

**Checklist for Phase I Site Assessments Conducted using EPA Brownfields
Assessment Grant Funds**

Contact Information

Grantee Name: Nye County

Grant Number: BF-00T69901

ACRES Property ID: 151321

Program Manager Name: Amy Fanning or Levi Kryder
(Point of Contact)

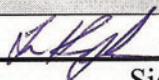
Contact Phone Number: 1-775-751-7091 or 1-775-727-7727

Name / Address of Property Assessed: Mt. Whitney Fish Hatchery - 1 Golden Trout Circle,
Independence, California 93526

Checklist

Please indicate that each of the following All Appropriate Inquiries documentation requirements were met for the Phase I assessment conducted at the above listed property:

- An **opinion** as to whether the inquiry has identified conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property.
- An identification of "**significant**" **data gaps** (as defined in §312.10 of AAI final rule and §12.7 of ASTM E1527-05), if any, in the information collected for the inquiry, as well as comments regarding the significance of these data gaps. Significant data gaps including missing and unattainable information that affects the ability of the environmental professional to identify conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property.
- Qualifications and signature** of the environmental professional(s). The environmental professional must place the following statements in the document and sign the document:
 - "[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of Environmental Professional as defined in §312.10 of this part."
 - "[I, We] have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. [I, We] have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."
Note: Please use either "I" or "We."
- In compliance with §312.31(b) of the AAI final rule and §12.6.1 of ASTM E1527-05, the environmental professional must include in the final report an **opinion regarding additional appropriate investigation**, if the environmental professional has such an opinion.



Signature of Grantee Program Manager

13 Nov 2012

Date



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Mt. Whitney Fish Hatchery
1 Golden Trout Circle
Independence, California 93526**

**Inyo County Assessor Parcel Number:
022-070-08-06**

Prepared For:

*Nye County
2100 East Walt Williams Drive, Suite 100
Pahrump, Nevada 89048*

On Behalf of:

Rural Desert Southwest Brownfields Coalition

Prepared By:

*BEC Environmental, Inc.
7660 West Sahara Avenue, Suite 150
Las Vegas, Nevada 89117*

*Project No. 804.11.Task2
November 2012*

BEC Environmental, Inc.
7660 West Sahara Avenue
Suite 150
Las Vegas, Nevada 89117
702.304.9830

BEC Environmental, Inc.
3340 South Highway 160
Suite 203
Pahrump, Nevada 89048
775.482.4219

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ACRONYMS

ACM	Asbestos containing material
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground storage tank
ASTM	ASTM International
AUL	Activity and use limitation
BGS	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOT	United States Department of Transportation
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
HREC	Historical recognized environmental condition
LUST	Leaking underground storage tank
MCL	Maximum contaminant level
MSDS	Material safety data sheet
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act)
NGVD	National Geodetic Vertical Datum
NOV	Notice of violation
NPDES	National Pollutant Discharge Elimination System (Clean Water Act)
NPL	National Priority List
NRCS	USDA Natural Resources Conservation Service
OSHA	Occupational Safety and Health Administration
PCB	Poly-chlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental condition
SPCC	Spill Prevention, Control and Countermeasure
SPL	State Priority List
SWPPP	Stormwater Pollution Prevention Plan
TEPH	Total extractable petroleum hydrocarbons
TPH	Total petroleum hydrocarbons
TVPH	Total volatile petroleum hydrocarbons
TRI	Toxic release inventory
TSCA	Toxic Substances Control Act
USGS	United States Geological Survey
UST	Underground storage tank
VCP	Voluntary cleanup program
VOC	Volatile organic compound

Units of measure

sq ft or ft ²	square feet
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/l	micrograms per liter
ppb	parts per billion
ppm	parts per million

EXECUTIVE SUMMARY

BEC Environmental, Inc. was retained by Nye County to perform a Phase I Environmental Site Assessment (ESA) of the Mt. Whitney Fish Hatchery located in Independence, California, Assessor Parcel Number (APN) 022-070-08-06, consisting of 40 acres of partially developed land. The purpose of the Phase I ESA was to identify, to the extent feasible, recognized environmental conditions (RECs) in connection with the property. Brian Loffman, a Nevada Certified Environmental Manager, performed the site reconnaissance on August 23, 2012. A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. In summary, the following items were noted:

- The subject site consists of one 40 acre parcel of partially developed land. The subject site is located at 1 Golden Trout Circle, Independence, California 93526.
- Based on a review of historical documents, including aerial photography, the subject site was first developed in 1917 as the Mt. Whitney Fish Hatchery by the California Department Fish & Game and ceased operation in July 2008. The Mt. Whitney Fish Hatchery is the only known and documented use of the subject site.
- Properties to the north and south show no development as early as 1947, according to aerial photography review. Property to the east and west consist of predominantly undeveloped land with evidence of one or more small residential developments as early as 1978, according aerial photography review.
- The regulatory database review was purchased as a report through Environmental Data Resources, Inc. (EDR). The report did not identify any federal or state listings for the subject site or within the minimum search radii for the adjacent area. However, the subject site was listed on several databases in the EDR report classified as "Other Ascertainable Records". The subject site was listed on the following databases: National Pollutant Discharge Elimination System (NPDES), HAZNET and Indian Reservation. During its operation as a fish hatchery, the subject site maintained a NPDES permit for the operation of the settling ponds. Water was drawn from Oak Creek, passed through settling ponds and the fish hatchery and then discharged back to Oak Creek. The EDR report shows a NPDES violation and subsequent enforcement action in June 2006 and appears to be a result of a reporting issue. No violations or fines were issued for the subject site. The EDR report shows a HAZNET (Hazardous Waste Information System) listing for the subject site. HAZNET consists of data extracted from the copies of hazardous waste manifests received each year by the Department of Toxic Substances Control (DTSC). The HAZNET shows a listing for the subject site involving approximately 320 pounds of an unspecified solvent mixture. The waste disposal method is listed as recycler and is most likely material transported off site by a recycling facility. No other pertinent information was provided regarding the HAZNET listing. The subject site is listed as being within one mile of the Fort Independence Indian Reservation. BEC

does not consider the listings described above to be a recognized environmental condition.

- Due to discrepancies in the location of some facilities in the databases arising from incorrect or incomplete addresses some facilities were listed as un-mappable, otherwise known as “orphan sites”. BEC reviewed the Orphan Summary list in the EDR report. The orphan list consists of sites that cannot be mapped because their address or facility information was incomplete. The EDR report lists 28 orphan sites that may be located within or outside the standard one-mile radius search distance. Seven of the 28 orphan listings had a facility name of "Mt. Whitney Fish Hatchery". The seven site listings from the orphan list are from the following databases: Waste Discharge System (WDS), Historical Cortese ((State of California Hazardous Waste and Substances Sites (former Underground Storage Tanks)), Historical Cortese (State of California Hazardous Waste and Substances Sites ((former Leaking Underground Storage Tanks)), Facility Index System (FINDS), LUST and Statewide Environmental Evaluation & Planning System (SWEEPS UST). The orphan database listings described above are also captured and discussed in the federal and state environmental databases listings below. Based on a review of the information provided, the remaining 21 sites do not appear to be within a one-mile radius of the subject site. Thus, BEC does not consider this to be a recognized environmental condition.
- One Historical Recognized Environmental Condition (HREC) was identified for the subject site. ASTM defines a HREC as "*an environmental condition which in the past would have been considered a REC, but which may or may not be considered a REC currently*". A LUST case has been reported for the subject site and appears on the state level environmental database reports as discussed above. A review of readily available records for the LUST case indicate closure was not obtained due to limited clean up funding.
- Based on the authorized scope of services, BEC did not conduct a cultural resources review. However, no obvious archaeological resources or structures of historical significance were observed at the time of the site reconnaissance.
- Based on the authorized scope of services, BEC did not conduct a wetlands review.
- Based on the authorized scope of services, BEC did not conduct a review to identify the potential occurrence of federally listed threatened and endangered (T&E) species on the site.

Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Mt. Whitney Fish Hatchery located in Inyo County, California (assessor parcel number 022-070-08-06) at 1 Golden Trout Circle, Independence, California 93526. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

BEC personnel observed the following recognized environmental conditions (RECs), as defined in ASTM Practice E 1527-05, in connection with the subject site. BEC offers the following description of these conditions as follows:

- Suspect asbestos-containing building materials (ACBMs) were observed in the residential units in the form of 9"x9" vinyl tiles and exposed floor mastic, wallboard/ joint compound and ceiling materials. Additionally, the age of the residential units suggests both ACBMs and lead-based paint may be present.
- Two underground storage tanks were removed from the subject site on June 3, 1988. Both tanks were reported to have stored "leaded" gasoline. The addition of lead to gasoline was slowly phased out and was completely banned in 1986. However, the tanks were operated during the time frame in which "leaded" gasoline could have been used. One of the removed USTs leaked and resulted in subsurface contamination. Inyo County provided documentation which demonstrates remediation efforts occurred at the site. However, according to a letter dated January 22, 1991, from the California Department of Fish & Game, remediation efforts were ceased due to limited funding. No other documentation beyond that date could be obtained. Thus, subsurface contamination of both petroleum and lead may still be present beneath the subject site.
- An in-ground hydraulic vehicle lift was observed in the building formerly used for fleet vehicle maintenance. Visible signs of hydraulic fluid were observed adjacent to the lift and a floor drain adjacent to the lift shaft.
- The presence of an unlabeled 25-gallon drum of an unknown petroleum substance (stored on bare soil) poses a material threat of release that could potentially impact the subject site.
- A storage or wash rack appears to be mounted on the west side of the wood shop building. The soil beneath the storage/wash rack appears to be stained and the color of the soil is not consistent with the soil in the surrounding area.
- An abandoned septic system tank is reportedly located in the area of the current unpaved parking lot. The size and exact location of the septic tank is unknown.

Based on the RECs that were identified in connection with the subject site, BEC recommends a limited asbestos survey be conducted to assess the extent of ACBM's in the residential and commercial buildings. Additionally, a Phase II Environmental Site Assessment should be conducted at the subject site to test for petroleum hydrocarbons and metals in the subsurface soils in connection with the hydraulic lift and the former leaking underground storage tank. As discussed in more detail in the report, available documentation was inconclusive if the LUST case was officially closed. Additionally, surface and subsurface sampling should be conducted in the area of the wood shop building wash rack and the abandoned septic system.

1 INTRODUCTION

BEC Environmental, Inc has been authorized by Nye County to perform a Phase I Environmental Site Assessment (ESA) for the Mt. Whitney Fish Hatchery located in Inyo County, California assessor's parcel number (APN) 022-070-08-06. This Phase I ESA is being prepared as part of the Rural Desert Southwest Brownfields Coalition Assessment grant funded by the United States Environmental Protection Agency. The subject property consists of a single 40 acre parcel of partially developed land at 1 Golden Trout Circle, Independence, California 93526, (hereinafter referenced as the site, subject site, or subject property). The approximate location of the site is shown on the Vicinity Map and Site Location Map located in **Appendix A**. The following sections identify the purpose, detailed scope of services, significant assumptions, limitations and exceptions, and user reliance information relevant to the preparation of this Phase I ESA report.

The California Department of Fish & Game no longer operates the subject site as a hatchery and intends to divest itself of its interest in the property. The Sierra Nevada Conservancy is evaluating taking ownership of the property with the eventual goal of transferring ownership of the subject site to Inyo County.

1.1 Purpose

The purpose of this Phase I ESA is to identify recognized environmental conditions that may be present due to past or present land use of the site, and/or properties in the site vicinity. In accordance with American Society for Testing and Materials (ASTM) Standard E 1527-05, Standard Practice for Phase I Environmental Site Assessment: *“The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.”* During the course of this assessment, specific existing, potential, or suspect conditions were evaluated that may pose an environmental liability with respect to hazardous substances for current owner, future owner, or operator at the subject site.

1.2 Detailed Scope-of-Services

The scope of work in performing this Phase I ESA entailed four main components: a site reconnaissance, personnel interviews, regulatory records review, and report preparation. The first component, a site reconnaissance, entailed a visit to the property on August 23, 2012, for the purposes of making site observations and interviewing site occupants, owners and property management personnel. The second component consisted of interviews with the current and former owners of the site, current occupants of neighboring properties, and other personnel associated directly with the site. The third component of the assessment process included a formal records review and interviews with local government officials and a review of user-provided information. This report comprises the fourth and final phase of the Phase I ESA process.

1.3 Significant Assumptions

While this report provides an overview of potential environmental concerns, both past and present, the environmental assessment is limited by the availability of information at the time of the assessment. It is possible that unreported disposal of waste or illegal activities impairing the environmental status of the property may have occurred which could not be identified. The conclusions and recommendations regarding environmental conditions that are presented in this report are based on a scope of work authorized by the Client. Note, however, that virtually no scope of work, no matter how exhaustive, can identify all contaminants or all conditions above and below ground.

1.4 Limitations and Exceptions

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. This document is intended to be used in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Nye County or BEC Environmental, Inc. should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

1.5 Special Terms and Conditions

Please note that the scope of this evaluation did not include: subsurface exploration, soil or water sampling, chemical analysis, or an evaluation of methane gas, radon, lead, asbestos, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, high voltage power lines, or geotechnical studies. Privately owned lots within the property boundary and properties surrounding the site were visually inspected from common driveways or public right-of-ways. Our observations were made from readily accessible vantage points. Although a reasonable effort was made to view relevant site features, some features may have been concealed.

The findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or within the site vicinity. Additionally, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Nye County nor BEC Environmental, Inc. has any control. Nye County nor BEC Environmental, Inc. can warrant or guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

1.6 User Reliance

This report may be relied upon and is intended exclusively for use by Nye County and their assigns for the purposes stated within a reasonable time from issuance, but in no event later than 180 days from the date of the report. Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the site visit. This report should not be relied upon after 180 days from the date of its issuance (ASTM Standard). Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the client is undertaken at said parties' sole risk.

2 SITE DESCRIPTION

This section provides a description of structures and other improvements on the site and adjoining properties. This section also includes a description of current uses of the site and adjoining properties.

2.1 Location and Legal Description

The legal description of the subject property is Section 02 within the SE ¼ of the NW ¼ of Township 13S, Range 34E M.D.M in Independence, California. Please refer to Figure 1 - Vicinity Map and Figure 2 - Site Location Map provided in **Appendix A** and Figure 3 - Assessor's Parcel Map provided in **Appendix B**.

2.2 Site and Vicinity General Characteristics

The subject site comprises 40 acres of partially developed land. According to the Inyo County Assessor the subject property is zoned SFL (State & Federal Lands). Property immediately east and west of the subject site is zoned RE (Residential Estates). Property north and south of the subject site is zoned SFL (State & Federal Lands).

2.3 Current Use of the Property

Under an agreement with the California Department of Fish & Game, the Friends of Mt. Whitney Fish Hatchery operate a portion of the site to make it accessible to the public. The Friends of Mt. Whitney Fish Hatchery are a group of volunteer citizens from the Owens Valley interested in refurbishing and preserving the historic site and maintain its open access to the public. Facilities currently available to the public include a gift shop, wildlife interpretative center, pond stocked with rainbow trout for feeding, new restrooms, and landscaped grounds used for social gatherings, weddings, family reunions and picnics.

2.4 Current Uses of Adjoining Properties

The current adjoining property uses are:

North:	Vacant, predominantly undisturbed BLM land.
South:	Vacant, predominantly undisturbed BLM land & settling ponds SE of the site.
East:	Vacant, predominantly undisturbed private land.
West:	Vacant, predominantly undisturbed private land.

2.5 On-Site Improvements

The subject site consists of a former fish hatchery operated by the California Department of Fish & Game between 1917 and approximately 1997. The site consists of 10 residential structures and three detached garages (for the residential units, see Site Photographs No. 4 & 5 in **Appendix C**), five commercial buildings (see Site Photograph No. 6 in **Appendix C**), a concrete lined aquaculture raceway (see Site Photograph No. 44 in **Appendix C**), four settling ponds (see Site Photograph No. 45 in **Appendix C**), one well pump house (see Site Photograph No. 53 in **Appendix C**) and a pond stocked with rainbow trout (see Site Photograph No. 57 in **Appendix C**).

3 USER PROVIDED INFORMATION

The following section discusses information that was provided by interviews with persons associated with the subject site and its representatives during the course of this study.

3.1 Title Records

A 50-year chain-of-title was not requested for this study. Historical use of the Property was researched using other acceptable ASTM standard historical sources. Merie Hannah with the Inyo County Assessor and Records office, was contacted to determine the ownership history of the subject site. Hannah stated readily available documentation for recordation dates, instrument numbers, etc for property transactions occurring nearly 100 years ago would be very difficult and time consuming to obtain. However, Hannah was able to determine that prior to 1915 the subject site was owned by Mr. Andrew Neal Bell (deceased). From 1915 to current, the subject site has been owned by the State of California - Department of Fish & Game.

3.2 Environmental Liens or Activity and Use Limitations

Based on information provided during interviews with Mr. Bruce Ivey (representing the Friends of Mt. Whitney Fish Hatchery) and Mr. Gary Williams (California Department of Fish & Game), no known environmental liens or activity and use limitations are associated with the subject site.

3.3 Specialized Knowledge

When queried regarding specialized knowledge concerning the environmental status and potential issues of concern, neither the purchaser nor the current owner representative indicated they were aware of any such conditions and, to their knowledge, the site was devoid of significant environmental issues.

3.4 Commonly Known or Reasonably Ascertainable Information

When queried regarding commonly known or reasonably ascertainable information concerning the environmental status and potential issues of concern, neither the purchaser nor the current

owner representative indicated they were aware of any such conditions, and to their knowledge, the site was devoid of significant environmental issues.

3.5 Owner, Property Manager, and Occupant Information

Please refer to Section 6 for a list of individuals interviewed during the preparation of the Phase I ESA.

3.6 Valuation Reduction for Environmental issues

The property is being transferred, without fee, from one State of California agency (California Department of Fish & Game) to another State of California agency (Sierra Nevada Conservancy). However, the client does not believe any environmental issues on or adjacent to the subject site affect the value of the property.

3.7 Reason for Performing Phase I

The client has requested the assessment in order to qualify for the “innocent landowner defense” under CERCLA §§101(40), 107(r)(1).

4 RECORDS REVIEW

The following sections include the results and a discussion of the computerized search of state and federal standard environmental record sources. Some records reviewed pertain not only to the property, but also to properties within an additional approximate minimum search distance in order to help assess the likelihood of problems from migrating hazardous substances or petroleum products. Unless stated otherwise the approximate minimum search distances used below were as specified in the ASTM Standard 1527-05.

4.1 Environmental Database Search

A search of available federal and state environmental records was obtained from Environmental Data Resources, Inc (EDR). A copy of the following documents provided by EDR can be found in the below referenced appendices:

Regulatory Records - *Appendix D*

Local Records - *Appendix E*

Sanborn Map - *Appendix F*

Historical Topography and Aerial Photos - *Appendix G*

Due to discrepancies in the location of some facilities in the databases arising from incorrect or incomplete addresses some facilities were listed as un-mappable, otherwise known as “orphan sites”. BEC reviewed the Orphan Summary list in the EDR report. The orphan list consists of sites that cannot be mapped because their address or facility information was incomplete. The EDR report lists 28 orphan sites that may be located within or outside the standard one-mile radius search distance. Seven of the 28 orphan listings had a facility name of "Mt. Whitney Fish Hatchery". The seven site listings from the orphan list are from the following databases: Waste Discharge System (WDS), Historical Cortese ((State of California Hazardous Waste and

Substances Sites (former Underground Storage Tanks)), Historical Cortese (State of California Hazardous Waste and Substances Sites ((former Leaking Underground Storage Tanks)), Facility Index System (FINDS), LUST and Statewide Environmental Evaluation & Planning System (SWEEPS UST). The orphan database listings described above are also captured and discussed in the federal and state environmental databases listings below. Based on a review of the information provided, the remaining 21 sites do not appear to be within a one-mile radius of the subject site. Thus, BEC does not consider this to be a recognized environmental condition.

A review of the regulatory information from this database search for possible recognized environmental conditions (RECs) within the ASTM approximate minimum search distance is provided in the Federal and State sections below.

Although numerous databases were searched during the preparation of this report, those that are required under the ASTM E 1527-05 standard for Phase I ESAs have been selected for discussion. The required databases, database update information, and search distances, as well as the number of sites identified within the associated search radii are as follows:

Federal Environmental Records

Record Source	Within Property	Adjoining Properties
National Priorities List (NPL) Facilities	0	0
DOD Site	0	0
CERCLIS Facilities	0	0
CERCLIS NFRAP Facilities	0	0
RCRA CORRACTS TSD Facilities	0	0
RCRA Non-CORRACTS TSD Facilities	0	0
RCRA Non-Generators	0	0
RCRA Generators	0	0

State Environmental Records

Record Source	Within Property	Adjoining Properties
Hazardous Waste Sites	0	0
Equivalent NPL Facilities	0	0
Equivalent CERCLIS Facilities	0	0
Landfill/Solid Waste Disposal Sites	0	0
Leaking Underground Storage Tanks	0	0
Registered Storage Tank	0	0
Institutional/Engineering Control	0	0
Voluntary Cleanup Sites	0	0
Brownfield Sites	0	0

Other State/Local Environmental Records for California

Record Source	Within Property	Adjoining Properties
Open Dump Inventory	0	0
DEBRIS Region 9 (construction/demolition waste)	0	0
WMUDS/SWAT (Waste Management Unit Database System)	0	0
SWRCY (Recycler Database)	0	0
Waste Haulers	0	0
Indian Open Dump Inventory	0	0
US CDL/CDL & Historical CDL	0	0
Historical Cal Sites	0	0
SCH (School Property Evaluation)	0	0
Toxic Pits	0	0
CA FID UST (Facility Inventory Database)	0	0
Historical UST	0	0
SWEEPS UST	0	0

United States Environmental Protection Agency (EPA), National Priorities List (NPL)

The EPA NPL database comprises confirmed or proposed hazardous waste sites that have been targeted for possible long-term remedial action under the Superfund Program. Neither the subject site nor facilities within a 1-mile radius of the site were listed.

United States EPA, Delisted NPL

The EPA Delisted NPL database is a subset of the NPL. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

United States EPA, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List

The CERCLIS list is an EPA list of sites that are either proposed to or on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL. Facilities identified by the EPA, which may have the potential for releasing hazardous substances into the environment, are provided in the CERCLIS list. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

United States EPA, CERCLIS No Further Remedial Action Planned (NFRAP)

The CERCLIS-NFRAP list is an EPA database of former CERCLIS sites where no further remedial action is planned under Comprehensive Environmental Response, Compensation, and Liability Act. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

United States EPA, Resource Conservation and Recovery Act (RCRA), Corrective Actions (CORRACTS) List

This list is a database of facilities subject to corrective action under RCRA. The list generally identifies EPA-listed facilities that have reported a release of hazardous waste or constituents into the environment, and are undergoing corrective action. Corrective action may be required beyond the facility's boundary and can be required regardless of when the release occurred. Neither the subject site nor facilities within a 1-mile radius of the site were listed.

United States EPA, RCRA non-CORRACTS Treatment, Storage and Disposal (TSD) Facilities List

This database identifies EPA-listed facilities, which report storage, treatment, and/or disposal of hazardous waste, under the EPA's RCRA program. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

United States EPA, RCRA Non-Generators List

This database identifies EPA-listed facilities that may store or transport hazardous waste or meet other RCRA requirements but do not generate hazardous waste. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

United States EPA, RCRA Generators List

This database identifies EPA-listed facilities that generate or transport hazardous waste or meet other RCRA requirements. The types of facilities included within this database include: Large Quantity Generators, Small Quantity Generators, Conditionally Exempt Generators. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

Federal Institutional Control/Engineering Control Registries

These registries comprise information obtained from two main sources. The first source, the Brownfield Management System, is a database designed to assist the EPA in collecting, tracking, and updating information relevant to federal, state, and local Brownfield programs. The Small Business Liability Relief and Brownfields Revitalization Act ("Brownfields Law," Public Law 107-118) defines a brownfield site as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant," as defined in CERCLA. The second source is a database of Superfund sites that have either an engineering or institutional control. Neither the subject site nor facilities within a 1-mile radius of the site were listed.

Emergency Response Notification System (ERNS) List

This list comprises a database of emergency response actions, and may include reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. Data since January 2001 has been received from the National Response System database as EPA no longer maintains this data. The subject site was not on the ERNS list.

State/Tribal Hazardous Waste Site List, Equivalent NPL

The Corrective Actions Case List records are the States' equivalent to CERCLIS. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

The California Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor, State equivalent CERCLIS List

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites ((National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. Neither the subject site nor facilities within a 0.5-mile radius of the site were listed.

State/Tribal Landfill List: Solid Waste Information System (SWIS)

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites. No facilities were listed within a 0.5-mile radius of the site.

State/Tribal LUST: State Water Resources Control Board Leaking Underground Storage Tank (LUST) List

The LUST Information System is maintained by the State of California Water Resources Control Board. This board maintains an inventory of sites with leaking underground storage tanks. It includes sites with tanks under investigation for potential leaks, confirmed leaks, and those to be closed. No facilities were listed within a 0.5-mile radius of the site.

State/Tribal UST: State Water Resources Control Board Underground Storage Tank (UST) List

The UST Information System is maintained by the State of California Water Resources Control Board. This board maintains an inventory of sites with leaking underground storage tanks. It includes sites with tanks under investigation for potential leaks, confirmed leaks, and those to be closed. No facilities were listed within a 0.5-mile radius of the site.

State/Tribal Institutional Controls/Engineering Controls/Voluntary Cleanup Sites

No facilities were listed within a 0.5-mile radius of the site.

State/Tribal Brownfield Sites

The California Department of Toxic Substances Control maintains a list of Brownfield sites as part of its listing of clean-up evaluations and actions regarding sites with actual or potential contamination. No facilities were listed within a 0.5-mile radius of the site.

Other Environmental Records Review

In addition to the standard local, state and federal databases (discussed above), the subject site was listed on several databases in the EDR report classified as "Other Ascertainable Records". The subject site was listed on the following databases: National Pollutant Discharge Elimination System (NPDES), HAZNET and Indian Reservation. During its operation as a fish hatchery, the subject site maintained a NPDES permit for the operation of the setting ponds. Water was drawn from Oak Creek, passed through settling ponds, then the fish hatchery operation, and then discharged back to Oak Creek. The EDR report shows a NPDES violation and subsequent enforcement action in June 2006 and appears to be a result of a reporting issue. No violations or fines were issued for the subject site. THE EDR report shows a HAZNET (Hazardous Waste Information System) listing for the subject site. HAZNET consists of data extracted from the copies of hazardous waste manifests received each year by the Department of Toxic Substances Control (DTSC). The HAZNET shows a listing for the subject site involving approximately 320 pounds of an unspecified solvent mixture. The waste disposal method is listed as recycler and is most likely material transported off site by a recycling facility. No other pertinent information was provided regarding the HAZNET listing. The subject site is listed as being within one mile of the Fort Independence Indian Reservation. BEC does not consider the listings described above to be a recognized environmental condition. Please refer to **Appendix D** for the Database Report prepared by EDR.

BEC also reviewed the NPDES permit for the subject site (NPDES No. CA0102784) issued by the California Regional Water Quality Control Board (Please see **Appendix E** for a full copy of the NPDES permit). The permit lists the specific chemicals used at the site for the hatchery operation and include the following:

- Acetic acid
- Amoxicillin trihydrate
- Carbon dioxide
- Chloramine-T^a
- Copper sulfate pentahydrate
- Erythromycin
- Florfenicol (Nuflor®)
- Formalin (37% formaldehyde solution)
- Hydrogen peroxide
- Isoeugenol (Aqui-S®)
- MS-222 / tricaine methanesulfonate (Fiquel®, Tricaine-S®)
- Oxytetracycline HCl (Terramycin®)
- Penicillin G potassium
- Potassium permanganate (CairoxTM)
- PVP Iodine
- Sodium bicarbonate
- Sodium chloride (salt)
- Sulfadimethoxine-ormetoprim (Romet-30®)

The chemicals listed above are consistent with the chemicals listed by Mr. Jim Riley (former hatchery manager) during an interview. The exact quantity of the chemicals used and stored on-

site during the hatchery operation could not be ascertained from available records and personnel interviews. However, BEC does not believe the quantities used during the normal course of hatchery operation would have posed a significant environmental risk.

Sanborn Map Review

In the late nineteenth century, companies such as the Sanborn Company began preparing maps of central business districts for use by fire insurance companies. These maps were updated and expanded geographically periodically through the twentieth century. Fire insurance maps often indicate construction materials, specific property use, and the location of other features such as gasoline storage tanks. Based upon inquiries to EDR, Sanborn maps were not available for the site area. Please refer to **Appendix F** for the Sanborn Map Report of no coverage prepared by EDR.

4.2 Historical City Directories

EDR, Inc. prepared a City Directories Abstract to assist in evaluating potential liabilities on the subject site and adjoining properties resulting from past activities. EDR's City Directories Abstract includes a search of available city directory data. Business directories including city, cross reference and telephone directories were reviewed at approximate five-year intervals for the years spanning between 1936 and 2004. The City Directories Abstract report prepared by EDR reported "No Coverage" as shown in **Appendix E** and thus did not reveal any past site usage that would warrant additional investigation.

4.3 Physical Setting – Topography and Hydrogeology

The following sections describe the topography, geologic, and hydrologic characteristics of the site vicinity.

The subject site is approximately 40 acres and slopes from west to east at approximately a 5-percent grade. The elevation of the site is approximately 4,287-feet above mean sea level. The subject site is situated just north of Independence, California within the Owens Valley. The Owens Valley is within the Owens Valley drainage basin area and occupies the western part of the Great Basin section of the Basin and Range Province. The Great Basin section typically consists of linear, roughly parallel, north-south mountain ranges separated by valleys, most of which are closed drainage basins. The Owens Valley drainage area, about 3,300 square miles, includes the mountain areas that extend from the crest of the Sierra Nevada Mountains on the west to the crest of the Inyo and the White Mountains on the east. Also included are part of the Haiwee Reservoir and the crest of the Coso Range on the south and the crest of the volcanic hills and mountains that separate the Mono Basin and the Adobe Valley from the Long and the Chalfant Valleys and the Volcanic Tableland. The drainage area includes the Long Valley, the headwaters of the Owens River. The Owens Valley ground-water basin extends northward from the Haiwee Reservoir in the south to include Round, Chalfant, Hammil, and Benton Valleys. The Owens Valley aquifer system includes the main part of the Owens Valley groundwater basin and extends from the south side of the Alabama Hills to the Volcanic Tableland.

