priority pollutants in effluent and bottled product water from the Calistoga facility. All samples were non-detect, except the effluent samples, which had detections of chloroform, chromium, nickel, and zinc. The concentrations of chromium and nickel were below the California Drinking Water maximum contaminant level (MCLs). There are no MCLs for zinc or chloroform.

At the Plant, CGWC has decided to only send industrial wastewater from the sparkling water process to the leach field. This will only include filter backwash water from the carbon filtering of DEX 6 source water; and ozonated water rinse (0.4 part per million [ppm] ozone or less) from line rinses. Thus this water quality will be most like the Dex-6 water quality as found in Table 2.

Using the constituent data in Table 1 from Dannon, constituents required from the current WDR, and data from the Mount Shasta Source (Dex-6) column in Table 2 a comparison can be made, as shown in Table 4.

Table 4 – Water Quality Going to Leach Field

Constituent	Dannon		CGWC Expected Leach Field Waste Water Quality
	Bottle Rinse Water	Floor Water	Dex-6
Specific Conductance	95 µmhos/cm	113 µmhos/cm	--
Total Dissolved Solids	100 mg/L	140 mg/L	110 mg/L
pH	7.2	6.9	7.3
COD	--	64 mg/L	ND
Acetone	--	109 µg/L	--
Arsenic, Total	1.2 µg/L	--	ND

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Table 4-- Water Quality Going to Leach Field

Constituent	Dannon		CGWC Expected Leach Field Waste Water Quality
	Bottle Rinse Water	Floor Water	Dex-6
2-Butanone	--	11 µg/L	--
Zinc, Total	--	29 µg/L	ND
Total Coliform Organisms	--	--	--
Priority Pollutants - Metals	ND	ND	ND
Priority Pollutants - Organics	ND	ND	ND

Notes:

- µmhos/cm = micromhos per centimeter
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- ND = Non detect

Table 4 shows, and CH2M believes, that the water quality of industrial wastewater discharged to the leach field will be better than the industrial wastewater during CCDA Waters operations, because no CIP food grade sanitizing chemicals will be going to the leach field. CH2M also believes that groundwater quality will not be impacted by CGWC operations.

As the plant starts up it would be a good idea to perform water quality sampling to determine the actual water quality going to the leach field. We recommend an adaptive water quality sampling plan as presented in Table 5 be conducted, the results shared with the RWQCB, and final monitoring can be determined once actual data from the Plant is obtained.

Table 5 -- Proposed Water Quality Sampling Plan for Industrial Wastewater Going to the Leach Field

Constituent	Units	Type of Sample	Sample Frequency
Flow	Gallons per day	Flow Meter	
Specific Conductance	µmhos/cm	Grab	Daily
Total Dissolved Solids	mg/L	Grab	Weekly
pH	units	Grab	Weekly
Chemical Oxygen Demand	mg/L	Grab	Weekly
Total Coliform Organisms	MPN/100 ml	Grab	Weekly
Constituents as listed in Table 2	varies	Grab	Monthly <sup>a</sup>
Priority Pollutants as listed in Table 3	varies	Grab	Monthly <sup>a</sup>

Notes:

<sup>a</sup> Monthly during the first three months of operation and then, with approval by the RWQCB Executive Officer, reduced to annually.

- µmhos/cm = micromhos per centimeter
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- MPN = most probable number

## Source Water Usage

CGWC will use two wells at the Plant, as was done by Dannon and CCDA Waters. One well (a domestic well) will supply water for the fire tank, domestic use (e.g., faucets, drinking fountains, sinks, bathrooms, and shower facilities), and some operational use (cooling water, boiler water, and hose bibs).

The second well, production well Dex-6, will supply water to the Plant to produce sparkling water, teas, and juice beverages. The well is located on CGWC property approximately 2,000 feet north of the Plant (see Figure 1). Dannon installed Dex 6; it is an 8-inch-diameter well drilled into volcanic bedrock to a depth of 294 feet. The well is screened at from 200 to 240 feet below ground surface. The groundwater level is approximately 200 feet below ground surface. During a 63 hour aquifer test in 1998, DEX-6 produced 490 gallons per minute; and the drawdown was 1.1 feet. In observation wells 800 to 1,400 feet from DEX-6, drawdown was about 0.5 foot. Testing in 2012 showed similar results.

CCDA Waters records from 2006 and 2007 indicate that they used approximately 160 gpm from production well DEX-6 on a monthly average basis.

CGWC will use approximately 80 gpm on average for one production line and approximately 150 gpm when a second production line is put into operation in 5 to 7 years. Another way to look at this is during the initial, first production line: CGWC will use approximately 1.15,000 gpd with a maximum day demand of 186,000 gpd (approximately 90 days scattered through the year); long-term with a second production line: CGWC will use approximately 217,000 gpd with a maximum day demand of 365,000 gpd (approximately 90 days scattered through the year). It is important to note that these volumes would only occur after the Plant reaches maximum production capacity with one or two lines operating. At initial startup of one or two lines, the actual volumes would be less and it will take a number of years before maximum capacity of each line is reached. Therefore, CGWC will use less water than CCDA Waters initially and about the same amount of water as CCDA Waters in the long term.

## Compliance with Environmental Document

As previously described, discharges to the leach field will occur within the limitations established in the existing WDR. Additionally, operational activities anticipated by CGWC will not result in new impacts or a substantial change in the project that would require revisions to the 2001 MND (Public Resources Code Section 2166). Anticipated operations would be equivalent to or less than the operations previously described in the MND and approved by the RWQCB.

CGWC will continue to work with federal, state, and local regulatory agencies, as appropriate, to comply with permitting requirements for operation of the Plant and will obtain all permits that are determined necessary, including CEQA review, as appropriate.

CGWC is working with the Siskiyou County Air Pollution Control District relevant to what environmental documentation will need to be prepared because of the use of four propane boilers and a temporary diesel generator at the facility.

**Table 2 - General Water Quality and Metals**

Water Quality Data for Crystal Geyser at Calistoga Plant's source water (S), effluent discharge (E), and product(P) and at Mt. Shasta Plant source water. Results contained in the table are from sampling conducted between 2012-2015.

Constituent <sup>1</sup>	Units	Samples Required by RWQCB	Characterization Data			
			Calistoga			Mt.Shasta
			Source	Effluent	Product	Source
Biochemical Oxygen Demand	mg/L	S,E,P	ND	112.5	ND	ND
Chemical Oxygen Demand	mg/L	S,E,P	ND	199.5	ND	ND
Settleable Matter	ml/L	E,P		ND	ND	
Total Suspended Solids	mg/L	S,E,P	ND	7.5	ND	ND
Total Dissolved Solids	mg/L	S,E,P	160	360	540	110
Fixed Dissolved Solids	mg/L	E,P		270	390	
Electrical Conductivity	umhos/cm	S,E,P	420	1100	930	100
Total Kjeldahl Nitrogen as N	mg/L	S,E,P	0.26	1.1	ND	ND
Ammonia Nitrogen as N	mg/L	S,E,P	ND	ND	ND	ND
Nitrate Nitrogen as N	mg/L	S,E,P	1.79	0.21	0.92	ND
pH	pH Units	S,E,P	6.1	6.95	5.8	7.3
<b>General Minerals<sup>2</sup></b>						
Alkalinity	mg/L	S,E,P	349.5	99	340	47
Hardness	mg/L	S,E,P	366	136	430	31
Bicarbonate	mg/L	S,E,P	427	121	410	57
Carbonate	mg/L	S,E,P	ND	ND	ND	ND
Calcium	mg/L	S,E,P	20	19.5	7.7	6.2
Magnesium	mg/L	S,E,P	76.5	20.6	ND	3.7
Chloride	mg/L	S,E,P	89	18	27	1.5
Potassium	mg/L	S,E,P	2.85	3.65	1.1	1.3
Sodium	mg/L	S,E,P	85.6	20.5	32	11
Sulfate	mg/L	S,E,P	52	50	24	0.61
<b>Metals<sup>3</sup></b>						
Aluminum	ug/L	S,E,P	ND	40.5	ND	ND
Antimony	ug/L		ND	ND	ND	ND
Arsenic	ug/L	S,E,P	0.895	ND	ND	ND
Barium	ug/L		25.5	28.5	0.014	0.0046
Beryllium	ug/L		ND	ND	ND	ND
Boron	ug/L	S,E,P	39	430	0.38	ND
Cadmium	ug/L		ND	ND	ND	ND
Chromium (IV)	ug/L					
Chromium (III)	ug/L					
Total Chromium	ug/L	S,E,P	ND	4.9	ND	ND
Cobalt	ug/L					
Copper	ug/L	S,E,P	ND	ND	ND	ND
Fluoride	ug/L		ND	ND	0.057	0.18
Iron	ug/L	S,E,P	ND	0.06	ND	ND
Lead	ug/L	S,E,P	ND	ND	ND	ND
Mercury	ug/L	S,E,P	ND	ND	ND	ND
Manganese	ug/L	S,E,P	ND	0.022	ND	ND
Molybdenum	ug/L					
Nickel	ug/L		ND	4.1	ND	ND



Constituent <sup>1</sup>	Units	Samples Required by RWQCB	Characterization Data			
			Callistoga			Mt. Shasta
			Source	Effluent	Product	Source
Selenium	ug/L		ND	ND	ND	ND
Silver	ug/L		ND	0.18	ND	ND
Thallium	ug/L		ND	ND	ND	ND
Vanadium	ug/L					
Zinc	ug/L	S,E,P	ND	0.11	ND	ND
Disinfection By-Products <sup>4</sup>	ug/L	N/A			ND	ND
Formaldehyde <sup>5</sup>	ug/L	N/A				
Phenols <sup>5</sup>	ug/L				ND	ND
Priority Pollutants <sup>6</sup>	Various	E,P	See Table 3 - Priority Pollutants			

<sup>1</sup> With the exception of wastewater samples, samples for metals analysis must first be filtered using a 0.45-micron filter. If filtering in the field is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain of custody form) to immediately filter then preserve the sample.

<sup>2</sup> General minerals analyses shall be accompanied by a cation/anion balance demonstrating complete analyses.

<sup>3</sup> Where constituents are analyzed as part of other suites of constituents, the results may be substituted to avoid redundant analyses (i.e., arsenic results collected to fulfill the metals suite requirements may also be used to fill the Priority Pollutant suite requirements provided appropriate detection limits are used.)

<sup>4</sup> If wastewater is disinfected using chlorination or chlorination is used in internal disinfection processes.

<sup>5</sup> If the facility accepts holding tank waste from RVs, boats, or portable toilets.

<sup>6</sup> The Discharger must determine which priority pollutants, if any, are likely to be present in the discharge at concentrations that might degrade groundwater quality, and must provide characterization data for those constituents.

**Table 3 - Priority Pollutants**

Water Quality Data for Crystal Geyser at Callstoga Plant's effluent discharge (E), and product(P), and at Mt. Shasta Plant source water. Results contained in the table are from sampling conducted between 2012-2015.

Constituent <sup>1</sup>	Units	Samples Required by RWQCB	Characterization Data			
			Callstoga			Mt. Shasta
			Source	Effluent	Product	Source
Priority Pollutants <sup>6</sup>		E,P				
Acenaphthene	ug/L	E,P		ND	ND	ND
Acrolein	ug/L	E,P		ND	ND	
Acrylonitrile	ug/L	E,P		ND	ND	
Benzene	ug/L	E,P		ND	ND	ND
Benzidine	ug/L	E,P		ND	ND	
Carbon tetrachloride	ug/L	E,P		ND	ND	ND
Chlorobenzene	ug/L	E,P		ND	ND	ND
1,2,4-trichlorobenzene	ug/L	E,P		ND	ND	ND
Hexachlorobenzene	ug/L	E,P		ND	ND	ND
1,2-dichloroethane	ug/L	E,P		ND	ND	ND
1,1,1-trichloroethane	ug/L	E,P		ND	ND	ND
Hexachloroethane	ug/L	E,P		ND	ND	
1,1-dichloroethane	ug/L	E,P		ND	ND	ND
1,1,2-trichloroethane	ug/L	E,P		ND	ND	ND
1,1,2,2-tetrachloroethane	ug/L	E,P		ND	ND	ND
Chloroethane	ug/L	E,P		ND	ND	ND
Bis(2-chloroethyl) ether	ug/L	E,P		ND	ND	
2-chloroethyl vinyl ethers	ug/L	E,P		ND	ND	
2-chloronaphthalene	ug/L	E,P		ND	ND	
2,4,6-trichlorophenol	ug/L	E,P		ND	ND	
Parachlorometa cresol	ug/L	E,P		ND	ND	
Chloroform	ug/L	E,P		12.5	ND	ND
2-chlorophenol	ug/L	E,P		ND	ND	ND
1,2-dichlorobenzene	ug/L	E,P		ND	ND	ND
1,3-dichlorobenzene	ug/L	E,P		ND	ND	ND
1,4-dichlorobenzene	ug/L	E,P		ND	ND	ND
3,3-dichlorobenzidine	ug/L	E,P		ND	ND	
1,1-dichloroethylene	ug/L	E,P		ND	ND	ND
1,2-trans-dichloroethylene	ug/L	E,P		ND	ND	
2,4-dichlorophenol	ug/L	E,P		ND	ND	
1,2-dichloropropane	ug/L	E,P		ND	ND	ND
1,3-dichloropropylene	ug/L	E,P		ND	ND	
2,4-dimethylphenol	ug/L	E,P		ND	ND	
2,4-dinitrotoluene	ug/L	E,P		ND	ND	ND
2,6-dinitrotoluene	ug/L	E,P		ND	ND	ND
1,2-diphenylhydrazine	ug/L	E,P		ND	ND	
Ethylbenzene	ug/L	E,P		ND	ND	ND
Fluoranthene	ug/L	E,P		ND	ND	ND
4-chlorophenyl phenyl ether	ug/L	E,P		ND	ND	
4-bromophenyl phenyl ether	ug/L	E,P		ND	ND	
Bis(2-chloroisopropyl) ether	ug/L	E,P		ND	ND	
Bis(2-chloroethoxy) methane	ug/L	E,P		ND	ND	
Methylene chloride	ug/L	E,P		ND	ND	ND
Methyl chloride	ug/L	E,P		ND	ND	ND
Methyl bromide	ug/L	E,P		ND	ND	
Bromoform	ug/L	E,P		ND	ND	ND
Dichlorobromomethane	ug/L	E,P		ND	ND	
Chlorodibromomethane	ug/L	E,P		ND	ND	ND
Hexachlorobutadiene	ug/L	E,P		ND	ND	ND
Hexachlorocyclopentadiene	ug/L	E,P		ND	ND	ND
Isophorone	ug/L	E,P		ND	ND	ND
Naphthalene	ug/L	E,P		ND	ND	ND

Constituent <sup>1</sup>	Units	Samples Required by RWQCB	Characterization Data			
			Calistoga			Mt. Shasta
			Source	Effluent	Product	Source
Nitrobenzene	ug/L	E,P		ND	ND	
2-nitrophenol	ug/L	E,P		ND	ND	
4-nitrophenol	ug/L	E,P		ND	ND	
2,4-dinitrophenol	ug/L	E,P		ND	ND	
4,6-dinitro-o-cresol	ug/L	E,P		ND	ND	
N-nitrosodimethylamine	ug/L	E,P		ND	ND	
N-nitrosodiphenylamine	ug/L	E,P		ND	ND	ND
N-nitrosodi-n-propylamine	ug/L	E,P		ND	ND	ND
Pentachlorophenol	ug/L	E,P		ND	ND	ND
Phenol	ug/L	E,P		ND	ND	ND
Bis(2-ethylhexyl) phthalate	ug/L	E,P		ND	ND	ND
Butyl benzyl phthalate	ug/L	E,P		ND	ND	ND
Di-N-Butyl Phthalate	ug/L	E,P		ND	ND	ND
Di-n-octyl phthalate	ug/L	E,P		ND	ND	ND
Diethyl Phthalate	ug/L	E,P		ND	ND	ND
Dimethyl phthalate	ug/L	E,P		ND	ND	ND
benzo(a) anthracene	ug/L	E,P		ND	ND	ND
Benzo(a)pyrene	ug/L	E,P		ND	ND	ND
Benzo(b) fluoranthene	ug/L	E,P		ND	ND	ND
Benzo(k) fluoranthene	ug/L	E,P		ND	ND	ND
Chrysene	ug/L	E,P		ND	ND	ND
Acenaphthylene	ug/L	E,P		ND	ND	ND
Anthracene	ug/L	E,P		ND	ND	ND
Benzo(ghi) perylene	ug/L	E,P		ND	ND	ND
Fluorene	ug/L	E,P		ND	ND	ND
Phenanthrene	ug/L	E,P		ND	ND	ND
Dibenzo(a,h) anthracene	ug/L	E,P		ND	ND	ND
Indeno (1,2,3-cd) pyrene	ug/L	E,P		ND	ND	ND
Pyrene	ug/L	E,P		ND	ND	ND
Tetrachloroethylene	ug/L	E,P		ND	ND	ND
Toluene	ug/L	E,P		ND	ND	ND
Trichloroethylene	ug/L	E,P		ND	ND	ND
Vinyl chloride	ug/L	E,P		ND	ND	ND
Aldrin	ug/L	E,P		ND	ND	ND
Dieldrin	ug/L	E,P		ND	ND	ND
Chlordane	ug/L	E,P		ND	ND	ND
4,4-DDT	ug/L	E,P		ND	ND	ND
4,4-DDE	ug/L	E,P		ND	ND	ND
4,4-DDD	ug/L	E,P		ND	ND	ND
Alpha-endosulfan	ug/L	E,P		ND	ND	ND
Beta-endosulfan	ug/L	E,P		ND	ND	ND
Endosulfan sulfate	ug/L	E,P		ND	ND	ND
Endrin	ug/L	E,P		ND	ND	ND
Endrin aldehyde	ug/L	E,P		ND	ND	ND
Heptachlor	ug/L	E,P		ND	ND	ND
Heptachlor epoxide	ug/L	E,P		ND	ND	ND
Alpha-BHC	ug/L	E,P		ND	ND	ND
Beta-BHC	ug/L	E,P		ND	ND	ND
Gamma-BHC	ug/L	E,P		ND	ND	ND
Delta-BHC	ug/L	E,P		ND	ND	ND
PCB-1242 (Arochlor 1242)	ug/L	E,P		ND	ND	ND
PCB-1254 (Arochlor 1254)	ug/L	E,P		ND	ND	ND
PCB-1221 (Arochlor 1221)	ug/L	E,P		ND	ND	ND
PCB-1232 (Arochlor 1232)	ug/L	E,P		ND	ND	ND
PCB-1248 (Arochlor 1248)	ug/L	E,P		ND	ND	ND
PCB-1260 (Arochlor 1260)	ug/L	E,P		ND	ND	ND
PCB-1016 (Arochlor 1016)	ug/L	E,P		ND	ND	ND
Toxaphene	ug/L	E,P				

Constituent <sup>1</sup>	Units	Samples Required by RWQCB	Characterization Data			
			Calistoga			Mt. Shasta
			Source	Effluent	Product	Source
Antimony	ug/L	E,P				
Arsenic	ug/L	E,P		ND	ND	ND
Asbestos	ug/L	E,P		ND	ND	ND
Beryllium	ug/L	E,P		ND	ND	ND
Cadmium	ug/L	E,P		ND	ND	ND
Chromium	ug/L	E,P		ND	ND	ND
Copper	ug/L	E,P		4.9	ND	ND
Cyanide, Total	ug/L	E,P		ND	ND	ND
Lead	ug/L	E,P		ND	ND	ND
Mercury	ug/L	E,P		ND	ND	ND
Nickel	ug/L	E,P		ND	ND	ND
Selenium	ug/L	E,P		4.1	ND	ND
Silver	ug/L	E,P		ND	ND	ND
Thallium	ug/L	E,P		ND	ND	ND
Zinc	ug/L	E,P		ND	ND	ND
2,3,7,8-TCDD	ug/L	E,P		0.11	ND	ND
				ND	ND	ND

<sup>1</sup> With the exception of wastewater samples, samples for metals analysis must first be filtered using a 0.45-micron filter. If filtering in the field is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain of custody form) to immediately filter then preserve the sample.

<sup>2</sup> The Discharger must determine which priority pollutants, if any, are likely to be present in the discharge at concentrations that might degrade groundwater quality, and must provide characterization data for those constituents.

# Figures

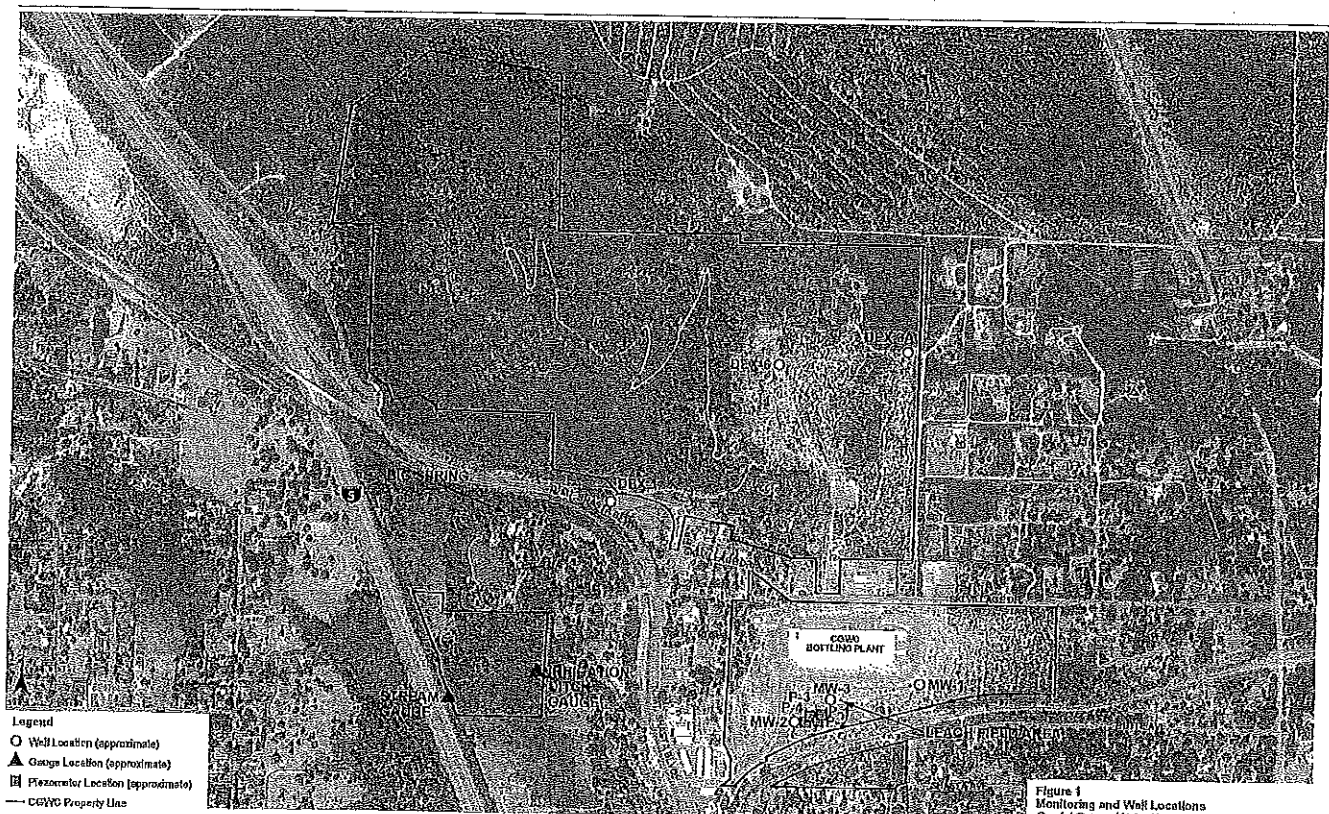
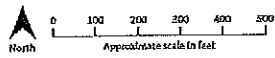
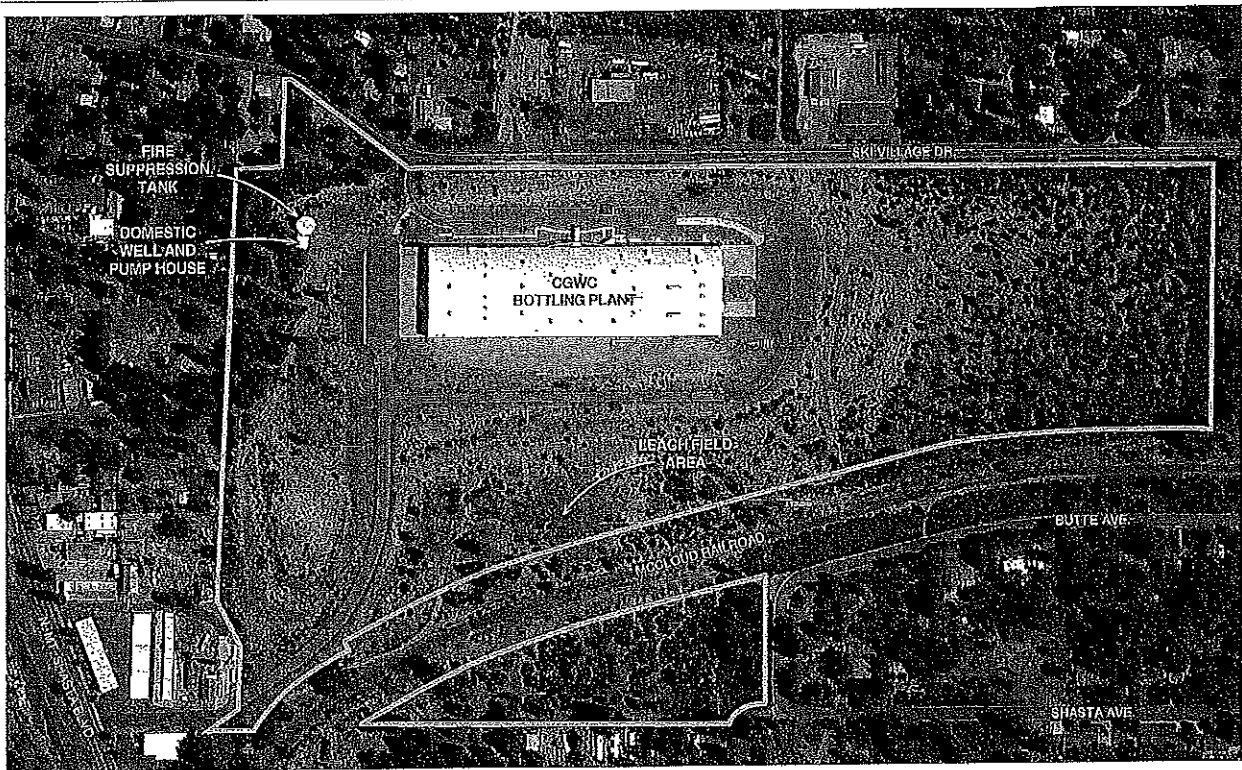


Figure 1  
Monitoring and Well Locations  
Crystal Geyser Water Company

8/22/2011 02:21:00 Export: Aerial Map Location: 30 ft resolution 01/29/2011

CH2MHILL



**Legend**

CGWC Property Line

**FIGURE 2**  
 Site Plan  
 Crystal Geyser Water Company

V:\06031814\445311R00\_CG\_SitePlan\_Figure2\_V01.dwg 01/11/13

**CH2MHILL**

Larisa Proulx

---

**From:** D. La Forest [REDACTED]  
**Sent:** Friday, January 08, 2016 1:38 PM  
**To:** Kristen Maze  
**Subject:** Fwd: Notice of Availability and Intent to Adopt a Mitigated Negative Declaration for the State-Mandated Wastewater Treatment and Outfall Improvement Project, Siskiyou County, CA  
**Attachments:** MST's Comments draft ISMND WWTP-Crystal Geyser Project 1-7-16..pdf

Dear Ms. Maze and City Council members:

In response to the City's invitation for public comments about its Intent to Adopt a Mitigated Negative Declaration for the State-Mandated Wastewater Treatment and Outfall Improvement Project, **Mt. Shasta Tomorrow** submits the attached comment letter.

Under the circumstances presented, the proposed IS/MND is not adequate and it would be a violation of CEQA to not prepare a full EIR for this Project.

Thank you for considering these comments.

Dale La Forest, Director of Mt. Shasta Tomorrow

On Tue, Nov 24, 2015 at 8:58 AM, Larisa Proulx <[lproulx@mtshastaca.gov](mailto:lproulx@mtshastaca.gov)> wrote:

Greetings,

Attached to this email is the Notice of Availability and Intent to Adopt a Mitigated Negative Declaration for the State-Mandated Wastewater Treatment and Outfall Improvement Project, Siskiyou County, CA. Additional documents are now available on the City's website under the Planning Commission page (<http://ci.mt-shasta.ca.us/planning/index.php>).

Best,

Larisa Proulx, Deputy City Clerk,



305 N. Mt Shasta Blvd



Mount Shasta, CA 96067

Phone: (530) 926-7512

[www.mtshastaca.gov](http://www.mtshastaca.gov)

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Mt. Shasta Tomorrow  
101 E. Alma Street, Suite 100-A  
Mt. Shasta, CA 96067  
mtshastatomorrow@excite.com

January 7, 2016

Kristen Maze, City Planner  
City Councilmembers  
City of Mt. Shasta  
305 N. Mt. Shasta Blvd.  
Mt. Shasta, CA 96067

kmaze@mtshasta.gov  
cc: Larisa Proulx lproulx@mtshastaca.gov

**Public Comments on Initial Study/ Mitigated Negative Declaration  
for City of Mt. Shasta's Upgrades to its Waste Water Treatment and Outfall  
Improvement Project to Additionally Serve Crystal Geysers Water Company**

Dear Ms. Maze and City Council members,

Mt. Shasta Tomorrow requests that the City of Mt. Shasta prepare a comprehensive Environmental Impact Report (EIR) or a joint EIR/EIS assessing the direct, indirect and cumulative impacts of proposed industrial development to be connected to the City of Mt. Shasta's Waste Water Treatment Plant ("WWTP"). This letter addresses the City's request for public comments about a proposed *Initial Study/Mitigated Negative Declaration* ("IS/MND") for this Waste Water Treatment and Outfall Improvement Project's ("Project") potential impacts.

Mt. Shasta Tomorrow is a nonprofit public interest group dedicated to protecting our community and its environment around the City of Mt. Shasta, California. Mt. Shasta Tomorrow was founded in 1993 and formally incorporated as a 501(c)(3) nonprofit grassroots citizens' organization. Mt. Shasta Tomorrow conducts scientific, educational, and advocacy programs aimed at protecting the water quality, habitat, planning decisions and quality of life in our Mt. Shasta vicinity.

We will discuss in greater detail our organization's concerns below as they relate to the specific WWTP Project, and its larger connection to urban growth and industrial development here. But first, let us state that we are deeply concerned by the highly controversial proposal by Crystal Geysers Water Company ("CGWC") to establish in our community a water and beverage bottling plant which would, among other things, discharge large volumes of industrial rinsewater into the City of Mt. Shasta's Waste Water Treatment Plant and thence into the Sacramento River. This industrial Project involves manufacturing and shipping billions of plastic bottles and unlimited amounts of water and other beverages around the world at a time when our area is still beset with a serious multi-year drought where ordinary citizens are being forced to ration our water use. Such shipments by diesel-fueled heavy trucks will pollute our community's air, create serious noise impacts to some residents, and contribute adversely to climate change impacts on a world-wide scale by emitting large quantities of greenhouse gases from fossil fuel use, plastic manufacturing and transportation emissions. These impacts are related to the defined "Project."

To make matters worse, CGWC is proceeding to construct its beverage bottling facility before it has completed any environmental studies the public has seen. It has also begun construction on a PH neutralization facility to treat its rinsewater for connection to the City's sewers without even obtaining a building permit, resulting in the County issuing a cease and desist work order and fines. It also installed propane boilers without a permit. It is as if this foreign-owned corporation is treating our community as a third-world nation, thinking itself to be immune to the normal California environmental and planning laws.

This specific WWTP expansion Project is much more than the City contends as minor upgrades with filtration and UV disinfection facilities to be constructed at the WWTP in place of existing sand filters. It also includes subsequent, major upgrades to the WWTP to be able to accommodate substantial urban growth. The City wants to expand its WWTP from 800,000 GPD up to 1,400,000 GPD. Specifically the WWTP improvements will also treat wastewater discharges from the proposed Crystal Geyser Water Company's beverage bottling plant. As such, the IS/MND's Project description is misleading by failing to discuss the whole of the Project and CGWC's foreseeable involvement with this Project.