Physiographically, the Owens Valley contrasts sharply with the prominent, jagged mountains that surround it. These mountains, the Sierra Nevada on the west and the Inyo and the White

Mountains on the east, rise more than 9,000 ft above the valley floor and include Mount Whitney, the highest mountain in the conterminous United States. The valley, characterized as high desert rangeland, ranges in altitude from about 4,500 ft north of Bishop to about 3,500 ft above sea level at the Owens Lake (dry). The valley floor is incised by one major trunk stream, the Owens River, which meanders southward through the valley. Numerous tributaries that drain the east face of the Sierra Nevada have formed extensive coalesced alluvial fans along the west side of the valley. These fans form prominent alluvial aprons that extend eastward nearly to the center of the valley. In contrast, the tributary streams and related alluvial fans on the east side of the valley are solitary forms with no continuous apron. Consequently, the Inyo and the White Mountains rise abruptly from the valley floor. As a result of this asymmetrical alluvial fan configuration, the Owens River flows on the east side of the valley.

The pattern of precipitation throughout the Owens Valley is strongly influenced by altitude, and precipitation varies in a predictable manner from approximately 4 to 6 inches per year on the valley floor to more than 30 inches per year at the crest of the Sierra Nevada on the west side of the valley. On the east side of the valley, precipitation follows a similar pattern, but with somewhat lower rates of 7 to 14 inches per year because of the lower altitude of the Inyo and the White Mountains and the rain-shadow effect caused by the Sierra Nevada. Snow, when present on the Sierra Nevada and the White Mountains, commonly is absent on the Inyo Mountains and the Coso Range. Of the total average annual precipitation in the Owens Valley drainage area, about 60 to 80 percent falls as snow or rain in the Sierra Nevada, primarily during the period October to April. A lesser quantity falls during summer thunderstorms.

Specific and current depth to groundwater at the site is unknown. A review of the well log report prepared by EDR (see **Appendix D, pages A-10 through A-17**) shows the following: five (5) wells registered to USGS in the one-mile radius, zero (0) wells registered as a federal public water supply well in the one-mile radius and six (6) wells registered in the state database within the one-mile radius. A single well was observed during the site visit (see Site Photograph No. 54 in **Appendix C**). The site specific depth to groundwater is unknown.

4.4 Historical Use Information on the Property and Adjoining Properties

The section describes the historical land use of the subject site and adjoining properties compiled from several resources.

According to the Aerial Photography provided in **Appendix G**, the subject site was partially developed from 1947 through 1954. The aerial photographs from 1978 and 1988 show additional site improvements. The aerial photographs from 1999, 2005 and 2006 show the addition of several structures and represents the current conditions at the subject site. Due to the scale and clarity of the aerial photographs, the types of buildings and usage could not be ascertained. The objective of consulting historical sources is to develop a history of the previous uses of the property in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the property. Historical use formation describing the subject property was obtained from a variety of sources as discussed below. This information is summarized in the table below.

Period/Date	Land Use	Source(s) of Information
1947	Partially developed*	Aerial Photo – 1” = 623’
1954	Partially developed	Aerial Photo – 1” = 750’
1978	Partially developed	Aerial Photo – 1” = 500’
1988	Partially developed	Aerial Photo – 1” = 666’
1988/1989	Partially developed	Aerial Photo – 1” = 500’
2005	Partially developed	Aerial Photo – 1” = 500’
2006	Partially developed	Aerial Photo – 1” = 500’

**Note the site is listed as "partially developed" since portions of the 40 acre parcel remain vacant, undisturbed land.*

The objective of consulting historical sources is to develop a history of the previous uses of the surrounding properties in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the property. The historical uses of adjoining properties to the subject property are summarized below. These uses were determined using the public records available through the Inyo County Planning and aerial photography review.

North Historical Land Use

Period/Date	Land Use	Source(s) of Information
1947	Vacant, undisturbed land	Aerial Photo – 1” = 623’
1954	Vacant, undisturbed land	Aerial Photo – 1” = 750’
1978	Vacant, undisturbed land	Aerial Photo – 1” = 500’
1988	Vacant, undisturbed land	Aerial Photo – 1” = 666’
1988/1989	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2005	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2006	Vacant, undisturbed land	Aerial Photo – 1” = 500’

South Historical Land Use

Period/Date	Land Use	Source(s) of Information
1947	Vacant, undisturbed land	Aerial Photo – 1” = 623’
1954	Vacant, undisturbed land	Aerial Photo – 1” = 750’
1978	Vacant, undisturbed land	Aerial Photo – 1” = 500’
1988	Vacant, undisturbed land	Aerial Photo – 1” = 666’
1988/1989	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2005	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2006	Vacant, undisturbed land	Aerial Photo – 1” = 500’

East Historical Land Use

Period/Date	Land Use	Source(s) of Information
1947	Vacant, undisturbed land	Aerial Photo – 1” = 623’
1954	Vacant, undisturbed land	Aerial Photo – 1” = 750’
1978	Vacant, undisturbed land	Aerial Photo – 1” = 500’
1988	Vacant, undisturbed land	Aerial Photo – 1” = 666’
1988/1989	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2005	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2006	Vacant, undisturbed land	Aerial Photo – 1” = 500’

West Historical Land Use

Period/Date	Land Use	Source(s) of Information
1947	Vacant, undisturbed land	Aerial Photo – 1” = 623’
1954	Vacant, undisturbed land	Aerial Photo – 1” = 750’
1978	Vacant, undisturbed land	Aerial Photo – 1” = 500’
1988	Vacant, undisturbed land	Aerial Photo – 1” = 666’
1988/1989	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2005	Vacant, undisturbed land	Aerial Photo – 1” = 500’
2006	Vacant, undisturbed land	Aerial Photo – 1” = 500’

5 SITE RECONNAISSANCE

The purpose of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property and adjacent area. The site reconnaissance visit was performed on August 23, 2012, by Brian Loffman (BEC) at approximately 10:30 am. The weather during the inspection was sunny and approximately 90 degrees Fahrenheit. All areas of the subject site, with the exception of the residential units, were accessible during the inspection. The condition of adjoining properties was visually evaluated for any recognized environmental concerns (RECs). James Riley accompanied BEC during the site reconnaissance and provided access to on-site structures. Mr. Riley was a former manager of the Mt. Whitney Fish Hatchery and was an employee of the hatchery for nearly 40 years.

5.1 Methodology and Limiting Conditions

BEC first performed a windshield survey of the adjoining properties along Fish Hatchery Road and Golden Trout Circle in order to evaluate the types of business', structures and any conditions of the neighboring properties that may pose an environmental risk to the subject site. Structures of particular note (i.e. groundwater wells, cisterns, transformers, chemical storage areas, etc.) were photographed and recorded in a field log.

BEC crossed the property on east-west transects to maximize visual observation of the site. BEC also walked the entire perimeter of the subject site and noted conditions inconsistent with those expected for a commercial property.

5.2 General Site Setting

The subject site is approximately 40 acres of land consisting of the Mt. Whitney Fish Hatchery. The subject site is situated in the Owens Valley at an elevation of approximately 4,287 feet. The subject site is immediately downstream of the confluence of the north fork and south fork of Oak Creek, which has perennial flow and provided water to the hatchery during its operation.

5.3 Exterior Observations

The exterior of all buildings, support structures and other appurtenances were observed during the site reconnaissance and include the following:

Residential Structures

The subject site currently has nine (9) unoccupied residential structures. One of the residential structures was completely destroyed during a flood event that occurred in July 2008 leaving just the foundation (see Site Photographs Nos. 46, 47 & 48 in **Appendix C**). The residential units were built in phases from the late 1940's through the early 1960's (see Site Photographs Nos. 5, 49 & 50 in **Appendix C**). The residential units consist of various construction materials including wood frame/wood siding and masonry walls with pitched & shingled roofs. The residential units have been unoccupied for nearly 10 years and show signs of deterioration to the paint, siding material and roofs. The residential units have detached garages consisting of pre-fabricated, corrugated metal structures with roll-up doors (see Site Photographs Nos. 4, 39 & 51 in **Appendix C**). Some of the residential structures showed visible signs of exterior deterioration which has exposed multiple layers of paint. The age of the structures suggests the use of lead-based paints may have been used for one or more of the paint layers.

Commercial Buildings

The subject site has four (4) commercial buildings consisting of typical pre-fabricated, corrugated metal structures of various size (see Site Photographs Nos. 6, 13 & 19 in **Appendix C**). The western most commercial building on the subject site is known as the wood shop and was used for general carpentry and fabrication. A storage or wash rack appears to be mounted on the west side of the wood shop building as shown in Site Photographs 15, 16 and 17, see **Appendix C**. The soil beneath the storage/wash rack appears to be stained and the color of the soil is not consistent with the soil in the surrounding area. An approximate 20-gallon storage tank was located adjacent to the south wall of the service garage building (see Site Photograph No. 31 in **Appendix C**). The tank was partially full with an unknown petroleum product and appeared to be diesel fuel based on the odor emanating from the tank.

The primary feature of the subject site is the original Mt. Whitney Fish Hatchery building constructed between 1916 and 1917. The hatchery building was constructed of native granite collected within a quarter of a mile of the site. The walls are two to three feet thick and consist of approximately 3,500 tons of boulders. None of the stones used in construction were cut, but were "sorted to fit." The roof is red Spanish tile made in Lincoln, California from red clay found at that location (see Site Photographs Nos. 58 & 59 in **Appendix C**). Multiple layers of paint exist on the exterior painted surfaces of the primary structure which may contain lead-based paints due to the age.

Settling Ponds

The site has two settling ponds (dry and out of service) used during the fish hatchery operation (see Site Photograph No. 45 in **Appendix C**). Water was drawn from the nearby Oak Creek and diverted into the settling ponds on the west side of the subject site. Water from the settling ponds was then pumped through the fish hatchery operation. Prior to discharge back to Oak Creek, water was cycled through the other settling pond located on the east side of the subject site. No chemicals or water treatment was performed in the settling ponds. The settling ponds were reportedly used to stabilize the water prior to being used in the hatchery operation or being discharged back to Oak Creek.

Well & Pump House

A single well and pump house were observed during the site reconnaissance (see Site Photographs Nos. 53 & 54 in **Appendix C**). The well is currently in use and supplies water to the subject site. The well head appeared to be unsecured and could pose a risk of contamination during heavy rain events or chemical release.

Pole Mounted Transformers

During the site reconnaissance, two pole mounted transformers were observed adjacent to the commercial buildings (see Site Photographs Nos. 6 & 19 in **Appendix C**). The transformers appeared to be in good condition and showed no signs of leakage and no stained soils were observed at the base of the poles.

On-Site Abandoned Septic Tank

According to James Riley, former Mt. Whitney Fish Hatchery site manager, a septic tank may be located between the existing trout pond and the eastern property boundary. The area where the former septic tank is located consists of unpaved parking lot and, according to Riley, was abandoned in the mid 1960's. Mr. Reily was unsure if the septic tank was ever completely removed but recalls the system was punctured or ruptured at some point, possible during an attempt to recondition the tank. The system was abandoned and a new septic tank was installed beneath Golden Trout Circle (entrance road to the site) immediately north of Fish Hatchery Road. The existing septic systems is connected to the off-site sewage oxidation ponds discussed below.

Sewage Oxidation Ponds

The Mt. Whitney Fish Hatchery operates a series of four (4) off-site sewage oxidation ponds through a lease agreement with the Bureau of Land Management (see Site Photographs Nos. 1 & 2 in **Appendix C**). The oxidation ponds are located on the south side of Fish Hatchery Road near the southeast corner of the site. Wastewater generated on-site is first treated in the on-site septic system. After passing through the septic system the wastewater is conveyed via sewer pipe and discharged to the off-site sewage oxidation ponds. The first two ponds were constructed in 1963. The third pond was constructed in 1970 and the fourth in 1971.

5.4 Interior Observations

Residential Structures

As previously discussed, the California Department of Fish & Game allows the Friends of Mt. Whitney Fish Hatchery to maintain limited operations at the site. However, the California Department of Fish & Game does not allow access to any of the residential structures; thus, interior observations were not made during the site reconnaissance. Interior observations were made from numerous windows and suspected asbestos containing building materials (ACBMs) were observed including: 9x9 vinyl tiles and mastic, acoustical ceiling texture, drywall and joint compound. The age of the residential structures suggests ACBMs may have been used.

Commercial Buildings

As previously noted, the commercial buildings are constructed of pre-fabricated corrugated metal materials. However, one commercial building, known as the freezer building, has transite paneling (a suspected ACBM) on the interior walls and ceiling. This building was used as cold storage for fish food production. The paneling was in good condition with no visible signs of deterioration or friable sections (see Site Photographs No. 10, 11 & 12 in **Appendix C**).

One of the on-site commercial buildings was used for fleet vehicle maintenance (see Site Photograph No. 24 in **Appendix C**). An in-ground hydraulic vehicle lift was observed in one of the vehicle service bays. A small floor drain is located adjacent to the hydraulic shaft with visible signs of hydraulic fluid on the surface around the lift (see Site Photographs No. 25, 26 & 27 in **Appendix C**). It appears hydraulic fluid has entered the floor drain. The hydraulic fluid reservoir tank was observed in the adjacent service bay as shown in Site Photograph 29 in **Appendix C**.

6 INTERVIEWS

The purpose of this Phase I ESA is to identify recognized environmental conditions that may be present due to past or present land use of the site, and/or properties in the site vicinity. BEC Environmental, Inc. conducted interviews as discussed in Sections 6.1 through 6.3 below.

6.1 Interview with Owner Representative

The site contact was Bruce Ivey and James Riley, see Section 6.3 below.

6.2 Interview with Owner

BEC conducted an interview with the site owner representative Gary Williams (Senior Hatchery Supervisor for the California Department of Fish & Game). Mr. Williams indicated he had no knowledge of environmental concerns with the subject site or the surrounding properties with the exception of the removed USTs and subsequent remedial efforts. Mr. Williams stated numerous chemicals were used at the site during its operation and were consistent with chemicals typically used for aquaculture purpose. The specific chemicals used for at the hatchery are listed in the NPDES permit (as discussed in Section 4.1 of this report). Mr. Williams indicated he was aware the subject site had a former leaking underground storage tank but was not certain if the LUST case received closure.

6.3 Interview with Others

BEC conducted an interview with Bruce Ivey who is the Director of the Friends of Mt. Whitney Fish Hatchery. Mr. Ivey indicated he had no knowledge of environmental concerns with the subject site or the surrounding properties. Please refer to **Appendix H** for the Phase I User Questionnaire completed and signed by Mr. Ivey.

BEC conducted an interview with James Riley who was a former manager of the Mt. Whitney Fish Hatchery. Mr. Riley indicated he had no knowledge of environmental concerns with the subject site or the surrounding properties with the exception of the LUST. Mr. Riley stated two (2) USTs were removed from the site in the late 1980's. Mr. Riley further stated one of the USTs had leaked and contaminated soil had been excavated and treated on-site. Please refer to **Appendix H** for the Phase I User Questionnaire completed and signed by Mr. Riley.

Records were obtained from Inyo County on the removal and subsequent remediation of the LUST, please refer to **Appendix E**. The records indicate remediation was suspended due funding issues within the California Department of Fish & Game. Based on the interviews and readily available documents it is unknown if the site was remediated to applicable standards at the time or if site closure was obtained for the LUST case.

BEC conducted an interview with Ms. Sherri Aust and Mr. Mark Long (Inyo County Environmental Health Department). Ms. Aust provided BEC with the UST/LUST case file for the Mt. Whitney Fish Hatchery. No other pertinent environmental records were available for the site. Ms. Aust, nor Mr. Long, had any knowledge of environmental concerns with the subject site or the surrounding properties other than the aforementioned LUST case. Please refer to **Appendix H** for the interview record.

BEC conducted an interview with Ms. Danna Stroud, who is the point of contact for the preparation of this report. As previously discussed, the Sierra Nevada Conservancy is considering acquiring the subject site, as a no-cost transfer from the California Department of Fish & Game. Please refer to **Appendix H** for the Phase I Questionnaire completed by the Sierra Nevada Conservancy.

BEC conducted an interview with Ms. Merie Hannah (Inyo County Recorder's Office). Ms. Hannah provided information on the ownership history of the subject site and stated readily available documentation for recordation dates, instrument numbers, etc) for property transactions occurring nearly 100 years ago would be very difficult and time consuming to obtain. However, she was able to determined that prior to 1915 the subject site was owned by Mr. Andrew Neal Bell (deceased). From 1915 to current, the subject site has been owned by the State of California - Department of Fish & Game. Please refer to **Appendix H** for the interview record.

7 FINDINGS AND CONCLUSIONS

7.1 Findings and Opinion

The following is a summary of findings associated with the ESA performed for the subject site. The following items were noted:

- The Mt. Whitney Fish Hatchery consists of a partially developed 40 acre parcel located at 1 Golden Trout Circle, Independence, California 93526, in Inyo County, California (assessor parcel number (APN) 022-070-08-06.
- Based on review of historical records and an interview with Jim Riley and Gary Williams, former Mt. Whitney Fish Hatchery managers, the subject site was operated as a fish hatchery from 1917 to July 15, 2008. The Mt. Whitney Fish Hatchery is the only known and documented use of the subject site.
- Two pole mounted transformers were observed adjacent to the on-site commercial buildings. The transformers appeared to be in good condition and showed no signs of leakage and no stained soils were observed at the base of the poles. The transformer is not considered a REC.
- The regulatory database review was purchased as a report through Environmental Data Resources, Inc. (EDR). The report did not identify any federal or state listings for the subject site or within the minimum search radii for the adjacent area. However, the subject site was listed on several databases in the EDR report classified as "Other Ascertainable Records". The subject site was listed on the following databases: National Pollutant Discharge Elimination System (NPDES), HAZNET and Indian Reservation. During its operation as a fish hatchery, the subject site maintained a NPDES permit for the operation of the setting ponds. Water was drawn from Oak Creek, passed through settling ponds and the fish hatchery and then discharged back to Oak Creek. The EDR report shows a NPDES violation and subsequent enforcement action in June 2006 and appears to be a result of a reporting issue. No violations or fines were issued for the subject site. The EDR report shows a HAZNET (Hazardous Waste Information System) listing for the subject site. HAZNET consists of data extracted from the copies of hazardous waste manifests received each year by the Department of Toxic Substances Control (DTSC). The HAZNET shows a listing for the subject site involving approximately 320 pounds of an unspecified solvent mixture. The waste disposal method is listed as recycler and is most likely material transported off site by a recycling facility. No other pertinent information was provided regarding the HAZNET listing. The subject site is listed as being within one mile of the Fort Independence Indian Reservation. BEC does not consider the listings described above to be a recognized environmental condition.
- Due to discrepancies in the location of some facilities in the databases arising from incorrect or incomplete addresses some facilities were listed as un-mappable, otherwise known as "orphan sites". BEC reviewed the Orphan Summary list in the EDR report.

The orphan list consists of sites that cannot be mapped because their address or facility information was incomplete. The EDR report lists 28 orphan sites that may be located within or outside the standard one-mile radius search distance. Seven of the 28 orphan listings had a facility name of "Mt. Whitney Fish Hatchery". The seven site listings from the orphan list are from the following databases: Waste Discharge System (WDS), Historical Cortese (former Underground Storage Tanks), Historical Cortese (former Leaking Underground Storage Tanks), Facility Index System (FINDS), LUST and Statewide Environmental Evaluation & Planning System (SWEEPS UST). The orphan database listings described above are also captured and discussed in the federal and state environmental databases listings below. Based on a review of the information provided, the remaining 21 sites do not appear to be within a one-mile radius of the subject site. Thus, BEC does not consider this to be a recognized environmental condition.

- One Historical Recognized Environmental Condition (HREC) was identified for the subject site. ASTM defines a HREC as "*an environmental condition which in the past would have been considered a REC, but which may or may not be considered a REC currently*". A LUST case has been reported for the subject site and appears on the state level environmental database reports as discussed above. A review of readily available records for the LUST case indicate closure was not obtained due to limited clean up funding.

7.2 Conclusions and Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Mt. Whitney Fish Hatchery located in Inyo County, California (APN 022-070-08-06) at 1 Golden Trout Circle, Independence, California 93526. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report. This assessment has revealed evidence of recognized environmental conditions in connection with the subject property as described in Section 7.1 above and warrants additional investigation.

BEC personnel observed the following recognized environmental conditions (RECs), as defined in ASTM Practice E 1527-05, in connection with the subject site. BEC offers the following description of these conditions as follows:

- Suspect asbestos-containing building materials (ACBMs) were observed in the residential units in the form of 9"x9" vinyl tiles and exposed floor mastic, wallboard/ joint compound and ceiling materials. Additionally, the age of the residential units suggests both ACBMs and lead-based paint may be present.
- Two underground storage tanks were removed from the subject site on June 3, 1988. Both tanks were reported to have stored "leaded" gasoline. The addition of lead to gasoline was slowly phased out and was completely banned in 1986. However, the tanks were operated during the time frame in which "leaded" gasoline could have been used. One of the removed USTs leaked and resulted in subsurface contamination. Inyo County

provided documentation which demonstrates remediation efforts occurred at the site. However, according to a letter dated January 22, 1991, from the California Department of Fish & Game, remediation efforts were ceased due to limited funding. No other documentation beyond that date could be obtained. Thus, subsurface contamination of both petroleum and lead may still be present beneath the subject site.

- An in-ground hydraulic vehicle lift was observed in the building formerly used for fleet vehicle maintenance. Visible signs of hydraulic fluid were observed adjacent to the lift and a floor drain adjacent to the lift shaft.
- The presence of an unlabeled 25-gallon drum of an unknown petroleum substance (stored on bare soil) poses a material threat of release that could potentially impact the subject site.
- A storage or wash rack appears to be mounted on the west side of the wood shop building. The soil beneath the storage/wash rack appears to be stained and the color of the soil is not consistent with the soil in the surrounding area.
- An abandoned septic system tank is reportedly located in the area of the current unpaved parking lot. The size and exact location of the septic tank is unknown.

Based on the RECs that were identified in connection with the subject site, BEC recommends a limited asbestos survey be conducted to assess the extent of ACBM's in the residential and commercial buildings. Additionally, a Phase II Environmental Site Assessment should be conducted at the subject site to test for petroleum hydrocarbons and metals in the subsurface soils in connection with the hydraulic lift and the former leaking underground storage tank. As discussed in more detail in the report, available documentation was inconclusive if the LUST case was officially closed. Additionally, surface and subsurface sampling should be conducted in the area of the wood shop building wash rack and the abandoned septic system.

8 NEVADA ENVIRONMENTAL MANAGER CERTIFICATION

The following statements are required in accordance with 40 CFR 312.21(d), and Section 12.13 *Environmental Professional Statement*, of ASTM E-1527-05:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Additionally, in accordance with the Nevada Revised Statutes 459.500, Section 1, a holder of a certificate who is responsible for service requiring certification shall ensure that each document relating to the service includes the following language:

I, Brian K. Loffman, hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state, and local statutes, regulations, and ordinances.

Brian K. Loffman, C.E.M.
Certified Environmental Manager
No. 2265
Expires: September 21, 2014

Date

9 REFERENCES

American Society for Testing and Materials Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-05).

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (“CERCLA” or “Superfund”), as amended by Superfund Amendments and Reauthorization Act of 1986 (“SARA”) and Small Business Liability Relief and Brownfields Revitalization Act of 2002 (“Brownfield Amendments”), 42 U.S.C. §§9601, et. seq.

Resource Conservation and Recovery Act, as amended (“RCRA”), 42 U.S.C. §6901, et. seq.

Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Maps.

United States Department of Agriculture, Soil Conservation Service, Soil Surveys.

United States Geological Survey, Topographic Maps.

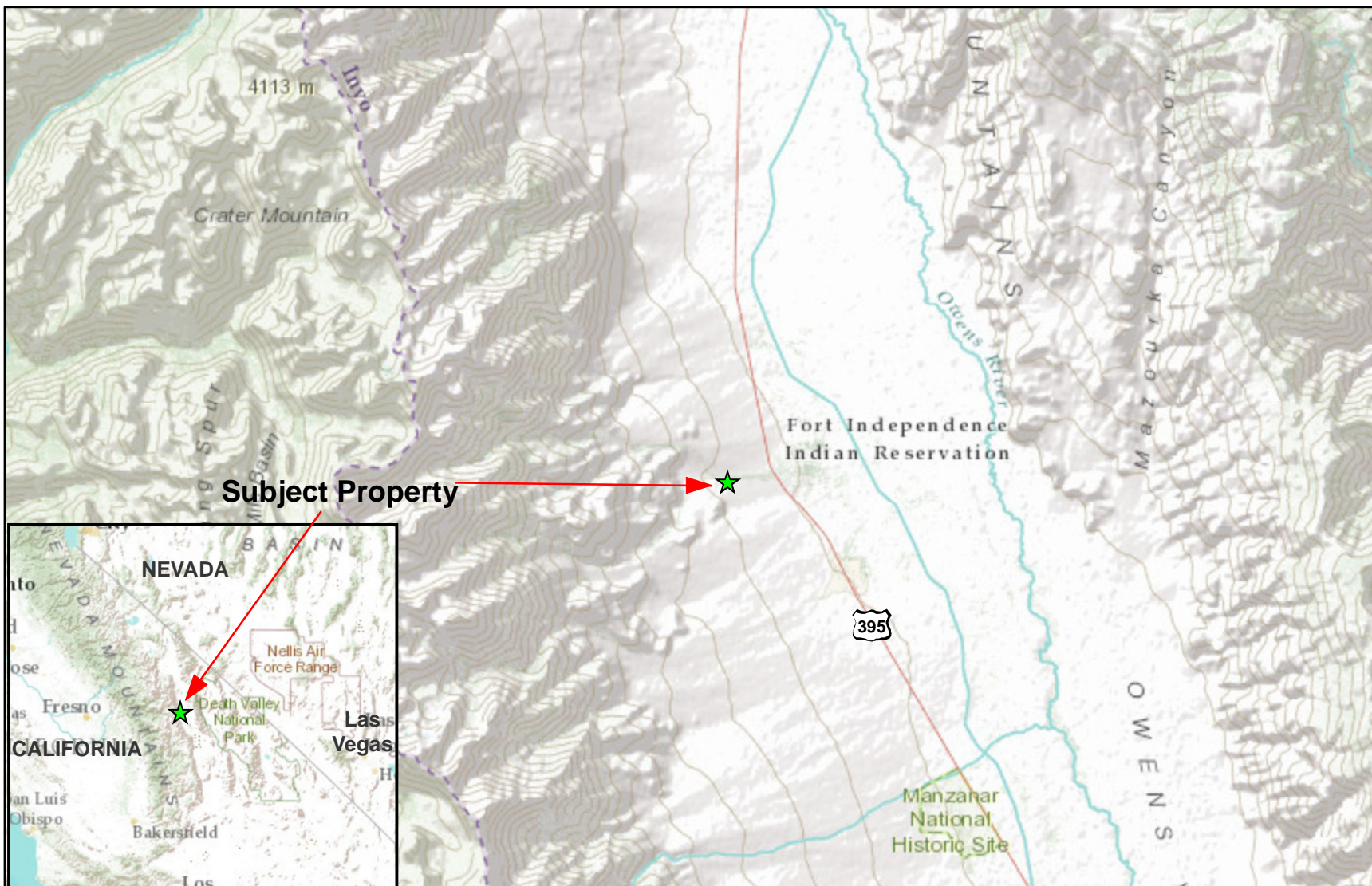
United States Geological Survey, Evaluation of the Hydrologic System and Selected Water-Management Alternatives in the Owens Valley, California.

Environmental Data Resources, Inc. (EDR), Environmental Database Reports, August 2012.

Appendix A

Vicinity Map & Site Location Map

Vicinity Map



Subject Property



Figure 1

APN# 022-070-08-06
1 Golden Trout Circle
Independence, CA 93526

0 3.25 6.5 13 Miles

bec environmental, inc.



Site Location Map

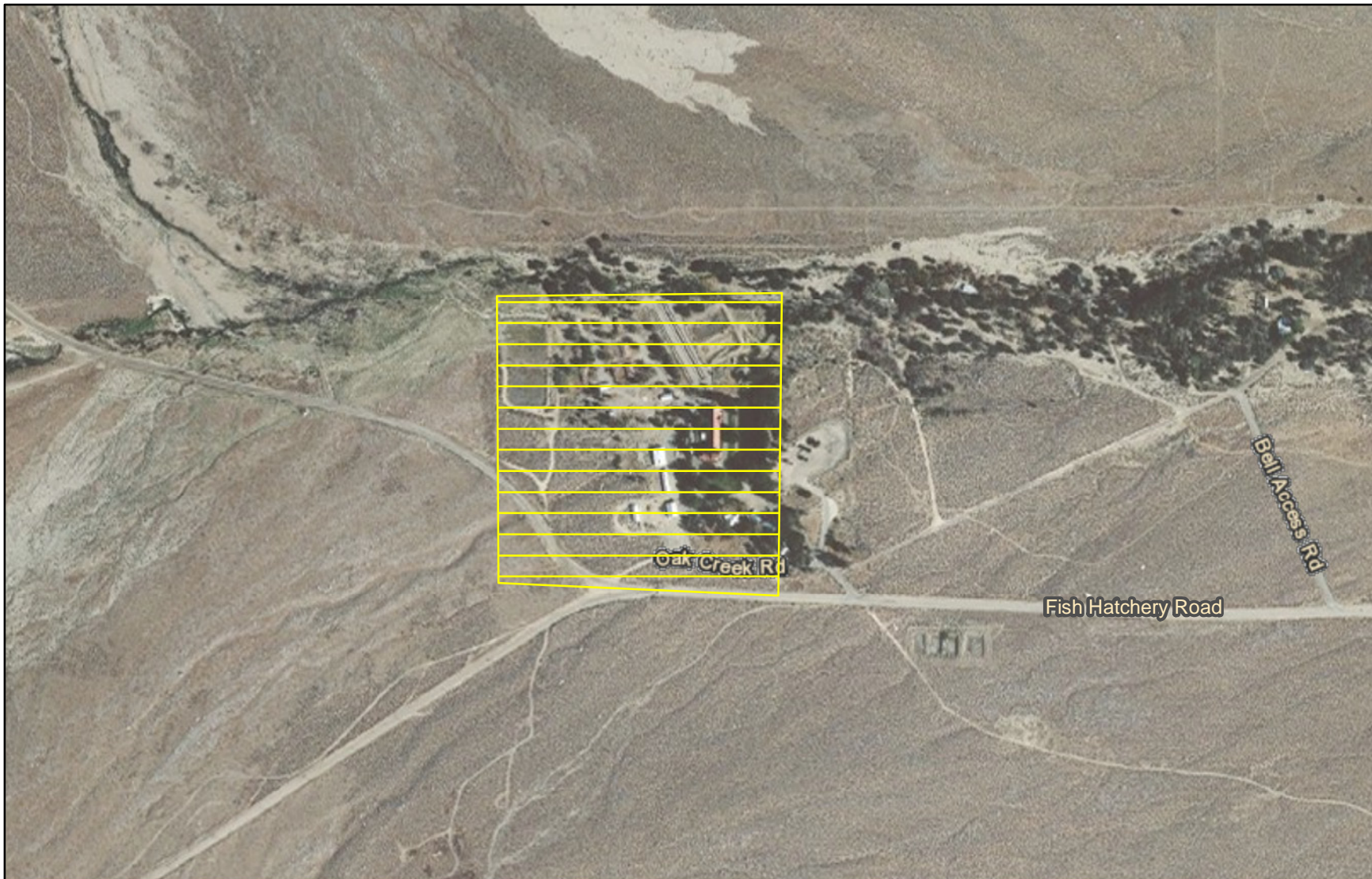


Figure 2

Approximate Boundary for APN# 022-070-08-06
40 Acres

0 500 1,000 2,000 Feet

bec environmental, inc.