The City's IS/MND as written cannot evaluate just this tiny piece of a much larger Project. The California Environmental Quality Act ("CEQA") and NEPA prohibit piecemeal environmental review of larger projects as a tactic to avoid full environmental review of a larger project with an EIR. The City's IS/MND as well as the EDA's recent *Environmental Assessment* or EIS accordingly also must evaluate the full nature of this larger Project.

The City's consultants at Enplan have misled the public by proposing only a MND when it is apparent that an EIR must be prepared. Enplan's motivations for such disinformation may relate to a need to quickly qualify for grant funding, but its excuse is not valid. In the December 14, 2015 City Council meeting, Enplan's representative claimed that an EIR is not appropriate for this Project because Crystal Geyser has not yet filed an application to connect to the WWTP. According to official minutes of that meeting, Don Burke of Enplan claimed that the City cannot invoke CEQA to mandate an EIR if engaging in "idle speculation." The truth however is that CGWC has been negotiating with the City for such a sewer connection and has even started construction on a new building and pretreatment facility at its site to process rinsewater discharge into the City's sewers. It is absurd for Enplan and the City to pretend that CGWC's pending connection is "idle speculation." It also is unlawful under CEQA as a tactic to avoid a full EIR under these specific circumstances.

This WWTP Project will be growth-inducing because it will help "increase the treatment and discharge capacity of the facility."<sup>1</sup>

Congressman Wally Herger's Dec. 21, 2012 letter to the EDA that encourages this \$3,000,000 Grant states that "the key barrier to [Crystal Geyser Water Company's] project is the wastewater capacity of the City of Mt. Shasta." Senator Diane Feinstein's March 18, 2012 letter to the EDA

<sup>1</sup> From EDA's Environmental Narrative, p. 14: "Improvements to the WWTP and Sacramento River discharge are needed to: (1) meet new Central Valley RWQCB treatment and discharge requirements and (2) *increase the treatment and discharge capacity of the facility.*"

in support of the EDA's \$3 million Grant similarly points to that key barrier and the need to upgrade the WWTP. She states that the CGWC company may have to consider foregoing its expansion if funding for these improvements cannot be secured.

A series of decisions needed for CGWC's ultimate approval that would incrementally turn the City of Mt. Shasta, Interstate 5 and the Sacramento River into a bottled water shipping corridor deserve the most searching and transparent environmental review possible: an EIS. While the City of Mt. Shasta's current proposal regarding its WWTP and Crystal Geysers, standing alone, will require an EIR, the City must also account for the cumulative effects of other projects in the Mt. Shasta area that will become possible when the WWTP's capacity is expanded.

I. **This WWTP'S Project Will Lead to Industrial Development of Crystal Geysers' Bottle Manufacturing and Water and Beverage Bottling Plant**

The proposed WWTP upgrades are not merely replacements for existing sewage treatment systems to only meet current state water quality requirements. They are part of a larger Project being pushed forward by CGWC. The Crystal Geysers Water Company is largely owned by Otsuka Pharmaceutical, a multi-billion-dollar Japanese corporation. Mt. Shasta Tomorrow opposes spending City taxpayer and federal dollars to vet this foreign-owned corporation's dirty and water-wasting beverage bottling Project.

II. **City must prepare an EIR/EIS in cooperation with the EDA to inform EDA's decision about whether to fund this WWTP Project.**

- a. **An EIR/EIS should be prepared before the City of Mt. Shasta or federal agencies make important decisions about development of the WWTP and the Crystal Geysers Project.**

Now is the time to prepare an EIR/EIS analyzing and describing Crystal Geysers' industrial development here at the City of Mt. Shasta. The City, pursuant to CEQA, is held to similar legal constraints as is the Economic Development Administration, ("EDA"), like all federal agencies, must "integrate the NEPA process with other planning at the earliest possible time." *League of Wilderness Defenders-Blue Mts. Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1070 (9th Cir. 2012) (*emphasis added*) (citing 40 C.F.R. § 1501.2). NEPA's goal of infusing environmental consciousness into federal decision-making "depends entirely on involving environmental considerations in the initial decisionmaking process." *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000) (citing 40 C.F.R. §§ 1501.2, 1502.5). This preliminary assessment of WWTP capacity and treatment methods and connected industrial businesses is the ideal juncture at which to prepare a comprehensive EIS—before either the City or CGWC become attached to any particular plan. As the first federal agency to approve a part of the Project, EDA's EIS will help ensure that environmental and community concerns are "interwoven into the fabric of agency planning" processes. *Andrus v. Sierra Club*, 442 U.S. 347, 351 (1979).

- b. **CEQA's and NEPA's alternatives analysis are well-suited to exploring potential routes for the City's enlargement of its Interceptor line to the WWTP and alternatives to reduce CGWC's environmental impacts.**

The City during the CEQA process, as well as the EDA in its separate review, should develop an in-depth alternatives analysis to frame and discuss different industrial development scenarios that could occur in and around the City of Mt. Shasta in connection with the WWTP's upgrades. The alternatives analysis is "the heart of the environmental impact statement," 40 C.F.R. § 1502.14, and each EIS must include "a detailed statement [on] alternatives to the proposed action." 42 U.S.C. § 4332(2)(C)(iii). The alternatives analysis describes the environmental impacts of different courses of action in comparative form, presenting decision makers and the public with clear and well-defined choices. *League of Wilderness Defenders-Blue Mts. Biodiversity Project v. United States Forest Serv.*, 689 F.3d 1060, 1068–69 (9th Cir. 2012) (citing 40 C.F.R. § 1502.14). Here, analyzing the environmental impact of several WWTP expansion, interceptor line development scenarios, and CGWC impacts will give the City, the EDA and the public a clear picture of how additional industrial and urban development would impact the Sacramento River and the City of Mt. Shasta. *See id.*

Analyzing a reasonable range of alternatives in the jointly prepared EIR/EIS is not only required, it would directly complement the City of Mt. Shasta's goal of providing for community development and growth, and planning for the viability and impacts of different development scenarios. *See Pacific Coast Fed'n of Fishermen's Ass'ns v. Blank*, 693 F.3d 1084, 1099 (9th Cir. 2012) (citing 42 U.S.C. § 4332(2)(C)). The City's alternative analysis in its Environmental Narrative has only looked at treatment alternatives at the WWTP, wholly ignoring the other pieces of this larger Project. The EIR/EIS's alternatives analysis and the City's WWTP Project should have essentially the same goal: understanding the potential for supplying utility infrastructure for different types of development in the community along with the environmental and social impacts of such development. The City and the EDA should use the alternatives analysis as an opportunity to examine the impacts of likely development scenarios.

Finally, even if EDA authorizes funding for the City's WWTP Project using an EA/FONSI — which EDA should not do — the City and the EDA must still analyze alternatives to the City's proposed Project. "NEPA requires that alternatives be given full and meaningful consideration, whether the agency prepares an EA or an EIS." *Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 538 F.3d 1172, 1218 (9th Cir. 2008) (internal quotations omitted). Accordingly, EAs must analyze "all reasonable alternatives" or provide "an appropriate explanation . . . as to why an alternative was eliminated . . ." *Native Ecosystems Council*, 428 F.3d at 1246. Similar requirements exist under CEQA. Regardless of whether EDA prepares an EA or an EIS, the City and the EDA must assess alternatives to the City's proposed Project — including a "no action" alternative.

- c. **The City's EIR/ EIS must describe and address the direct and indirect environmental impacts that could result from the City's WWTP expansion and the Crystal Geysers Water Company bottling plant's development.**

The City's and the EDA's analysis should begin by addressing the direct impacts of expanding the WWTP's capacity for prospective industrial development here around the City of Mt. Shasta. 40 C.F.R. § 1508.25(c)(1). Direct impacts are those "which are caused by the action and occur at

the same time and place.” 40 C.F.R. § 1508.8(a). The direct effects of expanding the WWTP Project could include, at least:

- noise impacts to five nearby residences as close as about 300 feet from the WWTP, and
- air quality impacts in the immediate vicinity near existing homes.

(See our comments *below* that identify errors in the applicant's Environmental Narrative and the draft Initial Study that result in serious underestimations of noise and air quality impacts.)

Additionally, the City and the EDA must look beyond the immediate impacts of construction at the WWTP; the EIR/EIS must also analyze the indirect effects of prospective industrial development. 40 C.F.R. § 1508.25(c)(2). Indirect effects, for (CEQA and) NEPA purposes, are those effects “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). Indirect effects include the ways in which human use of an area changes because of an action, and the consequential effects of those changed uses on air, water, and ecosystems. *Id.* Industrial development of the Crystal Geyser Water Company bottling plant would foreseeably induce, among other things:

- excessive ground water extraction by CGWC from the underlying surface water or ground water aquifer feeding Big Springs Creek as such pumping might deplete domestic water supplies for neighboring well water users and might harm aquatic life in Big Springs Creek,
- air pollution and greenhouse gas emissions from diesel emissions from tens of thousands of heavy truck shipments each year of bottled water or beverage products to distant distribution centers, air pollution from cooling tower drift within the vicinity of CGWC's plant, and plastic odors harming air quality in the neighborhood from CGWC's in-plant manufacturing plastic bottles,
- wetland impacts from routing and construction of the larger interceptor pipe needed to transport CGWC's additional rinsewater discharges to the WWTP,
- water pollution from inadequately treated rinsewater effluent potentially carrying phthalates and other untreated chemicals to the Sacramento River,
- noise impacts caused by WWTP construction activities, interceptor line construction, CGWC bottling plant operations and truck shipments within the community of Mt. Shasta,
- transportation impacts caused by the addition of dozens if not hundreds of extra heavy truck shipments per day resulting from CGWC's bottling under full operation,

- aesthetic impacts of CGWC's operations at its huge bottling plant structure both within its neighborhood and as seen from publicly-accessible, scenic overlooks,
- landfill waste throughout California and elsewhere from unrecycled plastic bottles,
- hazardous material storage of large quantities of explosive propane fuel adjacent to residential land uses and to be used for CGWC's boilers and primary electrical generator, and
- land use and zoning impacts of operating a heavy industrial facility on land restricted by Siskiyou County General Plan policies that prohibit heavy industrial uses.

The City's EIR/EIS must therefore look beyond the direct effects of construction work at the WWTP and address the indirect impacts on the vicinity of the City of Mt. Shasta's air, water, communities, and ecosystems.

- d. **The City must prepare an EIR/EIS because connected industrial development adjacent to the City of Mt. Shasta that will be facilitated by the WWTP upgrades "may significantly impact" the environment.**

The direct, indirect, and cumulative effects of industrial development near the City of Mt. Shasta "may significantly impact" the environment. Therefore, City must prepare an EIR to analyze and disclose these impacts. So should the EDA. An agency must prepare an EIS when substantial questions exist about whether a proposed project "may" significantly degrade the environment. *Native Ecosystems Council v. U.S. Forest Service*, 428 F.3d 1233, 1239 (9th Cir. 2005); see also 42 U.S.C. § 4332(2)(C). The Ninth Circuit has explained that EISs are frequently necessary because the 'may significantly impact' threshold "is a low standard." *Klamath Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006); *California Wilderness Coalition v. U.S.*, 631 F.3d 1072, 1097 (9th Cir. 2011). An EIR/EIS is the proper tool to assess the environmental risks posed by massive scale industrialized bottling and beverage shipping (as proposed by CGWC that wants to consolidate and close three other bottling plants and relocate their workers here) because such projects may significantly impact the City of Mt. Shasta's community and other distant locations where shipments will occur and where plastic wastes will be buried or discarded.

Although not a part of CEQA, these following factors are relevant now for study within an EIR/EIS: NEPA's regulations contain ten 'intensity' factors that agencies like EDA must consider when evaluating whether a project may have a significant impact, requiring an EIS. 40 C.F.R. § 1508.27(b); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 361 F.3d 1108, 1124 (9th Cir. 2004). As discussed below, most of these 'intensity' factors apply to the industrial project proposed by CGWC. The Ninth Circuit has noted that the presence of even one of these factors can be enough to compel the preparation of an EIS. *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 865 (9th Cir. 2005).

- i. *The potential industrial development will be highly controversial and may involve unique or unknown risks.*

Industrial development in direct proximity to residential areas within and outside the City of Mt. Shasta — especially if it involves unlimited groundwater pumping during a continuing major drought, heavy trucking for shipping or export and noisy industrial operations and loud air conditioner and cooling tower fan noise — will be controversial and may entail poorly-understood risks. NEPA's fourth and fifth 'intensity' factors counsel in favor of preparing an EIS where, as here, the impacts of the proposed project are highly controversial or uncertain, or the project involves unique risks. 40 C.F.R. § 1508.27(b)(4), (5).

Industrial development within a few hundred feet of residential neighborhoods is likely to be quite controversial, and could pose environmental risks to people living nearby. Indeed, the large number of comments that City of Mt. Shasta has received from community members and other concerned citizens reflects the high level of community concern surrounding this Project. The City's failure to halt this CGWC Project's construction before any environmental review could be conducted — along with the history of controversial prior decisions regarding former bottling operations on this same property — increases public uncertainty and concern.

The reporting about CGWC's Projects in many prominent newspapers and CGWC's failure to conduct any environmental review of its bottling plant Project have already demonstrated or caused substantial public controversy, especially during this continuing and likely long-lasting west coast drought.<sup>2</sup>

To the extent the WWTP proposal and connected CGWC bottling plant paves the way for massive water extraction and air pollution impacts locally, it would pose serious health and environmental risks and pull the EDA into the center of the most controversial environmental issues facing the City of Mt. Shasta. Add to these concerns the exacerbation of global warming and ocean acidification due to greenhouse gas emissions from long distance trucking of water beverages, and it is clear that the risks and controversy associated with shipping bottled water beverages justifies the thorough review provided by the EIS process. 40 C.F.R. § 1508.27(b)(4), (5)

- ii. *Industrial development of Crystal Geyser's bottling plant may adversely affect the City of Mt. Shasta's unique ecological, cultural, and historic resources.*

<sup>2</sup> EVIDENCE OF PUBLIC CONTROVERSY:

<http://www.mtshastanews.com/article/20140430/News/140439963>

Members of the WATER group (We Advocate Thorough Environmental Review) say they are skeptical about the claim that Crystal Geyser will provide 60 jobs. They also question whether new positions will be filled by employees from other Crystal Geyser facilities which may close once Mount Shasta is up and running.



The City and the EDA should prepare an EIR/EIS because the direct and indirect impacts of industrial development could degrade the environment of the City of Mt. Shasta and its unique ecological and cultural resources. The federal CEQ's<sup>3</sup> third and eighth 'intensity' factors counsel in favor of preparing an EIS when the proposed Project would negatively impact unique ecological, cultural, or historic resources. 40 C.F.R. § 1508.27(b)(3), (8). Specifically, intensity factor three contemplates an EIS when a project is proposed in an area close "to historic or cultural resources, park lands, prime farmlands, wetlands, . . . or ecologically critical areas." 40 C.F.R. § 1508.27(b)(3). Similarly, intensity factor eight considers the degree to which the proposed project "may cause loss or destruction of significant scientific, cultural, or historical resources." 40 C.F.R. § 1508.27(b)(8). Increased industrialization—especially in the form of a massive water bottling plant—near the headwaters of the Sacramento River's unique ecological, social, and cultural resources deserves analysis in an EIR/EIS.

In terms of direct cultural and social impacts at the local level, the Mt. Shasta community is a vibrant tourist and recreational destination center for visitors from around the world. Scenic beauty is one of the aspects that draws visitors here and supports this major economic resource for our community. Facilitating CGWC's industrial development and expansion of operational levels beyond what has ever occurred at its Ski Village Drive location could have seriously adverse impacts to our local visitor-based economy.

The bottling plant's structure has already degraded the rural character and culture that many Mt. Shasta residents appreciate, especially since it was constructed without environmental review and aesthetic mitigations to cloak its appearance by the planting of trees has never occurred as promised in 2001.

The Sacramento River also supports sport fishing for trout as a feature of our visitor economy. Potentially untreatable industrial discharges containing phthalates from plastic bottle manufacturing can harm this River's fishery and has the potential to cause the loss, destruction, or disruption of these significant recreational attributes. The WWTP has no technical capability to remove chemicals like phthalates from treated sewage effluent. Phthalates have been documented to be endocrine disruptors that can harm aquatic life and humans who eat fish contaminated with such chemicals. The City and the EDA should therefore use an EIR/EIS to analyze the impacts of CGWC's potential rinsewater pollution from industrial activities on trout fishing in the Sacramento River. 40 C.F.R. §§ 1508.27(b)(3) & (8).

The Sacramento River is an "ecologically critical area," 40 C.F.R. § 1508.27(b)(3), that is essential to the survival juvenile trout, waterfowl, and many other species. The Sacramento River is lined with wetlands, riparian areas, and park lands which could all be impacted by chemical spills even if less disastrous as occurred in 1991 with a Southern Pacific Railroad spill of chemicals. Before subjecting the unique and irreplaceable Sacramento River to these extreme threats, the EDA should analyze the potential impacts in an EIS. 40 C.F.R. §§ 1508.27(b)(3) & (8).

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<sup>3</sup> Council on Environmental Quality, "CEQ."

*iii. Industrial development may impact public health and safety.*

The City and the EDA should prepare an EIR/EIS because CGWC's industrial development near the City of Mt. Shasta could seriously affect public health and safety. CEQ's second 'intensity' factor is "[t]he degree to which the proposed action affects public health or safety." 40 C.F.R. § 1508.27(b)(2). An EIS is the required and responsible way to address the following health and safety concerns about industrial development. This also applies to the City's compliance under CEQA for preparation of an EIR.

First, the impacts of a water bottling and beverage brewing project should be considered in the EIR/EIS because this Project is a primary beneficiary of the EDA Grant and is a reasonably-foreseeable development and would have serious health and safety implications. Local City of Mt. Shasta citizens have provided extensive comments on the health and safety impacts of the WWTP's and CGWC's Project to the City of Mt. Shasta, and Mt. Shasta Tomorrow incorporates those comments by reference here.<sup>4</sup>

Second, the potential for industrial air, drinking water, and soil pollution in close proximity to homes and residential areas poses safety risks that should be thoroughly evaluated in an EIS. Importantly, CGWC and the nearby residences both draw drinking water from wells located near CGWC's bottling plant. Heavy industrial development adjacent residential areas can lead to severe health impacts, and such concerns should be thoroughly addressed in an EIR/EIS.

*iv. Industrial development by Crystal Geysers Water Company may violate federal, state, or local environmental laws.*

The City and the EDA should thoroughly analyze the proposed alternatives, and exercise close oversight of any on-site work, to ensure adherence to federal, state, and local environmental laws. The federal CEQ's tenth 'intensity' factor favors the preparation of an EIS when there is a potential for the "violation of federal, state, or local law or requirements imposed for the protection of the environment." 40 C.F.R. § 1508.27(b)(10). This is also true under CEQA. In 1990, lumber mill chemicals and other debris removed from the former P&M Cedar mill site on the CGWC's industrial property near City of Mt. Shasta were disposed of illegally on this site. Local residents were concerned that the material might contain industrial pollution from the mill, and also that the dirt and wood waste from the mill property might contaminate groundwater near where it was dumped. The strong potential for Crystal Geysers Water Company's bottling plant land containing this mill debris burial site within just about seven hundred feet from its main well to contain hazardous or industrial waste, and the necessity for strict adherence to hazardous waste handling and disposal laws, favors the preparation of an EIS.

<sup>4</sup> See Citizens for Quality Growth's Dec. 1, 2014 comment letter about Waste Water Treatment Plant expansion, available online here: <http://tinyurl.com/nr6zoad> (continued footnote);  
See also W.A.T.E.R.'s Nov. 30, 2014 comment letter, available online here: <http://tinyurl.com/qduo4k4>

The City and the EDA should be aware that a local Mt. Shasta citizens group, We Advocate Thorough Environmental Review ("W.A.T.E.R."), has recently filed a lawsuit against Siskiyou County and CGWC for violating County planning and zoning laws regarding the County's issuances of building permits for the CGWC bottling plant. This action is still pending in the Siskiyou County Superior Court. W.A.T.E.R.'s complaint seeks a preliminary injunction against CGWC, arguing that the County was obligated under its existing General Plan and zoning laws to approve a discretionary permit for CGWC's manufacturing plastic bottles, and another discretionary permit for its installation and operation of machinery for brewing teas, and another for its extraction of groundwater for bottling in beverages, prior to issuing any building permits. This action suggests there is a strong potential for the violation of local and state laws in connection with CGWC's application for its bottling plant. The City and the EDA should prepare an EIR/EIS to evaluate such potential violations of applicable laws.

v. *The impact of this Project and related projects is cumulatively significant.*

The City's proposed Project, if funded by EDA, would not occur in a vacuum. It would precipitate further development and federal actions within an ecosystem—the wetlands west of Interstate 5 at Hatchery Lane within the City of Mt. Shasta—that is the target of escalating commercial real estate development. As the City's application materials clearly state, "beneficiaries of the proposed project include existing residential, commercial, industrial, church, school, government, and other users, as well as future users, located within the approximate 11,714-acre service area of the WWTP."<sup>5</sup>

Because it is reasonable to anticipate a cumulatively significant impact on the environment from this Project and related development projects, both proposed and existing, EDA must prepare an EIS. 40 C.F.R. § 1508.27(b)(7). Again, CEQA has a similar requirement.

Even if the City and the EDA only considered the cumulative impacts that will occur at the WWTP property near City of Mt. Shasta, the environmental effects would be significant. "Significance cannot be avoided by . . . breaking [an action] down into small component parts." 40 C.F.R. § 1508.27(b)(7). The federal EDA grant for a WWTP upgrades is merely the first link in a chain of federal and state actions and land development that could transform the WWTP in question, and with it the City of Mt. Shasta and a significant amount of the lands outside the City of Mt. Shasta. Because that ultimate development will almost certainly have a cumulatively significant environmental effect, the City cannot circumvent the need for an EIR/EIS by breaking its proposal "down into small component parts." 40 C.F.R. § 1508.27(b)(7). Piecemealing environmental review of the industrial development in City of Mt. Shasta into multiple, disjointed EAs (under NEPA) or Mitigated Negative Declarations (under CEQA) will not give the public, the City or the EDA a clear picture of the full range of environmental impacts. Because it is "it is reasonable to anticipate a cumulatively significant impact on

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<sup>5</sup> See EDA's Environmental Narrative, p. 1.

the environment" from development of these related lands, 40 C.F.R. § 1508.27(b)(7) requires the EDA to prepare an EIS.

- e. **The EIR/EIS must address all cumulative actions currently proposed by the City.**

In addition to being cumulatively significant, the various proposals for development of Crystal Geyser's bottling plant require one comprehensive EIS / EIR. Under NEPA's regulations, when several proposed actions may have cumulatively significant impacts, those actions are termed "cumulative actions" and must all be addressed in the same EIS. 40 C.F.R. § 1508.25(a)(2); *Oregon Natural Resources Council v. Marsh*, 832 F.2d 1489, 1497 (9th Cir. 1987) ("CEQ guidelines require that 'cumulative actions' be considered together in a single EIS . . ."). (*Council on Environmental Quality, "CEQ"*)

CGWC is proposing to connect its sewer to the City's WWTP to discharge its industrial rinsewater. CGWC is simultaneously requesting approvals from the Siskiyou County Air Pollution Control District for an onsite diesel or propane-fueled primary electrical power generator and various steam boilers. CGWC is additionally requesting from Pacific Power Company a dramatic increase in electrical supply capacity that will necessitate the development of the "Lassen Substation" project installing larger power lines and transformers.

Of the three projects described above, none have received a federal permit or state permit or had any current CEQA/NEPA document prepared analyzing their impacts. Accordingly, those two other projects and the City's current WWTP Project, are all 'proposed actions' within the meaning of 40 C.F.R. § 1508.25(a)(2). As explained in section (d)(v) above, these proposals may have cumulatively significant environmental impacts, and they are therefore "cumulative actions" that must be analyzed together in a single, comprehensive EIS. 40 C.F.R. § 1508.25(a)(2); see also *Wetlands Action Network v. United States Army Corps of Eng'rs*, 222 F.3d 1105, 1118 (9th Cir. 2000) overruled on other grounds in *Wilderness Soc'y v. United States Forest Serv.*, 630 F.3d 1173, 1180-81 (9th Cir. 2011).

### III. City Is Improperly Segmenting Or Piecemealing Environmental Review.

- a. **CEQA and NEPA prohibits Piecemealed Environmental Review.**

The public has repeatedly asked the City and Siskiyou County for a full EIR prepared pursuant to California law to review this Crystal Geyser Water Company Project but an EIR still has not been begun. Instead, the Project is being chopped into smaller bites as a way to evade what federal and state environmental laws require. News reports throughout California in major newspapers and TV reports reflect the public's anger and astonishment that the CGWC is being allowed by negligent agencies to proceed with its massive construction project without any environmental review so far.

The City of Mt. Shasta is unduly risking public funds by endorsing this WWTP Project without proper environmental review. Our organization, Mt. Shasta Tomorrow, is truly concerned that the EDA might someday require the City to refund the full amount of the \$3,000,000 Grant if the irregularities with this Project become more obvious in violation of federal law. Piecemealed environmental review is just part of the problem, but it is a serious concern.

The City is attempting to justify segmenting its environmental review into smaller pieces to save time, save costs and salvage its previously rejected 2013 EDA \$3,000,000 Grant application to, in part, assist CGWC obtain what can only be described as 'corporate welfare.' Only if the City provides a viable sewage connection can CGWC proceed with its full-scale bottling plant operation. The immediate WWTP upgrades this EDA Grant would help fund are part of this larger Project even though the upgrades also will assist the City meet other State-required water quality requirements.

As with CEQA, NEPA regulations articulate specific criteria for determining when proposed federal actions are related to one another to be, in effect, a "single course of action" that requires evaluation in the same environmental document. Such connected actions that are dependent parts of a larger proposal or depend upon the larger proposal for their justification must be reviewed together. Cumulative actions require their significant cumulative impacts to be evaluated in the same EIS. Therefore the City and the EDA should examine and review in an EIR/EIS the cumulative impacts of both the WWTP upgrades and expansion along with Crystal Geysers reasonably-foreseeable large discharge into the WWTP so necessary for its bottling plant's operation.

State and Federal regulations and court precedent prohibit the practice of dividing a single action for separate CEQA or NEPA review (referred to as "segmentation" or "piecemealing") if each action does not have independent utility. Such segmentation is prohibited because agencies could avoid preparing EAs and EISs and fully disclosing impacts by fragmenting a single Project into multiple actions, each with less-than-significant environmental effects.

The immediate City Project the EDA is considering funding would increase the WWTP's capacity from the current 0.7 MGD up to 0.9 MGD. At the very least, the EA or EIS must evaluate this growth inducement and the environmental impacts such growth may cause. CGWC itself might request to initially discharge a somewhat limited amount of rinsewater (i.e. 0.05 MGD) in its first few years here such that its discharge contribution does not push the City's total waterwater flows into the WWTP above 0.9 MGD.<sup>6</sup> Assurances in the Initial Study that a separate EIR may be required for CGWC's ultimate expansion and sewage increase requests are

<sup>6</sup> From IS/MND, p. 12: "With implementation of the proposed improvements, the capacity of the WWTP would increase to accommodate an ADWF of 0.9 MGD. This increase in capacity accounts for existing needs plus an allocation for anticipated future growth at a rate of one percent over the next 20 years. Further expansion of the treatment and disposal system to accommodate addition of 0.15 MGD from Crystal Geysers would be possible in the future if approved by the City of Mt. Shasta."

Also: "A new industrial user, Crystal Geysers, plans to occupy the existing Coca Cola facility. According to Crystal Geysers, additional flows during the first 5 years of its operation would be approximately 0.05 MGD. It is anticipated that the existing lagoon system can handle this additional flow while the proposed improvements are constructed." (*Proposed MND and Initial Study*, Sept, 2015, p. 53) (bold emphasis added.)

hollow if CGWC will be allowed to even initially rely upon the current WWTP's fixes and capacity expansion for CGWC's initial operations and discharges.

Crystal Geyser's proposed full-scale sewage and rinsewater discharges into the WWTP are also reasonably foreseeable consequence of improvements at the WWTP as well. CGWC may not have yet filed a formal application for a sewer connection, but it applied along with the City of Mt. Shasta in 2013 for EDA's \$3,000,000 grant so that it could connect, it continues to assert its right and desire to connect to the sewer system, and it has not formally indicated any other means available to handle its juice, tea and rinsewater effluents. CGWC's plans are reasonably foreseeable because CGWC has estimated it will discharge 50,000 gallons per day (GPD) at first and up to 150,000 GPD later into the City's sewer system, if not even more as it seeks to expand the plant. The City and CGWC even initially applied to the EDA for this \$3,000,000 Grant proposing to discharge 750,000 GPD into the City's sewers. CGWC has never provided any documentation since stating that it would never request permission to dump that much effluent at a future time. The City's all too-transparent attempt to segregate the current WWTP upgrades from its later larger WWTP expansion and from Crystal Geyser's planned sewer connection does not legitimately segregate CGWC's involvement in the Project and need for a full EIR now. That information is included in Enplan's draft Initial Study/MND that the City has circulated and that the EDA now identifies in its group of "NEPA/NHPA decisional documents."<sup>7</sup>

**b. City Acknowledges Crystal Geyser is a Component of Project:**

The Crystal Geyser bottling plant is a **Project component** according to the City's current re-application for the EDA's \$3M grant funding. The City's EDA-PER Preliminary Engineering Report created on September 17, 2015 for these EDA-funded WWTP improvements includes an

<sup>7</sup> From IS/MND:

"Accordingly, if the City were to serve Crystal Geyser, the planned treatment and disposal capacity would need to be increased from 0.9 MGD to 1.05 MGD to serve the anticipated 2039 demand. . . . Preparation of a separate environmental document pursuant to CEQA is needed to address the proposed Crystal Geyser operation. In September 2015, Crystal Geyser announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations.

"With respect to Crystal Geyser, the scope of this Initial Study is limited to addressing the potential full-buildout volume of wastewater that could be generated by existing and foreseeable growth, i.e., 1.05 MGD. The City's approval of this Initial Study and adoption of a Mitigated Negative Declaration would not include or constitute approval for Crystal Geyser to connect to the City's wastewater system. Rather, the current CEQA coverage would allow the City to proceed with the State-mandated treatment and disposal improvements. The results of this Initial Study could also be included in a broader environmental document addressing the whole of the Crystal Geyser project. It is the City's intent, following CEQA approvals, to improve the WWTP to meet the new discharge requirements and provide a capacity of 0.9 MGD. Further improvements to increase the capacity to 1.05 MGD would be made only following separate CEQA approval for connection of Crystal Geyser to the City's wastewater system and receipt of financial assurance from Crystal Geyser that they would cover the cost of the expansion." (*Proposed MND and Initial Study*, Sept, 2015, p. 10)

"The principal factor driving the need for expansion is anticipated population growth within the WWTP service area. A secondary consideration is the possibility that Crystal Geyser may apply for additional capacity in order to expand its bottling operation." (*Proposed MND and Initial Study*, Sept, 2015, p. 9)

attached form. That attachment is included in order to comply with Section A.2 of Form ED-900. The EDA's rules for such Preliminary Engineering Reports require:

" . . . a statement verifying the project components described in the engineering report are consistent with the EDA investment project description that is provided in Section A-2 of Form ED-900. Engineering reports that describe project components that are inconsistent with the EDA investment project description in Section A.2 of Form ED-900 will not be considered valid." <sup>8</sup> (emphasis added.)

That form referenced in Section A.2 clearly identifies the CGWC bottling plant as a component for the EDA's investment. In Section A-5, Crystal Geysers is specifically identified as a Project Beneficiary that will benefit from this WWTP Project and will allegedly be creating 150 jobs here. If Crystal Geysers was no longer a beneficiary, then there would be no need for the Preliminary Engineering Report to have included this 2-page attachment. Without CGWC's participation as a beneficiary, the PER report would not be valid. Accordingly, the City and the EDA should prepare an EIR/EIS to evaluate the environmental impacts of Crystal Geysers' Project as well in order to avoid segmenting and piecemealing of this IS/MND or EA or EIS.

### c. California Law Prohibits Piecemealed Environmental Review

"Courts have considered separate activities as one CEQA Project and required them to be reviewed together where, for example, the second activity is a reasonably foreseeable consequence of the first activity [citation]; the second activity is a future expansion of the first activity that will change the scope of the first activity's impacts [citation]; or both activities are integral parts of the same project [citation]." (*Sierra Club v. West Side Irrigation Dist.* (2005) 128 Cal.App.4th 690, 698 (*Sierra Club*)).

CGWC's bottling plant Project is a development where one stage of a project is the first domino to fall in a causally related series of events to follow. (See *Bozung v. Local Agency Formation Com.* (1975) 13 Cal. 3d 263, 279 [agency's annexation of land was first step towards development of that land].) If the WWTP is not upgraded, then CGWC cannot connect its sewage discharges to the WWTP because the State Water Board will re-enact the moratorium to protect the Sacramento River's water quality.