Appendix B
Assessors Parcel Map

Inyo County Assessor Parcel Map

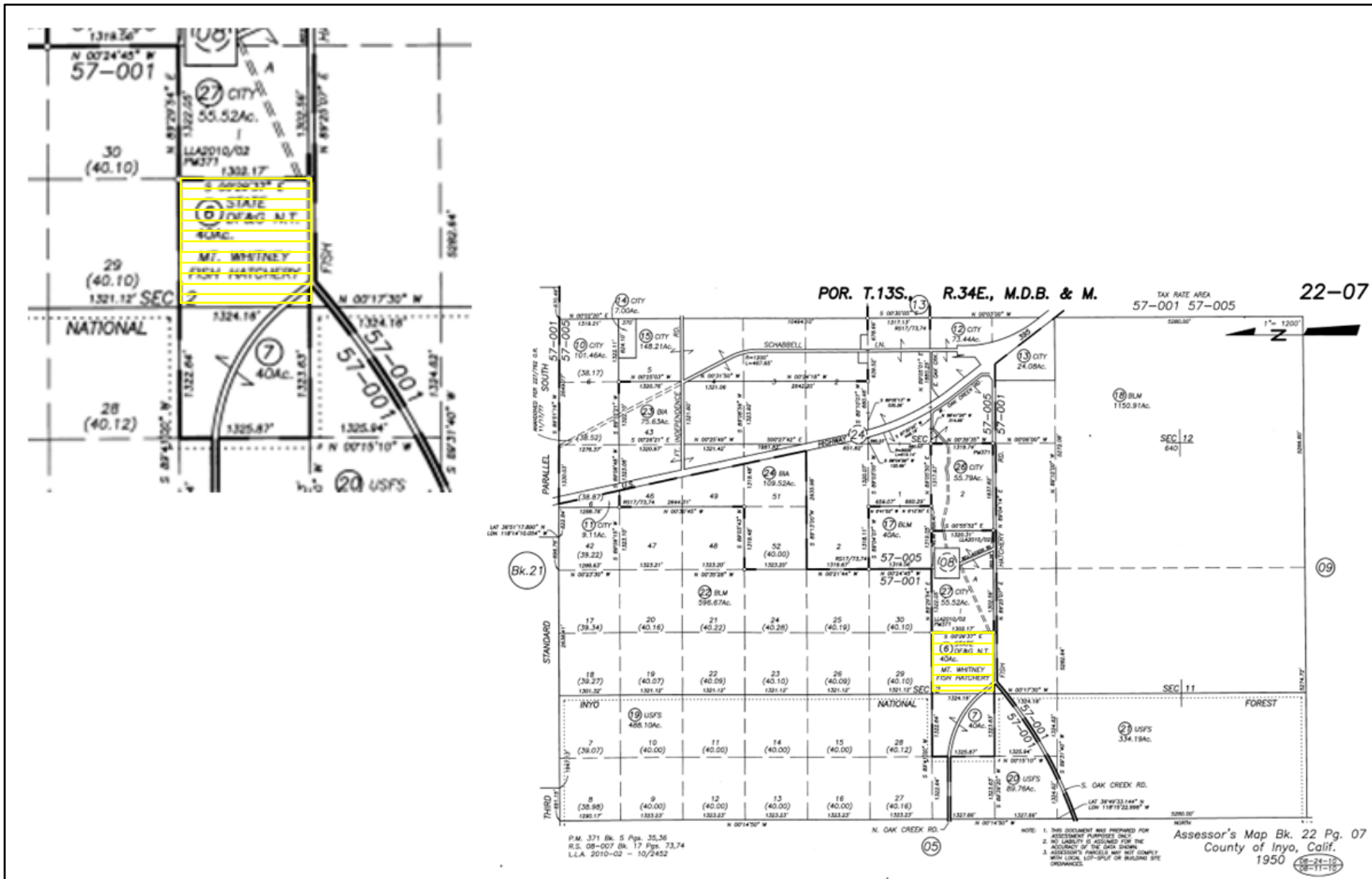


Figure 3

APN# 022-070-08-06
 1 Golden Trout Circle
 Independence, CA 93526

bec environmental, inc.

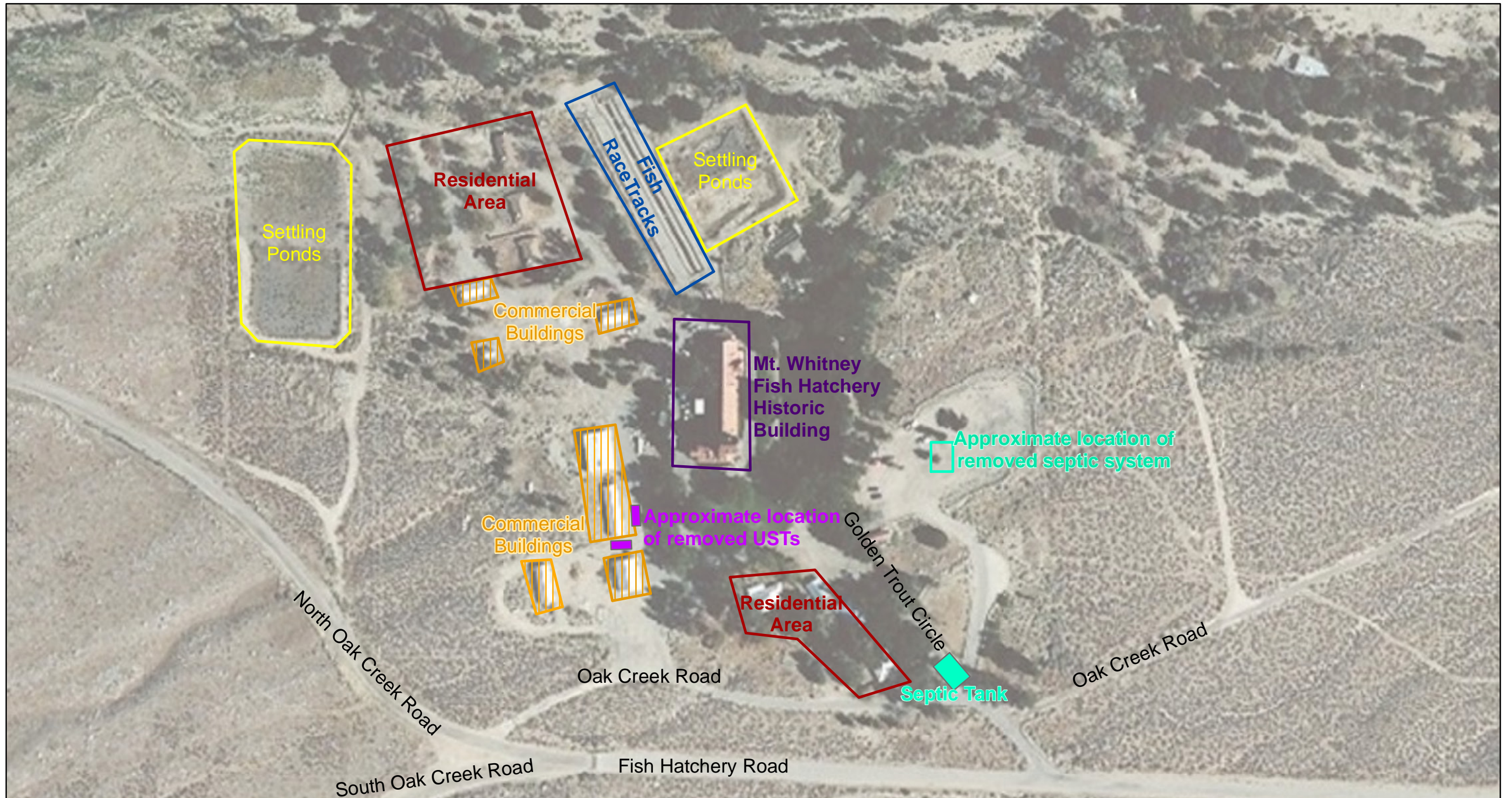


Figure 4 - Site Reconnaissance

Mt. Whitney Fish Hatchery
 1 Golden Trout Circle
 Independence, CA 93526

1 inch = 200 feet



bec environmental, inc.



Appendix C
Site Photographs

1



Photograph 1. View of the oxidation ponds located southeast of the subject site (offsite ponds).

2



Photograph 2. Additional view of the oxidation ponds located southeast of the subject site.

3



Photograph 3. Interior view of the detached garages for the on-site residential units.

4



Photograph 4. Exterior view of the detached garages for the on-site residential units.

5



Photograph 5. View of the on-site facility manager's residence.

6



Photograph 6. View of the cold storage and feed preparation building.

7



Photograph 7. Interior view of cold storage and feed preparation room.

8



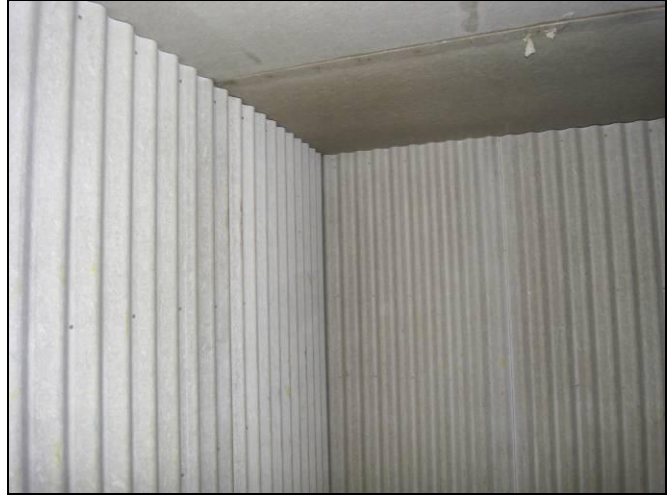
Photograph 8. Additional interior view of cold storage and feed preparation room (drums contain dry fish pellets).

9



Photograph 9. Exterior view of the freezer unit in the cold storage building.

10



Photograph 10. Transite panel in freezer room.

11



Photograph 11. Transite panel ceiling material in freezer room.

12



Photograph 12. Additional view of transite paneling in freezer room.

13



Photograph 13. View of the wood shop building.

14



Photograph 14. Interior view of the wood shop building.

15



Photograph 15. Stained soil on the west side of the wood shop building (note suspected storage/wash racks).

16



Photograph 16. Additional view of stained soil on west side of the wood shop building.

17



Photograph 27. Additional view of stained soil on west side of the wood shop building.

18



Photograph 18. View of empty commercial building located east of the wood shop building.

19



Photograph 19. View of three commercial buildings located east of the wood shop building.

20



Photograph 20. Interior view of the center building shown in Photograph 19.

21



22



Photograph 23. Interior view of the center building shown in Photograph 19.

Photograph 22. Propane tank located adjacent to the former vehicle maintenance garage.

23



24



Photograph 23. Additional view of the propane tanks located adjacent to the former vehicle maintenance garage.

Photograph 24. Exterior view of the former vehicle maintenance garage.

25



26



Photograph 25. Hydraulic lift located in the south bay of the former vehicle maintenance garage building.

Photograph 26. Additional view of the hydraulic lift located in the south bay of the former vehicle maintenance garage building. Note the sump and fluid staining around the lift.

27



28



Photograph 27. Interior view of the south bay of the former vehicle maintenance garage building.

Photograph 28. Interior view of the middle bay of the former vehicle maintenance garage building.

29



Photograph 29. Compressor tank located in the middle bay used for the hydraulic lift.

30



Photograph 30. Sign showing the location of the waste oil storage in the middle bay.

31



Photograph 31. Approximate 20-gallon drum tank (partially full) of an unknown petroleum product.

32



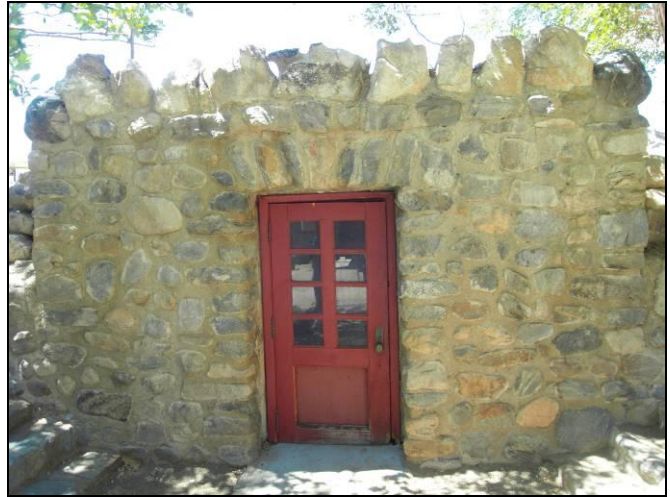
Photograph 32. Sign located near the 20 gallon drum tank shown in Photograph 31.

33



Photograph 33. Additional view (zoomed out) of the 20 gallon drum tank shown in Photograph 31.

34



Photograph 34. Exterior view of room formerly used for chemical and rock salt storage.

35



Photograph 35. Interior view of room formerly used for chemical and rock salt storage..

36



Photograph 36. Exterior view of metal shed currently used for storage/maintenance of lawn care equipment. The metal structure was originally built in the mid-1990's and was used for chemical storage until the hatchery ceased operations.

37



Photograph 37. Additional view of the gardening and lawn maintenance building.

38



Photograph 38. Interior view of the gardening and lawn maintenance building.

39



Photograph 39. Exterior view of the detached garages for the on-site residential units.

40



Photograph 40. Interior view of the detached garages for the on-site residential units.

41



42



Photograph 44. View of the water treatment towers used to remove high concentrations of naturally occurring nitrates in the groundwater. The towers also serve the purpose of oxygenating the oxygen deficient water.

Photograph 42. View of the former concrete "racetracks" for the trout raised at the site.

43



44



Photograph 43. View of the former concrete "racetracks" for the trout raised at the site.

Photograph 44. View of the former concrete "racetracks" for the trout raised at the site.

45



Photograph 45. Settling pond located adjacent to the east side of the concrete "racetracks". Water exiting the fish hatchery operation was first passed through this settling pond prior to being discharged back to Oak Creek.

46



Photograph 46. Foundation of one of the residential units destroyed during the flood event.

47



Photograph 47. Close up view of the vinyl tile/mastic on the foundation from Photograph 46.

48



Photograph 48. Zoomed out view of the foundation shown in Photograph 46.

49



Photograph 49. Residential unit damaged during the flood event (note the waterline on the building walls).

50



Photograph 50. View of a residential unit.

51



Photograph 51. Exterior view of the detached garages for the on-site residential units.

52



Photograph 52. Interior view of the detached garages for the on-site residential units.

53



Photograph 53. Interior view of the on-site pump house (pressure tank).

54



Photograph 54. View of the wellhead adjacent to the pump house.

55



Photograph 55. Interior view of the primary hatchery building.

56



Photograph 56. View of the small scale hatchery operation operated by the Friends of Mt. Whitney Fish Hatchery.

57



Photograph 57. View of the pond adjacent to the historic hatchery building.

58



Photograph 58. Exterior view of the Mt. Whitney Fish Hatchery building.

59



Photograph 59. Exterior view of the Mt. Whitney Fish Hatchery building.

Appendix D
Regulatory Records Documentation

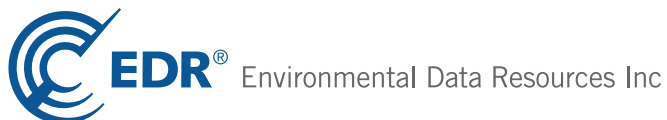
Mt. Whitney Fish Hatchery

1 Golden Trout Circle
Independence, CA 93526

Inquiry Number: 3389995.2s

August 16, 2012

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1 GOLDEN TROUT CIRCLE
INDEPENDENCE, CA 93526

COORDINATES

Latitude (North): 36.8311000 - 36° 49' 51.96"
Longitude (West): 118.2446000 - 118° 14' 40.56"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 389010.8
UTM Y (Meters): 4076656.0
Elevation: 4287 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 36118-G2 INDEPENDENCE, CA
Most Recent Revision: 1982

West Map: 36118-G3 KEARSARGE PEAK, CA
Most Recent Revision: 1992

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 2009, 2010
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
CAL DFG MT WHITNEY FISH HATCHERY 1 GOLDEN TROUT CIR OFF FISH INDEPENDENCE, CA 93526	HAZNET	N/A
MT WHITNEY HATCHERY NPDES 1 GOLDEN TROUT CIRCLE INDEPENDENCE, CA 93526	NPDES ENF	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report

SLIC..... Statewide SLIC Cases

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP..... Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

WMUDS/SWAT..... Waste Management Unit Database

SWRCY..... Recycler Database

HAULERS..... Registered Waste Tire Haulers Listing

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

HIST Cal-Sites..... Historical Calsites Database

SCH..... School Property Evaluation Program

Toxic Pits..... Toxic Pits Cleanup Act Sites

CDL..... Clandestine Drug Labs

US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database

EXECUTIVE SUMMARY

HIST UST..... Hazardous Substance Storage Container Database
SWEEPS UST..... SWEEPS UST Listing

Local Land Records

LIENS 2..... CERCLA Lien Information
LUCIS..... Land Use Control Information System
LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen..... RCRA - Non Generators
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
CA BOND EXP. PLAN..... Bond Expenditure Plan
WDS..... Waste Discharge System
UIC..... UIC Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE..... Hazardous Waste & Substance Site List
Notify 65..... Proposition 65 Records
DRYCLEANERS..... Cleaner Facilities
WIP..... Well Investigation Program Case List
EMI..... Emissions Inventory Data
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
EPA WATCH LIST..... EPA WATCH LIST
PRP..... Potentially Responsible Parties
US FIN ASSUR..... Financial Assurance Information
2020 COR ACTION..... 2020 Corrective Action Program List
FINANCIAL ASSURANCE..... Financial Assurance Information Listing
PCB TRANSFORMER..... PCB Transformer Registration Database

EXECUTIVE SUMMARY

PROC.....	Certified Processors Database
MWMP.....	Medical Waste Management Program Listing
COAL ASH DOE.....	Steam-Electric Plan Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
HWT.....	Registered Hazardous Waste Transporter Database
HWP.....	EnviroStor Permitted Facilities Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

INDIAN RESERV: This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

A review of the INDIAN RESERV list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 INDIAN RESERV site within approximately 1 mile of the target property.

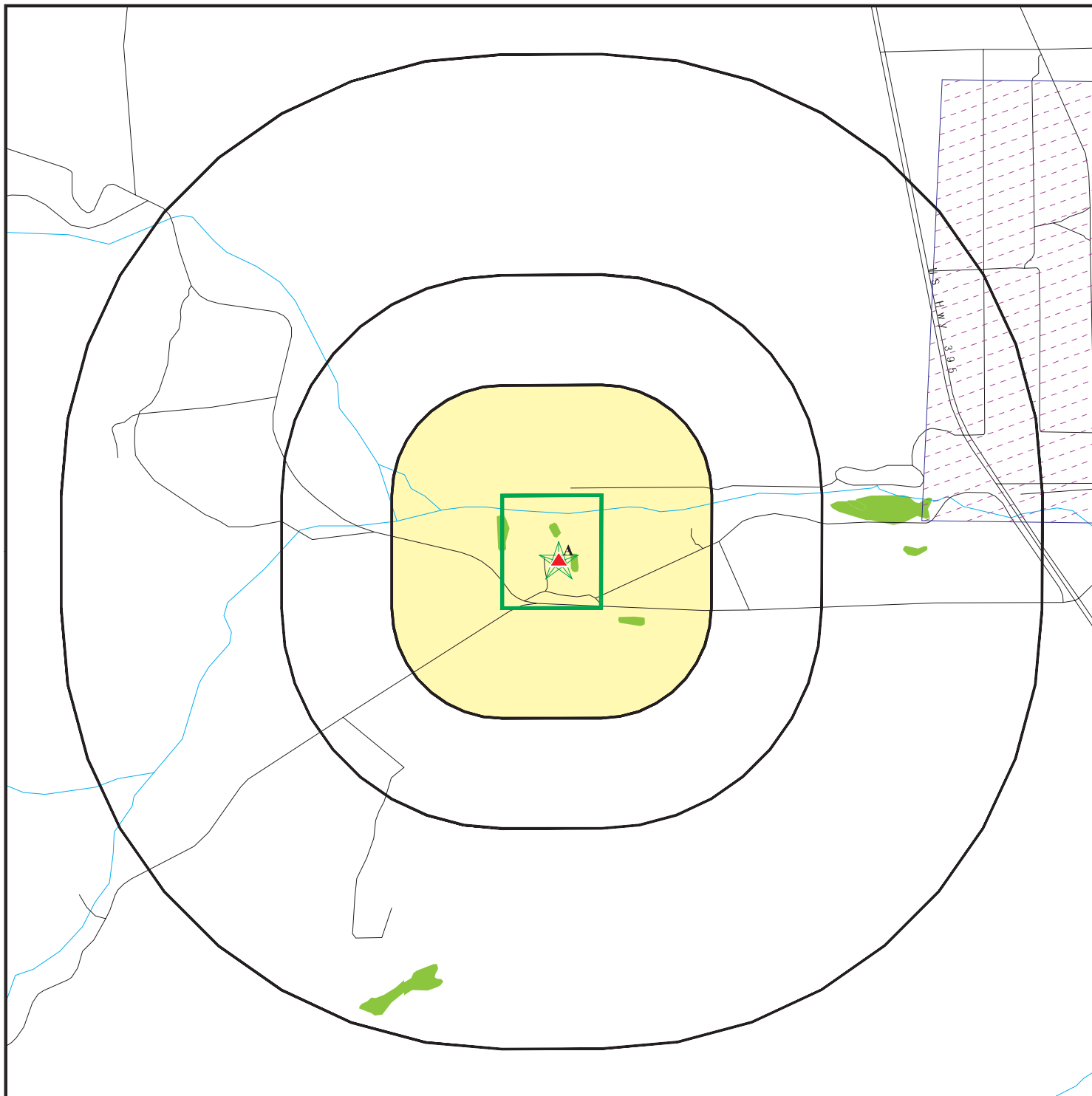
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORT INDEPENDENCE INDIAN RESER		E 1/2 - 1 (0.727 mi.)	0	11

EXECUTIVE SUMMARY


Due to poor or inadequate address information, the following sites were not mapped. Count: 28 records.


<u>Site Name</u>	<u>Database(s)</u>
BLACK ROCK FISH HATCHERY NPDES	NPDES, ENF
MT WHITNEY FISH HATCHERY RESID	WDS, ENF
MILL CREEK MINI MART	HIST CORTESE
MT WHITNEY FISH HATCHERY	HIST CORTESE, LUST
L.A. DWP-FISH SPRINGS HATCHERY	SWEEPS UST
INYO COUNTY MANZANAR SHOP/INYO COU	SWEEPS UST
MT. WHITNEY FISH HATCHERY	SWEEPS UST
KEITH BRIGHT RANCH	SWEEPS UST
MILL CREEK MINI MART	LUST
MT WHITNEY FISH HATCHERY	LUST
CALTRANS INDEPENDENCE YARD	LUST
CAMP MANZANAR	LUST
MANZANAR COUNTY YARD	LUST
MANZANAR COUNTY YARD	LUST
CALTRANS INDEPENDENCE YARD	LUST
MANZANAR SHOP 1	HIST UST
SMITH RANCH	HIST UST
MT. WHITNEY FISH HATCHERY	HIST UST
KEITH BRIGHT RANCH	HIST UST
SHOSHONE ROAD DEPT YARD	HIST UST
BLACK ROCK FISH HATCHERY	FINDS
MT WHITNEY HATCHERY NPDES	FINDS
FISH SPRINGS FISH HATCHERY	FINDS
BLACK ROCK FISH HATCHERY NPDES	WDS
MT WHITNEY HATCHERY NPDES	WDS
FISH SPRINGS FISH HATCH NPDES	WDS
AMERICAN PERLITE CO	MINES
FT INDEPENDENCE TRAVEL PLAZA	INDIAN UST

OVERVIEW MAP - 3389995.2s



 Target Property

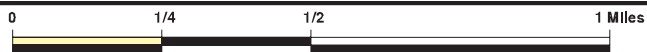
 Sites at elevations higher than or equal to the target property

 Sites at elevations lower than the target property

 Manufactured Gas Plants

 National Priority List Sites

 Dept. Defense Sites



 Indian Reservations BIA

 Areas of Concern

 Oil & Gas pipelines from USGS

 100-year flood zone

 500-year flood zone

 National Wetland Inventory

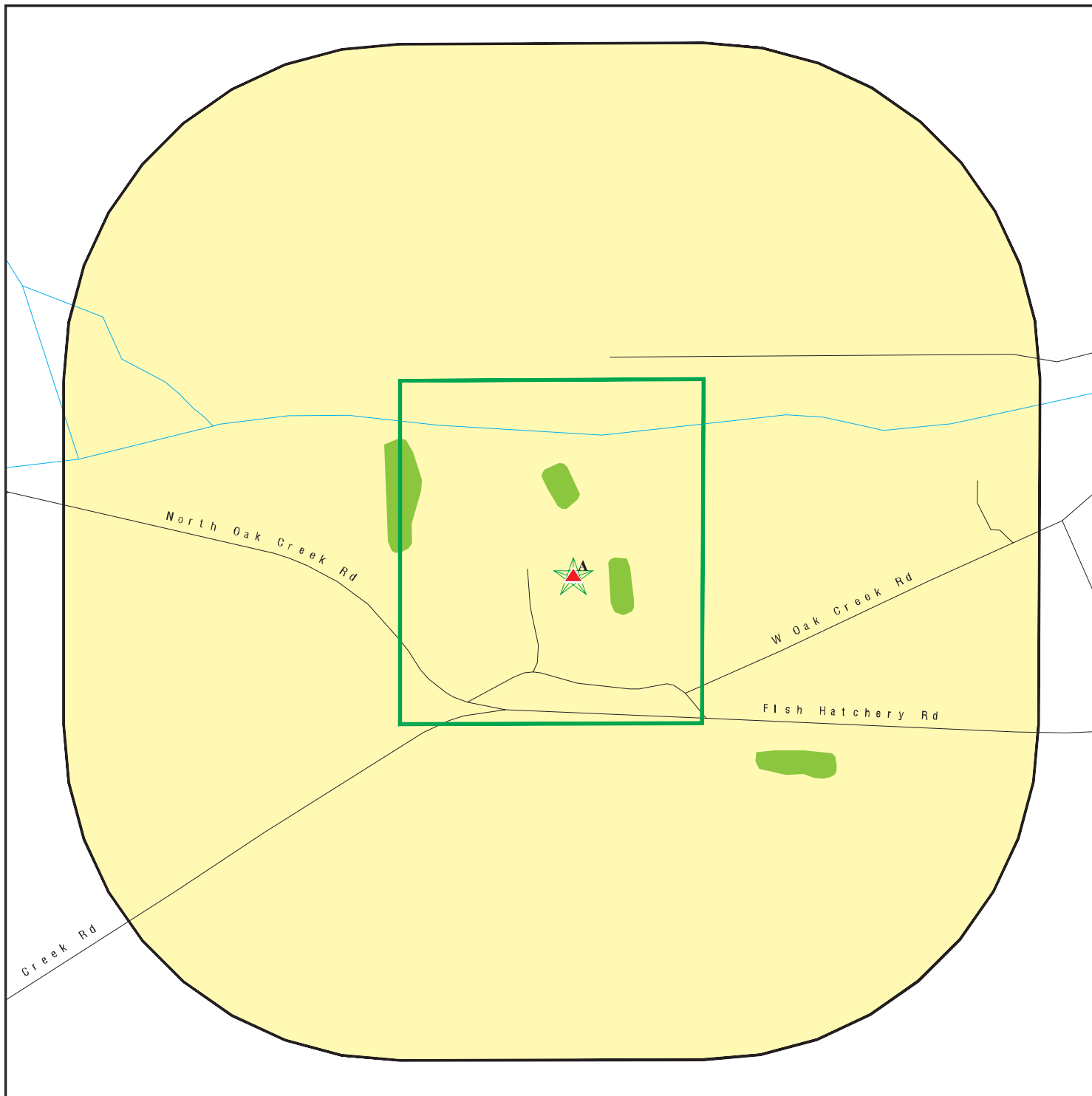









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

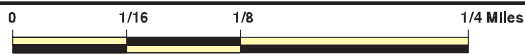
SITE NAME: Mt. Whitney Fish Hatchery
 ADDRESS: 1 Golden Trout Circle
 Independence CA 93526
 LAT/LONG: 36.8311 / 118.2446



CLIENT: BEC Environmental, Inc.
 CONTACT: Brian Loffman
 INQUIRY #: 3389995.2s
 DATE: August 16, 2012 5:28 pm

DETAIL MAP - 3389995.2s



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



-  Indian Reservations BIA
-  Oil & Gas pipelines from USGS
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Mt. Whitney Fish Hatchery
 ADDRESS: 1 Golden Trout Circle
 Independence CA 93526
 LAT/LONG: 36.8311 / 118.2446

CLIENT: BEC Environmental, Inc.
 CONTACT: Brian Loffman
 INQUIRY #: 3389995.2s
 DATE: August 16, 2012 5:33 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
NPDES	TP	1	NR	NR	NR	NR	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP	1	NR	NR	NR	NR	NR	1
HAZNET	TP	1	NR	NR	NR	NR	NR	1
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	1	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
FINANCIAL ASSURANCE	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	1.000		0	0	0	0	NR	0
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MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **CAL DFG MT WHITNEY FISH HATCHERY**
Target **1 GOLDEN TROUT CIR OFF FISH**
Property **INDEPENDENCE, CA 93526**

HAZNET **S105722880**
 N/A

Site 1 of 2 in cluster A

Actual: **HAZNET:**
4287 ft. Year: 2001
 Gepaid: CAL000104725
 Contact: JAMES YARBROUGH/FISH HATCHERY
 Telephone: 7608782272
 Mailing Name: Not reported
 Mailing Address: HCR67 BOX 26
 Mailing City,St,Zip: INDEPENDENCE, CA 935260000
 Gen County: Inyo
 TSD EPA ID: Not reported
 TSD County: San Bernardino
 Waste Category: Unspecified solvent mixture
 Disposal Method: Recycler
 Tons: 0.16
 Facility County: Not reported

A2 **MT WHITNEY HATCHERY NPDES**
Target **1 GOLDEN TROUT CIRCLE**
Property **INDEPENDENCE, CA 93526**

NPDES **S109451320**
ENF **N/A**

Site 2 of 2 in cluster A

Actual: **NPDES:**
4287 ft. Npdes Number: CA0102784
 Facility Status: Historical
 Agency Id: 6942
 Region: Not reported
 Regulatory Measure Id: 306533
 Order No: R6V-2006-0029
 Regulatory Measure Type: NPDES Permits
 Place Id: 241805
 WDID: 6B140800004
 Program Type: NPDES
 Adoption Date Of Regulatory Measure: 06/15/2006
 Effective Date Of Regulatory Measure: 06/15/2006
 Expiration Date Of Regulatory Measure: 06/15/2011
 Termination Date Of Regulatory Measure: 03/09/2011
 Discharge Name: Ca Dept of Fish & Game Long Beach
 Discharge Address: 330 Golden Shore 50
 Discharge City: Long Beach
 Discharge State: CA
 Discharge Zip: 90802

 Npdes Number: CA0102784
 Facility Status: Historical
 Agency Id: 6942
 Region: Not reported
 Regulatory Measure Id: 376460
 Order No: R6V-2006-0029
 Regulatory Measure Type: NPDES Permits
 Place Id: 241805
 WDID: 6B140800004
 Program Type: NPDES
 Adoption Date Of Regulatory Measure: 06/15/2006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT WHITNEY HATCHERY NPDES (Continued)

S109451320

Effective Date Of Regulatory Measure: 06/15/2006
Expiration Date Of Regulatory Measure: 06/15/2014
Termination Date Of Regulatory Measure: 03/09/2011
Discharge Name: Ca Dept of Fish & Game Long Beach
Discharge Address: 330 Golden Shore 50
Discharge City: Long Beach
Discharge State: CA
Discharge Zip: 90802

Npdes Number: CA0102784
Facility Status: Historical
Agency Id: 6942
Region: Not reported
Regulatory Measure Id: 382095
Order No: R6V-2011-0013
Regulatory Measure Type: NPDES Permits
Place Id: 241805
WDID: 6B140800004
Program Type: NPDES
Adoption Date Of Regulatory Measure: 03/09/2011
Effective Date Of Regulatory Measure: 03/09/2011
Expiration Date Of Regulatory Measure: 03/09/2016
Termination Date Of Regulatory Measure: 03/09/2011
Discharge Name: Ca Dept of Fish & Game Long Beach
Discharge Address: 330 Golden Shore 50
Discharge City: Long Beach
Discharge State: CA
Discharge Zip: 90802

ENF:

Region: 6B
Facility Id: 241805
Agency Name: Not reported
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: 36.8327779
Place Longitude: 118.243889
SIC Code 1: 921
SIC Desc 1: Fish Hatcheries and Preserves
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Enf Action
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MT WHITNEY HATCHERY NPDES (Continued)

S109451320

Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDES
# Of Programs:	1
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	376461
Region:	6B
Order / Resolution Number:	Not reported
Enforcement Action Type:	Oral Communication
Effective Date:	06/15/2006
Adoption/Issuance Date:	06/14/2006
Achieve Date:	6/15/2006
Termination Date:	06/15/2006
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Oral Communication - 6B140800004
Description:	Contacted Matt Norris, Manager II, on 11/3/2010 in regards to failure to report M002 parameters, visual condition report, and drug and chemical report. Discharger specified that no overflow occurred during the monitoring period. No visual report was constructed and no drugs or chemical were added during the monitoring period due to the 7/12/2008 flood. No violation was entered.
Program:	NPDES
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MT WHITNEY HATCHERY NPDES (Continued)

S109451320

Liability \$ Amount: 0
Project \$ Amount: 0
Liability \$ Paid: 0
Project \$ Completed: 0
Total \$ Paid/Completed Amount: 0

IND RES
Region
East
1/2-1
3838 ft.

FORT INDEPENDENCE INDIAN RESERVATION
FORT INDEPENDENCE INDIAN (County), CA

INDIAN RESERV **CIND100333**
N/A

INDIAN RESERV:

Feature: Indian Reservation
Name: Fort Independence Indian Reservation
Agency: BIA
State: CA

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BISHOP	S105022772	MILL CREEK MINI MART	BOX 181 RTE 2	93526	HIST CORTESE
BISHOP	S104735549	MILL CREEK MINI MART	PO BOX 181 RTE 2	93526	LUST
INDEPENDENCE	S110654222	MT WHITNEY FISH HATCHERY	HC 1	93526	LUST
INDEPENDENCE	S106928330	L.A. DWP-FISH SPRINGS HATCHERY	HWY 395 S BIG PINE	93526	SWEEPS UST
INDEPENDENCE	S105255552	BLACK ROCK FISH HATCHERY NPDES	HWY 395 N OF INDEPENDENCE	93526	WDS
INDEPENDENCE	S110654243	CALTRANS INDEPENDENCE YARD	HWY 395	93526	LUST
INDEPENDENCE	S103880569	CAMP MANZANAR	HWY 395	93526	LUST
INDEPENDENCE	S102432962	MANZANAR COUNTY YARD	HWY 395	93526	LUST
INDEPENDENCE	S110654237	MANZANAR COUNTY YARD	HWY 395	93526	LUST
INDEPENDENCE	S102426195	CALTRANS INDEPENDENCE YARD	HWY 395	93526	LUST
INDEPENDENCE	S106927536	INYO COUNTY MANZANAR SHOP/INYO COU	HWY 395 7 MI S/O IND	93526	SWEEPS UST
INDEPENDENCE	U001586585	MANZANAR SHOP 1	HWY 395 5 MI S/O INDEPENDENCE	93526	HIST UST
INDEPENDENCE	S109691854	BLACK ROCK FISH HATCHERY NPDES	1 E BLACK ROCK ROAD SPRINGS RD	93526	NPDES, ENF
INDEPENDENCE	1004441813	BLACK ROCK FISH HATCHERY	1 EAST BLACK ROCK SPRINGS ROAD	93526	FINDS
INDEPENDENCE	U001586592	SMITH RANCH	700 NORTH EDWARDS	93526	HIST UST
INDEPENDENCE	S106929722	MT. WHITNEY FISH HATCHERY	FISH HATCHERY RD	93526	SWEEPS UST
INDEPENDENCE	U001586588	MT. WHITNEY FISH HATCHERY	FISH HATCHERY ROAD	93526	HIST UST
INDEPENDENCE	U001586583	KEITH BRIGHT RANCH	SOUTH FORK OAK CREEK	93526	HIST UST
INDEPENDENCE	S106928108	KEITH BRIGHT RANCH	S FORK OAK CREEK	93526	SWEEPS UST
INDEPENDENCE	S105255553	MT WHITNEY HATCHERY NPDES	OAK CREEK HWY 395 N OF INDEPDC	93526	WDS
INDEPENDENCE	1004441812	MT WHITNEY HATCHERY NPDES	OAK CREEK HW 395 N OF INDEP'C	93526	FINDS
INDEPENDENCE	S105255550	MT WHITNEY FISH HATCHERY RESID	NW OF INDEPENDENCE	93526	WDS, ENF
INDEPENDENCE	S102434051	MT WHITNEY FISH HATCHERY	STAR RTE 1	93526	HIST CORTESE, LUST
INDEPENDENCE	S105255551	FISH SPRINGS FISH HATCH NPDES	STAR RTE	93526	WDS
INDEPENDENCE	1004441814	FISH SPRINGS FISH HATCHERY	STAR ROUTE	93526	FINDS
INDEPENDENCE	1011843673	FT INDEPENDENCE TRAVEL PLAZA	135 N. US HWY 395	93526	INDIAN UST
INYO COUNTY	M300002611	AMERICAN PERLITE CO	FISH SPRINGS QUARRY		MINES
SHOSHONE	U001586590	SHOSHONE ROAD DEPT YARD	STATE HWY	93526	HIST UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/08/2012	Source: EPA
Date Data Arrived at EDR: 05/10/2012	Telephone: N/A
Date Made Active in Reports: 05/15/2012	Last EDR Contact: 07/05/2012
Number of Days to Update: 5	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/30/2012	Source: EPA
Date Data Arrived at EDR: 04/05/2012	Telephone: N/A
Date Made Active in Reports: 05/15/2012	Last EDR Contact: 07/05/2012
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/30/2012	Source: EPA
Date Data Arrived at EDR: 04/05/2012	Telephone: N/A
Date Made Active in Reports: 05/15/2012	Last EDR Contact: 07/05/2012
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/27/2011	Source: EPA
Date Data Arrived at EDR: 02/27/2012	Telephone: 703-412-9810
Date Made Active in Reports: 03/12/2012	Last EDR Contact: 07/05/2012
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 07/13/2012
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/28/2011	Source: EPA
Date Data Arrived at EDR: 02/27/2012	Telephone: 703-412-9810
Date Made Active in Reports: 03/12/2012	Last EDR Contact: 07/05/2012
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/19/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 132

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/15/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/15/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/15/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/15/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/30/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/30/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 06/11/2012
Number of Days to Update: 11	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/30/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/30/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 06/11/2012
Number of Days to Update: 11	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 04/02/2012	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 04/03/2012	Telephone: 202-267-2180
Date Made Active in Reports: 06/14/2012	Last EDR Contact: 07/02/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 06/13/2012	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/14/2012	Telephone: 916-323-3400
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 08/07/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 11/19/2012
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/13/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/19/2012
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/21/2012
Date Data Arrived at EDR: 05/22/2012
Date Made Active in Reports: 06/21/2012
Number of Days to Update: 30

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/22/2012
Next Scheduled EDR Contact: 09/03/2012
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/14/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 06/21/2012
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 10/01/2012
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/14/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 06/21/2012
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 10/01/2012
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/07/2012 Source: EPA Region 10
Date Data Arrived at EDR: 05/08/2012 Telephone: 206-553-2857
Date Made Active in Reports: 07/10/2012 Last EDR Contact: 07/26/2012
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/12/2012 Source: EPA Region 1
Date Data Arrived at EDR: 05/09/2012 Telephone: 617-918-1313
Date Made Active in Reports: 07/10/2012 Last EDR Contact: 08/03/2012
Number of Days to Update: 62 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/18/2011 Source: EPA Region 8
Date Data Arrived at EDR: 08/19/2011 Telephone: 303-312-6271
Date Made Active in Reports: 09/13/2011 Last EDR Contact: 07/26/2012
Number of Days to Update: 25 Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011 Source: EPA Region 6
Date Data Arrived at EDR: 09/13/2011 Telephone: 214-665-6597
Date Made Active in Reports: 11/11/2011 Last EDR Contact: 07/26/2012
Number of Days to Update: 59 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/14/2011 Source: EPA Region 4
Date Data Arrived at EDR: 12/15/2011 Telephone: 404-562-8677
Date Made Active in Reports: 01/10/2012 Last EDR Contact: 07/26/2012
Number of Days to Update: 26 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/25/2012 Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/25/2012 Telephone: 415-972-3372
Date Made Active in Reports: 07/16/2012 Last EDR Contact: 07/26/2012
Number of Days to Update: 52 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/07/2012 Source: EPA Region 7
Date Data Arrived at EDR: 02/17/2012 Telephone: 913-551-7003
Date Made Active in Reports: 05/15/2012 Last EDR Contact: 07/26/2012
Number of Days to Update: 88 Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/19/2012	Source: SWRCB
Date Data Arrived at EDR: 07/19/2012	Telephone: 916-341-5851
Date Made Active in Reports: 08/06/2012	Last EDR Contact: 07/19/2012
Number of Days to Update: 18	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 07/03/2012
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/07/2012	Source: EPA Region 10
Date Data Arrived at EDR: 05/08/2012	Telephone: 206-553-2857
Date Made Active in Reports: 07/16/2012	Last EDR Contact: 07/26/2012
Number of Days to Update: 69	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/28/2011	Source: EPA Region 9
Date Data Arrived at EDR: 11/29/2011	Telephone: 415-972-3368
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 07/26/2012
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/18/2011	Source: EPA Region 8
Date Data Arrived at EDR: 08/19/2011	Telephone: 303-312-6137
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 07/26/2012
Number of Days to Update: 25	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 02/07/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/17/2012	Telephone: 913-551-7003
Date Made Active in Reports: 05/15/2012	Last EDR Contact: 07/26/2012
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/26/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/28/2012
Date Data Arrived at EDR: 02/29/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 76

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/26/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/26/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/12/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 07/16/2012
Number of Days to Update: 75

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/03/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/12/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/13/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/19/2012
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 02/17/2012
Date Data Arrived at EDR: 04/03/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 42

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/02/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/27/2011
Date Data Arrived at EDR: 06/27/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/25/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/03/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/11/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/14/2012
Next Scheduled EDR Contact: 10/01/2012
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/10/2012
Date Data Arrived at EDR: 05/10/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 15

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/14/2012
Next Scheduled EDR Contact: 12/03/2012
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/03/2012
Next Scheduled EDR Contact: 11/19/2012
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/16/2012
Date Data Arrived at EDR: 06/12/2012
Date Made Active in Reports: 07/16/2012
Number of Days to Update: 34

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/04/2012
Next Scheduled EDR Contact: 09/17/2012
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 06/13/2012	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/14/2012	Telephone: 916-323-3400
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 08/07/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 11/19/2012
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2011	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/14/2012	Telephone: 916-255-6504
Date Made Active in Reports: 02/21/2012	Last EDR Contact: 08/06/2012
Number of Days to Update: 7	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/19/2008	Telephone: 202-307-1000
Date Made Active in Reports: 03/30/2009	Last EDR Contact: 03/23/2009
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/04/2012
Next Scheduled EDR Contact: 09/17/2012
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/16/2012
Date Data Arrived at EDR: 03/26/2012
Date Made Active in Reports: 06/14/2012
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/27/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/21/2012
Next Scheduled EDR Contact: 09/03/2012
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/12/2012
Date Data Arrived at EDR: 03/13/2012
Date Made Active in Reports: 04/02/2012
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/25/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/11/2012	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/12/2012	Telephone: 916-323-3400
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/12/2012
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/01/2012	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 04/03/2012	Telephone: 202-366-4555
Date Made Active in Reports: 06/14/2012	Last EDR Contact: 07/02/2012
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/28/2012	Source: Office of Emergency Services
Date Data Arrived at EDR: 05/01/2012	Telephone: 916-845-8400
Date Made Active in Reports: 05/25/2012	Last EDR Contact: 08/03/2012
Number of Days to Update: 24	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/14/2012	Source: State Water Quality Control Board
Date Data Arrived at EDR: 06/14/2012	Telephone: 866-480-1028
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 07/19/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/14/2012	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/14/2012	Telephone: 866-480-1028
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 07/19/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

Other Ascertainable Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/15/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/04/2012	Telephone: (415) 495-8895
Date Made Active in Reports: 05/15/2012	Last EDR Contact: 08/16/2012
Number of Days to Update: 41	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/29/2011	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/09/2011	Telephone: 202-366-4595
Date Made Active in Reports: 11/11/2011	Last EDR Contact: 08/07/2012
Number of Days to Update: 94	Next Scheduled EDR Contact: 11/19/2012
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/19/2012
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/29/2012
	Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/12/2010	Telephone: 202-528-4285
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 06/11/2012
Number of Days to Update: 112	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/01/2011	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 01/25/2012	Telephone: Varies
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 06/27/2012
Number of Days to Update: 36	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 02/27/2012	Source: EPA
Date Data Arrived at EDR: 03/14/2012	Telephone: 703-416-0223
Date Made Active in Reports: 06/14/2012	Last EDR Contact: 06/13/2012
Number of Days to Update: 92	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 05/29/2012
Number of Days to Update: 146	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/08/2011	Telephone: 303-231-5959
Date Made Active in Reports: 09/29/2011	Last EDR Contact: 06/05/2012
Number of Days to Update: 21	Next Scheduled EDR Contact: 09/17/2012
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 09/01/2011	Telephone: 202-566-0250
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 05/29/2012
Number of Days to Update: 131	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 06/29/2012
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/08/2012
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/23/2012
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/23/2012
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 07/27/2012
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/10/2011	Telephone: 202-564-5088
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 06/21/2012
Number of Days to Update: 61	Next Scheduled EDR Contact: 10/08/2012
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010	Source: EPA
Date Data Arrived at EDR: 11/10/2010	Telephone: 202-566-0500
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 07/19/2012
Number of Days to Update: 98	Next Scheduled EDR Contact: 10/29/2012
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 07/15/2011	Telephone: 301-415-7169
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 06/11/2012
Number of Days to Update: 60	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/10/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/12/2012	Telephone: 202-343-9775
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 07/11/2012
Number of Days to Update: 49	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/2011	Source: EPA
Date Data Arrived at EDR: 12/13/2011	Telephone: (415) 947-8000
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 06/12/2012
Number of Days to Update: 79	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009	Source: EPA/NTIS
Date Data Arrived at EDR: 03/01/2011	Telephone: 800-424-9346
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 06/01/2012
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/10/2012
	Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/21/2012
Date Data Arrived at EDR: 05/22/2012
Date Made Active in Reports: 06/21/2012
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/22/2012
Next Scheduled EDR Contact: 09/03/2012
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 12/09/2011
Date Data Arrived at EDR: 02/29/2012
Date Made Active in Reports: 04/04/2012
Number of Days to Update: 35

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 07/24/2012
Next Scheduled EDR Contact: 10/01/2012
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/23/2012
Next Scheduled EDR Contact: 09/10/2012
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/02/2012
Date Data Arrived at EDR: 04/03/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 69

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/02/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/21/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 01/19/2012
Date Data Arrived at EDR: 01/19/2012
Date Made Active in Reports: 02/21/2012
Number of Days to Update: 33

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/27/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/27/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/15/2011
Date Data Arrived at EDR: 08/23/2011
Date Made Active in Reports: 10/03/2011
Number of Days to Update: 41

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/14/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 14

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/16/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/29/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 11/05/2012
Data Release Frequency: Varies

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 02/27/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/15/2012
Number of Days to Update: 41

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/02/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 03/31/2012
Date Data Arrived at EDR: 05/17/2012
Date Made Active in Reports: 06/14/2012
Number of Days to Update: 28

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: N/A

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 08/03/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/23/2012
Date Data Arrived at EDR: 05/24/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 43

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/14/2012
Next Scheduled EDR Contact: 12/03/2012
Data Release Frequency: Varies

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/31/2012
Date Data Arrived at EDR: 06/01/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 60

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: 09/10/2012
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/11/2012
Date Data Arrived at EDR: 04/12/2012
Date Made Active in Reports: 05/08/2012
Number of Days to Update: 26

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/17/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/12/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/16/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 06/01/2012	Source: Department of Public Health
Date Data Arrived at EDR: 06/12/2012	Telephone: 916-558-1784
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/11/2012
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/24/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/05/2012	Telephone: 202-566-1917
Date Made Active in Reports: 06/14/2012	Last EDR Contact: 08/14/2012
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/03/2012
	Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 08/03/2012
Number of Days to Update: 83	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/11/2012	Source: Department of Conservation
Date Data Arrived at EDR: 06/14/2012	Telephone: 916-323-3836
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/14/2012
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/03/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/08/2012
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/27/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/03/2012
Date Data Arrived at EDR: 04/04/2012
Date Made Active in Reports: 05/08/2012
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/27/2012
Next Scheduled EDR Contact: 10/15/2012
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/13/2012
Date Data Arrived at EDR: 06/14/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 22

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/06/2012
Next Scheduled EDR Contact: 11/19/2012
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/16/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/21/2012
Next Scheduled EDR Contact: 10/09/2012
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/29/2012	Source: Department of Public Works
Date Data Arrived at EDR: 05/29/2012	Telephone: 626-458-3517
Date Made Active in Reports: 06/21/2012	Last EDR Contact: 07/16/2012
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/26/2012
	Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/23/2012	Source: La County Department of Public Works
Date Data Arrived at EDR: 04/24/2012	Telephone: 818-458-5185
Date Made Active in Reports: 05/25/2012	Last EDR Contact: 07/26/2012
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/05/2012
	Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009	Source: Engineering & Construction Division
Date Data Arrived at EDR: 03/10/2009	Telephone: 213-473-7869
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 08/14/2012
Number of Days to Update: 29	Next Scheduled EDR Contact: 12/03/2012
	Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 12/29/2011	Source: Community Health Services
Date Data Arrived at EDR: 02/02/2012	Telephone: 323-890-7806
Date Made Active in Reports: 02/21/2012	Last EDR Contact: 07/17/2012
Number of Days to Update: 19	Next Scheduled EDR Contact: 11/05/2012
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 04/26/2012	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 05/01/2012	Telephone: 310-524-2236
Date Made Active in Reports: 05/24/2012	Last EDR Contact: 07/17/2012
Number of Days to Update: 23	Next Scheduled EDR Contact: 11/05/2012
	Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 10/23/2003	Telephone: 562-570-2563
Date Made Active in Reports: 11/26/2003	Last EDR Contact: 07/26/2012
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/12/2012	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 07/23/2012	Telephone: 310-618-2973
Date Made Active in Reports: 08/02/2012	Last EDR Contact: 07/12/2012
Number of Days to Update: 10	Next Scheduled EDR Contact: 10/29/2012
	Data Release Frequency: Semi-Annually

MARIN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 05/22/2012
Date Data Arrived at EDR: 05/29/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 38

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/23/2012
Next Scheduled EDR Contact: 10/22/2012
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/04/2012
Next Scheduled EDR Contact: 09/17/2012
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 12/05/2012
Next Scheduled EDR Contact: 09/17/2012
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/17/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 25

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 06/21/2012
Number of Days to Update: 34

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/17/2012
Date Made Active in Reports: 05/24/2012
Number of Days to Update: 7

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/12/2012
Date Data Arrived at EDR: 06/13/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 23

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/11/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/23/2012
Date Data Arrived at EDR: 04/24/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 31

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/25/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/18/2012
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/06/2012
Number of Days to Update: 18

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/25/2012
Next Scheduled EDR Contact: 10/08/2012
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/07/2012
Date Data Arrived at EDR: 04/16/2012
Date Made Active in Reports: 05/08/2012
Number of Days to Update: 22

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/13/2012
Next Scheduled EDR Contact: 10/22/2012
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2012
Date Data Arrived at EDR: 04/17/2012
Date Made Active in Reports: 05/08/2012
Number of Days to Update: 21

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/13/2012
Next Scheduled EDR Contact: 10/22/2012
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/30/2012
Date Data Arrived at EDR: 05/31/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 36

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/13/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010
Date Data Arrived at EDR: 09/15/2010
Date Made Active in Reports: 09/29/2010
Number of Days to Update: 14

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/15/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2011
Date Data Arrived at EDR: 11/04/2011
Date Made Active in Reports: 12/13/2011
Number of Days to Update: 39

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/26/2012
Next Scheduled EDR Contact: 11/12/2012
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/11/2012
Next Scheduled EDR Contact: 09/24/2012
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/07/2012
Next Scheduled EDR Contact: 11/26/2012
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/25/2012	Source: Environmental Health Department
Date Data Arrived at EDR: 06/27/2012	Telephone: N/A
Date Made Active in Reports: 07/31/2012	Last EDR Contact: 06/21/2012
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/08/2012
	Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/09/2012	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 04/09/2012	Telephone: 650-363-1921
Date Made Active in Reports: 05/08/2012	Last EDR Contact: 06/17/2012
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/19/2012	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 06/20/2012	Telephone: 650-363-1921
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/18/2012
Number of Days to Update: 16	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005	Source: Santa Clara Valley Water District
Date Data Arrived at EDR: 03/30/2005	Telephone: 408-265-2600
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 03/23/2009
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 06/04/2012	Source: Department of Environmental Health
Date Data Arrived at EDR: 06/08/2012	Telephone: 408-918-3417
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/04/2012
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2012
	Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/15/2012	Source: City of San Jose Fire Department
Date Data Arrived at EDR: 05/15/2012	Telephone: 408-535-7694
Date Made Active in Reports: 05/25/2012	Last EDR Contact: 08/07/2012
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/26/2012
	Data Release Frequency: Annually

SOLANO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/18/2012	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 06/21/2012	Telephone: 707-784-6770
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/15/2012
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/18/2012	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 06/22/2012	Telephone: 707-784-6770
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/15/2012
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 03/31/2012	Source: Department of Health Services
Date Data Arrived at EDR: 06/29/2012	Telephone: 707-565-6565
Date Made Active in Reports: 08/09/2012	Last EDR Contact: 06/27/2012
Number of Days to Update: 41	Next Scheduled EDR Contact: 10/15/2012
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/11/2012	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 06/12/2012	Telephone: 530-822-7500
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 06/11/2012
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/24/2012
	Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/30/2012	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 05/25/2012	Telephone: 805-654-2813
Date Made Active in Reports: 07/06/2012	Last EDR Contact: 05/21/2012
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/03/2012
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 07/03/2012
Number of Days to Update: 49	Next Scheduled EDR Contact: 10/22/2012
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 08/14/2012
Number of Days to Update: 37	Next Scheduled EDR Contact: 12/03/2012
	Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/30/2012	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 05/04/2012	Telephone: 805-654-2813
Date Made Active in Reports: 05/25/2012	Last EDR Contact: 07/30/2012
Number of Days to Update: 21	Next Scheduled EDR Contact: 11/12/2012
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/27/2012	Source: Environmental Health Division
Date Data Arrived at EDR: 06/29/2012	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2012	Last EDR Contact: 06/27/2012
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/01/2012
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/29/2012	Source: Yolo County Department of Health
Date Data Arrived at EDR: 07/09/2012	Telephone: 530-666-8646
Date Made Active in Reports: 08/02/2012	Last EDR Contact: 06/21/2012
Number of Days to Update: 24	Next Scheduled EDR Contact: 10/08/2012
	Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/21/2012	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/22/2012	Telephone: 860-424-3375
Date Made Active in Reports: 05/31/2012	Last EDR Contact: 05/22/2012
Number of Days to Update: 9	Next Scheduled EDR Contact: 09/03/2012
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 07/20/2011
Date Made Active in Reports: 08/11/2011
Number of Days to Update: 22

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 10/29/2012
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/09/2012
Date Made Active in Reports: 06/14/2012
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/09/2012
Next Scheduled EDR Contact: 11/19/2012
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 04/27/2012
Date Made Active in Reports: 06/05/2012
Number of Days to Update: 39

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/19/2012
Next Scheduled EDR Contact: 11/05/2012
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/27/2012
Next Scheduled EDR Contact: 06/11/2012
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 08/19/2011
Date Made Active in Reports: 09/15/2011
Number of Days to Update: 27

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/16/2012
Next Scheduled EDR Contact: 10/01/2012
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: Rextag Strategies Corp.
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MT. WHITNEY FISH HATCHERY
1 GOLDEN TROUT CIRCLE
INDEPENDENCE, CA 93526

TARGET PROPERTY COORDINATES

Latitude (North):	36.8311 - 36° 49' 51.96"
Longitude (West):	118.2446 - 118° 14' 40.56"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	389010.8
UTM Y (Meters):	4076656.0
Elevation:	4287 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	36118-G2 INDEPENDENCE, CA
Most Recent Revision:	1982
West Map:	36118-G3 KEARSARGE PEAK, CA
Most Recent Revision:	1992

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

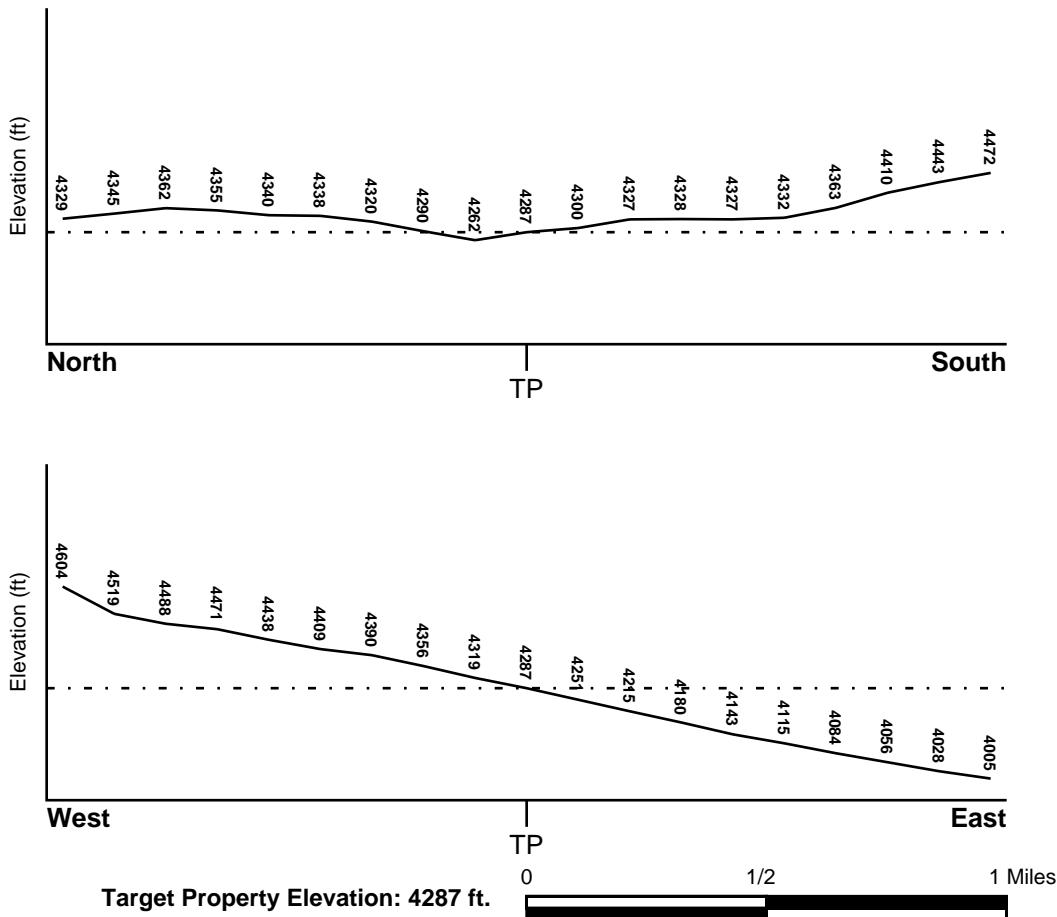
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> INYO, CA	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	0600730850B - FEMA Q3 Flood data
Additional Panels in search area:	0600730675B - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> INDEPENDENCE	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