Requiring separate activities to be reviewed together occurs when a second activity is a "future expansion" of the first that will "change the scope of the first activity's impacts". (*Sierra Club, supra*, 128 Cal.App.4th at p. 698.) For example, see: *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376 (*Laurel Heights*) CGWC's foreseeable sewer connection will change and enlarge the scope of the WWTP's expansion.

This is explained further in *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209 [This decision is available online at: [https://scholar.google.com/scholar\\_case?case=16905996831533156592](https://scholar.google.com/scholar_case?case=16905996831533156592) ]

<sup>8</sup> See: [www.eda.gov/about/files/Preliminary\\_Engineering\\_Report\\_Requirements.doc](http://www.eda.gov/about/files/Preliminary_Engineering_Report_Requirements.doc)

Accordingly, "CEQA forbids 'piecemeal' review of the significant environmental impacts of a project," (*Berkeley Jets, supra*, 91 Cal.App.4th at p. 1358.) Agencies cannot allow "environmental considerations [to] become submerged by chopping a large project into many little ones — each with a minimal potential impact on the environment — which cumulatively may have disastrous consequences." (*Bozung, supra*, 13 Cal.3d at pp. 283-284 [EIR required when city annexed land for anticipated development].)

The California Supreme Court set forth a piecemealing test in *Laurel Heights*. "We hold that an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (*Laurel Heights, supra*, 47 Cal.3d at p. 396.) "Under this standard, the facts of each case will determine whether and to what extent an EIR must analyze future expansion or other action." (*Ibid.*)

....  
**First, there may be improper piecemealing when the purpose of the reviewed project is to be the first step toward future development.** (See, e.g., *Laurel Heights, supra*, 47 Cal.3d at p. 398 [university planned to occupy entire building eventually]; *Bozung, supra*, 13 Cal.3d at pp. 269-270 [city annexed land so it could rezone it for development]; *City of Carmel-by-the-Sea v. Board of Supervisors* (1986) 183 Cal.App.3d 229, 244 [county rezoned land as "a necessary first step to approval of a specific development project"]; *City of Antioch v. City Council* (1986) 187 Cal.App.3d 1325, 1337 (*Antioch*) [negative declaration wrongly issued; "the sole reason" city approved road and sewer construction was "to provide a catalyst for further development"]; see also *Antioch*, at p. 1336 ["[c]onstruction of the roadway and utilities cannot be considered in isolation from the development it presages".])

(*Bold emphasis added.*)

And there may be improper piecemealing when the reviewed project legally compels or practically presumes completion of another action. (*Nelson v. County of Kern* (2010) 190 Cal.App.4th 252, 272. [EIR for reclamation plan should have included mining operations that necessitated it]; *Tuolumne County, supra*, 155 Cal.App.4th at p. 1231 [home improvement center "cannot be completed and opened legally without the completion of [a] road realignment"]; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 732 [EIR for residential development should have included sewer expansion that was a "crucial element[]" of development];

The City and the EDA must evaluate the whole of this Project in an EIR/EIS, including the WWTP improvements and expansion, the Interceptor line enlargement, and Crystal Geyser's bottling plant Project because CGWC is a beneficiary and a driver for some of these expanded sewage facilities.

#### IV. City and EDA Should Accurately Indicate the Purpose of this Project in EIR/EIS:



The City's IS/MND and the EDA's Environmental Assessment or EIS must also articulate the purpose of the Project accurately. The full purpose must be defined so that the public can consider reasonable alternatives and so that the IS/MND or EA or EIS does not rig the outcome. The City and the EDA are not allowed to execute an end run around CEQA and NEPA's core requirements by limiting the inquiry without justification.

1. In one place, the City's documents state: "*The purpose of the proposed action is to assist the City of Mt. Shasta in upgrading its Wastewater Treatment Plant (WWTP) in an effort to comply with requirements for wastewater discharge set by the Central Valley Regional Water Quality Control Board (Central Valley RWQCB).*"

2. However, another purpose stated in the City's Environmental Narrative is to provide for expanded sewage treatment capacity: "*These subsequent improvements of the WWTP would be sized to accommodate anticipated growth over a 20-year period.*" Not stated there is the related need to increase the size and capacity of the Interceptor sewer pipe so that increased wastewater flows can be transported to the WWTP.

3. Most obvious to the public is the additional purpose of this larger Project is to provide sewage treatment capacity to allow the primary beneficiary, Crystal Geysers Water Company, to operate its business as proposed. CGWC seeks to have immediate access to City sewers for its initial operations, something that even the first phase of WWTP improvements will apparently accommodate.

The City and the EDA must carefully identify this proposed Project so its review encompasses all of the component activities needed to meet the objectives of the proposal. Identification of an action is more than just characterizing it; it also involves delineating it. Agencies such as the City and the EDA cannot purposefully limit the breadth of their proposed actions in order to qualify for a MND or a FONSI knowing that additional interrelated activities will be necessary in order to accomplish their objectives of their proposal.

The City and the EDA must prepare an EIR/EIS that evaluates the full purpose of this larger Project now being investigated.

#### V. The City's Environmental Narrative Is Inadequate:

The City and the EDA are obligated to provide an Environmental Narrative for public review in order to apprise the public of issues that will be studied in its EA or EIS. The City's consultants have created that 82-page document<sup>9</sup>, but it is not adequate because it is misleading and minimizes some of the Project's environmental impacts.

NEPA requires an Environmental Narrative to assess the expected environmental impacts associated with a project funded by the EDA. CEQA has parallel requirements. As you must know, the EDA cannot make an award until it has received sufficient information to make a

<sup>9</sup> It is titled the Environmental Narrative: City Of Mt. Shasta Wastewater Treatment Plant; EDA-Funded Filtration And Disinfection Improvements Project; Siskiyou County, California; September 2015.

determination regarding this Project's environmental impact. Yet the Environmental Narrative the City of Mt. Shasta provides does not contain sufficient information.

a. **The Description of Potential Air Pollution Impacts is Inadequate**

The Environmental Narrative is misleading to only disclose that "Siskiyou County is in compliance with the Federal Clean Air Act for all criteria pollutants." That understates the true problems with local air quality. Siskiyou County, and the Mt. Shasta City area in particular, are NOT in attainment with California standards for fine particulate pollution such as PM<sub>10</sub> and PM<sub>2.5</sub>. In summer months we often have smoke-filled air conditions due to forest fires. In winter months wood stove smoke often pollutes our local airshed.

The Environmental Narrative also fails to mention that this Project will result in the release of fugitive air emissions during some site grading construction activities. Considering that summer air conditions are at times already not in compliance with California air standards, the City's and the EDA's failure to disclose additional fugitive emissions during construction is misleading to the public. Such emissions would occur with the operation of the various units of equipment including construction equipment such as "a compactor, excavator, dozer, backhoe, loader, dump truck, and grader" that are mentioned in the Environmental Narrative.

b. **The Description of Potential Noise Impacts is Inadequate**

The Environmental Narrative, on p. 15, fails to identify that construction activities at the WWTP are likely to expose neighboring residents to excessive short-term noise levels during construction activities. It instead states: "No impacts with respect to noise would be expected."

However, that unsupported conclusion of no noise impacts is refuted in the City's draft Initial Study/Mitigated Negative Declaration ("IS/MND") on pages 51-52. The IS/MND states:

*"Project implementation has the potential to increase noise levels in the short term during project construction and in the long term due to project operation."*

With the nearest home only about 300 feet or less away from the Project site, the use of loud, heavy construction equipment will definitely have some noise impacts at these residences. The IS/MND attempts to downplay these noise impacts by referring only to the City's noise standards. However, those nearest homes are not within City limits where those standards apply. The IS/MND mentions nothing about Siskiyou County noise standards which should also be consulted because they apply to County residences and in some ways are more restrictive than City standards.

Moreover, the City of Mt. Shasta's interpretation of noise impacts cannot be relied upon for noise impact evaluation. It has a history of not following its own noise regulations. The City has refused to comply with its own General Plan now since 20 years ago. In the mid 1990s, the City's then-adopted General Plan promised the public that the City would adopt a Noise Ordinance to better deal with noise impacts of projects similar to this WWTP Project. The City during all this time has never adopted such a noise ordinance.

Aerial Photo Showing Proximity of  
Neighboring Homes to WWTP Project

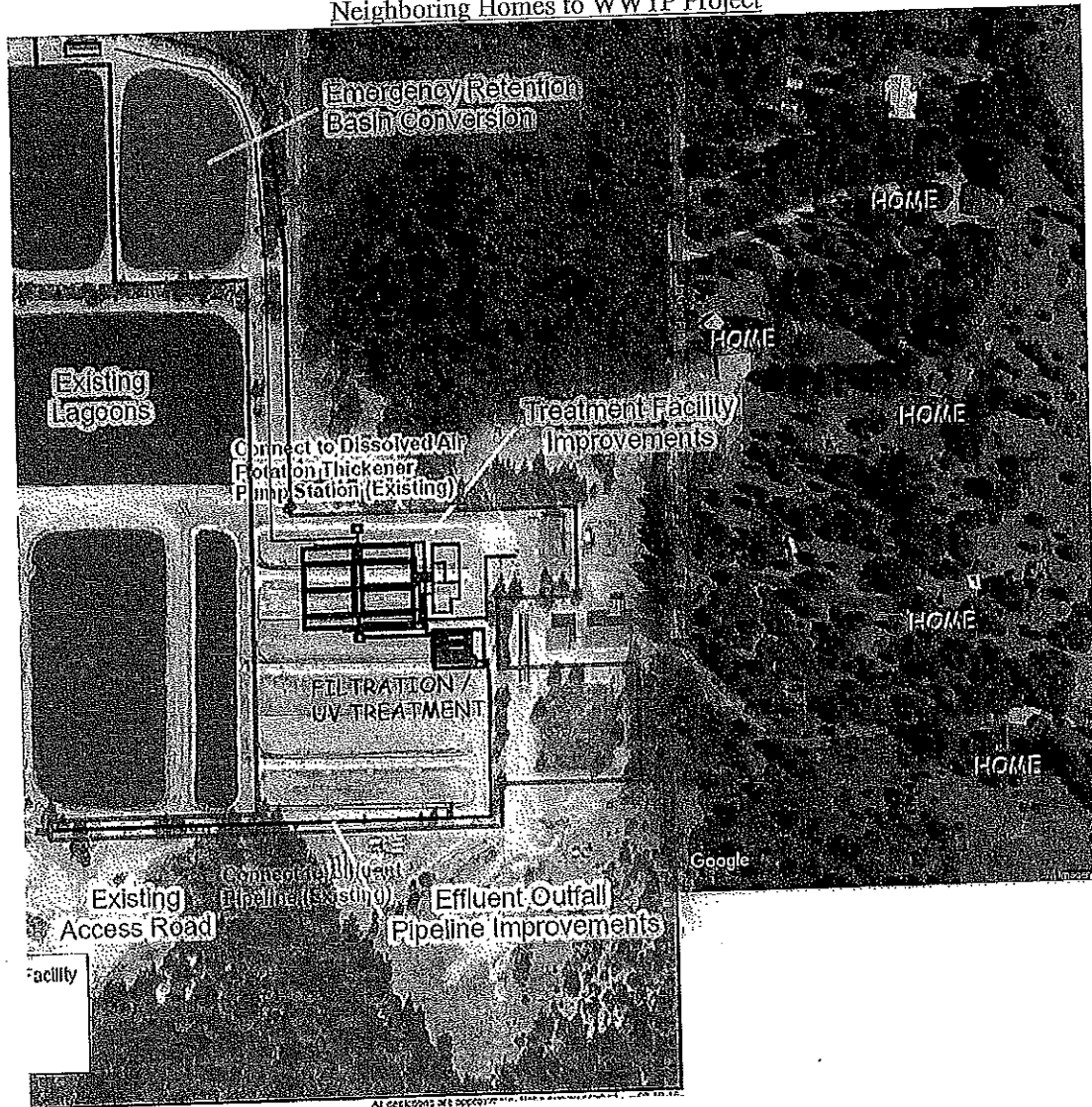


Figure 2  
Project Location

(Red outline in color original of this comment letter shows WWTP Project)

The draft Initial Study/MND determines that the WWTP Project's noise impacts which may create a "substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project" will be less-than-significant. However, that Initial Study provides no valid supporting evidence or meaningful analysis for that conclusion. The Initial Study essentially underestimates the noise construction activities may produce and exaggerates how much such loud construction noise will be reduced at that nearest home that is

within about 300 feet. Neither the Environmental Narrative nor the Initial Study provides any baseline noise level measurements near those homes. Measurements of existing baseline noise conditions are needed in order to compare with predicted noise increases that may occur during construction. Without knowing how quiet those nearby homes currently are, the Initial Study cannot logically conclude the short-term noise increases will be "less-than-significant."

The Initial Study estimates that noise levels during WWTP construction would be about 60-65 dBA at a 300 foot distance, where the nearest home is located. But the Initial Study provides no calculations to support that estimation. Noise levels of greater than 55 dBA might be considered significant, so even this IS/MND prediction does not support a determination of "less-than-significant" noise impact.<sup>10</sup>

The City's noise standards are lower yet, with 50 dBA  $L_{eq}$  being considered a daytime limit in outdoor activity areas for residences affected by non-transportation noise.<sup>11</sup> Homes near the WWTP are defined as having outdoor activity areas even closer to the WWTP than the Initial Study indicates: General Plan Noise Element Table 7-5 states: "For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100 foot radius of the residence." At 200 feet rather than at 300 feet from the WWTP, predicted noise levels may be about 2 dB louder estimated in the Initial Study even using its erroneous assumptions.

Short-term noise level increases of more than 5 dB greater than ambient conditions are typically also considered to be significant in many California jurisdictions. During early morning hours before 8 a.m. ambient noise levels in this vicinity are likely lower than 40 dBA  $L_{eq}$ . If this WWTP Project creates short-term noise levels of up to 65 dBA at some nearby homes, or 25 dB greater than ambient conditions, its noise impacts would be quite severe. Other homes in that aerial photo that are 600 to 700 feet from the Initial Study's identified WWTP construction areas may also be exposed to excessive noise unless noise mitigations are imposed.

To show that WWTP construction activity predicted noise levels may be greater than estimated in the Initial Study, that nearest home shown in the aerial photo near Jake's Place street above does not have sufficient intervening vegetation or "unpacked earth" between it and construction work to have noise levels attenuated by 7.5 dBA per doubling of distance. More commonly in such circumstances an attenuation rate of 6.0 dBA per doubling of distance is used. At close distances from large heavy equipment, that attenuation rate is even lower for the first 50 to 100 feet, meaning that noise estimation at distances of 300 feet should be higher yet than the City assumes. More than a single piece of heavy equipment may operate at the same time, increasing the total noise any one home is exposed to with two or more noise sources. The Initial Study underestimates the maximum noise during Project construction as 80 to 85 dBA at a distance of 50 feet. Yet its Table 3 (Examples of Construction Equipment Noise Emission Levels) shows

<sup>10</sup> The City of Mt. Shasta General Plan's Noise Element states: "The U.S. Environmental Protection Agency (EPA) also offers guidelines for community noise exposure in the publication "Information on the Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety". These guidelines consider occupational noise exposure as well as noise exposure in the home. The "Levels Document" recognizes an exterior noise level of 55 dB  $L_{dn}$  as a goal to protect the public from hearing loss, activity interference, sleep disturbance and annoyance."

<sup>11</sup> The City's maximum acceptable standards are at most 45 dBA  $L_{eq}$  at nighttime (i.e. before 7 a.m.).

trucks typically emitting 88 dBA at 50 feet. Trucks will be used onsite during construction and even closer to other homes along off-site access streets.

The City proposes no noise mitigations to limit the hours of WWTP construction even though it hints that compliance might limit work to between a 7 a.m. – 5 p.m. schedule. The Initial Study even acknowledges that some WWTP construction may occur before 7 a.m. People working outdoors often prefer early hours before 7 a.m. during summer heat. Accordingly, no noise limitation or mitigation has been proposed.

Even if this Project's construction noise was exempt from regulation at this location or within the City of Mt. Shasta, that interpretation would not exempt the City or the EDA from having to evaluate this Project's short-term increases in ambient noise levels. CEQA and NEPA are laws entirely separate from local City laws. The City's General Plan states that construction noise can be exempted to exceed the City standards during special circumstances.<sup>12</sup> But there is no such exemption in the County's noise standards for construction activities where these homes are located. Construction noise is routinely mitigated in most California jurisdictions; the City of Mt. Shasta is not exempt under NEPA or CEQA from such standard environmental mitigations and protections intended for neighboring residents.