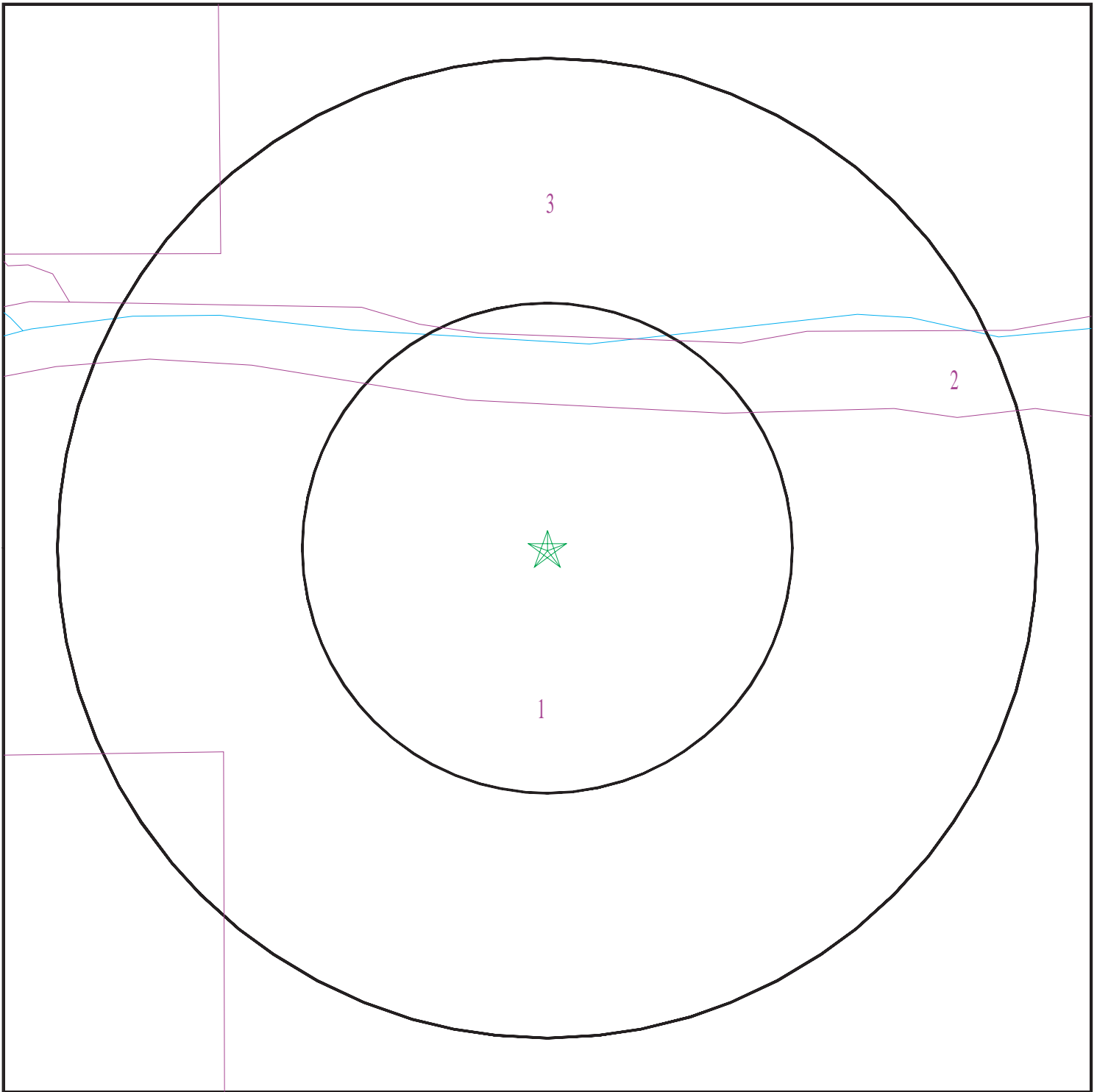
Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

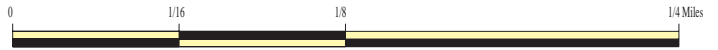
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3389995.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Mt. Whitney Fish Hatchery
ADDRESS: 1 Golden Trout Circle
Independence CA 93526
LAT/LONG: 36.8311 / 118.2446

CLIENT: BEC Environmental, Inc.
CONTACT: Brian Loffman
INQUIRY #: 3389995.2s
DATE: August 16, 2012 5:33 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Lubkin

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6
2	5 inches	25 inches	very stony sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
3	25 inches	46 inches	very cobbly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6
4	46 inches	59 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel. COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel.	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6

Soil Map ID: 2

Soil Component Name: Riverwash

Soil Surface Texture: extremely gravelly coarse sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	extremely gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141.14 Min: 42.34	Max: 9 Min: 7.4
2	5 inches	59 inches	stratified extremely gravelly coarse sand to gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141.14 Min: 42.34	Max: 9 Min: 7.4

Soil Map ID: 3

Soil Component Name: Tinemaha

Soil Surface Texture: gravelly loamy coarse sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6
2	9 inches	33 inches	very stony sandy clay loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6
3	33 inches	59 inches	very stony loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 7.8 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
_____	_____	_____

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS3162492	0 - 1/8 Mile WNW
A3	USGS3162493	1/4 - 1/2 Mile ENE
5	USGS3162497	1/4 - 1/2 Mile ENE
B9	USGS3162496	1/2 - 1 Mile East
B10	USGS3162495	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

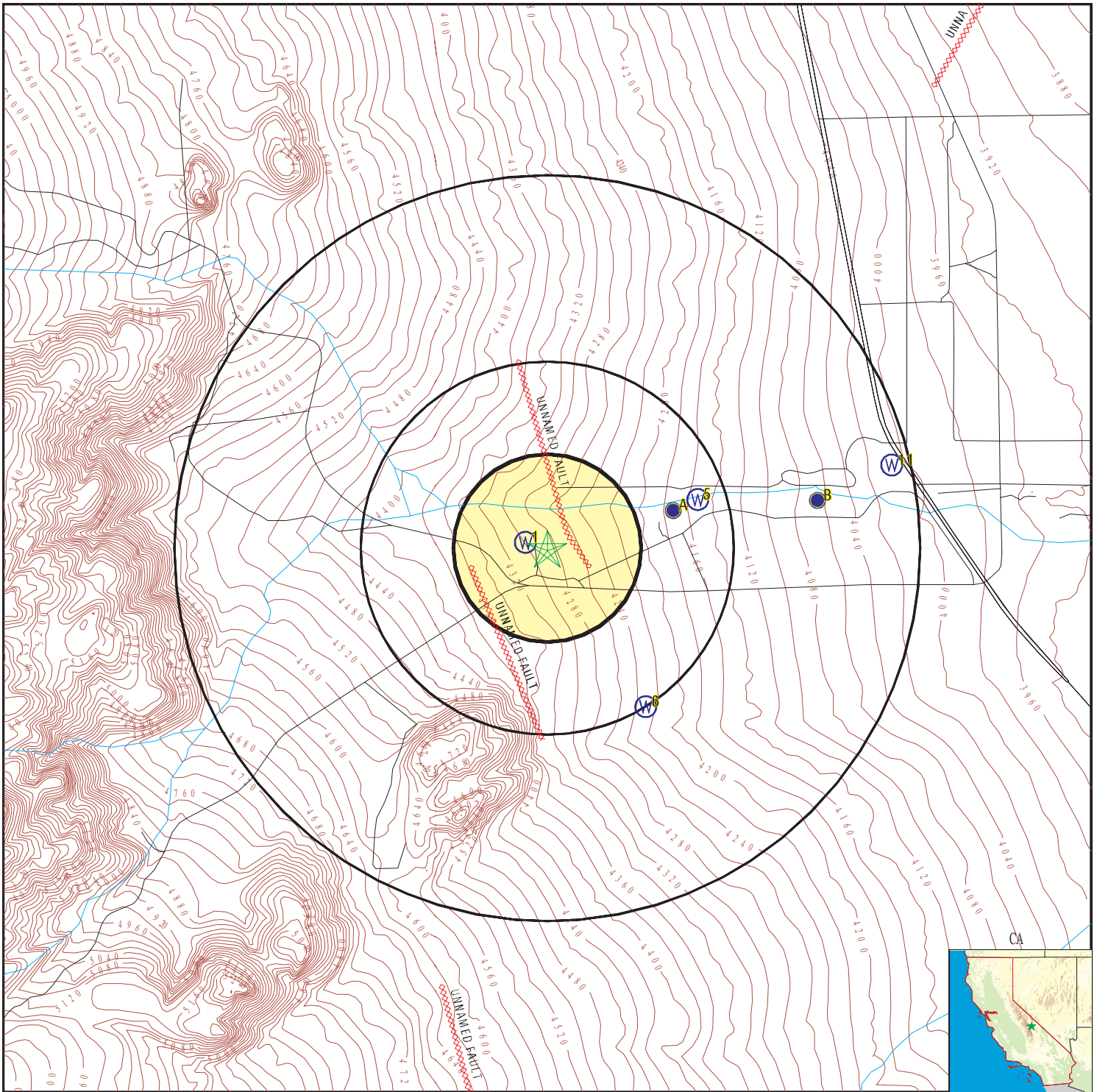
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	CADW40000033286	1/4 - 1/2 Mile ENE
A4	CADW40000033290	1/4 - 1/2 Mile ENE
6	11866	1/2 - 1 Mile SSE
B7	CADW40000033289	1/2 - 1 Mile East
B8	CADW40000033288	1/2 - 1 Mile East
11	CADW40000033302	1/2 - 1 Mile ENE

PHYSICAL SETTING SOURCE MAP - 3389995.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Mt. Whitney Fish Hatchery
 ADDRESS: 1 Golden Trout Circle
 Independence CA 93526
 LAT/LONG: 36.8311 / 118.2446

CLIENT: BEC Environmental, Inc.
 CONTACT: Brian Loffman
 INQUIRY #: 3389995.2s
 DATE: August 16, 2012 5:33 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
WNW
0 - 1/8 Mile
Higher

FED USGS USGS3162492

Agency cd:	USGS	Site no:	364953118144101
Site name:	013S034E02K002M		
Latitude:	364953	EDR Site id:	USGS3162492
Longitude:	1181441	Dec lat:	36.83132176
Dec lon:	-118.24565258	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	027
Country:	US	Land net:	Not Reported
Location map:	INDEPENDENCE	Map scale:	24000
Altitude:	4298		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	33		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Owens Lake. California. Area = 1340 sq.mi.		
Topographic:	Alluvial fan		
Site type:	Ground-water other than Spring	Date construction:	19810518
Date inventoried:	19900730	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	650	Hole depth:	800
Source of depth data:	driller		
Project number:	470628900		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1990-07-30
Water quality data end date:	1990-07-30	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

A2
ENE
1/4 - 1/2 Mile
Lower

CA WELLS CADW40000033286

Longitude:	-118.2382
Latitude:	36.8324
Stwellno:	13S34E01M001M
Districtco:	3
Welluseco:	Z
Countyco:	14
Gwcode:	601200
Site id:	CADW40000033286

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A3
ENE
1/4 - 1/2 Mile
Lower

FED USGS USGS3162493

Agency cd:	USGS	Site no:	364957118141401
Site name:	013S034E01M001M	EDR Site id:	USGS3162493
Latitude:	364957	Dec lat:	36.83243282
Longitude:	1181414	Coor meth:	M
Dec lon:	-118.23815231	Latlong datum:	NAD27
Coor accr:	S	District:	06
Dec latlong datum:	NAD83	County:	027
State:	06	Land net:	Not Reported
Country:	US	Map scale:	24000
Location map:	INDEPENDENCE		
Altitude:	4167		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	33		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Owens Lake. California. Area = 1340 sq.mi.		
Topographic:	Alluvial fan		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19900823	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	300	Hole depth:	300
Source of depth data:	driller		
Project number:	470628900		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1990-08-23	Ground water data end date:	1991-05-20
Ground water data count:	2		

Ground-water levels, Number of Measurements: 2

	Feet below	Feet to		Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	Sealevel

 1991-05-20 235.61

Note: The site had been pumped recently.

1990-08-23 227.90

Note: The site had been pumped recently.

A4
ENE
1/4 - 1/2 Mile
Lower

CA WELLS CADW40000033290

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude: -118.2373
 Latitude: 36.833
 Stwellno: 13S34E01M002M
 Districtco: 3
 Welluseco: Z
 Countyco: 14
 Gwcode: 601200
 Site id: CADW40000033290

5
ENE
1/4 - 1/2 Mile
Lower

FED USGS USGS3162497

Agency cd:	USGS	Site no:	364959118141101
Site name:	013S034E01M002M	EDR Site id:	USGS3162497
Latitude:	364959	Dec lat:	36.83298837
Longitude:	1181411	Coor meth:	M
Dec lon:	-118.23731895	Latlong datum:	NAD27
Coor accr:	S	District:	06
Dec latlong datum:	NAD83	County:	027
State:	06	Land net:	Not Reported
Country:	US	Map scale:	24000
Location map:	INDEPENDENCE		
Altitude:	4157		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	33		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Owens Lake. California. Area = 1340 sq.mi.		
Topographic:	Alluvial fan		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19900823	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	250	Hole depth:	Not Reported
Source of depth data:	other		
Project number:	470628900		
Real time data flag:	0		
Daily flow data end date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data count:	0		
Peak flow data end date:	0000-00-00	Peak flow data begin date:	0000-00-00
Peak flow data count:	0		
Water quality data end date:	0000-00-00	Water quality data begin date:	0000-00-00
Water quality data count:	0		
Ground water data end date:	1990-08-23	Ground water data begin date:	1990-08-23
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

	Feet below	Feet to
Date	Surface	Sealevel

 1990-08-23 209.80

Note: The site had been pumped recently.

6
SSE
1/2 - 1 Mile
Lower

CA WELLS 11866

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water System Information:

Prime Station Code:	13S/34E-02K01 M	User ID:	14C
FRDS Number:	1400011001	County:	Inyo
District Number:	44	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	364930.0 1181420.0	Precision:	0.5 Mile (30 Seconds)
Source Name:	WELL 01		
System Number:	1400011		
System Name:	MT. WHITNEY FISH HATCHERY - INACTIVE SYSTEM		
Organization That Operates System:	Not Reported		
Pop Served:	25	Connections:	Unknown, Small System
Area Served:	Not Reported		

**B7
East
1/2 - 1 Mile
Lower**

CA WELLS CADW40000033289

Longitude:	-118.2312
Latitude:	36.833
Stwellno:	13S34E01L002M
Districtco:	3
Welluseco:	Z
Countyco:	14
Gwcode:	601200
Site id:	CADW40000033289

**B8
East
1/2 - 1 Mile
Lower**

CA WELLS CADW40000033288

Longitude:	-118.2309
Latitude:	36.833
Stwellno:	13S34E01L001M
Districtco:	3
Welluseco:	Z
Countyco:	14
Gwcode:	601200
Site id:	CADW40000033288

**B9
East
1/2 - 1 Mile
Lower**

FED USGS USGS3162496

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	364959118134901
Site name:	013S034E01L002M		
Latitude:	364959	EDR Site id:	USGS3162496
Longitude:	1181349	Dec lat:	36.83298833
Dec lon:	-118.23120761	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	027
Country:	US	Land net:	Not Reported
Location map:	INDEPENDENCE	Map scale:	24000
Altitude:	4062		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	33		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Owens Lake. California. Area = 1340 sq.mi.		
Topographic:	Alluvial fan		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19900822	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	250	Hole depth:	Not Reported
Source of depth data:	reporting agency (generally USGS)		
Project number:	470628900		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1990-08-22	Ground water data end date:	1991-05-22
Ground water data count:	2		

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1991-05-22	160.42				
Note: The site had been pumped recently.					
1990-08-22	149.96				
Note: The site had been pumped recently.					

**B10
East
1/2 - 1 Mile
Lower**

FED USGS USGS3162495

Agency cd:	USGS	Site no:	364959118134801
Site name:	013S034E01L001M		
Latitude:	364959	EDR Site id:	USGS3162495
Longitude:	1181348	Dec lat:	36.83298832
Dec lon:	-118.23092982	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	027
Country:	US	Land net:	Not Reported
Location map:	INDEPENDENCE	Map scale:	24000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude: 4062
 Altitude method: Interpolated from topographic map
 Altitude accuracy: 33
 Altitude datum: National Geodetic Vertical Datum of 1929
 Hydrologic: Owens Lake. California. Area = 1340 sq.mi.
 Topographic: Alluvial fan
 Site type: Ground-water other than Spring Date construction: Not Reported
 Date inventoried: 19900822 Mean greenwich time offset: PST
 Local standard time flag: Y
 Type of ground water site: Single well, other than collector or Ranney type
 Aquifer Type: Not Reported
 Aquifer: Not Reported
 Well depth: 38 Hole depth: Not Reported
 Source of depth data: reporting agency (generally USGS)
 Project number: 470628900
 Real time data flag: 0 Daily flow data begin date: 0000-00-00
 Daily flow data end date: 0000-00-00 Daily flow data count: 0
 Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00
 Peak flow data count: 0 Water quality data begin date: 0000-00-00
 Water quality data end date: 0000-00-00 Water quality data count: 0
 Ground water data begin date: 1990-08-22 Ground water data end date: 1991-05-20
 Ground water data count: 2

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1991-05-20	20.45				
Note: A nearby site that taps the same aquifer was being pumped.					
1990-08-22	10.43				

11
ENE
1/2 - 1 Mile
Lower

CA WELLS CADW40000033302

Longitude: -118.227
 Latitude: 36.8344
 Stwellno: 13S34E01G002M
 Districtco: 3
 Welluseco: Z
 Countyco: 14
 Gwcode: 601200
 Site id: CADW40000033302

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93526	28	2

Federal EPA Radon Zone for INYO County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for INYO COUNTY, CA

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.700 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL ENVIROSTOR

PROJECT SEARCH RESULTS

SEARCH CRITERIA: INDEPENDENCE, 93526, INYO

6 RECORDS FOUND

CLEANUP STATUS: ALL STATUSES

GO

[EXPORT TO EXCEL](#)

PAGE 1 OF 1

[REPORT]	SITE / FACILITY NAME	SITE / FACILITY TYPE	CLEANUP STATUS	ADDRESS DESCRIPTION	CITY	ZIP	COUNTY
[REPORT]	BLACKJACK MINE	HISTORICAL	REFER: OTHER AGENCY	T12S R35E, SEC 5, 3.5 MILES EAST OF 395	INDEPENDENCE	93526	INYO
[REPORT]	[MAP] CAMP MANZANAR	MILITARY EVALUATION	REFER: RWQCB	6611 N. EDWARDS STREET	INDEPENDENCE	93526	INYO
[REPORT]	CITRUS ROAD - MAZOURKA CANYON MINE	HISTORICAL	REFER: OTHER AGENCY	CITRUS ROAD; MAZOURKA CANYON MINE	INDEPENDENCE	93526	INYO
[REPORT]	INDEPENDENCE DISPOSAL SITE	HISTORICAL	REFER: RWQCB	SECTION 21, T13S, R35E, MD	INDEPENDENCE	93526	INYO
[REPORT]	INDEPENDENCE, NORTHEAST 6 MILES - MINE	HISTORICAL	REFER: OTHER AGENCY	T12S R35E, SEC 35, 6 MILES NE OF TOWN	INDEPENDENCE	93526	INYO
[REPORT]	SNOWCAPS MINE	HISTORICAL	REFER: OTHER AGENCY	CITRUS ROAD, 7 MILES EAST OF TOWN	INDEPENDENCE	93526	INYO

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL ENVIROSTOR

INDEPENDENCE, NORTHEAST 6 MILES - MINE (14100022)

T12S R35E, SEC 35, 6 MILES NE OF TOWN
INDEPENDENCE, CA 93526
INYO COUNTY
SITE TYPE: * HISTORICAL

OFFICE: CLEANUP SACRAMENTO

[SIGN UP FOR EMAIL ALERTS](#)

→ approx 8 miles east of subject site

Site Information

CLEANUP STATUS

REFER: OTHER AGENCY AS OF 3/1/1996

SITE TYPE: * HISTORICAL

NATIONAL PRIORITIES LIST: NO

ACRES: NONE SPECIFIED

APN: NONE SPECIFIED

CLEANUP OVERSIGHT AGENCIES:

NONE SPECIFIED

ENVIROSTOR ID:

SITE CODE:

SPECIAL PROGRAM:

FUNDING:

ASSEMBLY DISTRICT:

SENATE DISTRICT:

14100022

* RURAL COUNTY SURVEY PROGRAM

Regulatory Profile

PAST USE(S) THAT CAUSED CONTAMINATION

NONE SPECIFIED

POTENTIAL CONTAMINANTS OF CONCERN

NONE SPECIFIED

POTENTIAL MEDIA AFFECTED

NONE SPECIFIED

Site History

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL ENVIROSTOR

INDEPENDENCE DISPOSAL SITE (14490017)

SECTION 21, T13S, R35E, MD
INDEPENDENCE, CA 93526
INYO COUNTY
SITE TYPE: * HISTORICAL

OFFICE:

CLEANUP SACRAMENTO

SIGN UP FOR EMAIL ALERTS

→ approx 10 miles southeast of Subject Site

Site Information

CLEANUP STATUS

REFER: RWQCB AS OF 1/5/1990

SITE TYPE: * HISTORICAL
NATIONAL PRIORITIES LIST: NO
ACRES: NONE SPECIFIED
APN: NONE SPECIFIED
CLEANUP OVERSIGHT AGENCIES:
NONE SPECIFIED

ENVIROSTOR ID:
14490017
SITE CODE:
SPECIAL PROGRAM: * RURAL COUNTY SURVEY PROGRAM
FUNDING:
ASSEMBLY DISTRICT:
SENATE DISTRICT:

Regulatory Profile

PAST USE(S) THAT CAUSED CONTAMINATION

NONE SPECIFIED

POTENTIAL CONTAMINANTS OF CONCERN

NONE SPECIFIED

POTENTIAL MEDIA AFFECTED

NONE SPECIFIED

Site History

[Conditions of Use](#) | [Privacy Policy](#)

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Appendix E

Local Records Documentation

Mt. Whitney Fish Hatchery NPDES Permit

UST Removal & Remediation Documentation

Mt. Whitney Fish Hatchery

1 Golden Trout Circle
Independence, CA 93526

Inquiry Number: 3389995.6
August 20, 2012

The EDR-City Directory Image Report

EDR CITY DIRECTORY REPORT

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Mt. Whitney Fish Hatchery NPDES Permit

California Regional Water Quality Control Board



Linda S. Adams
Secretary for
Environmental Protection

Lahontan Region

14440 Civic Dr, Suite 200
Victorville, CA 92392
Phone (760) 241-6583 • Fax (760) 241-7308
<http://www.waterboards.ca.gov/lahontan/>



Arnold Schwarzenegger
Governor

MOUNT WHITNEY FISH HATCHERY
ORDER NO. R6V-2006-0029
NPDES NO. CA0102784
WDID No. 6B14080004

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	California Department of Fish and Game
Name of Facility	Mount Whitney Fish Hatchery
Facility Address	1 Golden Trout Circle
	Independence, CA 93526
	Inyo County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude*	Discharge Point Longitude*	Receiving Water
001	Fish Hatchery Wastewater	36°, 49', 58" N	118°, 14', 38" W	Oak Creek
002	Influent Overflow	36°, 49', 58" N	118°, 14', 48" W	Oak Creek

* (WGS84/NAD83)

This Order was adopted by the Regional Water Board on:	June 14, 2006
This Order shall become effective on:	June 15, 2006
This Order shall expire on:	June 14, 2011
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 6-99-57 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This Order shall become the NPDES Permit, pursuant to Section 402 of the Federal Clean Water Act and amendments thereto, and shall take effect on June 15, 2006, provided the USEPA Regional Administer has no objections.

I, Harold J. Singer, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 15, 2006.

"Original Signed By"
Harold J. Singer, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
 REGION 6, LAHONTAN REGION**

ORDER NO. R6V-2006-0029
 NPDES NO. CA0102784

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I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	California Department of Fish and Game
Name of Facility	Mount Whitney Fish Hatchery
Facility Address	1 Golden Trout Circle
	Independence, CA 93526
	Inyo County
Facility Contact, Title, and Phone	Marvin D. Waters, Fish Hatchery Manager I, (760) 878-2272
Mailing Address	SAME
Type of Facility	Concentrated Aquatic Animal Production/ Fish Hatchery
Facility Design Flow	Not Applicable

II. FINDINGS

The California Regional Water Quality Control Board, Lahontan Region (hereinafter Regional Water Board), finds:

- A. **Background.** The California Department of Fish and Game (hereinafter Discharger) are currently discharging under Order No. 6-99-57 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0102784. The Discharger submitted a Report of Waste Discharge, dated November 1, 2004, and applied for a NPDES permit renewal to discharge up to 4.6 million gallons per day of treated wastewater from Mt. Whitney Fish Hatchery, hereinafter Facility. The application was deemed complete on December 1, 2004.
- B. **Facility Description.** The Discharger owns and operates a fish hatchery. The treatment system consists of supply water treatment facilities and flow-through effluent settling ponds. Wastewater is discharged from Discharge Point 001 and influent overflow is discharged from Point 002. (see table on cover page) to Oak Creek, a water of the United States within the Owens watershed. Attachment B provides a topographic map of the area around the facility. Attachment C provides a wastewater flow schematic and diagram of the facility.
- C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA), 33 United States Code (USC) 1342, and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). Special NPDES Requirements for concentrated aquatic animal production facilities are regulated by Code of Federal Regulations (CFR) at 40 CFR §122.24. This order shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.
- D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through H, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.
- E. **California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.
- F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Best Professional Judgment (BPJ) in accordance with 40 CFR §125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Lahontan Region (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to Oak Creek and the Owens Valley Ground Water Basin are as follows:

Discharge Points	Receiving Water Name	Beneficial Use(s)
001 and 002	Oak Creek	<u>Existing:</u> Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); ground water recharge (GWR); contact (REC-1) and non-contact (REC-2) water recreation; commercial and sport fishing (COMM); aquaculture (AQUA); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); preservation of rare, threatened or endangered species (RARE); and spawning, reproduction and development (SPWN).
--	Owens Valley Ground Water Basin	<u>Existing:</u> Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); freshwater replenishment (FRSH); and wildlife habitat (WILD).

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
- J. **State Implementation Policy.** On March 2, 2000, State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test

procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

- K. Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules and interim effluent limitations.
- L. Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.
- M. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- N. Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- O. Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- P. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the

discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

- Q. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge Prohibitions – Discharge Points 001 and 002

1. The discharge of waste^a which causes violation of any narrative water quality objective contained in the Basin Plan is prohibited.
2. The discharge of waste which causes violation of any numeric water quality objective contained in the Basin Plan is prohibited.
3. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste which causes further degradation or pollution is prohibited.
4. The discharge of untreated sewage, garbage, or other solid wastes, or industrial wastes into surface waters of the Region is prohibited.
5. The discharge of hatchery wastewater except to the authorized discharge point (Discharge Point 001) is prohibited.
6. There shall be no discharge, bypass, or diversion of hatchery wastewater from the transport or treatment facilities to surface waters other than that authorized by this Order.
7. The discharge shall not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
8. Neither the treatment nor the discharge shall cause a nuisance as defined in Section 13050 of the California Water Code.
9. The discharge shall not cause a violation of any applicable water quality standards for receiving water adopted by the Regional Water Board or the State Water Resources Control Board (SWRCB).
 - a. The discharge of any therapeutic or pharmaceutical aquaculture drug or chemical resulting in toxicity in receiving waters is prohibited.

^a “Waste” is defined to include any waste or deleterious material including, but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material) and any other waste as defined in the California Water Code § 13050(d).

- b. The discharge of any pesticides resulting in detectable concentrations in receiving waters is prohibited.
 10. The use of any aquaculture drug or chemical not authorized for discharge in Section VI.C.2.a of this Order, which may be potentially discharged to waters of the United States or of the State, is prohibited. Modifications to the authorized discharge of aquaculture drugs and chemicals at the Facility may be allowed by the Regional Water Board as specified in Section VI.C.2.a of this Order.
- B. Discharge Prohibitions – Discharge Point 002
1. The addition of any chemicals or aquaculture drugs to wastewaters discharged through Discharge Point 002 is prohibited. Modifications to the authorized discharge of aquaculture drugs and chemicals at the Facility may be allowed by the Regional Water Board as specified in Section VI.C.2.a of this Order.
 2. Discharges to Point 002 other than intake overflow are prohibited.
 3. Wastewater or any other water from animal holding enclosures shall not be discharged to Point 002.
 4. Deviations from schematic in Attachment C are not permitted.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points 001 and 002

1. Final Effluent Limitations – Discharge Point 001

- a. The discharge of fish hatchery wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Conventional Pollutants</i>					
pH	standard units	--	--	6.0	9.0
Total Suspended Solids (TSS) ^a	mg/L	6.0	--	--	15.0
<i>Priority Pollutants</i>					
Copper, total recoverable	µg/L	1.96	3.93	--	--
<i>Non-Conventional Pollutants</i>					
Formaldehyde	mg/L	0.65	1.3	--	--
Hydrogen Peroxide	mg/L	--	1.3	--	--
Settleable Solids	ml/L	0.1	--	--	--

mgd = million gallons per day
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 ml/L = milliliters per liter

^a Limit is 6.0 mg/L net over levels in influent

2. Final Effluent Limitations – Discharge Point 002 – Not Applicable

3. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. This discharge shall not cause a violation of any applicable WQOs as set forth in the Basin Plan for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Order in accordance with such more stringent standards.
2. The following receiving water limitations are based on water quality objectives contained in the Basin Plan which apply to all surface waters (including wetlands) within the Lahontan Region and are a required part of this Order. The discharge of fish hatchery wastewater shall not cause an exceedance of any of the following:
 - a. Ammonia: Ammonia concentrations shall not exceed the values listed for the corresponding conditions in Tables 3-1 and 3-3 contained in Attachment G of this Order. For temperature and pH values not explicitly in these tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas available on page 3-4 of the Basin Plan.
 - b. Bacteria, Coliform: Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml.
 - c. Biostimulatory Substances: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.
 - d. Chemical Constituents: Waters shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the provisions of Title 22 of the California Code of Regulations. Waters shall not contain concentrations of

- chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).
- e. Chlorine, Total Residual: For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values shall be based on daily measurements taken within any six-month period.
 - f. Color: Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.
 - g. Dissolved Oxygen: The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. The minimum dissolved oxygen concentration shall not be less than that specified for "COLD with SPWN" beneficial use class in Table 3-6 in Attachment G of this Order.
 - h. Floating Materials: Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses. The concentrations of floating material shall not be altered to the extent that such alterations are discernable at the 10 percent significance level.
 - i. Nondegradation of Aquatic Communities and Populations: All wetlands shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life. All wetlands shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrological processes.
 - j. Oil and Grease: Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses. The concentration of oils, greases, or other film or coat generating substances shall not be altered.
 - k. Pesticides: For the purposes of this Order, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code § 12753). Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.
 - l. pH: Changes in normal ambient pH levels shall not exceed 0.5 pH units, nor shall the effluent contribute to the ambient pH exceeding the range between 6.5 and 8.5, whichever is more restrictive.