The Initial Study admits that some construction noise might even occur at nighttime. Yet the Initial Study fails to evaluate the potential for serious sleep-disturbance impacts to neighboring residents. Per the court decision in *Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs* (2001) 91 Cal.App.4th 1344, such sleep-disturbance impacts must be evaluated for projects that may cause such harmful health-related impacts to residents.

The City and the EDA must evaluate the significance of the Project's noise impacts with the corresponding context of significance, in this case, those homes where estimated noise levels from Project construction could be audible. The City should correct the inadequate Initial Study's determinations and prepare an EIR/EIS to more accurately review the noise impacts this WWTP Project may generate.

**c. Environmental Narrative Underestimates Project Controversy**

It is untrue that "no public notice is necessary and no public controversy is anticipated" as the Environmental Narrative claims on page 16. The fact that the EDA published a Public Notice contradicts that conclusion. The fact that this larger Project, that of the WWTP upgrade and CGWC's involvement in attempting to establish a bottling plant here, has been the most controversial Project in the last 20 years or more in the City of Mt. Shasta and has been reported on in dozens of major news sources for two years proves this is a controversial Project.

**d. Environmental Narrative Misrepresents Direct, Indirect and Cumulative Effects**

<sup>12</sup> Mt. Shasta General Plan Noise Element Implementation Measure NZ-1.8(c): Noise associated with construction activity between the hours of 7 a.m. and 5 p.m. shall be exempt from the standards cited in Table 7-5. Construction activity outside of this period may exceed the cited standards if an exemption is granted by the City to cover special circumstances.

The Environmental Narrative inaccurately states that this Project will not result in Direct, Indirect and Cumulative Effects on the environment. Contrary to such inconsistent statements the City has made, this Project will be growth-inducing. The Project is even required to be growth-inducing per funding requirements established by Federal Laws for new job creation. The expansion of WWTP capacity will induce the growth of additional urban development.

The Environmental Narrative in one paragraph states the Project will not be growth-inducing, and then in the very next paragraph states: "*These subsequent improvements of the WWTP would be sized to accommodate anticipated growth over a 20-year period, with growth anticipated at a rate of one percent per year.*" It also next states: "*... growth-induced cumulative impacts are expected ...*" The Environmental Narrative then attempts to negate those growth inducing problems which call out for proper environmental review.

It matters not that the City's General Plan anticipates some growth, for the City and the EDA must evaluate this Project's impacts as they also occur outside the City of Mt. Shasta in the surrounding Siskiyou County area. Moreover, the City's General Plan adopted nearly 20 years ago never considered the massive environmental impacts that the Crystal Geysers Project would have when located immediately outside the City limits. The City and the EDA should prepare an EIR/EIS to evaluate this Project's Direct, Indirect and Cumulative Effects.

**e. The Environmental Narrative Fails to Identify Crystal Geysers Water Company as a Beneficiary.**

To the extent that this comment is relevant under CEQA it is included in our comment letter. The Environmental Narrative fails to comply with Federal law because it does not identify Crystal Geysers Water Company as a beneficiary of this grant funding Project and fails to disclose its location. Per EDA Directive § 17.02, the EDA must ensure that "proper environmental review of program activities takes place, that there is proper balance between goals of economic development and environmental enhancements and that adverse environmental impacts are mitigated or avoided to the extent possible."<sup>13</sup>

The Environmental Narrative is required to identify "areas to be affected by any beneficiaries of the project." Since CGWC is a "beneficiary", its area and actual location on Ski Village Drive adjacent to the City of Mt. Shasta must be identified in the EDA's Public Notice and in the City's Environmental Narrative because those were purportedly prepared to meet the EDA's objectives. Yet nowhere in that Environmental Narrative document is Crystal Geysers even mentioned, nor is its bottling plant's site identified on any map.

Federal rules also require that "Information submitted must be sufficient to evaluate all reasonable alternatives to the proposed project." Some Project alternatives have been previously identified with the various routes proposed by City engineering consultants for the Interceptor pipe repair phase of this Project. The presence and necessity for the Interceptor pipe is however

<sup>13</sup> <https://ceq.hss.doc.gov/publications/nepa-handbooks.html>  
Also: See the ENVIRONMENTAL REQUIREMENTS For EDA Grant Applications; September 29, 2014:  
<http://www.nado.org/wp-content/uploads/2014/10/Bush.pdf>

totally omitted from the Environmental Narrative. By having omitted much of the related information about this larger project, the Environmental Narrative and the draft MND prepared by MND fail to have evaluated all reasonable alternatives.

The City and the EDA should prepare an EIR/EIS to correct these significant deficiencies.

- f. **The Environmental Narrative Fails to Identify that Crystal Geyser Water Company's Relocation to Mt. Shasta May Create Urban Blight in Communities Where it Will be Closing it's Other Bottling Facilities.**

The creation of urban blight or decay is an environmental impact. This Project risks creating such economic harm and consequent urban decay in Calistoga and elsewhere where CGWC's bottling plants will be shuttered after it more fully transfers its operations to Mt. Shasta.

The City and the EDA should evaluate the risk of such physical deterioration resulting from economic blight in its EIR/EIS for this Project. The public has evidence that such economic and resultant physical blight is a reasonably-foreseeable possibility. CGWC informed the press that it intended to close its other bottling plants once it moved to Mt. Shasta. As the San Francisco Chronicle<sup>14</sup> reported on February 19, 2014:

Company's plans

The facility, which is under county jurisdiction but would have to use city services, must do approximately \$10 million in waste disposal system upgrades before it can open in 2015. Crystal Geyser has obtained a \$3 million federal grant for the work, which it is matching, MacLean said.

He said the initial plan is to have a single bottling line, which would use an average of 115,000 gallons of water a day to make mineral water, juice, flavored tea and mint drinks. A second line would be opened in five to seven years, bumping up water use to an average of 217,000 gallons, with a maximum of 365,000 gallons a day. Coca-Cola used 250,000 to 300,000 gallons a day, he said.

MacLean said the company will eventually phase out its Calistoga and Bakersfield plants and move its entire operation to Siskiyou County."

EDA Grant funds are not supposed to be allowed for creating jobs in one community when that entails the job relocation and loss from an existing community elsewhere. As the EDA has already informed the City of Mt. Shasta, the planned closure of Crystal Geyser's other facilities violates Special Award Condition No. 20. NONRELOCATION, which cites 13 C.F.R Section 300.3, "that the EDA funded project will not be used to induce the relocation or the movement of existing jobs from one Region to another Region by a primary beneficiary of the award."

Since Crystal Geyser requires access to the WWTP for its rinsewater disposal, this EDA grant may be subsidizing physical blight in other communities. In the City of Mt. Shasta's December, 2012 EDA Grant application, the City acknowledged it sought this \$3,000,000 EDA grant to facilitate the construction of Crystal Geyser's bottling plant:

<sup>14</sup> The San Francisco Chronicle's February 19, 2014 newspaper article about CGWC is available online here:  
<http://www.sfgate.com/science/article/Crystal-Geyser-small-town-locked-in-bitter-water-5246469.php#page-1>

- b. Briefly describe the economic development needs of the region and how the proposed investment addresses the goals and objectives of the CEDS for the region or the alternate strategic planning document as noted above. (See 13 C.F.R. part 303.)

Siskiyou County is an economically depressed area that is still transitioning from a timber based economy to one relying more heavily on tourism with a smaller resource-based industry. The immediate investment in Mt. Shasta's infrastructure will facilitate the reopening of a former spring water bottling facility to become a value-added beverage bottling facility. This facility will create 60 immediate new jobs with the potential for 150 in the future. These new manufacturing jobs will have a large impact on the population of Mt. Shasta and Siskiyou County. Mt. Shasta City's wastewater system improvement is specifically mentioned in the Superior California Economic Development District CEDS, Section 5, item 3-13. Also, items 3-12, 1-4, and 1-5 apply to this project.

Such risks should have been discussed in the Environmental Narrative, and must be evaluated in an EIR/EIS. The Environmental Narrative is required to provide detailed, comprehensive information for the project site and for areas affected by any primary beneficiaries of the WWTP Project, such as Crystal Geysers. However, all the Environmental Narrative states in this regard is that: "*Beneficiaries of the proposed Project would be located on land designated for use as industrial, commercial, residential, agricultural, recreational, and public facilities.*" That statement is far too general and is not sufficient to comply with federal rules. That statement would apply to any utility project in any community so it is essentially meaningless.


The City and the EDA should disclose in an EIR/EIS the extent of this WWTP/CGWG Project's impacts on these closely connected other California communities. Calistoga, for example, is a small town where the loss of a business as large as CGWC could result in a substantial reduction in property tax income and commercial revenue in its downtown businesses.

Mt. Shasta Tomorrow is particularly concerned that our community could also be economically harmed if the EDA's \$3,000,000 Grant for this Project is someday withdrawn or is required to be repaid by our citizens as the result of the City's inadequate public disclosure and noncompliance with Special Award Condition No. 20 about nonrelocation.

#### CONCLUSION:

Thank you for considering these comments in regards to the City of Mt. Shasta's Waste Water Treatment Plant Project to be possibly partially funded through the EDA's \$3,000,000 Grant. We urge the City and the EDA to conduct an EIR/EIS on this larger Project as discussed above. While repairs to the WWTP to protect water quality would be valuable in our community, this first WWTP phase of the larger Project risks uncorking a bottle and releasing an evil genie. That is a risk of significant harm of local and worldwide pollution and plastic wastes inherent in Crystal Geysers's heretofore unstudied environmental problems and business activities.

Sincerely,

  
Dale La Forest  
Director - Mt. Shasta Tomorrow



Larisa Proulx

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From: Marilyn Taylor [REDACTED]  
Sent: Friday, January 08, 2016 12:30 PM  
To: Kristen Maze  
Subject: Proposed MND...

January 8, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

Dear Kristin,

I wish to reaffirm the points made in the very detailed and knowledgeable letter addressed to you by Vicki Gold. This is a time to take courageous action, not to be pushed into unwisely yielding to pressures from Crystal Geysers or the Board of Supervisors.

This is a major investment that should not be rushed into without all the facts available and the consequences thoroughly weighed. Think about the regrets you will have if the wrong decision is taken and the people of Mt. Shasta are left holding the bag, i.e. having not only to deal with the destructive consequences of letting Crystal Geysers have its way with us, but also paying for the results

Thank you for conscientiously considering all that is involved in this matter.

Marilyn Taylor

[REDACTED] Mount Shasta

Larisa Proulx

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**From:** shanta@shantagabriel.com  
**Sent:** Friday, January 08, 2016 11:07 AM  
**To:** Kristen Maze  
**Subject:** Proposed Treatment Facility

Kristin Maze  
Mt Shasta City Planner  
[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)  
January 8, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

Dear Kristin,

I am sending you a copy of Vicki Gold's letter because it is so well researched and clearly more coherent than is possible for me as a private citizen of Mt. Shasta. I agree with her completely and am very concerned about all aspects of the Crystal Geyser plant opening here.

There are problems associated with the wastewater treatment plant that clearly must be addressed. We all want to see the best possible outcome for local groundwater and the Sacramento River. Clearly ENPLAN and PACE have endeavored to come up with a plan to upgrade the very archaic wastewater system now in operation. My comments will focus primarily on the obvious continued attempt (now by the City) to avoid accusations of piecemealing the Crystal Geyser Water Company project by basically excluding them from this MND.

On page 28 it is stated that "It is expected that new wastewater infrastructure, constructed with modern materials and workmanship, will create a "tighter" less leak-prone collection system". *Where is the funding for the improvements in the collection system?* In the 2007 study a figure of \$6 million is given for expected improvements in the city collection system. Was this done? We know that the EDA grant initially indicated a price of \$6 million for the Interceptor Line to accommodate Crystal Geyser. I assume that would be in addition to this previously identified \$6 million for other city lines to be replaced. If the intention is to abandon use of the leach field on USFS land to the greatest extent possible to avoid downstream groundwater contamination, does this not assume funding of these additional improvements? *Is the collection system addressed in this MND?*

On page 30 reference is made to alkalinity being important in Nitrogen removal. "Adequate alkalinity in the wastewater is necessary to maximize nitrification. It may be necessary to add alkalinity upstream of the biological treatment process." We have shared with the City and

with PACE the history of the CocaCola plant in Northampton MA and the fouling of the wastewater treatment plant near the Connecticut River with sugary effluent when they switched from water to Minute Maid Lemonade and juice bottling.

See link: <http://www.triplepundit.com/2012/03/northampton-coca-cola/> *Clearly this would contribute to acidification and will affect the pH and nitrification process down the line when the CG plant is at full operation.*

*The City appears to be held hostage by the CGWC as it attempts to complete a very necessary improvement to the wastewater management system. How can the largest capital project in the history of the City of Mt. Shasta (\$16.5 million) go forward with a wholly inadequate database regarding their effluent?*

From the figures given in the MND the recommendation is to use the figures given in the Herald by the corporation (50 MGD for 5 years and then 150 MGD at full buildout). We know the initial EDA grant was predicated upon the estimate of 250 MGD at start up and 750 MGD at full build out. *How can we determine what is a true estimate of CG's needs and the effects on the capacity at the WWTP?*

There is also raw land at Spring Hill and The Landing owned by developers and by the City waiting for connection to the city sewer . If CG is up and running and uses all the capacity at the plant, then the City will have a harder time selling and developing The Landing for potentially much more desirable end uses, perhaps a performance and convention center. This is corporate welfare if we allow CG to conceal the data associated with their expected production and to use the capacity that might otherwise be for future residential and commercial growth.

Another concern is that apparently it is difficult to obtain loans and grants for capital expansion that will accommodate a large industrial consumer. Everyone knows that CG is waiting on the sidelines for the WWTP and Interceptor Line to be funded by state or federal funders. We are told that they will be charged a \$3 million connection fee when they apply for a permit. But they haven't applied and there isn't even a permit application process completed by the City to our knowledge. By preliminary calculations below, CGWC should pay for all of the Interceptor Line expansion (with pro- rata share paid by local raw landowners benefiting such as CDMS).

In addition they should pay for a share of the WWTP upgrade to accommodate their needs. Let's see what this might be:

If Household Equivalents (HE) are used of approximately 250 GPD/EU based upon 2700 EUs and 0.67 billable sewer accounts, then CG's effluent would be: 50K GPD= 200 EUs; 150K GPD=600 EUs; 250K GPD=1000 EUs and 750K= 3000 EUs. This is an unacceptably wide range in long term planning! This is a range of from 7.5% of the capacity to 100% of capacity.

The EDA and the City must demand more information from the engineers working for CG in order to determine realistic future growth for the rest of the community. The City received a letter from Crystal Geysers attorney Barbara Brenner 12/1/14 (replying to the NOP for the EIR for the Interceptor Line) maintaining that CG was entitled to the remaining present capacity of the WWTP of 100,000 GPD. Is this not a red flag?

To proceed with inadequate future growth capacity and to virtually exclude CG's effluent in the mix, both quality and quantity, is illogical. It is clear that improvements must be made, *but how will the City assign a cost value to the CG component?*

Page 13 states : "The City of Mt. Shasta anticipates that, if it were to allow Crystal Geysers to connect to the City's wastewater system, pre-treatment of the wastewater by Crystal Geysers would be required to remove any unique constituents (i.e., sugars with a high biological oxygen demand). Further, the City would require that Crystal Geysers pay for its full share of the costs of expanding the facility to handle an additional 0.15 MGD of wastewater. Preparation of a separate environmental document pursuant to CEQA is needed to address the proposed Crystal Geysers operation. In September 2015, Crystal Geysers announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations."

*But how will this be accomplished?*

Yes, it is reasonable and apparently necessary and prudent planning for major infrastructure projects to provide adequate growth capacity for a 20 year period in order to be "funding eligible" by the major potential funding agencies, such as USDA, RDA and Clean Water State Revolving Fund.


We feel that ENPLAN should insist that the *City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent.* They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent. *With money in an impound account to cover such costs it would be easier to approach lenders to fund the public project.* *Without this account, it will be clear to all funders, as it is to the community, that CG is seeking yet another gift from the ratepayers and taxpayers to accommodate their desired project needs. This is a conundrum.* There have been over 3 years of staff time at city, county, state and federal levels, legal consultations not only by city attorney, county counsel, but outside CEQA law firms consulting to address the CG issue. *How is this not corporate welfare and misuse of public funds?* Where is the "good corporate neighbor"? Actions speak louder than words. No amount of bottled water for events can compensate for the hundreds of thousands of dollars spent on CG to date.