- m. Radioactivity: Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of the limits specified in Title 22 of the California Code of Regulations.
 - n. Sediment: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.
 - o. Settleable Materials: Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. The concentration of settleable materials shall not be raised by more than 0.1 milliliter per liter.
 - p. Suspended Materials: Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affects the water for beneficial uses.
 - q. Taste and Odor: Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. The taste and odor of waters shall not be altered.
 - r. Temperature: The natural receiving water temperature shall not be altered.
 - s. Toxicity: Waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1992).
 - t. Turbidity: Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.
3. To protect the beneficial use of municipal and domestic supply (MUN) of the receiving water, the discharge of fish hatchery wastewater shall not cause an exceedance of the following (with compliance measured at Monitoring Location R-001D as described in the attached Monitoring and Reporting Program (Attachment E)):
- a. The formaldehyde concentration in the receiving water shall not exceed 0.1 mg/L.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. Regional Water Board Standard Provisions.

The California Water Code provides that any person who violates a waste discharge requirement (same as permit condition), or a provision of the California Water Code, is subject to civil penalties of up to \$1,000 per day or \$10,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

Violations of any of the provisions of the NPDES program, or of any of the provisions of this permit, may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

B. Monitoring and Reporting Program Requirements

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- b. If toxicity testing, or information specified below in Section VI.C.2 of this Order, or the drug and chemical use reporting required in the Monitoring and Reporting Program (Attachment E) indicates that any drug or chemical is, or may be, discharged at a level that will cause, have the reasonable potential to cause, or contribute to an in stream excursion above any chemical-specific water quality criteria or objective, narrative water quality objective for chemical constituents from the Basin Plan, or narrative water quality objective for toxicity from the Basin Plan, this Order may be reopened to establish effluent limitations.

- c. Toxicity testing requirements, as specified in Section VI.C.2. of this Order, are based on exposure times of 48 or 96 hours. If the Discharger provides sufficient justification that shorter exposure times are a closer approximation of actual exposure times, then this Order may be reopened to account for shorter exposure times.
- d. If effluent monitoring data from Discharge Point 002 indicates that the discharge will cause, have the reasonable potential to cause, or contribute to an in stream excursion above the water quality criteria or objective, this Order may be reopened to establish effluent limitations.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. New Aquaculture Drug or Chemical Use.

Attachment I of this Order lists all aquaculture drugs and chemicals that may potentially be used at the Facility, as well as expected application methods and dosages. This Order authorizes the discharge through Discharge Point 001 of the following aquaculture drugs and chemicals to Oak Creek in accordance with the effluent limitations and other conditions herein:

- Acetic acid
- Amoxicillin trihydrate
- Carbon dioxide
- Chloramine-T^a
- Copper sulfate pentahydrate
- Erythromycin
- Florfenicol (Nuflor®)
- Formalin (37% formaldehyde solution)
- Hydrogen peroxide
- Isoeugenol (Aqui-S®)
- MS-222 / tricaine methanesulfonate (Fiquel®, Tricaine-S®)
- Oxytetracycline HCl (Terramycin®)
- Penicillin G potassium
- Potassium permanganate (Cairox™)
- PVP Iodine
- Sodium bicarbonate
- Sodium chloride (salt)
- Sulfadimethoxine-ormetoprim (Romet-30®)

The Discharger shall submit to the Regional Water Board in writing the following information prior to the use of any new aquaculture drug or chemical not listed above that may enter the wastewater discharge:

1. The common name(s) and active ingredient(s) of the drug or chemical proposed for use and discharge.

^a This Order prohibits Chloramine-T treatments in more than 2 raceways per day.

2. The purpose for the proposed use of the drug or chemical (i.e. list the specific disease for treatment and specific species for treatment).
3. The amount proposed for use or disposal, and the resulting calculated estimate of concentration in the discharge. Calculations used to derive estimated concentrations must also be submitted.
4. The location, duration and frequency of the proposed use or disposal.
5. Material Safety Data Sheets and available toxicity information.
6. Any related Investigational New Animal Drug (INAD), New Animal Drug Application (NADA) information, extra-label use requirements and/or veterinarian prescriptions.

Prior to discharging a new aquaculture drug or chemical, the Discharger also shall conduct and/or submit the results of acute toxicity testing on any new chemical or drug in accordance with EPA-821-R-02-012, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002*, using *C. dubia*, to determine the NOAEL, and LOAEL. Where exposure of aquatic life to the aquaculture drug or chemical may be long-term or continuous, the Discharger also shall conduct and/or submit the results of chronic toxicity testing in accordance with EPA/21-R-02-013, *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002*, using *C. dubia*, to determine the NOEC or IC₂₅.

b. Aquaculture Drug and Chemical Toxicity Studies.

Within 12 months of adoption of this Order, for the aquaculture drugs and chemicals listed below, the Discharger shall either (1) submit to the Regional Water Board sufficient NOAEL, LOAEL, NOEC and IC₂₅ values from existing toxicity studies suitable to determine reasonable potential or (2) conduct and submit the results of short term toxicity studies in accordance with methods specified in EPA-821-R-02-012, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002*, using *C. dubia*, to determine the NOAEL and LOAEL at reflective concentrations and potential exposure times that are applicable to this facility. Where exposure of aquatic life to the aquaculture drug or chemical may be long-term or continuous, the Discharger also shall conduct and/or submit the results of chronic toxicity testing in accordance with EPA/21-R-02-013, *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002*, using *C. dubia*, to determine the NOEC or IC₂₅.

- Chloramine-T
- Hydrogen peroxide
- Isoeugenol (Aqui-S®)
- MS-222 / tricaine methanesulfonate (Finguel®, Tricaine-S®)
- Oxytetracycline HCl (Terramycin®)
- Penicillin G potassium
- Potassium permanganate (Cairox™)
- PVP Iodine

The Regional Water Board will review this information and this permit may be reopened to establish effluent limits based on additional use and toxicity information.

c. Reporting of Unanticipated Discharges.

- (1) The Discharger shall provide to the Regional Water Board an oral report within 24 hours of discovery, the failure of, or damage to, the structure of an aquatic animal containment system resulting in an unanticipated material discharge of pollutants to waters of the United States or State. The Discharger must describe the cause of the failure or damage in the containment system and identifying materials that have been released to the environment as a result of this failure.

The Discharger must provide a written report within 7 days of discovery of the failure or damage documenting the cause, the estimated time elapsed until the failure or damage was repaired, an estimate of the material released as a result of the failure or damage, and steps being taken to prevent a reoccurrence.

- (2) In the event a spill of drugs, pesticides or feed occurs that results in a discharge to waters of the United States or State, the Discharger must provide an oral report of the spill to the Regional Water Board within 24 hours of its occurrence and a written report within 7 days. The report shall include the identity and quantity of the material spilled.

3. Best Management Practices and Pollution Prevention

a. Best Management Practices Plan.

Within 12 months of adoption of this Order, the Discharger shall certify in writing to the Regional Water Board that it has developed a Best Management Practices (BMP) plan. The Discharger shall develop and implement the BMP plan to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State. The Discharger shall develop and implement a BMP plan consistent with the following objectives:

1. Solids Management

- a. Conduct fish feeding in aquaculture ponds in a manner that limits feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth and minimizes the discharge of unconsumed food and waste products to surface waters.
- b. Clean aquaculture ponds using procedures and at frequencies that minimize the disturbance and subsequent discharge of accumulated solids during routine activities such as inventorying, grading, and harvesting.
- c. Report the final disposition of all other solids and liquids, including aquaculture drugs and chemicals, not discharged to surface waters in the effluent.

- d. Collect, store, and dispose of fish mortalities and other solids in an environmentally safe manner and in manner so as to minimize discharge to waters of the United States or waters of the State.

2. Operations and Maintenance

- a. Maintain in-system production and wastewater treatment technologies to prevent the overflow of any floating matter or bypassing of treatment technologies.
- b. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
- c. Ensure storage and containment of drugs, chemicals, fuel, waste oil, or other materials to prevent spillage or release into the aquatic animal production Facility, waters of the United States, or waters of the State.
- d. Implement procedures for properly containing, cleaning, and disposing of any spilled material.
- e. Prevent fish from being released within the U.S. Food and Drug Administration (FDA) required withdrawal time of any drug or chemical with which they have been treated.

3. Record keeping

- a. Maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals in order to calculate representative feed conversion ratios.
- b. Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

4. Training

- a. Adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill in order to ensure the proper clean-up and disposal of spilled material.
- b. Train staff on the proper operation and cleaning of production and wastewater treatment systems, including training in feeding procedures and proper use of equipment.
- c. The Discharger shall ensure that its operations staff are familiar with the BMP Plan and have been adequately trained in the specific procedures it requires.

4. Compliance Schedules – Not Applicable

5. Construction, Operation and Maintenance Specifications

- a. Collected screenings, sludges, and other solids, including fish carcasses, shall be disposed of in a manner approved by the Executive Officer and consistent *with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.

- b. All aquaculture drugs and chemicals not discharged to receiving waters in accordance with the provisions of this Order shall be disposed of in an environmentally safe manner, according to label guidelines, Material Safety Data Sheet guidelines and the Discharger's BMP Plan (see Section VI.C.3 of this Order). Any other form of disposal requires approval from the Executive Officer.
- c. All facilities used for transport, and treatment of hatchery wastewater shall be adequately protected against either structural damage or signification reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.
- d. The vertical distance between the water surface elevation and the lowest point of a pond dike or the invert of an overflow structure shall not be less than 1.5 feet (0.46 M).
- e. Chloramine-T shall not be used in more than two raceways per day.

6. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

7. Other Special Provisions – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. Limitation Bases

1. Average Monthly Effluent Limitation (AMEL).

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

2. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

3. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

4. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

B. Priority Pollutants

The Regional Water Board may consider priority pollutants in intake water on a pollutant-by-pollutant and discharge-by-discharge basis when establishing and enforcing water quality-based effluent limitations, provided that the discharger has demonstrated to the satisfaction of the Regional Water Board that the conditions outlined in section 1.4.4 of SIP are met.

ATTACHMENT A – DEFINITIONS, ACRONYMS & ABBREVIATIONS

DEFINITIONS

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Inhibition Concentration (IC₂₅): A point estimate of the toxicant concentration that would cause a 25 percent reduction in a nonlethal biological measurement of the test organisms (e.g., reproduction, growth).

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Lowest Observed Adverse Effect Level (LOAEL): The lowest level of a stressor that causes statistically and biologically significant differences in test samples as compared to other samples subjected to no stressor. The term is used in this Order when referring to acute toxicity testing.

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

No Observed Adverse Effect Level (NOAEL): an exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered as adverse. This term is used in this Order when referring to acute toxicity testing.

No Observed Effect Concentration (NOEC): The highest measured concentration of an effluent or a toxicant that causes no statistically significant observed effect on exposed organisms compared with control organisms. The term is used in this Order when referring to chronic toxicity testing.

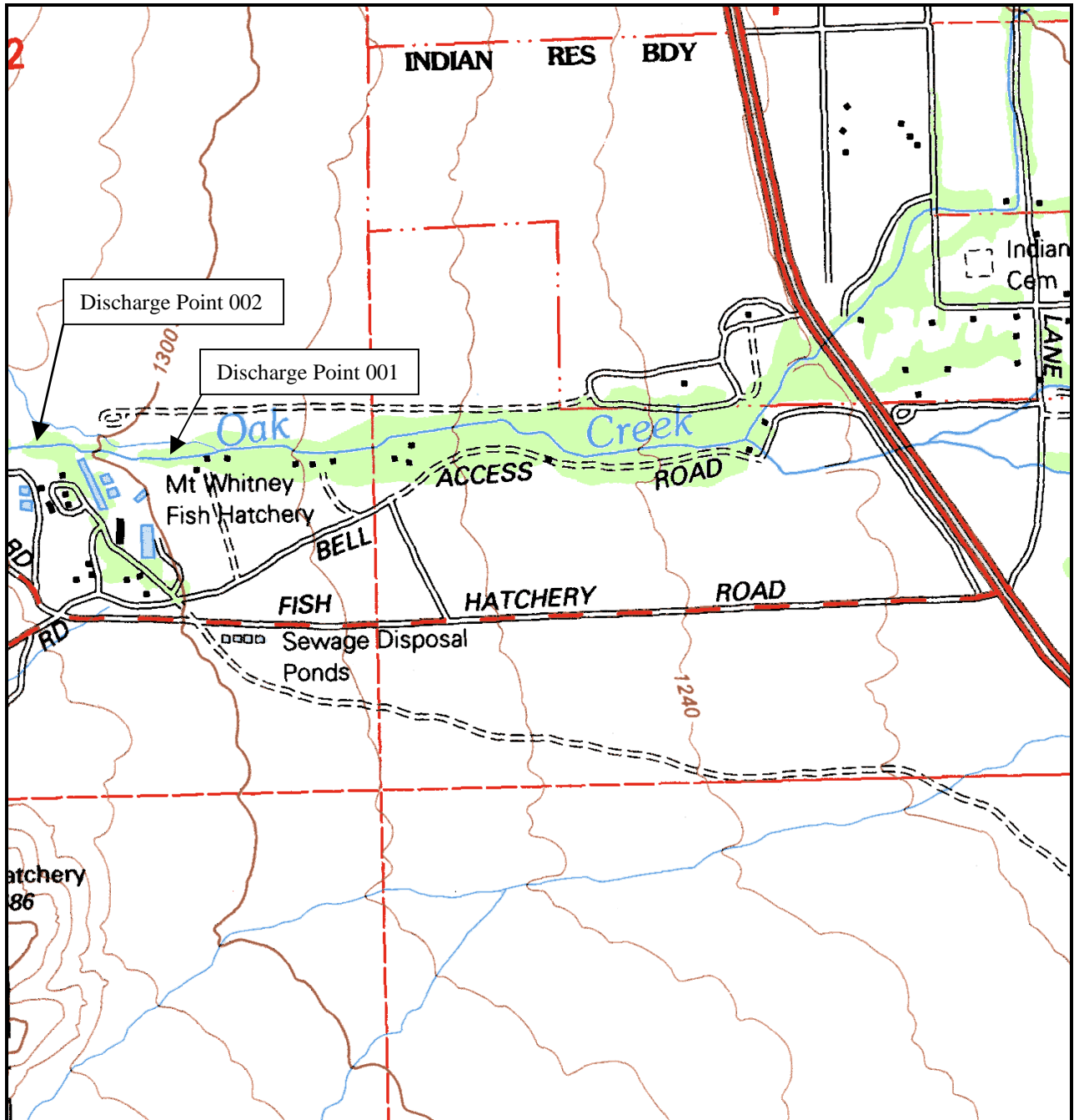
Maximum Daily Effluent Limitation (MDEL): The highest allowable daily discharge of a pollutant.

ACRONYMS & ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand
BPT	Best practicable treatment control technology
C	Water Quality Objective
CAAP	Concentrated Aquatic Animal Production
CCC	Criterion Continuous Concentration
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFS	Cubic Feet Per Second
CMC	Criterion Maximum Concentration
CTR	California Toxics Rule
CV	Coefficient of Variation
CVM	Center for Veterinary Medicine
CWA	Clean Water Act
CWC	California Water Code
DFG	Department of Fish and Game
DHS	State of California Department of Health Services
DMR	Discharge Monitoring Report
ECA	Effluent Concentration Allowance
ELAP	California Department of Health Services Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
FDA	United States Food and Drug Administration
GPD	Gallons Per Day
IC ₂₅	Inhibition Concentration (25%)
INAD	Investigational New Animal Drug
IRIS	Integrated Risk Information System
LA	Load Allocations
LC ₅₀	Lethal Concentration (50%)
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LRP	Low Regulatory Priority
LTA	Long-Term Average
MCL	Maximum Contaminant Level
MDEL	Maximum Daily Effluent Limitation
MDL	Method Detection Limit
MEC	Maximum Observed Effluent Concentration
MGD	Million Gallons Per Day
mg/L	Milligrams Per Liter

ML	Minimum Level
MRP	Monitoring and Reporting Program
NADA	New Animal Drug Application
ND	Not Detected
NOAEL	No Observed Adverse Effect Level
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
POTW	Publicly-Owned Treatment Works
PPM	Parts Per Million
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RPA	Reasonable Potential Analysis
RWQCB	Regional Water Quality Control Board
SIP	State Implementation Policy (<i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i>)
SMCL	Secondary Maximum Contaminant Level
SMR	Self Monitoring Report
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Load
TSD	Technical Support Document
TSS	Total Suspended Solid
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBEL	Water Quality-Based Effluent Limitation
WQO	Water Quality Objectives
µg/L	Micrograms Per Liter
µmhos/cm	Micromhos Per Centimeter

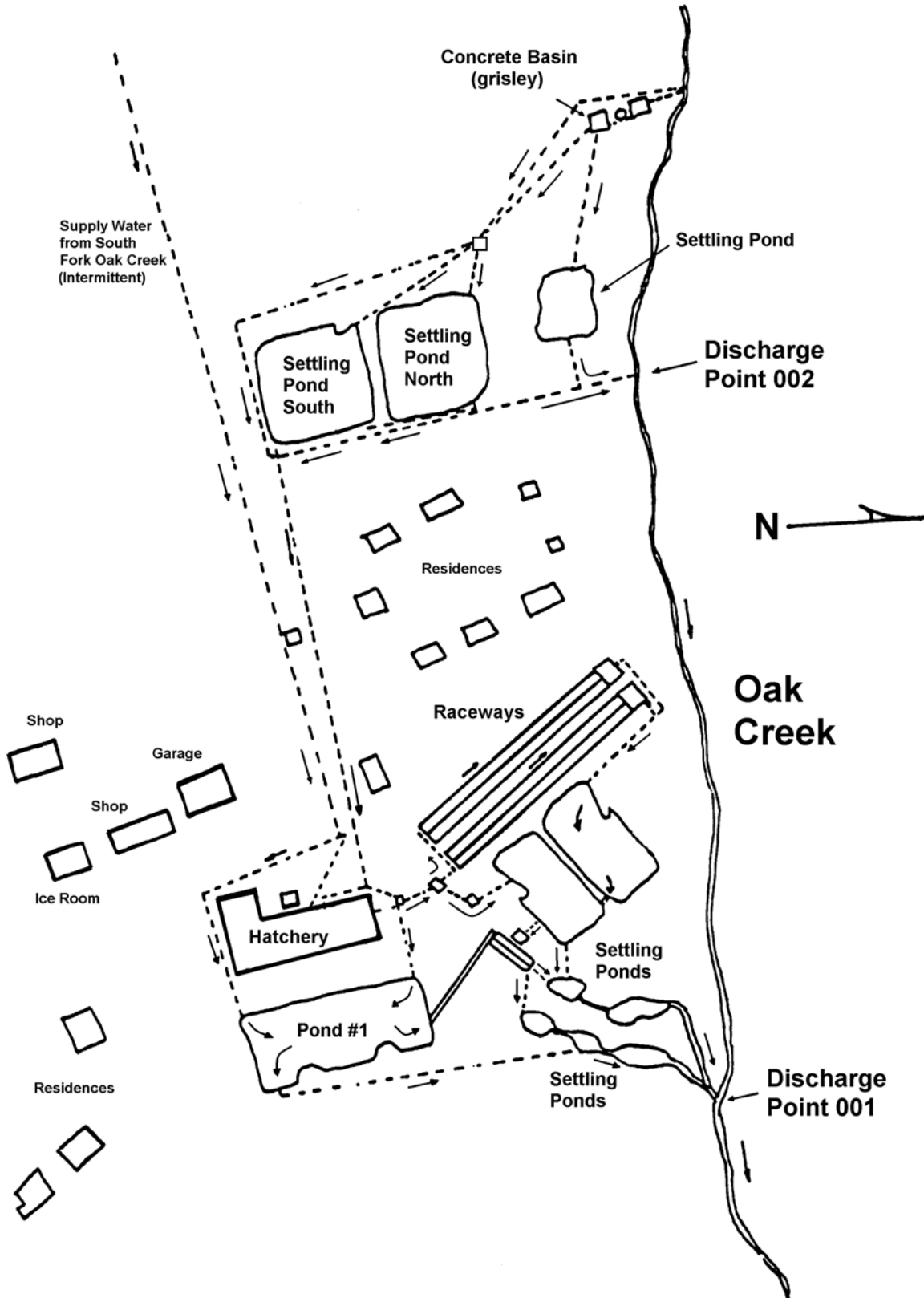
ATTACHMENT B – TOPOGRAPHIC MAP



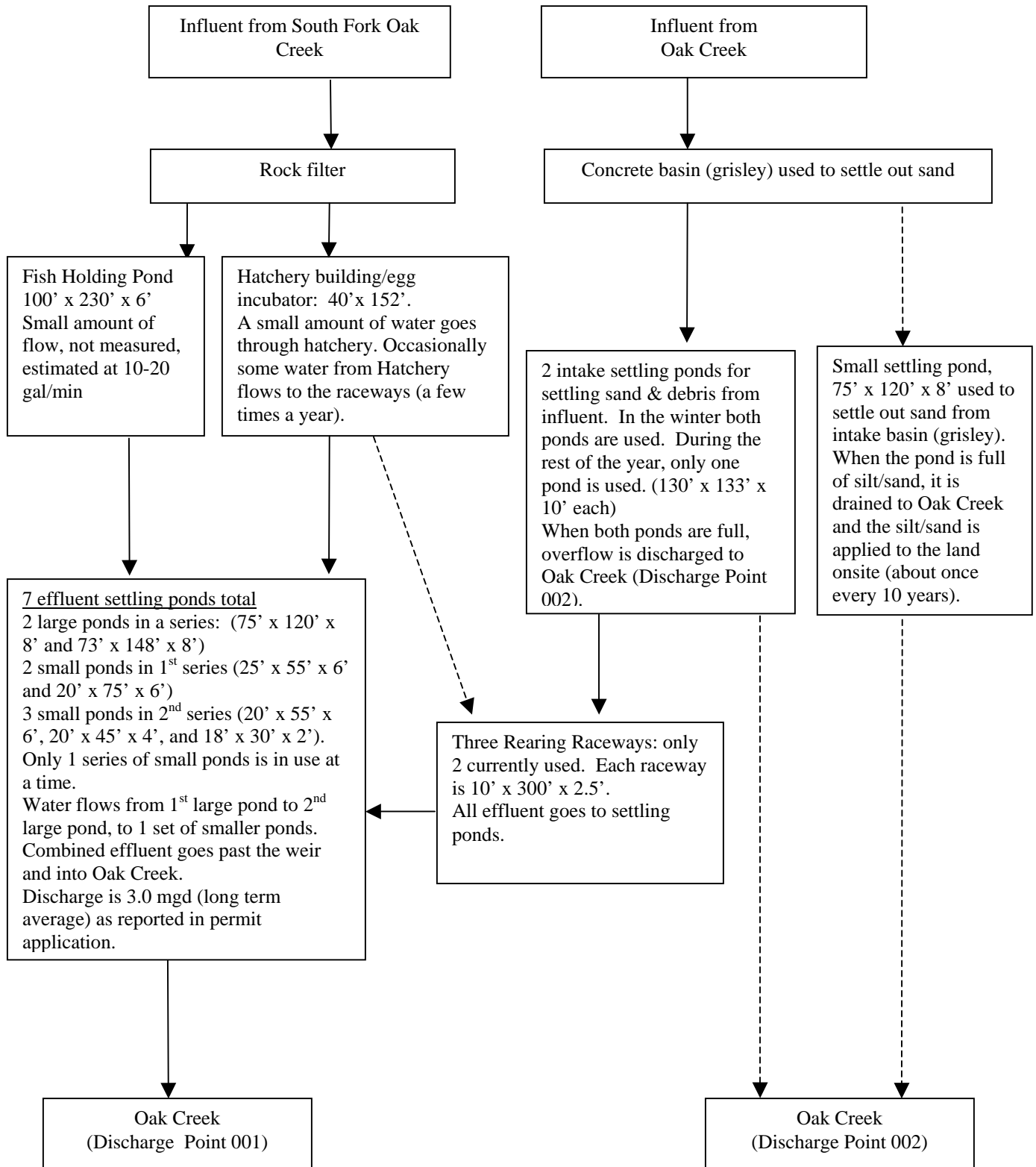
Mt. Whitney Fish Hatchery
1 Golden Trout Circle
Independence, CA 93526
Inyo County

Latitude: 36° 49' 55" N
Longitude: 118° 14' 41" W
Section 2, T13S, R34E, MDB&M
USGS Independence 7.5 Minute Quadrangle

ATTACHMENT C – FLOW SCHEMATIC



Flow Diagram



ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [40 *CFR* §122.41(a)].
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [40 *CFR* §122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [40 *CFR* §122.41(c)].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [40 *CFR* §122.41(d)].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [40 *CFR* §122.41(e)].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [40 *CFR* §122.41(g)].

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [40 CFR §122.5(c)].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR §122.41(i)] [CWC 13383(c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR §122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR §122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR §122.41(i)(3)];
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [40 CFR §122.41(i)(4)].

G. Bypass

1. Definitions
 - a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility [40 CFR §122.41(m)(1)(i)].
 - b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 CFR §122.41(m)(1)(ii)].
2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [40 CFR §122.41(m)(2)].
3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [40 CFR §122.41(m)(4)(i)]:

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR §122.41(m)(4)(A)];
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR §122.41(m)(4)(B)]; and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [40 CFR §122.41(m)(4)(C)].
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [40 CFR §122.41(m)(4)(ii)].
5. Notice
- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR §122.41(m)(3)(i)].
 - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below [40 CFR §122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR §122.41(n)(1)].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR §122.41(n)(2)].
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR §122.41(n)(3)]:

- a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];
 - b. The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [*40 CFR §122.41(n)(3)(iii)*]; and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §122.41(n)(3)(iv)*].
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR §122.41(n)(4)*].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR §122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR §122.41(b)*].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR §122.41(j)(1)].
- B.** Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR §122.41(j)(4)] [40 CFR §122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 CFR §122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [40 CFR §122.41(j)(3)(i)];
2. The individual(s) who performed the sampling or measurements [40 CFR §122.41(j)(3)(ii)];
3. The date(s) analyses were performed [40 CFR §122.41(j)(3)(iii)];
4. The individual(s) who performed the analyses [40 CFR §122.41(j)(3)(iv)];
5. The analytical techniques or methods used [40 CFR §122.41(j)(3)(v)]; and
6. The results of such analyses [40 CFR §122.41(j)(3)(vi)].

C. Claims of confidentiality for the following information will be denied [40 CFR §122.7(b)]:

1. The name and address of any permit applicant or Discharger [40 CFR §122.7(b)(1)]; and
2. Permit applications and attachments, permits and effluent data [40 CFR §122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Water Board, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, SWRCB, or USEPA copies of records required to be kept by this Order [40 CFR §122.41(h)] [CWC 13267].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, SWRCB, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [40 CFR §122.41(k)].
2. All permit applications shall be signed as follows:
 - a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [40 CFR §122.22(a)(1)];
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [40 CFR §122.22(a)(2)]; or
 - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 CFR §122.22(a)(3)].
3. All reports required by this Order and other information requested by the Regional Water Board, SWRCB, or USEPA shall be signed by a person described in paragraph (b) of this

provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in paragraph (2.) of this provision [40 CFR §122.22(b)(1)];
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 CFR §122.22(b)(2)]; and
 - c. The written authorization is submitted to the Regional Water Board, SWRCB, or USEPA [40 CFR §122.22(b)(3)].
4. If an authorization under paragraph (3.) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3.) of this provision must be submitted to the Regional Water Board, SWRCB or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].
5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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 for knowing violations” [40 CFR §122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [40 CFR §122.41(l)(4)].
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or SWRCB for reporting results of monitoring of sludge use or disposal practices [40 CFR §122.41(l)(4)(i)].
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as

specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 CFR §122.41(l)(4)(ii)].

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 CFR §122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 CFR §122.41(l)(5)].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR §122.41(l)(6)(i)].
2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR §122.41(l)(6)(ii)]:
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(A)].
 - b. Any upset that exceeds any effluent limitation in this Order [40 CFR §122.41(l)(6)(ii)(B)].
 - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [40 CFR §122.41(l)(6)(ii)(C)].
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 CFR §122.41(l)(6)(iii)].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR §122.41(l)(1)]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b) [40 CFR §122.41(l)(1)(i)]; or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [40 CFR §122.41(l)(1)(ii)].
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 CFR §122.41(l)(1)(iii)].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [40 CFR §122.41(l)(2)].

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [40 CFR §122.41(l)(7)].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information [40 CFR §122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

- A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than

one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Clean Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 CFR §122.41(a)(2)] [CWC 13385 and 13387].

- B.** Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 CFR §122.41(a)(3)].
- C.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 CFR §122.41(j)(5)].
- D.** The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 CFR §122.41(k)(2)].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [40 CFR §122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(1)]:
 - a. 100 micrograms per liter ($\mu\text{g/L}$) [40 CFR §122.42(a)(1)(i)];
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(1)(ii)];
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(1)(iii)]; or
 - d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [40 CFR §122.42(a)(1)(iv)].
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(2)]:
 - a. 500 micrograms per liter ($\mu\text{g/L}$) [40 CFR §122.42(a)(2)(i)];
 - b. 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(2)(ii)];
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(2)(iii)]; or
 - d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [40 CFR §122.42(a)(2)(iv)].

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [40 CFR §122.42(b)]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [40 CFR §122.42(b)(1)]; and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [40 *CFR* §122.42(b)(2)].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [40 *CFR* §122.42(b)(3)].

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Quality Control Board (RWQCB) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Water Board.
- B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.
- C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services.
- D. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- D. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	M-001	Effluent outfall from settling ponds, discharge to Oak Creek.
002	M-002	Influent overflow outfall, discharge to Oak Creek.
--	R-001U	In Oak Creek, 25 feet upstream of Discharge Point 002.
--	R-001D	In Oak Creek, 50 feet downstream of Discharge Point 001.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001

1. The Discharger shall monitor wastewater discharged from the facility via Discharge Point 001 at Monitoring Location M-001 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^a
Flow (Average for month)	mgd	Measured	1 / month	40 CFR Part 136 Methods
<i>Conventional Pollutants</i>				
pH	standard units	Grab	1 / month ^b	40 CFR Part 136 Methods
Total Suspended Solids (TSS)	mg/L	Grab Pair ^c	2 / quarter	40 CFR Part 136 Methods

^a Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136. Where no methods are specified for a given pollutant, pollutants shall be analyzed by method proposed by the Discharger and approved by the Executive Officer.

^b Minimum sampling frequency is once per month. In addition, when the chemical acetic acid or sodium bicarbonate is added to waters of the facility, a sample of the effluent shall be collected at a time when the concentration of the parameter in the effluent is expected to be at a maximum.