This is an opportunity to insist that they pay their own way. *If they do not provide the necessary information and the City's project is delayed causing fines for NPDES permit violations by 2017, then those bills should be sent to CGWC.* Had they cooperated with the public's demands for an EIR from December 2013, none of these questions would still be

circling. As Brock Dolman Permaculturist says "Planning is best done in advance!" By Vicki Gold, 1/7/16

Respectfully submitted,

Shanta Gabriel

 Mt. Shasta CA. 96067

May all beings live in Peace, Harmony and Wellbeing. And so it is.

Blessings, Shanta

[www.ShantaGabriel.com](http://www.ShantaGabriel.com)

Larisa Proulx

---

**From:** Vicki Gold [REDACTED]  
**Sent:** Friday, January 08, 2016 10:06 AM  
**To:** Kristen Maze  
**Subject:** Letter in Response to MND/IS WWTP 1/8/16  
**Attachments:** Southampton MA CocaCola plant.pdf; ATT00001.htm

**From:** Vicki Gold [REDACTED]  
**Subject:** Letter in Response to MND/IS WWTP 1/8/16  
**Date:** January 8, 2016 1:41:09 AM PST  
**To:** Vicki Gold [REDACTED]

Kristin Maze  
Mt Shasta City Planner  
[kmaze@mtshastaca.gov](mailto:kmaze@mtshastaca.gov)

January 8, 2016

Re: Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

Dear Ms Maze,

There are problems associated with the wastewater treatment plant that clearly must be addressed. We all want to see the best possible outcome for local groundwater and the Sacramento River. Clearly ENPLAN and PACE have endeavored to come up with a plan to upgrade the very archaic wastewater system now in operation. My comments will focus primarily on the obvious continued attempts (now by the City) to avoid accusations of piecemealing of the Crystal Geysers Water Company Project by basically excluding them from this MND.

Referencing the 2014 Draft Preliminary Engineering Feasibility Study for City of Mt Shasta State Mandated Wastewater Treatment and Disposal Improvement Project, on page 28 it is stated that "It is expected that new wastewater infrastructure, constructed with modern materials and workmanship, will create a "tighter" less leak-prone collection system". Where is the funding and line item budget for the improvements in the collection system? In the January 2007 Revised Draft Water & Sewer Rate Alternative Results prepared by

Foresight Consulting, a figure of \$6 million is given for expected improvements in the city collection system. Were these improvements made?

We know that the EDA grant initially indicated a price of \$6 million for the Interceptor Line to accommodate Crystal Geysers. I assume that would be in addition to this previously identified \$6 million for other city lines to be replaced. If the intention is to abandon use of the leach field on USFS land to the greatest extent possible to avoid downstream groundwater contamination, does this not assume funding of these additional improvements? *Is the collection system addressed in this MND? Why not? Logic demands that the entire project be reviewed, WWTP and collection system.*

On page 30 reference is made to alkalinity being important in Nitrogen removal. "Adequate alkalinity in the wastewater is necessary to maximize nitrification. It may be necessary to add alkalinity upstream of the biological treatment process." We have previously shared with the City and with PACE the history of the CocaCola plant in Northampton MA and the fouling of the wastewater treatment plant near the Connecticut River with sugary effluent when they switched from water to Minute Maid Lemonade and juice bottling. (See link:

<http://www.triplepundit.com/2012/03/northampton-coca-cola/>).

Attachment below. Clearly the Crystal Geysers juice and tea bottling project would contribute to acidification and will affect the pH and nitrification process down the line when the CG plant is at full operation.

The City appears to be held hostage by the CGWC as it attempts to complete a very necessary improvement to the wastewater management system. *How can the largest capital project in the history of the City of Mt. Shasta (\$16.5 million) go forward with a wholly inadequate database regarding CGWC's effluent?* From the figures given in the MND the recommendation by ENPLAN is to use the figures given in the Mt. Shasta Herald by the corporation (50,000 gpd for 5 years and then 150,000 gpd at full buildout). Nothing is in writing to our knowledge. We know the initial EDA grant was predicated upon the estimate of 250,000 gpd at start up and 750,000 gpd at full build out. *How can we determine what is a true estimate of CGWC's needs and the effects on the capacity at the WWTP?*

There is also raw land at Spring Hill and The Landing owned by developers and by the City waiting for connection to the city sewer . If CGWC is up and running, using all the capacity at the plant, then the City will have a harder time selling and developing The Landing for potentially much more desirable end uses, perhaps a performance and convention center. This is corporate

welfare if we allow CG to conceal the data associated with their expected production and to use the capacity that might otherwise be available for future residential and commercial growth, while the ratepayers assume the loan responsibility.

*Another concern is that it is apparently difficult to obtain loans and grants for capital expansion that will be required to accommodate a large private industrial consumer.*

Everyone knows that CG is waiting on the sidelines for the WWTP and Interceptor Line to be funded by state or federal funders. We are told that they will be charged a \$3 million connection fee when they apply for a permit. But they haven't applied yet, and there isn't even a permit application process completed by the City to our knowledge. By preliminary calculations below, CGWC should pay for all of the Interceptor Line expansion (with pro-rata share paid by local raw landowners who would also benefit such as CDMS).

In addition they should pay for a share of the WWTP upgrade to accommodate their needs. Let's see what this might be:

If Household Equivalents (HE) are used of approximately 250 GPD/EU based upon 2700 EUs and 0.67 billable sewer accounts, then CG's effluent would be: 50K gpd= 200 EUs; 150K gpd=600 EUs; 250K gpd=1000 EUs and 750K gpd= 3000 EUs. This is an unacceptably wide range in long term planning! This is a range of from 7.5% of the capacity to more than 100% of present capacity.

The EDA and the City of Mt Shasta must demand more information from the engineers working for CG in order to determine realistic future growth capacity for the rest of the community. The City received a letter from Crystal Geyser's attorney Barbara Brenner of Churchwell White on 12/1/14 (replying to the NOP for the EIR for the Interceptor Line) maintaining that CG was entitled to the remaining present capacity of the WWTP of 100,000 gpd. Is this not a red flag? *To proceed to under build with inadequate future growth capacity and to virtually exclude CG's effluent in the mix, both quality and quantity, is illogical.* It is clear that improvements must be made, but *how and when will the City assign a cost value to the CG component?*

Page 13 states : "The City of Mt. Shasta anticipates that, if it were to allow Crystal Geyser to connect to the City's wastewater system, pre-treatment of the wastewater by Crystal Geyser would be required to remove any unique constituents (i.e., sugars with a high biological oxygen demand). Further, the City would require that Crystal Geyser pay for its full share of the costs of expanding the facility to handle an additional 0.15 MGD of wastewater. Preparation of a separate environmental document pursuant to CEQA is



needed to address the proposed Crystal Geysers operation. In September 2015, Crystal Geysers announced plans to prepare an Environmental Impact Report (EIR) for proposed plant operations."  
*But how will this be accomplished?*

Yes, it is reasonable and apparently necessary that prudent planning for major infrastructure projects provide adequate growth capacity for a 20 year period in order to be "funding eligible" by the major potential funding agencies, such as USDA, RDA and Clean Water State Revolving Fund. *We feel that ENPLAN should insist that the City require CG to complete the permit application with full disclosure of information on quality and quantity of expected effluent.* They should also be required to pay for a comprehensive EIR related to all aspects of their operation including effluent.

*With money in an impound account to cover such costs it would be easier to approach lenders to fund the public project.*

*Without this account, it will be clear to all funders, as it is to the community, that CG is seeking yet another gift from the ratepayers and taxpayers to accommodate their desired project needs. This is a conundrum.*


There have been over 3 years of staff time at city, county, state and federal levels, costly legal consultations not only by city attorney, county counsel, but outside CEQA law firms to address the CG issue. *How is this not corporate welfare and misuse of public funds?* Where is the "good corporate neighbor"? Actions speak louder than words. No amount of bottled water for events can compensate for the hundreds of thousands of dollars spent on CG to date and with no end in sight.

*This is an opportunity to insist that this international conglomerate, Otsuka Pharmaceutical Holdings (CGWC) pay their own way.* If they do not provide the necessary information and the City's project is delayed causing fines for NPDES permit violations by 2017, then those bills should be sent to CGWC. Had they cooperated with the public's demands for an EIR from December 2013, none of these questions would still be circling. As Brock Dolman Permaculturist says "Planning is best done in advance!"

Respectfully submitted,

Vicki Gold

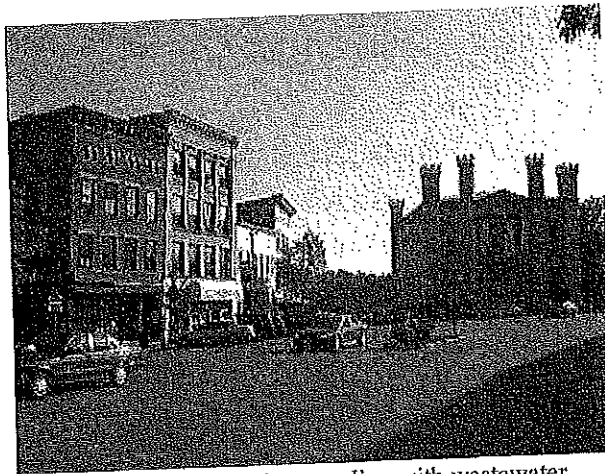
Water Flows Free

  
Mt Shasta CA 96067

# Massachusetts Town Struggles With Coca-Cola's Waste

*by Leon Kaye on Monday, Mar 19th, 2012*

**Share with your network:**



Northampton, MA, is struggling with wastewater. Northampton, a town of 29,000 people in Western Massachusetts, is home to a Coca-Cola plant that churns out several of Coke's fruit juice lines. And that plant is also churning out wastewater that is becoming

to expensive for Northampton's wastewater treatment facility to process. Rising costs and the possibility of tensions increasing between a city and one of its largest employers is an example of how municipalities end up fronting and subsidizing the costs of a large company's operations.

When Coke decided to increase the operating capacity of its Northampton plant, the expansion was hailed for the 100 jobs it added to the local economy. Coke benefited from over \$2 million in state grants and tax credits that in part helped finance an on-site effluent treatment plant. But now that plant, which processes a bevy of drinks including Honest Tea and Minute Maid, is not able to handle all of the waste the facility generates.

The result is more sugary effluent that is difficult for the city to treat. That sugar creates high levels of bacteria, and by law the city cannot dump that waste into the Connecticut River. That is the good news. But while Northampton's wastewater treatment system can handle the processing of the waste, the city pays for extra overtime, energy and the expenses of hauling the sludge to another site.

To deal with the additional costs, Northampton is considering increasing wastewater processing rates by as much as 23 percent. So far city leaders say they are working constructively with Coca-Cola on coming to a solution. But so far Coke's headquarters in Atlanta have not responded to requests by local journalists about the problem.

As more municipalities struggle with waste diversion, Coca-Cola is in a position to show that it can emerge from this as a strong local citizen and stakeholder. Other companies like Campbell Soup Company and MillerCoors have learned that working with communities on water

scarcity challenges produce not only an improved bottom line, but a better track record as a community citizen by showing that companies can take a proactive stand on water stewardship. And therein lies an opportunity for Coca-Cola in New England.

**Leon Kaye is a journalist, sustainability consultant and the editor of GreenGoPost.com. He also contributes to Guardian Sustainable Business and Inhabitat. You can follow him on Twitter.**

Photo of Northampton, MA courtesy Wikipedia Commons.

Larisa Proulx

---

**From:** Mark Miyoshi <mark@miyoshidaiko.com>  
**Sent:** Thursday, January 07, 2016 9:17 PM  
**To:** Kristen Maze  
**Cc:** Luisa Navejas  
**Subject:** Winnemem Wintu Tribe comments for WWTP MND  
**Attachments:** AB 52 WWT Letter to City of MS v5 1-6-16[1].pdf

Dear Kristen,

Attached is a letter from the Winnemem Wintu Tribe to the City of Mount Shasta. The Tribe submits this letter as comment to the Proposed Mitigated Negative Declaration And Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California.

Thank you,

Mark Miyoshi  
Luisa Navejas  
Mount Shasta Representatives and Water Advisors  
Winnemem Wintu Tribe



## WINNEMEM WINTU TRIBE

14840 BEAR MOUNTAIN ROAD • REDDING, CA • 96003  
WWW.WINNEMEMWINTU.US

January 7, 2016

Paul Ekert, City Manager  
Geoff Harkness, Councilman  
Jeffery Collings, Mayor  
City Council  
City of Mount Shasta  
305 N. Mt. Shasta Boulevard  
Mt. Shasta, California 96067

Re: **Proposed Mitigated Negative Declaration And Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California and AB52 consultation**

Dear Paul, Geoff and Jeffery,

Thank you for your invitations to meet concerning the City of Mount Shasta Waste Water Treatment Plant (WWTP) and the proposed improvements. After consulting with our legal advisors, the Winnemem Wintu Tribe (WWT) respectfully declines your invitations to meet and instead will await a formal invitation from the City to consult according to AB52. The WWT will reply to your invitation in writing and will then participate in the prescribed consultation process.

We have tentatively reviewed the **Proposed Mitigated Negative Declaration And Initial Study: State-Mandated Wastewater Treatment and Outfall Improvement Project, Mt. Shasta, California** (MND-IS) and have noted that AB52 consultations are not mentioned in the Cultural Resources segment although the report did mention that the Native American Community had been consulted. The Winnemem Wintu Tribe has never been formally invited to consult by either the City or ENPLAN.

The City has had ample notice that AB52 would come into effect on July 1, 2015. Draft guidelines from the Governor's Office of Planning and Research were distributed to the Upper Sacramento Regional Water Advocacy Group (formally Regional Water Management Group) and Geoff Harkness, Mayor of Mount Shasta at that time, received a copy while the Group prepared our Region's IRWM proposal. Winnemem Wintu Tribal Representative, Mark Miyoshi gave a short basic AB52 presentation at this meeting to the entire Group informing them that any AB52 consultations within the Upper Sacramento Region has to include the WWT. Mark reminded Geoff by e-mail (12-13-15), as well as at other times, that WWT had not been invited to consult for the WWTP. The Native American Heritage Commission was informed that the WWT be included on the

January 7, 2016

consultation list and in turn NAHC will direct ENPLAN to contact the Winnemem Wintu Tribe for any projects within Siskiyou, Shasta and Trinity Counties.

Understandably, AB52 is new and the final guidelines have yet to be published by the State Department of Natural Resources and the Governor's Office of Planning and Research. However, AB52 is now in effect and the requirements of AB52 must be accomplished in order for the CEQA process to be completed and before any Mitigated Negative Declaration is certified by the Secretary of Natural Resources.

The WWT expects a good faith effort from the City of Mount Shasta to follow the law and consult with the Tribe on any projects the City undertakes, protect cultural resources and respect the rights of the Tribe. The Winnemem Wintu Tribe awaits the appropriate response from the City.

With Respect,



Caleen Sisk  
Chief and Spiritual Leader  
Winnemem Wintu Tribe

Contact information and correct protocol: Please address your official correspondence by post to: Ms. Caleen Sisk, Tribal Chief and Spiritual Leader, Winnemem Wintu Tribe, 14840 Bear Mountain Road, Redding, California 96003 and cc the following by either email or post, as specified below.

Cc: John Laird, California Secretary of Natural Resources

Darcie Houck, by email to:  
dhouck@ndnlaw.com  
Fredericks Peebles & Morgan LLP 2020 L St., Suite 250  
Sacramento CA 95811

Claire Hope Cummings, by email to: chcumings@gmail.com Legal Advisor to  
Winnemem Wintu Tribe

Mark Miyoshi, by email to: markmwinnemem@gmail.com  
Luisa Navejas, by email to: lnavejas@finestplanet.com Mount Shasta District  
Representatives and Water Advisors, Winnemem Wintu Tribe

"If the Sacred Fires are not lit, how will our children learn?"  
Honor Your Traditional Lifeways

Larisa Proulx

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**From:** Greta Hanelt [REDACTED]  
**Sent:** Thursday, January 07, 2016 8:56 PM  
**To:** Kristen Maze  
**Subject:** our water

Dear Kristin,  
I am writing you in regards to the Crystal Geyser proposed water plant in our town. I second Vicki Gold's letter to you and won't repeat it for you here. I just want to add my concern as a citizen of Mount Shasta.  
Thank you!  
Greta Hanelt  
[REDACTED]



Larisa Proulx

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**From:** Pamela Neronha [REDACTED]  
**Sent:** Thursday, January 07, 2016 1:50 AM  
**To:** Kristen Maze  
**Subject:** Comments - MND for WWT Project

Hello Kristen -

Thank you for giving us the opportunity to comment on the Proposed Mitigated Negative Declaration (MND) for the State-Mandated Wastewater Treatment and Outfall Improvement Project.

I have two comments.

**First. On page 6 of the MND, the following is stated:**

Originally constructed in 1976, the WWTP was designed for average dry-weather flows (ADWF) of 0.7 million-gallons-per-day (MGD) and peak wet-weather flows (PWWF) of 2.8 MGD. With subsequent improvements, the dry-weather design capacity is now 0.75 MGD and the wet weather capacity is 3.56 MGD.

**Comment:** What "subsequent improvements" allowed the wet weather capacity to be 3.56 MGD? The Regional Board Order (effective 11/23/12 and expiring on 11/1/17), points out on page 82 that there was a PWWF of 2.65 MGD in 2011, and treatment plant effluent was sent to the leach field for 222 days in 2011. The RB Order also states that leach field disposal of effluent has typically been, on average, 20 days per year during the summer months. There appears to be a discrepancy between the RB Order and the MND with regard to PWWF. See page 80 of the Order, Table F-1, facility design flow, PWWF of 2.1 MGD. The concern is over-capacity flows into the treatment plant that, due to capacity issues and the inability to treat effluent for discharge to the Sacramento River and seasonal restrictions on golf course discharge, require that flow be sent to the leach field (0.70 MGD capacity).

**Second. On page 18 of the MND, the following is stated:**

The dewatering facility would be required to run approximately 12 days per month for approximately six hours each day. At full treatment capacity, approximately 150 cubic-feet of dewatered sludge would be produced each day. Sludge would be weighed on a scale and then hauled to a landfill once every three days.

**Comment:** A citizen was concerned about "the hauling of sludge every 3 days" at the Information Meeting at the City Council Meeting held on December 14, 2015.

I believe sludge would only be hauled a total of 4 days per month, not every 3 days (or 10 days per month), since the dewatering facility will only be operated 12 out of 30 days per month. This provides a better explanation of the impact of truck traffic regarding the hauling of sludge; a limited time period of sludge being hauled "every 3 days" for only 4 days during an entire month.

Best regards,

Pamela A. Neronha  
[REDACTED]  
Mt. Shasta, CA 96067  
[REDACTED]

**Larisa Proulx**

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**From:** Lindsay Kantor <lkantor@enplan.com>  
**Sent:** Wednesday, January 06, 2016 5:27 PM  
**To:** Kristen Maze  
**Subject:** RE: Mt. Shasta WWTP Public Comments

Gotcha, thanks!

Lindsay

**From:** Kristen Maze [mailto:kmaze@mtshastaca.gov]  
**Sent:** Wednesday, January 06, 2016 5:24 PM  
**To:** Lindsay Kantor <lkantor@enplan.com>  
**Subject:** RE: Mt. Shasta WWTP Public Comments

Hi Lindsay,

Yes I did. They are SWRCB informational flyers ;

CEQA Requirements

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/docs/environmental\\_review/environmental\\_review\\_requirements.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/environmental_review/environmental_review_requirements.pdf)

Environmental Review

Requirements [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/docs/environmental\\_review/ceqa\\_requirements.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/environmental_review/ceqa_requirements.pdf)

Cultural Resource Report Preparation

[http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/docs/cultural\\_resources\\_report\\_prep.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/cultural_resources_report_prep.pdf)

**From:** Lindsay Kantor [mailto:lkantor@enplan.com]  
**Sent:** Wednesday, January 06, 2016 5:03 PM  
**To:** Kristen Maze <kmaze@mtshastaca.gov>  
**Subject:** FW: Mt. Shasta WWTP Public Comments

I noticed that the attached SWRCB comment letter indicates that 3 items are supposedly enclosed. Did you get those pieces?

Thanks,  
Lindsay



Lindsay Kantor  
Environmental Planner  
ENPLAN  
[lkantor@enplan.com](mailto:lkantor@enplan.com)  
530.221.0440 x7111  
[www.enplan.com](http://www.enplan.com)

**Wildfire Viewer:** [wv.enplan.com](http://wv.enplan.com)  
*Wildfire maps updated hourly.*

**Parcel Viewer:** [pv.enplan.com](http://pv.enplan.com)  
*Parcel and record data for select counties.*

From: Kristen Maze [mailto:kmaze@mtshastaca.gov]

Sent: Wednesday, January 06, 2016 8:02 AM

To: Lindsay Kantor <lkantor@enplan.com>; Don Burk <DBurk@enplan.com>; Rod Bryan <rbryan@mtshastaca.gov>

Subject:

Happy New Year,

Attached are the SWRCB comments for the WWTP IS/MND. To date this and the comments from the Gateway Neighborhood Association that I sent last month are the only comments that the City has received. I believe the Gateway group are preparing additional responses, so stay tuned.

Thanks,

*Kristen Maze, City Planner*



**CITY OF  
Mt. SHASTA**  
305 N. Mt Shasta Blvd  
Mount Shasta, CA 96067  
Phone (530) 926-7510

FEB 11 2016



U. S. DEPARTMENT OF COMMERCE  
Economic Development Administration  
915 Second Avenue, Room 1890  
Seattle, WA 98174  
Fax: 206.220.7669  
Voice: 206.220.7660

Mr. Paul Eckert  
City Manager  
City of Mount Shasta  
305 North Mt. Shasta Boulevard  
Mount Shasta, California 96067

Re: EDA Award No. 07-79-07000  
Upgrade of Mount Shasta Wastewater Treatment Plant

Dear Mr. Eckert:

This letter is to inform you that because the Economic Development Administration (EDA) has determined that an Environmental Impact Statement (EIS) under the National Environmental Policy Act of 1969 (42 U.S.C. § 4321 *et seq.*) (NEPA) must be prepared and considered in connection with the amendment of EDA Award No. 07-79-0700 (Award) for the upgrade of the Mount Shasta Wastewater Treatment Plant (WWTP), and because of the length of time required for such a review, EDA has determined that the Award must be terminated.

On September 27, 2013, the City of Mount Shasta (City) accepted the Award from EDA to fund the design and construction of the Mount Shasta Sewer Line and Wastewater Facilities Improvement Project (Project). Total costs under the Award were \$6,000,000 (Federal Share \$3,000,000; Recipient Share \$3,000,000). The original Project scope of work included expanding the capacity of a main sewer line and improving the Mount Shasta WWTP. The primary beneficiary of the Project was identified as Crystal Geysler, a spring water and beverage bottling and distributing company.

The initial EDA Environmental Assessment (EA) for the Project was based in part upon the lack of public comments received and, hence, EDA issued a Mitigated Finding of No Significant Impact (Mitigated FONSI) contingent upon the completion of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) and a determination that project impacts would not be significant. Relatedly, the Award also included a special award condition requiring a sufficient CEQA analysis before advertisement for construction bid.

In November of 2014, EDA learned that the City planned to use Award funds to prepare the EIR. As this was not an approved cost item under the Award's scope of work, EDA proposed amending the Award. The City Council voted to accept the proposed amendment in January 2015, which consisted of improvements to the WWTP, specifically new filtration and ultraviolet disinfection facilities. In October 2015, while in the process of issuing an amended EA and FONSI for the re-scope, EDA published a new NEPA notice seeking comments on the

amended scope of work. EDA received numerous public comments concerning the environmental impacts of Crystal Geyser's proposed renovation and expansion of the bottling plant to be serviced by the WWTP improvements.

Pursuant to CEQA, in November of 2015 the City issued its Proposed Mitigated Negative Declaration and Initial Study (MND/IS) for all improvements at the WWTP. Significantly, although anticipating the need for increased capacity at the WWTP from the Crystal Geyser facility, the MND/IS did not address any of the effects of the facility on the environment.

Here, NEPA requires EDA to factor environmental considerations into its decision whether to award financial assistance to the City by considering the direct, indirect, and cumulative effects on the environment as a result of the current Project, including those linked to the activities of a Project beneficiary like Crystal Geyser. The public comments have provided EDA with new and relevant information that was not taken into account when EDA issued its original EA and its amended EA. Among the significant concerns identified by the public are: impacts on existing water resources; groundwater extraction and subsequent impacts to private wells, creeks, and springs; industrial wastewater disposal; and the strain on WWTP capacity even with the expansion. Based on the public comments received and notwithstanding the City's MND/IS under CEQA, EDA has determined that it must withdraw the Mitigated FONSI issued for the Project and that an EIS is required before EDA can determine whether, and upon what conditions, EDA should amend the Award to upgrade the Mount Shasta WWTP.

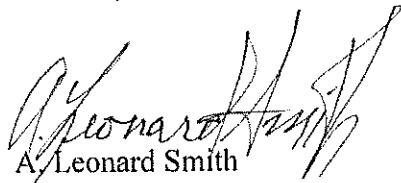
However, the Project development time table, which is incorporated under the Award, provides that construction was to have started on September 25, 2015 and must be completed before the Award end date, which is September 25, 2018. In addition, all Award funds must be used for approved construction expenses and no funds are available for the preparation of an EIS. Moreover, the projected time period required to complete an EIS makes it highly unlikely that the City will complete the Project before the Award end date. Under these circumstances, EDA has concluded that the intent and purpose and/or economic feasibility of the Project have changed substantially so as to affect significantly the accomplishment of the Project as intended. Therefore, pursuant to Section C.18.a.(ii) of the EDA Standard Terms and Conditions for Construction Projects (March 12, 2013), which were incorporated into the Award, EDA is terminating the Award.

Within 30 calendar days of this letter, please submit a final Form SF-425, as well as a Form SF-271 with supporting documentation, to close out this award. EDA will review and approve all eligible Project costs incurred by the City before the termination in accordance with 15 C.F.R. § 24.43(c).

EDA also wishes to emphasize this termination does not impact the City's eligibility or competitiveness for future funding consideration. Malinda Matson, EDA's Economic Development Representative (EDR) for Coastal and Northern California, will continue to work with the City to meet its regional economic development needs.

Thank you for your attention and we look forward to supporting the City in its future economic development efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Leonard Smith". The signature is stylized and cursive, with a large initial "A" and "S".

A. Leonard Smith  
Regional Director

**OFFER TO TERMINATE  
FINANCIAL ASSISTANCE AWARD AGREEMENT FOR CONVENIENCE**

**EDA Investment No. 07-01-06559**

WHEREAS, the United States of America, Department of Commerce, Economic Development Administration (herein the "Government") pursuant to its authority under the Public Works and Economic Development Act of 1965 (P. L. 89-136), as amended, entered into a Financial Assistance Award Agreement (herein the "Agreement"), with the City of Dixon on September 21, 2010 and

WHEREAS, said Agreement provided an Award not to exceed the lower of \$3,000,000 or 67 percent of the actual cost of the project estimated to cost \$4,500,000 and consisting of design and construction of water supply and water storage improvements to the Northeast Quadrant industrial and commercial area project within the City; and

WHEREAS, the parties have now determined that it is not feasible to complete the project as originally intended and that an accounting should be made and the Agreement terminated for convenience of the parties; and

WHEREAS, the parties agree that \$236,684 has been expended toward the project to date and that the EDA share of eligible costs to date is \$157,789; and

WHEREAS, the parties further agree that no other eligible costs have been incurred or will be incurred pursuant to said Agreement; and

NOW THEREFORE, for and in consideration of the premises and for the mutual benefit and convenience of the parties, the Government hereby tenders this Offer to Terminate on April 01, 2015.

Acceptance of this Offer to Terminate must be made by the City of Dixon and returned to the Government on or before May 01, 2015.

**DEPARTMENT OF COMMERCE  
ECONOMIC DEVELOPMENT ADMINISTRATION**

By: \_\_\_\_\_  
A. Leonard Smith, Director (Date)  
Seattle Regional Office

The above Offer to Terminate Award for Convenience is hereby accepted.

By: \_\_\_\_\_ (Signature) \_\_\_\_\_ (Title of Accepting Official)  
\_\_\_\_\_  
(Printed Name) \_\_\_\_\_ (Date)

**CERTIFICATION (By Official other than Accepting Official)**

The person signing this Acceptance is so authorized by the Governing Body or Board of the Recipient.

By: \_\_\_\_\_ (Signature) \_\_\_\_\_ (Title of Accepting Official)  
\_\_\_\_\_  
(Printed Name) \_\_\_\_\_ (Date)



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**From:** Paul Eckert [mailto:eckert@mtshastaca.gov]  
**Sent:** Thursday, February 11, 2016 11:52 AM  
**To:** Muriel Howarth Terrell; Rod Bryan; Paul Reuter (preuter@paceengineering.us)  
**Cc:** Jeffrey Collings; Geoff Harkness; Kathy Morter; Mike Burns (burnsmj5@sbcglobal.net); Tim's Gmail; Larisa Proulx; Kristen Maze; Good, Stan; FitzGerald, Shannon; John Kenny  
**Subject:** Reimbursement - EDA Grant Terminated

Greetings Muriel, Rod, and Paul,

Can you please immediately begin work on a thorough reimbursement request for ALL City incurred expenses for the Interceptor and the UV projects and get them submitted to the EDA. The City and our rate payers should not incur ANY expense for either of these EDA projects.

I have copied Stan Good and Shannon Fitzgerald of the EDA and City Attorney John Kenny with this email.

Thanks for your help.  
Paul

Meeting Minutes  
Conference Call: EDA – Office of U.S. Senator Dianne Feinstein  
Wednesday, March 20, 2013  
11:30 a.m. Pacific Standard Time

Organizer: Malinda Matson, EDA Legislative Affairs Division

Attendees: Shannon FitzGerald, EDA Seattle Regional Office  
Brian Parker, EDA Seattle Regional Office  
Thomas “TC” Ostrander, Office of U.S. Senator Dianne Feinstein  
Ted Marconi, City of Mt. Shasta  
Tonya Dowse, Siskiyou County Economic Development Council  
Greg Flecker, Siskiyou County Economic Development Council

Subject: City of Mt. Shasta Grant Application to EDA

The conversation started with TC Ostrander of Senator Dianne Feinstein’s office wanting to know what the remaining environmental issues were. Shannon FitzGerald explained that while there were still consultations to complete (the City of Mt. Shasta with the U.S. Fish and Wildlife Service and State Historic Preservation Officer and EDA with Tribal Historic Preservation Officers) and permits to obtain (e.g., U.S. Army Corps of Engineers 404 permit, RWQCB 401), this was normal for California and the applicant was making progress on obtaining them. Shannon noted that with the expedited application processing, applicants normally cannot complete consultation and obtain permits within the grant cycle. However, EDA can include special conditions in grant awards that require these items be completed. Shannon said that these are not environmental show-stopper, the inability to make a grant award was primarily attributed to budgetary constraints.

Brian Parker clarified that EDA cannot offer a non-binding commitment letter if EDA does not have the funds to award. TC said that that made sense. Brian also included that the spending plan was only approved recently. Brian did point out that the City had received a carry forward letter that invited them to have their application considered in the next funding cycle. Tonya said that somewhere along the line, Siskiyou had given the firm that wants to buy the bottling plant the impression that the City could expect to receive funding.

Tonya Dowse said that the escrow period for the private funding committed to the facility to be purchased by a private investor ends on April 4. Brian indicated that the IRC meeting was scheduled for April 9 and 10. Tonya asked if a NBC letter could be issued from the last IRC. Malinda Matson pointed out that this is a competitive process and that such a request has never been approved by EDA senior leadership. She asked if there was justification to expedite it. Malinda asked for documentation that the April 4 deadline was a hard and fast deadline and asked for justification to expedite the request for funding, as well. Tonya said that there is justification that she will provide documentation to support it.

Malinda said that if it was moved up, it would have to go up the line. TC asked who was in that line. Malinda said Len Smith, SRO Regional Director, and Tom Guevara, Deputy Assistant Secretary of Commerce for Regional Affairs.

TC asked Brian for IRC documentation. Brian said that he would provide a copy of the letter notifying the City of Mt. Shasta that its application was being carried forward to the next funding cycle.

In summary, Senator Feinstein's office was concerned that the environmental issues affecting the project would prevent the City of Mt. Shasta from receiving a funding decision. It was explained to them that there is sufficient information available for EDA to make a definitive decision on whether or not to approve funding for the project.