^c Two grab samples (a grab pair) shall be collected on the same day, not less than two hours, nor greater than four hours apart from each other. This grab pair will fulfill the minimum sampling frequency of 2 samples per quarter. The samples are to be collected during a periodic cleaning operation or during some other operational mode which increases the discharges of total suspended solids. Such operations taking place during sampling shall be noted in monitoring reports.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^a
Total Suspended Solids (TSS)	lbs/day	Calculated ^d	1 / quarter	--
<i>Non-Conventional Pollutants</i>				
Settleable Solids	ml/L	Grab Pair ^c	2 / quarter	40 CFR Part 136 Methods
Dissolved Oxygen	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	1 / month ^e	40 CFR Part 136 Methods
Nitrate, Total (as N)	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
Nitrogen, Total (as N)	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
Orthophosphate, Dissolved (as P)	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
Temperature	°F	Grab	1 / quarter	40 CFR Part 136 Methods
<i>Aquaculture Drug and Chemical Usage^f</i>				
Copper, Total Recoverable	mg/L	Grab	1 / discharge event ^{g, h}	40 CFR Part 136 Methods
Oxytetracycline HCl	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Potassium Permanganate (KMnO ₄)	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
PVP Iodine	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Chloramine-T	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Formaldehyde	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Hydrogen Peroxide	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods

^d The daily discharge rate (in lbs/day) is obtained from the following calculation for any calendar day:

$$\text{Daily Discharge Rate} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which “n” is the number of samples analyzed in any calendar day, and Q_i and C_i are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the “n” grab samples which may be taken in any calendar day. For a composited sample, C_i is the concentration measured in the composited sample, and Q_i is the average flow rate occurring during the period over which samples are composited.

^e Minimum sampling frequency is once per month. In addition, when the sodium chloride or sodium bicarbonate is added to waters of the facility, a sample of the effluent shall be collected at a time when the concentration of the parameter in the effluent is expected to be at a maximum.

^f Effluent monitoring is not required for aquaculture drugs or chemicals authorized for use (as listed in Attachment I), which are added to food or injected into fish.

^g When chemicals containing copper (copper sulfate or chelated copper compounds) are added to waters of the facility, a sample of the effluent shall be collected at a time when the concentration of the parameter in the effluent is expected to be at a maximum.

^h When there is more than one discharge event in a quarter, the Discharger is not required to sample for more than one of the events.

ⁱ When this chemical is added to waters of the facility, a sample of the effluent shall be collected at a time when the concentration of the parameter in the effluent is expected to be at a maximum.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^a
Isoeugenol (Aqui-S®)	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Penicillin G Potassium	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods
Tricaine methanesulfonate (MS-222 with trade names of Finquel® or Tricaine-S®)	mg/L	Grab	1 / discharge event ^{h, i}	40 CFR Part 136 Methods

mgd = million gallons per day

B. Monitoring Location M-002

1. The Discharger shall monitor wastewater discharged from the facility via Discharge Point 002 at Monitoring Location M-002 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^a
Flow (Average for month)	mgd	Measured	1 / month	40 CFR Part 136 Methods
Dissolved Oxygen	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
pH	standard units	Grab	1 / quarter	40 CFR Part 136 Methods
Total Suspended Solids (TSS)	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS – NOT APPLICABLE

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Locations R-001U and R-001D

1. The Discharger shall monitor Oak Creek at Monitoring Locations R-001U and R-001D as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^j
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^j Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136. Where no methods are specified for a given pollutant, pollutants shall be analyzed by method proposed by the Discharger and approved by the Executive Officer.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method ^j
Copper, Total Recoverable	mg/L	Grab	1 / discharge event ^k	40 CFR Part 136 Methods
pH	standard units	Grab	1 / quarter	40 CFR Part 136 Methods
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	1 / quarter	40 CFR Part 136 Methods
Dissolved Oxygen	mg/L	Grab	1 / quarter	40 CFR Part 136 Methods
Formaldehyde	mg/L	Grab	1 / discharge event ^l	40 CFR Part 136 Methods
Temperature	°F	Grab	1 / quarter	40 CFR Part 136 Methods

2. In conducting the receiving water sampling, a log shall be kept and a summary of the following reported, of the visual condition of Oak Creek. Attention shall be given to the presence or absence of:

- a. floating or suspended matter;
- b. discoloration;
- c. visible films, sheens, or coatings;
- d. bottom deposits;
- e. potential nuisance conditions;
- f. aquatic life;
- g. algae, fungi, slimes, or other aquatic vegetation; and
- h. sample odor.

B. Monitoring Location R-001D (Sediment)

1. The Discharger shall monitor Oak Creek sediment at Monitoring Location R-001D as follows:

Parameter	Units	Sample Type ^m	Minimum Sampling Frequency	Required Test Method ⁿ
<i>Priority Pollutants</i>				
Copper, Total Recoverable	mg/kg	Grab	1 / year	40 CFR Part 136 Methods

^k Monitoring for this pollutant only required if chemicals containing copper (copper sulfate or chelated copper compounds) are added to waters of the facility. When there is more than one discharge event in a year, the Discharger is not required to sample for more than one of the events. A sample of the receiving water shall be collected at a time when the concentration of the parameter in the receiving water is expected to be at a maximum.

^l Monitoring for this pollutant only required at Monitoring Location R-001D and only if formaldehyde is added to waters of the facility. When there is more than one discharge event in a year, the Discharger is not required to sample for more than one of the events. A sample of the receiving water shall be collected at a time when the concentration of the parameter in the receiving water is expected to be at a maximum.

^m Surface grab samples containing the upper 2 centimeters of sediment shall be taken from an Ekman grab (or another method approved by the executive officer).

ⁿ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136. Where no methods are specified for a given pollutant, pollutants shall be analyzed by method proposed by the Discharger and approved by the Executive Officer.

Parameter	Units	Sample Type ^m	Minimum Sampling Frequency	Required Test Method ⁿ
<i>Non-Conventional Pollutants</i>				
Manganese	mg/kg	Grab	2 / permit term ^o	40 CFR Part 136 Methods

IX. OTHER MONITORING REQUIREMENTS – NOT APPLICABLE

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit self-monitoring reports in accordance with the requirements described below.
2. The Discharger shall submit quarterly Self Monitoring Reports including the results of all required monitoring and monitoring conducted in addition to the minimum required monitoring and using USEPA approved test methods or other test methods specified in this Order. Quarterly reports shall be due on May 1, August 1, November 1, and February 1 following each calendar quarter.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Starts On...	Monitoring Period	SMR Due Date
1 / discharge event	<Permit effective date>	Calendar day (Midnight through 11:59 PM)	May 1 (for monitoring in Jan, Feb, or March) August 1 (for monitoring in April, May, or June) November 1 (for monitoring in July, August, or Sept) February 1 (for monitoring in Oct, Nov, or Dec)
1 / month	<First day of calendar month following permit effective date or on permit effective date if that date is first day of the month>	1 st day of calendar month through last day of calendar month	May 1 (for monitoring in Jan, Feb, or March) August 1 (for monitoring in April, May, or June) November 1 (for monitoring in July, August, or Sept) February 1 (for monitoring in Oct, Nov, or Dec)
1 / quarter, and 2 / quarter	<Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date>	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1

^o Manganese shall be monitored twice during the permit term (in the 1st and 4th years).

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.
5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. Example SMR reporting tables are contained in Attachment K of this Order, which the Discharger may use to submit monitoring data.
6. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board
Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. Quarterly Drug and Chemical Use Report. The information listed below shall be submitted for all aquaculture drugs or chemicals used at the Facility. This information shall be reported at quarterly intervals and submitted with the quarterly self monitoring reports using the drug and chemical usage report table found in Attachment J of this Order. At such time as the Discharger is required to begin submitting self-monitoring reports electronically, it shall continue to submit paper copies of the quarterly drug and chemical use reports to the Regional Water Board.
 - a. The name(s) and active ingredient(s) of the drug or chemical.
 - b. The date(s) of application.
 - c. The purpose(s) for the application.
 - d. The method of application (e.g., immersion bath, administered in feed), duration of treatment, whether the treatment was static or flush (for drugs or chemicals applied directly to water), amount in gallons or pounds used, treatment concentration(s), and the flow in cubic feet per second (cfs) in the treatment units.
 - e. The total flow through the facility in cubic feet per second (cfs) to Oak Creek after mixing with the treated water.
 - f. For drugs and chemicals applied directly to water (i.e., immersion bath, flush treatment) and for which effluent monitoring is not otherwise required, the estimated concentration in the effluent at the point of discharge to Oak Creek.
 - g. The method of disposal for drugs or chemicals used but not discharged in the effluent.

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

WDID	6B140800004
Discharger	California Department of Fish and Game
Name of Facility	Mt. Whitney Fish Hatchery
Facility Address	1 Golden Trout Circle
	Independence, CA 93526
	Inyo County
Facility Contact, Title and Phone	Marvin D. Waters, Hatchery Manager, (760) 878-2272
Authorized Person to Sign and Submit Reports	Marvin D. Waters, Hatchery Manager, (760) 878-2272
Mailing Address	1 Golden Trout Circle Independence, CA 93526
Billing Address	SAME
Type of Facility	Concentrated Aquatic Animal Production/ Fish Hatchery (SIC 0921)
Major or Minor Facility	Minor
Threat to Water Quality	
Complexity	
Pretreatment Program	Not Applicable
Reclamation Requirements	Not Applicable
Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	Lower Owens Hydrologic Area
Receiving Water	Oak Creek
Receiving Water Type	

- A. The California Department of Fish and Game is the owner and operator of Mt. Whitney Fish Hatchery (hereinafter Facility) a trout fish hatchery.
- B. The Facility discharges wastewater to Oak Creek, a water of the United States and is currently regulated by Order 6-99-57 which was adopted on November 17, 1999 and expired on November 17, 2004. The terms of the existing Order continued in effect after the permit expiration date.
- C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on October 31, 2004.

II. FACILITY DESCRIPTION

The Facility is located approximately two miles northwest of the Community of Independence, Inyo County, within Section 2, T13S, R34E, MDB&M, as shown in Attachment B.

According to the Discharger's permit application, the Facility produces rainbow and brown trout. Only broodstock for egg production are reared at the Facility due to the discovery of whirling disease at the Facility in 1984. The Facility reported an annual production average of 38,000 pounds and approximately 3,000 pounds of food used during the month of maximum feeding (October).

The Facility consists of supply water treatment facilities (a grisley (concrete basin), a rock filter, and two supply water settling ponds each 130 feet wide x 133 feet long x 10 feet deep), a fish egg incubation building, three 300-foot long concrete flow-through raceways (each 300-foot long raceway consists of three 100-foot long x 10-foot wide x 2.5-foot (30 inches) deep raceway ponds in series, for a total of nine raceway ponds at the Facility), a fish holding pond (Pond #1, 90 feet wide x 150 feet long x 5 feet deep), flow-through wastewater settling ponds, and miscellaneous operation and maintenance structures. Currently only two raceways are being used at the Facility, with one empty and not in service.

Supply water for the Facility comes mainly from Oak Creek (which is also referred to as North Fork Oak Creek by Facility personnel) at a flow rate of 3 to 4 cubic feet per second (cfs), which is used for the raceways. The Facility also draws supply water from South Fork Oak Creek for use at the egg incubation building and at Pond #1.

Current discharges from the Facility include unused food and fish excrement. The Discharger presently uses sodium chloride (salt) in the raceways in flush treatments as a fish-cleansing agent to control the spread of fish disease, MS-222 that is used in small tubs to anesthetize fish, and PVP iodine in buckets to disinfect fish eggs. Wastewater containing MS-222 or PVP iodine is evaporated on asphalt and is not discharged to surface water or ground water.

In addition to the above aquaculture chemicals, the Discharger and the California Department of Fish and Game (DFG) Fish Health Laboratory requested to include in the Order a list of aquaculture drugs and chemicals (see Attachment I) that may be used at all DFG hatcheries in the Region. These aquaculture drugs and chemicals, prescribed by the DFG Fish Health Laboratory, are to be used on an "as needed" basis to treat various fish disease and parasitic outbreaks.

A. Description of Wastewater and Biosolids Treatment or Controls

Wastewater from the raceways, incubation building, and fish holding pond (Pond # 1) is discharged to a set of two large settling ponds operated in series (75-foot wide x 120-foot long x 8-foot deep, and 73-foot wide x 148-foot long x 8-foot deep), which then flow to one of two sets of smaller settling ponds operated in series: (1) two small ponds (25-foot wide x 55-foot long x 6-foot deep, and 20-foot wide x 75-foot long x 6-foot deep), or (2) three small ponds (20-foot wide x 55-foot long x 6-foot deep, 20-foot wide x 45-foot long x 4-foot deep, and 18-foot wide x 30-foot long x 2-foot deep). Only one series of small ponds is used at the Facility at any given time.

A schematic and a water flow diagram of the Facility are shown in Attachment C.

B. Discharge Points and Receiving Waters

Discharges from the facility occur through Discharge Point 001 (Latitude 36° 49' 58" North, Longitude 118° 14' 38" West) and Discharge Point 002 (Latitude 36° 49' 58" North, Longitude 118° 14' 41" West). Discharge Point 001 is where effluent from the settling ponds (containing wastewater from the raceways, incubation building, and fish holding pond) discharges into Oak Creek.

Discharge Point 002 is where influent overflow is discharged into Oak Creek. Supply water for the Discharger's flow-through process may at times exceed the necessary volume to maintain the ponds and raceways. In these cases, the excess water is discharged via Discharge Point 002 to Oak Creek prior to the water entering any processes where fish are raised.

Oak Creek is located within the Lower Owens Hydrologic Area (Hydrologic Unit No. 603.30), and the ground waters of the Owens Valley Ground Water Basin (DWR No. 6-12).

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

This section provides a summary of existing effluent requirements and SMR data from the Facility.

Discharge Point 001

Effluent limitations contained in the previous Order for discharges from the effluent settling ponds (Discharge Point 001) to Oak Creek (Monitoring Location M-001) and representative monitoring data from the term of the previous Order are as follows:

Parameter	Units	Effluent Limitation		Monitoring Data (From February 2000 to June 2004)	
		Quarterly Average	Instantaneous Maximum	Highest Quarterly Average Discharge	Highest Instantaneous Maximum Discharge
Settleable Solids ^a	ml/L	0.1	--	0.01	0.01
Total Suspended Solids (TSS) ^a	mg/L	5.0	15.0	6.85	11.3
Conductivity	µmhos/cm	--	--	--	127.1
Dissolved Oxygen	mg/L	--	--	--	9.0 (lowest value)
Nitrate Nitrogen (as N) ^a	mg/L	--	--	0.465	0.47
Nitrogen, Total (as N) ^a	mg/L	--	--	--	--
Dissolved Orthophosphate (as P) ^a	mg/L	--	--	0.0127	0.0128

Parameter	Units	Effluent Limitation		Monitoring Data (From February 2000 to June 2004)	
		Quarterly Average	Instantaneous Maximum	Highest Quarterly Average Discharge	Highest Instantaneous Maximum Discharge
pH	standard units	not less than 6.0 nor greater than 9.0		--	6.9 (lowest) 7.7 (highest)
Temperature, Deg. Fahrenheit	°F	--		--	55

^a Grab pair sampling required by previous Order for this parameter.

Discharge Point 002

The previous Order did not contain monitoring requirements for Discharge Point 002.

D. Compliance Summary

From the second quarter of 2002 to the second quarter of 2004, quarterly effluent monitoring data for total nitrogen were not reported. The Discharger did not submit any data on the average daily flow rate of each month for Discharge Point 001, as required by the previous Order.

All available effluent monitoring data were compiled and evaluated to review compliance with the effluent limitations outlined above. The available effluent data indicate that the Discharger exceeded the total suspended solids (TSS) limitation on May 21, 2001. The effluent TSS was reported as a grab pair with values of 11.3 mg/L and 2.4 mg/L (averaging 6.85 mg/L), exceeding the quarterly average limitation of 5.0 mg/L. A review of available effluent data shows that the Discharger has complied with all other existing effluent limitations.

E. Planned Changes – Not Applicable

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

C. State and Federal Regulations, Policies, and Plans

- 1. Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Lahontan Region (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to Oak Creek and the Owens Valley Ground Water Basin are as follows:

Discharge Points	Receiving Water Name	Beneficial Use(s)
001 and 002	Oak Creek	<u>Existing:</u> Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); ground water recharge (GWR); contact (REC-1) and non-contact (REC-2) water recreation; commercial and sport fishing (COMM); aquaculture (AQUA); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); preservation of rare, threatened or endangered species (RARE); and spawning, reproduction and development (SPWN).
--	Owens Valley Ground Water Basin	<u>Existing:</u> Municipal supply (MUN); agricultural supply (AGR); industrial service supply (IND); freshwater replenishment (FRSH); and wildlife habitat (WILD).

- 2. Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
- 3. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
- 4. State Implementation Policy.** On March 2, 2000, State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the

Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs), and requires Dischargers to submit data sufficient to do so.

5. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.
6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order.
7. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

D. Impaired Water Bodies on CWA 303(d) List

Oak Creek is not an impaired waterbody on the CWA 303(d) list for 2002.

E. Other Plans, Policies and Regulations

Regulation of Aquaculture Drugs and Chemicals

Concentrated aquatic animal production (CAAP) facilities produce fish and other aquatic animals in greater numbers than natural stream conditions would allow; therefore, system management is important to ensure that fish do not become overly stressed, making them more susceptible to disease outbreaks. The periodic use of various aquaculture drugs and chemicals is needed to ensure the health and productivity of cultured aquatic stocks and to maintain production efficiency.

CAAP facilities may legally obtain and use aquaculture drugs in one of several ways. Some aquaculture drugs and chemicals used at CAAP facilities in the Region are approved by the U.S. Food and Drug Administration (FDA) for certain aquaculture uses on certain aquatic species.

Others have an exemption from this approval process when used under certain specified conditions. Still others are not approved for use in aquaculture, but are considered to be of “low regulatory priority” by FDA (hereafter “LRP drug”). FDA is unlikely to take regulatory action related to the use of a LRP drug if an appropriate grade of the chemical or drug is used, good management practices are followed, and local environmental requirements are met (including NPDES permit requirements). Finally, some drugs and chemicals may be used for purposes, or in a manner not listed on their label (i.e., “extra-label” use) under the direction of licensed veterinarians for the treatment of specific fish diseases diagnosed by fish pathologists. It is assumed that veterinarian-prescribed aquaculture drugs are used only for *short periods of duration* during acute disease outbreaks. Each of these methods of obtaining and using aquaculture drugs is discussed in further detail below.

It is the responsibility of those using, prescribing, or recommending the use of these products to know which aquaculture drugs and chemicals may be used in CAAP facilities in the Region under all applicable federal, State, and local regulations and which aquaculture drugs and chemicals may be discharged to waters of the United States and waters of the State in accordance with this permit. A summary of regulatory authorities related to aquaculture drugs and chemicals is outlined below.

Summary of Regulatory Authorities

FDA is responsible for ensuring the safety, wholesomeness, and proper labeling of food products; ensuring the safety and effectiveness of both human and animal drugs; and ensuring compliance with existing laws governing these drugs. The Federal Food, Drug, and Cosmetic Act (FFDCA), the basic food and drug law of the United States, includes provisions for regulating the manufacture, distribution, and the use of, among other things, new animal drugs and animal feed. FDA’s enforcement activities include correction and prevention of violations, removing illegal products or goods from the market, and punishing offenders. Part of this enforcement includes testing domestic and imported aquacultural products for drug and pesticide residues.

FDA’s Center for Veterinary Medicine (CVM) regulates the manufacture, distribution, and use of animal drugs. CVM is responsible for ensuring that drugs used in food-producing animals are safe and effective and that food products derived from treated animals are free from potentially harmful residues. CVM approves the use of new animal drugs based on data provided by a sponsor (usually a drug company). To be approved by CVM, an animal drug must be effective for the claim on the label) and safe when used as directed for (1) treated animals; (2) persons administering the treatment; (3) the environment, including non-target organisms; and (4) consumers. CVM establishes tolerances and animal withdrawal periods as needed for all drugs approved for use in food-producing animals. CVM has the authority to grant investigational new animal drug (INAD) exemptions so that data can be generated to support the approval of a new animal drug.

There are several options for CAAP facilities to legally obtain and use aquaculture drugs. Aquaculture drugs and chemicals can be divided into four categories as outlined below: approved drugs, investigational drugs, unapproved drugs of low regulatory priority, and extra-label use drugs.

FDA approved new animal drugs

Approved new animal drugs have been screened by the FDA to determine whether they cause significant adverse public health or environmental impacts when used in accordance with label instructions. Each aquaculture drug in this category is approved by FDA for use on specific fish species, for specific disease conditions, for specific dosages, and with specific withdrawal times. Product withdrawal times must be observed to ensure that any product used on aquatic animals at a CAAP facility does not exceed legal tolerance levels in the animal tissue. Observance of the proper withdrawal time helps ensure that products reaching consumers are safe and wholesome.

FDA-approved new animal drugs that are added to aquaculture feed must be specifically approved for use in aquaculture feed. Drugs approved by FDA for use in feed must be found safe and effective. Approved new animal drugs may be mixed in feed for uses and at levels that are specified in FDA medicated-feed regulations only. It is unlawful to add drugs to feed unless the drugs are approved for feed use. For example, producers may not top-dress feed with a water-soluble, over-the-counter antibiotic product. Some medicated feeds, such as Romet-30®, may be manufactured only after the FDA has approved a medicated-feed application (FDA Form 1900) submitted by the feed manufacturer.

FDA Investigational New Animal Drugs (INAD)

Aquaculture drugs in this category can only be used under an investigational new animal drug or “INAD” exemption. INAD exemptions are granted by FDA CVM to permit the purchase, shipment and use of an unapproved new animal drug for investigational purposes. INAD exemptions are granted by FDA CVM with the expectation that meaningful data will be generated to support the approval of a new animal drug by FDA in the future. Numerous FDA requirements must be met for the establishment and maintenance of aquaculture INADs.

There are two types of INADs: standard and compassionate. Aquaculture INADs, most of which are compassionate, consist of two types: routine and emergency. A compassionate INAD exemption is used in cases in which the aquatic animal’s health is of primary concern. In certain situations, producers can use unapproved drugs for clinical investigations (under a compassionate INAD exemption) subject to FDA approval. In these cases, CAAP facilities are used to conduct closely monitored clinical field trials. FDA reviews test protocols, authorizes specific conditions of use, and closely monitors any drug use under an INAD exemption. An application to renew an INAD exemption is required each year. Data recording and reporting are required under the INAD exemption in order to support the approval of a new animal drug or an extension of approval for new uses of the drug.

FDA Unapproved new animal drugs of low regulatory priority (LRP drugs)

LRP drugs do not require a new animal drug application (NADA) or INAD exemptions from FDA. Further regulatory action is unlikely to be taken by FDA on LRP drugs as long as an appropriate grade of the drug or chemical is used, good management practices are followed, and local environmental requirements are met (such as NPDES permit requirements contained in this

Permit). FDA is unlikely to object at present to the use of these LRP drugs if the following conditions are met:

1. The aquaculture drugs are used for the prescribed indications, including species and life stages where specified.
2. The aquaculture drugs are used at the prescribed dosages (as listed above).
3. The aquaculture drugs are used according to good management practices.
4. The product is of an appropriate grade for use in food animals.
5. An adverse effect on the environment is unlikely.

FDA's enforcement position on the use of these substances should be considered neither an approval nor an affirmation of their safety and effectiveness. Based on information available in the future, FDA may take a different position on their use. In addition, FDA notes that classification of substances as new animal drugs of LRP does not exempt CAAP facilities from complying with all other federal, state and local environmental requirements, including compliance with this Permit

Extra-label use of an approved new animal drug

Extra-label drug use is the actual or intended use of an approved new animal drug in a manner that is not in accordance with the approved label directions. This includes, but is not limited to, use on species or for indications not listed on the label. Only a licensed veterinarian may prescribe extra-label drugs under FDA CVM's extra-label drug use policy. CVM's extra-label use drug policy (CVM Compliance Policy Guide 7125.06) states that licensed veterinarians may consider extra-label drug use in treating food-producing animals if the health of the animals is immediately threatened and if further suffering or death would result from failure to treat the affected animals. CVM's extra-label drug use policy does not allow the use of drugs to prevent diseases (prophylactic use), improve growth rates, or enhance reproduction or fertility. Spawning hormones cannot be used under the extra-label policy. In addition, the veterinarian assumes the responsibility for drug safety and efficacy and for potential residues in the aquatic animals.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR §122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established. Three options exist to protect water quality: 1) 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

A. Discharge Prohibitions

Discharge prohibitions included in this Order are based upon waste discharge prohibitions contained in the Basin Plan that apply to the entire Lahontan Region, and discharge prohibitions as specified from the California Water Code.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology currently available (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part “cost reasonableness” test.
- New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent the best and most efficient production processes and wastewater treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR §125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR §125.3.

A cold-water concentrated aquatic animal production (CAAP) facility is defined in Title 40 of the Code of Federal Regulations (40 CFR §122.24) as a fish hatchery, fish farm, or other facility that contains, grows, or holds cold-water fish species or other cold water aquatic animals including, but not limited to, the Salmonidae family of fish (e.g. trout and salmon) in ponds, raceways, or other similar structures. In addition, the facility must discharge at least 30 calendar days per year, produce at least 20,000 pounds (9,090 kilograms) harvest weight of aquatic animals per year, and feed at least 5,000 pounds (2,272 kilograms) of food during the calendar month of maximum feeding. A facility that does not meet the above criteria

may also be designated a cold-water CAAP facility upon a determination that the facility is a significant contributor of pollution to waters of the United States [40 CFR §122.24(c)]. The Facility meets the thresholds for discharge and production, but not the threshold for feed that would categorize it as a CAAP through the NPDES discharge, production and feed criteria. However, the Regional Water Board has designated the Facility as a CAAP under 40 CFR §122.24(c) in the past and continues to do so in this Order based on discharges of total suspended solids, and potential discharges of aquaculture drugs and chemicals. Cold-water, flow-through CAAP facilities are designed to allow the continuous flow of fresh water through tanks and raceways used to produce aquatic animals (typically cold-water fish species). Flows from CAAP facilities ultimately are discharged to waters of the United States and of the State. 40 CFR §122.24 specifies that CAAP facilities are point sources subject to the National Pollutant Discharge Elimination System (NPDES) program. The Discharger's facility will continue to be designated a cold-water, flow-through CAAP.

The operation of CAAP facilities may introduce a variety of pollutants into receiving waters. USEPA identifies three classes of pollutants: (1) conventional pollutants (i.e., total suspended solids (TSS), oil and grease (O&G), biochemical oxygen demand (BOD), fecal coliforms, and pH); (2) toxic pollutants (e.g., metals such as copper, lead, nickel, and zinc and other toxic pollutants; and (3) non-conventional pollutants (e.g., ammonia-N, Formalin, and phosphorus). Some of the most significant pollutants discharged from CAAP facilities are solids from uneaten feed and fish feces that settle to the bottom of the raceways. Both of these types of solids are primarily composed of organic matter including BOD, organic nitrogen, and organic phosphorus.

Fish raised in CAAP facilities may become vulnerable to disease and parasite infestations. Various aquaculture drugs and chemicals are used periodically at CAAP facilities to ensure the health and productivity of the confined fish population, as well as to maintain production efficiency. Aquaculture drugs and chemicals are used to clean raceways and to treat fish for parasites, fungal growths and bacterial infections. Aquaculture drugs and chemicals are sometimes used to anesthetize fish prior to spawning or "tagging" processes. As a result of these operations and practices, drugs and chemicals may be present in discharges to waters of the United States or waters of the State.

On August 23, 2004 USEPA published Effluent Limitation Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Point Source Category (hereafter "ELG"). These ELGs became effective on September 22, 2004. The ELG regulation establishes national technology-based effluent discharge requirements for flow-through and recirculating systems and for net pens based on BPT, BCT, BAT and NSPS. In its proposed rule, published on September 12, 2002, USEPA proposed to establish numeric limitations for a single constituent – total suspended solids (TSS) – while controlling the discharge of other constituents through narrative requirements. In the final rule, however, USEPA determined that, for a nationally applicable regulation, it would be more appropriate to promulgate qualitative TSS limitations in the form of solids control best management practices (BMP) requirements. Furthermore, the final ELG does not include numeric effluent limitations for non-conventional and toxic constituents, such as aquaculture drugs and chemicals, but also relies on narrative limitations to address these constituents. The final ELG applies to CAAP facilities that produce, hold or contain 100,000 pounds or more of

aquatic animals per year (any 12 month period). The Discharger's facility is therefore not subject to the ELG requirements based on the ELG production threshold. However, the Regional Water Board is establishing BMP requirements equivalent to those for the ELG. BMP requirements are being established in this Order as authorized in 40 CFR §122.44(k), and are required due to the Facility's demonstrated potential to exceed established TSS limitations, and due to the potential discharges of aquaculture drugs and chemicals. The BMP requirements established in this Order are also consistent with the BMPs required of other similar CAAP operations in the Region.

2. Applicable Technology-Based Effluent Limitations

Discharge Point 001

Technology-based requirements in this Order are based on case-by-case numeric limitations developed using best professional judgment (BPJ) and carried over from the previous Order. Order No. 6-99-53 contained effluent limitations for TSS of 5.0 mg/L and 15.0 mg/L as a quarterly average and instantaneous maximum, respectively, based on BPJ. In addition, the previous Order contained effluent limitations for settleable solids of 0.1 ml/L as a quarterly average based on BPJ. These limitations were established as a means of controlling the discharge of solids from algae, silt, fish feces and uneaten feed and were based on a modification of effluent limitations established for similar facilities in Idaho in a permit issued by USEPA Region 10.

The Board also determined that clarification of the earlier limit for TSS is needed. When establishing the limit in previous permits, the Board stated that the hatchery discharge shall not contain concentrations of TSS greater than the effluent limit. Additionally, background water quality is described as generally of excellent quality and background concentrations of TSS were not considered to be significantly above detection limits. This assumption may not always be correct, and the board is clarifying in this permit that the limit was intended to be 5 mg/L above background (quarterly average), and is measured as net over levels in the influent. Clarifying that the effluent limit is 5 mg/L (quarterly average) net over levels in the influent is not considered to be backsliding because it is simply a clarification of what was intended under previous facility permits.

In this Order, the Regional Water Board is replacing the quarterly average limitations for these parameters with limitations expressed as average monthly effluent limitations. Monthly averages are a more common averaging period for limitations and an averaging period consistent with federal NPDES regulatory requirements at 40 CFR §122.45(d). The Regional Water Board modified statistical procedures from USEPA's 1991 *Technical Support Document for Water Quality-based Toxics Control* (TSD) used to establish the relationship between an average monthly effluent limitation and a maximum daily effluent limitation. These modified statistical procedures establish the relationship between the existing quarterly average effluent limitation and an equivalent average monthly effluent limitation. The ratio between these two limitations may be expressed as:

$$\frac{\text{monthly limitation}}{\text{quarterly limitation}} = \frac{\exp [z_m \sigma_{nm} - 0.5 \sigma_{nm}^2]}{\exp [z_q \sigma_{nq} - 0.5 \sigma_{nq}^2]}$$

where:

$$\sigma_{nm}^2 = \ln([CV^2/nm] + 1)$$

$$\sigma_{nq}^2 = \ln([CV^2/nq] + 1)$$

nm = number of samples for monthly average

nq = number of samples for quarterly average

CV = the coefficient of variation of the effluent (default CV = 0.6)

z = z statistic

$z_m = z_q = z_{95} = 1.645$ (95th percentile occurrence probability for both monthly and quarterly limitations)

In order to determine this ratio, the Regional Water Board assumed the following:

- $CV = 0.6$
based on USEPA's recommended default assumptions
- $nm = 4$ for the average monthly effluent limitation
based on default assumptions of TSD statistical approach regardless of actual monitoring frequency
- $nq = 12$ for a quarterly average effluent limitation
assuming $n = 4$ for each of three months in a calendar quarter
- z percentile probability = 95th percentile for both monthly and quarterly limitations
monthly probability basis based on TSD recommendation
quarterly probability basis assumed to be the same as the monthly probability basis

Based on these assumptions and using the equation above, the ratio between the average monthly effluent limitation and the quarterly average effluent limitation is:

$$\frac{\text{monthly limitation}}{\text{quarterly limitation}} = 1.19$$

Therefore, in this Order, the quarterly average effluent limitations for TSS and settleable solids are as follows:

TSS

Average monthly effluent limitation = 5.0 mg/L (quarterly limitation) x 1.19 = 6.0 mg/L over

Settleable Solids

Average monthly effluent limitation = 0.1 ml/L (quarterly limitation) x 1.19 = 0.1 ml/L

The Regional Water Board has determined that a change from the previous quarterly average effluent limitations to average monthly effluent limitations to be appropriate and reasonable. The Facility's performance during the term of the previous Order demonstrates that it is capable of meeting these average monthly effluent limitations, particularly when it develops and implements the Best Management Practices (BMP) plan as required in Section VII.B.3 of this Order. Conversion of the quarterly average effluent limitation for TSS of 5.0 mg/L to an average monthly effluent limitation of 6.0 mg/L does not constitute backsliding because these limitations are statistically equivalent.

The previous Order contained effluent limitations for pH, requiring the discharge to have a pH of not less than 6.0 pH units nor greater than 9.0 pH units. Removal of these numeric limitations for pH would constitute backsliding under CWA Section 402(o). The Regional Water Board has determined that the numeric effluent limitation for pH continues to be applicable to the Facility and that backsliding is not appropriate, therefore, the pH limitations from the previous Order are being carried over to this Order.

Discharge Point 002

The previous Order did not contain monitoring requirements for Discharge Point 002. As described earlier in this Fact Sheet, Discharge Point 002 is where influent overflow and wastewater from supply water treatment system cleaning operations is discharged into Oak Creek. The overflow water and cleaning wastewater are treated by separate settling ponds before discharge. Overflow water is discharged frequently, while cleaning wastewater is discharged approximately three to four times a year.

This Order will not establish new effluent limitations based on BPJ for Discharge Point 002 since there are no effluent data, and because most of the water discharged is unused treated supply water, with no aquaculture drugs or chemicals added to the discharge. However, monitoring requirements are being established in this Order to assess the quality of the discharge, and this Order may be reopened to establish effluent limitations. In addition, this Order prohibits the discharge of any aquaculture drugs or chemicals through Discharge Point 002. Modifications to the authorized discharge of aquaculture drugs and chemicals at the Facility may be allowed by the Regional Water Board as specified in Section VI.C.2.a of this Order.

**Summary of Technology-based Effluent Limitations
 Discharge Point 001**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	--	--	6.0	9.0
Settleable Solids	ml/L	0.1	--	--	--
Total Suspended Solids (TSS)*	mg/L	6.0	--	--	15.0

**Summary of Technology-based Effluent Limitations
 Discharge Point 002**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Not applicable. No technology-based effluent limitations for Discharge Point 002.					

*Limit is 6.0 mg/L net over levels in influent

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water, as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other State plans and policies, or water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As described in this Fact Sheet, existing beneficial uses of Oak Creek include municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), contact (REC-1) and non-contact (REC-2) water recreation, commercial and sport fishing (COMM), cold freshwater habitat (COLD), wildlife habitat (WILD), preservation of rare, threatened or endangered species (RARE), and spawning, reproduction, and development of fish and wildlife (SPWN).

The Basin Plan contains numeric Water Quality Objectives (WQOs) for Oak Creek, however, these numeric WQOs apply to the section of Oak Creek above the hatchery. WQOs that apply to all surface waters (including wetlands) within the Lahontan Region are described in Pages 3-3 through 3-7 of the Basin Plan. The WQOs applicable to Oak Creek have been incorporated in to the Order as Receiving Water Limitations V.A.1 through V.A.19.

3. Determining the Need for WQBELs

DISCHARGE POINT 001

CTR Constituents

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in this Order. The Regional Water Board analyzed effluent and receiving water data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBELs are required. The RPA considers criteria from the CTR, NTR, and water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identified the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

- 1) Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
- 2) Trigger 2 – If background water quality (B) > C and pollutant is detected in effluent, a limit is needed.
- 3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger is required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants for which effluent data were available. The effluent was sampled on December 14, 2000 by the Regional Water Board during a facility inspection, and analyzed for metals (including the priority pollutant metals). In addition, the Discharger collected Facility influent (“headbox” of raceways, consisting of influent water from Oak Creek) and effluent samples on May 26, 2004 for priority pollutant analysis. The Discharger also performed an additional effluent sampling for dioxins on September 16, 2004. These data were used in the RPA and are summarized in Attachment H for Discharge Point 001. The RPA for the priority pollutants did not demonstrate reasonable potential to exceed applicable water quality criteria based on these two sampling events. However, as discussed below, the Regional Water Board has determined using Trigger 3 as described above, that a WQBEL for copper is needed at Discharge Point 001.

Copper

A potential source of copper discharge (copper is identified as a priority pollutant in the NTR and CTR) at fish hatcheries is from the use of copper sulfate and chelated copper compounds, which are used to control algae and other vegetation that is susceptible to the toxic effects of copper uptake, as well as to control the growth of external parasites and bacteria on fish. Although copper sulfate is not currently used at the Facility, the Discharger included copper sulfate in a list of aquaculture drugs and chemicals that may be used on an “as needed” basis to treat various fish disease and parasitic outbreaks (see Attachment I). The effluent sampling for metals on December 14, 2000 and for priority pollutants conducted on May 26, 2004 did not coincide with copper sulfate usage at the Facility, nor are there any effluent copper data available to assess the impact of copper sulfate use at the Facility. Therefore, effluent copper concentrations were estimated based on prescribed treatment rates and Facility flow information supplied by the Discharger.

The following information and calculations were used to determine the estimated effluent copper concentration at Discharge Point 001, calculations assume the flow from the raceways mixes completely with the volume of water in the settling basin and is discharged with no further concentration, breakdown, or dilution of copper sulfate.

Copper sulfate usage:

According to the Discharger, copper sulfate pentahydrate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) is used at a rate of up to 0.5 pounds per cubic feed per second (cfs) of raceway flow.

Flow and volume estimates:

The hatchery has 3 rearing raceways, with two currently in use. Total influent flow from Oak Creek (referred to as North Fork Oak Creek by Facility staff) used for the raceways is estimated between 3 and 4 cfs. Using 3.5 cfs as the average total raceway flow, each of the two raceways in operation have a flow of 1.75 cfs.

The dimensions of each raceway are 300 feet long x 10 feet wide x 2.5 feet (30 inches) deep. Based on these dimensions, the volume of each raceway is 7,500 cubic feet. With a flow of 1.75 cfs, the estimated hydraulic retention time is approximately 1.2 hours (7,500 cubic feet / 1.75 cfs = 4,286 seconds = 1.2 hours).

The dilution volume of water from one rearing raceway after 1.2 hours is 56,553 gallons (1 cfs = 26,930 gallons per hour).

The hatchery has one fish holding pond (Pond #1) with a water flow rate estimated at 10 to 20 gallons per minute, which discharges into the settling ponds. The dilution volume of water from Pond #1 after 1.2 hours is 1,080 gallons, using an average flow of 15 gallons per minute.

As described earlier, the Facility has a set of two large settling ponds operated in series (75-foot wide x 120-foot long x 8-foot deep, and 73-foot wide x 148-foot long x 8-foot deep), which then flow to one of two sets of smaller settling ponds operated in series: (1) two small ponds (25-foot wide x 55-foot long x 6-foot deep, and 20-foot wide x 75-foot long x 6-foot deep), or (2) three small ponds (20-foot wide x 55-foot long x 6-foot deep, 20-foot wide x 45-foot long x 4-foot deep, and 18-foot wide x 30-foot long x 2-foot deep). Only one series of small ponds is used at the Facility at any given time.

The total estimated dilution volume of water from the two large settling ponds based on their dimensions is 1,185,154 gallons (72,000 cubic feet + 86,432 cubic feet = 158,432 cubic feet, 1 cubic foot = 7.4805 gallons).

The total estimated dilution volume of water from set one of the smaller settling ponds based on their dimensions is 129,039 gallons (8,250 cubic feet + 9,000 cubic feet = 17,250 cubic feet, 1 cubic foot = 7.4805 gallons).

The total estimated dilution volume of water from set two of the smaller settling ponds based on their dimensions is 84,380 gallons (6,600 cubic feet + 3,600 cubic feet + 1,080 cubic feet = 11,280 cubic feet, 1 cubic foot = 7.4805 gallons).

Since these calculations are used to determine any reasonable potential for the discharge to exceed applicable water quality criteria from copper sulfate usage, the lesser dilution volume from the second set of smaller settling ponds was used in order to estimate the highest potential effluent copper concentrations.

The total dilution volume from the 2 rearing raceways and Pond #1 during 1.2 hours of flow, plus the volume of the settling ponds, is 1,383,720 gallons.

Estimate of copper sulfate and copper concentrations at Discharge Point 001:

Estimated final effluent concentration of copper sulfate pentahydrate ($\text{CuSO}_4+5\text{H}_2\text{O}$) (in ppm) =
 Total pounds CuSO_4 applied / (1,383,720 gallons water x 8.34 pounds/gallon) x 1,000,000

Molecular weight of copper sulfate pentahydrate ($\text{CuSO}_4+5\text{H}_2\text{O}$) = 249.68

Molecular weight copper = 63.546

Conversion factor for copper sulfate pentahydrate to copper = 0.254509773

Estimated Potential Concentrations of Copper – Discharge Point 001.

Number of Rearing Raceways Treated with Copper Sulfate	Total Pounds of Copper Sulfate Pentahydrate Applied	Estimated Final Effluent Concentration		
		Copper Sulfate Pentahydrate (ppm)	Copper (ppm)	Copper (ppb)
1	0.875	0.0758217	0.0192974	19.30
2	1.75	0.1516435	0.0385948	38.59

The CTR includes the Ambient Water Quality Criteria for the Protection of Aquatic Life for copper. The Criterion Maximum Concentration (CMC), a 1-hour average, and Criterion Continuous Concentration (CCC), a 4-day average, are hardness dependent. The criteria are expressed in terms of the dissolved fraction of the metal in the water column and are calculated from the total recoverable values by applying a conversion factor. The conversion factor in the CTR is 0.96 for both acute (CMC) and chronic (CCC) criteria. The lowest hardness concentration of the influent and effluent reported by the Discharger was 26 mg/L. With a hardness of 26 mg/L, chronic and acute criteria for dissolved copper are 2.83 and 3.77 $\mu\text{g/L}$ (2.95 and 3.93 $\mu\text{g/L}$ total recoverable), respectively. California Department of Fish and Game (DFG) Fish Health Laboratory does not recommend using copper sulfate in water with a total hardness less than 50 mg/L.

Based on the estimated effluent copper concentrations ranging from 19.30 to 38.59 $\mu\text{g/L}$, the Regional Water Board finds that there is reasonable potential for copper to be present in

the discharge at levels exceeding CTR water quality criteria for the protection of aquatic life, and accordingly, is establishing the WQBELs for copper as described in Section IV.C.4 of this Fact Sheet.

Non-CTR Constituents

Formaldehyde as Formalin

A 37 percent formaldehyde solution (formalin) is periodically used at hatcheries as a fungicide treatment on fish eggs and fish in the raceways. Although the Discharger does not currently use formalin, it may be used in emergencies. Formalin (also known by the trade names Formalin-F®, Paracide-F®, PARASITE-S®) is approved through FDA's New Animal Drug Application (NADA) program for use in controlling external protozoa and monogenetic trematodes on fish, and for controlling fungi of the family Saprolegniaceae in food-producing aquatic species (including trout and salmon). For control of other fungi, formalin may be used under an Investigational New Animal Drug (INAD) exemption. Formalin can be used as a "drip" treatment to control fungus on fish eggs, or as a "flush" treatment in raceways.

Effluent formaldehyde data are not available to assess the impact of formalin use at the Facility. Therefore, the following information and calculations were used to determine the estimated effluent formaldehyde concentration from flush treatments at Discharge Point 001. The calculations assume the flow from the raceways mixes completely with the volume of water in the settling basin and is discharged with no further concentration, breakdown, or dilution of formaldehyde.

Formalin usage (37% formaldehyde solution):

According to the Discharger, formalin used in flush treatments is applied at either low or high dosage treatment. Low dose treatment is applied for 8 hours at 25 ppm of formalin (9.25 ppm formaldehyde), while high dose treatment is applied for 1 hour at 167 to 250 ppm of formalin (61.79 to 92.5 ppm formaldehyde).

Flow and volume estimates:

Flow and volume calculations are similar as for those used for estimating effluent copper concentrations, with the total dilution volume of a 1-hour treatment at 1,364,689 gallons, or 5,165,910 liters (1 gallon = 3.7854118 liters).

The total dilution volume for an 8-hour treatment was calculated as the sum of the following (1 cfs = 26,930 gallons per hour):

2 rearing raceways = 1.75 cfs x 26,930 gal/hour x 8 hours x 2 raceways = 754,040 gallons

Pond #1 = 15 gallons/minute x 60 minutes/hour x 8 hours = 7,200 gallons

Settling ponds = 1,269,534 gallons.

Total dilution volume for an 8-hour treatment = 2,030,774 gallons = 7,687,316 liters.

Estimate of formaldehyde concentrations at Discharge Point 001:

Total mass of formaldehyde applied in milligrams = (# rearing raceways treated) x (treatment time in hours) x (rearing raceway flow in cfs) x (26,930 gallons/hour) x (3.7854118 liters/gallon) x (formaldehyde concentration in mg/L)

Estimated final effluent concentration of formaldehyde (in mg/L) = Total mass of formaldehyde applied in milligrams / total dilution volume in liters

Treatment Type	Number of Rearing Raceways Treated with Formalin	Formaldehyde Concentration (mg/L)	Treatment Time in Hours	Total Mass of Formaldehyde Applied (mg)	Total Dilution Volume in Liters	Estimated Final Effluent Formaldehyde Concentration (mg/L)
Low Dose	1	9.25	8	13,201,378	7,687,316	1.72
	2	9.25	8	26,402,755	7,687,316	3.43
High Dose	1	92.5	1	16,501,722	5,165,910	3.19
	2	92.5	1	33,003,444	5,165,910	6.39

While there are no recommended criteria for formaldehyde for protection of aquatic life, the Basin Plan contains a narrative water quality objective for toxicity that states in part that “[a]ll waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life” (narrative toxicity objective). Aquatic habitat is a beneficial use of Oak Creek. The California Department of Fish and Game (DFG) Pesticide Investigation Unit conducted biotoxicity studies to determine the aquatic toxicity of formalin using *Pimephales promelas* and *Ceriodaphnia dubia* in accordance with the analytical methods specified in EPA600/4-91-002, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. These “short-term chronic tests” measure effects such as reduced growth of the organism, reduced reproduction rates, or lethality. Results were reported as a No Observed Effect Concentration (NOEC) and a Lowest Observed Effect Concentration (LOEC). The DFG Pesticide Investigation Unit also conducted acute toxicity tests using *Ceriodaphnia dubia* in accordance with methods specified in EPA600/4-90/027, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*. Acute toxicity test results typically are reported as the No Observed Adverse Effect Level (NOAEL), Lowest Observed Adverse Effect Level (LOAEL), and LC₅₀.

Results of chronic toxicity tests submitted by the DFG Pesticide Investigation Unit indicated *C. dubia* was the most sensitive species with a 7-day No Observable Effect Concentration (NOEC) value of 1.3 mg/L formaldehyde for survival and reproduction.

Acute toxicity tests with *C dubia* showed a 96-hour NOAEL of 1.3 mg/L. A summary of the data submitted follows:

Species	7-day LC ₅₀ (mg/L)	LOEC (mg/L)	NOEC (mg/L)	LOAEL (mg/L)	NOAEL (mg/L)
<i>Ceriodaphnia dubia</i>	2.4	5.8 ^a 1.3 ^b	1.3 ^a <1.3 ^b	5.8	1.3
<i>Pimephales promelas</i>	23.3	9.09	2.28	--	--
<i>Selenastrum capricornutum</i>	<5.2	--	--	--	--

^a Survival

^b Reproduction

Short-term tests were conducted with *C dubia*, exposing the organisms for 2-hour and 8-hour periods, removing them from the chemical, and continuing the observation period for 7 days in clean water. The results were as follows:

Species	7-day LC ₅₀ (mg/L)	LOAEL (mg/L)	NOAEL (mg/L)
<i>C. dubia</i> —2-hour exposure	73.65	46.3	20.7
<i>C. dubia</i> —8-hour exposure	13.99	15.3	6.7

Results of both acute and chronic aquatic life toxicity testing conducted by the DFG Pesticide Investigation Unit were considered along with the Basin Plan narrative toxicity objective when determining whether water quality-based effluent limitations for formalin as formaldehyde were necessary. Results of 7-day chronic toxicity tests indicated *Ceriodaphnia dubia* was the most sensitive species, with a 7-day NOEC value of 1.3 mg/l formaldehyde for survival and < 1.3 mg/l for reproduction (the Regional Water Board used an NOEC of 1.3 mg/L). Acute toxicity tests conducted using *Ceriodaphnia dubia* showed a 96-hour NOAEL of 1.3 mg/l formaldehyde. The additional acute toxicity tests with *Ceriodaphnia dubia* conducted using only an 8-hour exposure, resulted in a 96-hour NOAEL concentration of 6.7 mg/L formaldehyde. Based on the results of these toxicity tests, estimates of potential discharges of formaldehyde from the Facility (ranging from 1.72 to 6.39 mg/L), if formalin is used at this Facility in the future at the estimated dose rates, formaldehyde may be discharged at levels that cause, have the reasonable potential to cause, or contribute to an excursion of the narrative water quality objective for toxicity from the Basin Plan. Accordingly, this Order is establishing WQBELs for formaldehyde as described in the Section IV.C.4 of this Fact Sheet.

Hydrogen Peroxide

Hydrogen peroxide (35% H₂O₂) may be used in the future at the Facility. Hydrogen peroxide may be used as a raceway flush treatment at a concentration of 100 ppm or less, from 45 minutes to one hour. The FDA considers hydrogen peroxide to be an LRP drug when used to control fungi on fish at all life stages, including eggs. Hydrogen peroxide may also be used under an INAD exemption to control bacterial gill disease in various fish, fungal infections, external bacterial infections, and external parasites. Hydrogen peroxide is a strong oxidizer that breaks down into water and oxygen; however, it exhibits toxicity to aquatic life during the oxidation process. Results of a single acute toxicity test conducted by the DFG Pesticide Investigation Unit using *C. dubia* showed a 96-hour NOAEL of 1.3 mg/L.

Effluent hydrogen peroxide data are not available to assess the impact of hydrogen peroxide use at the Facility. Therefore, the following information and calculations were used to determine the estimated effluent hydrogen peroxide concentration from flush treatments at Discharge Point 001. The calculations assume the flow from the raceways mixes completely with the volume of water in the settling basin and is discharged with no further concentration, breakdown, or dilution of hydrogen peroxide.

Flow and volume estimates:

Flow and volume estimates remain the same as for those used for estimating effluent chloramine-T concentrations, with the total dilution volume from a 1-hour treatment at 1,364,689 gallons, or 5,165,910 liters (1 gallon = 3.7854118 liters).

Estimate of hydrogen peroxide concentrations at Discharge Point 001:

Total mass of hydrogen peroxide applied in milligrams = (# raceways treated) x (treatment time in hours) x (raceway flow in cfs) x (26,930 gallons/hour) x (3.7854118 liters/gallon) x (hydrogen peroxide concentration in mg/L)

Estimated final effluent concentration of hydrogen peroxide (in mg/L) = Total mass of hydrogen peroxide applied in milligrams / total dilution volume in liters

Number of Raceways Treated with H ₂ O ₂	H ₂ O ₂ Solution (35%) Treatment Conc. (mg/L)	H ₂ O ₂ Treatment Conc. (mg/L)	Treatment Time in Hours	Total Mass of H ₂ O ₂ Applied (mg)	Total Dilution Volume in Liters	Estimated Final Effluent H ₂ O ₂ Conc. (mg/L)
1	100	35	1	6,243,895	5,165,910	1.21
2	100	35	1	12,487,790	5,165,910	2.42

As shown above, the estimated effluent hydrogen peroxide concentrations ranged from 1.21 to 2.42 mg/L, but actual concentrations are likely to be lower as the calculations assume no breakdown of hydrogen peroxide. However, as no other data are available, the estimated concentrations from flush treatments were used to determine reasonable

potential. Therefore, based on available toxicity testing data and estimates of potential discharges hydrogen peroxide from flush treatments, if hydrogen peroxide is used at this Facility in the future at the prescribed dose rates, hydrogen peroxide may be discharged at levels that cause, have the reasonable potential to cause, or contribute to an excursion of the narrative water quality objective for toxicity from the Basin Plan. Accordingly, this Order is establishing WQBELs for hydrogen peroxide as described in the Section IV.C.4 of this Fact Sheet.

In addition, toxicity testing data for hydrogen peroxide must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order. The Regional Water Board will review this information, and other information as it becomes available and this Order may be reopened to revise effluent limitations based on additional use and toxicity information.

Chloramine-T

Chloramine-T (sodium p-toluenesulfonchloramide) is not currently used but may be used by the Discharger in the future as a possible replacement for formalin. The Discharger reports chloramine-T may be used as a flush or bath treatment at a concentration of 10 ppm for one hour. Chloramine-T is available for use in accordance with an INAD exemption by FDA. Chloramine-T breaks down into para-toluenesulfonamide (p-TSA) and, unlike other chlorine-based disinfectants, does not break down into chlorine or form harmful chlorinated compounds. The Discharger has not conducted biotoxicity tests using chloramine-T, however results of toxicity testing from other sources show a 96-hour LC50 for rainbow trout of 2.8 mg/L. The 48-hour NOEC for *Daphnia magna* was reported as 1.8 mg/L (Halamid. n.d. Halamid, Aquaculture <http://www.halamid.com/aqua.htm>). In addition, the United States Geological Survey (USGS) has indicated the acute toxicity of p-TSA to be much lower than the parent compound in aquatic organisms, including the water flea.

Effluent data for chloramine-T are not available to assess the impact of chloramine-T use at the Facility. Therefore, the following information and calculations were used to estimate the effluent chloramine-T concentrations from flush treatments at Discharge Point 001. The calculations assume the flow from the raceways mixes completely with the volume of water in the settling basin and is discharged with no further concentration, breakdown, or dilution of chloramine-T.

Flow and volume estimates:

Flow and volume calculations are similar as for those used for estimating effluent copper concentrations, with the total dilution volume of a 1-hour treatment at 1,364,689 gallons, or 5,165,910 liters (1 gallon = 3.7854118 liters).

Estimate of chloramine-T concentrations at Discharge Point 001:

Total mass of chloramine-T applied in milligrams = (# raceways treated) x (treatment time in hours) x (raceway flow in cfs) x (26,930 gallons/hour) x (3.7854118 liters/gallon) x (chloramine-T concentration in mg/L)

Estimated final effluent concentration of chloramine-T (in mg/L) =
 Total mass of chloramine-T applied in milligrams / total dilution volume in liters

Number of Rearing Raceways Treated with Chloramine-T	Chloramine-T Concentration in Treatment (mg/L)	Treatment Time in Hours	Total Mass of Chloramine-T Applied (mg)	Total Dilution Volume in Liters	Estimated Final Effluent Chloramine-T Concentration (mg/L)
1	10	1	4,077,646	5,165,910	0.79
2	10	1	8,155,291	5,165,910	1.58

As shown above, the estimated effluent chloramine-T concentrations ranged from 0.79 to 1.58 mg/L, but actual concentrations are likely to be lower as the calculations assume no breakdown of chloramine-T. Effluent concentrations could not be estimated from the disposal of bath treatment wastewaters as information regarding volumes and location of disposal (which affects dilution factors) was unavailable. However, as no other data are available, the estimated concentrations from flush treatments were used to determine reasonable potential. Therefore, based on available toxicity testing data and estimates of potential discharges of chloramine-T from flush treatments, if chloramine-T is used at this Facility in the future at the prescribed dose rates, chloramine-T will not be discharged at levels that cause, have the reasonable potential to cause, or contribute to an excursion of the narrative water quality objective for toxicity from the Basin Plan. However, monitoring and the use of chloramine-T must be reported as specified in the Monitoring and Reporting Program (Attachment E).

In addition, toxicity testing data for chloramine-T must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order. The Regional Water Board will review this information, and other information as it becomes available and this Order may be reopened to revise effluent limitations based on additional use and toxicity information.

Potassium Permanganate

Potassium permanganate (also known by the trade name of Cairox™) is sometimes used at the Facility to control gill disease. Potassium permanganate has a low estimated lifetime in the environment, being readily converted by oxidizable materials to insoluble manganese dioxide (MnO₂). In non-reducing and non-acidic environments, MnO₂ is insoluble and has a very low bioaccumulative potential. Potassium permanganate may be used at the Facility as a flush treatment at a rate of 2 ounces per cfs of raceway flow, for a total of three

treatments spaced 10 to 15 minutes apart, or used in bath treatments of 2 ppm or less for one hour. Results of a single acute toxicity test conducted by the California Department of Fish and Game (DFG) Pesticide Investigation Unit using *C. dubia* showed a 96-hour NOAEL of 0.25 mg/L for potassium permanganate.

Effluent potassium permanganate data are not available to assess the impact of potassium permanganate use at the Facility. Therefore, the following information and calculations were used to determine the estimated effluent potassium permanganate concentration from flush treatments at Discharge Point 001. The calculations assume the flow from the raceways mixes completely with the volume of water in the settling basin and is discharged with no further concentration, breakdown, or dilution of potassium permanganate.

Flow and volume estimates:

Flow and volume estimates remain the same as for those used for estimating effluent copper concentrations, with the total dilution volume from 1.2 hours of flow at 1,383,720 gallons.

Estimate of potassium permanganate concentrations at Discharge Point 001:

1 ounce = 0.0625 pound

Estimated final effluent concentration of potassium permanganate (KMnO₄) (in ppm) = [(# raceways treated) x (3 treatments) x (2 ounces per cfs) x (flow in cfs) x (0.0625 lbs/ounce)] / [(Total dilution in gallons) x (8.34 pounds/gallon)] x 1,000,000

Number of Raceways Treated with Potassium Permanganate	Estimated Final Effluent Potassium Permanganate Concentration (ppm)
1	0.057
2	0.114

As shown above, the estimated effluent potassium permanganate concentrations from flush treatments ranged from 0.057 to 0.114 mg/L. Actual concentrations are likely to be lower as the calculations assumed no breakdown of potassium permanganate. Effluent concentrations could not be estimated from the disposal of bath treatment wastewaters as information regarding volumes and location of disposal (which affects dilution factors) was unavailable. Effluent concentrations could not be estimated from the disposal of bath treatment wastewaters as information regarding volumes and location of disposal (which affects dilution factors) was unavailable. However, effluent potassium permanganate concentrations from the disposal of bath treatments wastewater are likely to be even lower than the concentrations estimated for flush treatments, due to the smaller quantities of wastewater and low concentrations used in bath treatments (2 ppm).

Based on the estimated effluent concentrations and the toxicity information available at this time, the discharge of potassium permanganate at the Facility will not cause, have a reasonable potential to cause, or contribute to an in-stream excursion of applicable water quality criteria or objectives. However, monitoring and use of potassium permanganate must be reported as specified in the Monitoring and Reporting Program (Attachment E). In addition, results of additional toxicity tests for potassium permanganate must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order. The Regional Water Board will review this information, and other information as it becomes available and this Order may be reopened to establish effluent limitations based on additional use and toxicity information.

Sodium Chloride

Sodium chloride (salt) is used at the Facility raceways as a fish-cleansing agent to control the spread of fish disease and to reduce stress among the confined fish population. The U.S. Food and Drug Administration (FDA) considers sodium chloride an unapproved new animal drug of low regulatory priority (LRP drug) for use in aquaculture. Consequently, FDA is unlikely to take regulatory action if an appropriate grade is used, good management practices are followed, and local environmental requirements are met. There are no numeric water quality objectives for conductivity, TDS, or chloride in the NTR, CTR, or Basin Plan for Oak Creek below the hatchery (numeric water quality objectives for TDS and chloride exist for Oak Creek *above* the hatchery). The Basin Plan does contain a narrative objective for chemical constituents that states “Waters designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).” *Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1* (R.S. Ayers and D.W. Westcot, Rome, 1985), recommends that the conductivity level in waters used for agricultural irrigation not exceed 700 $\mu\text{mhos/cm}$ (Agricultural Water Quality Goal) because it will reduce crop yield for sensitive plants. The Agricultural Water Quality Goal for TDS is 450 mg/L. USEPA’s recommended ambient water quality criteria for chloride for the protection of freshwater aquatic life are 230 mg/l as a one-hour average, and 860 mg/l as a four-day average. The Agricultural Water Quality Goal for chloride is 106 mg/L.

Because dissolved ions in water increase conductivity, the measures of TDS, chloride ion, and conductivity are related. Based on effluent and receiving water conductivity monitoring data (ranging from 26.1 to 127.1 $\mu\text{mhos/cm}$, and 24 to 117 $\mu\text{mhos/cm}$, respectively, both well below the conductivity Agricultural Water Quality Goal of 700 $\mu\text{mhos/cm}$), the discharge of sodium chloride from the Facility will not cause, have a reasonable potential to cause, or contribute to an in-stream excursion of applicable water quality criteria or objectives. Reporting of sodium chloride usage will be continued, and monitoring of electrical conductivity is required during sodium chloride use as specified in the Monitoring and Reporting Program (Attachment E).

Antibiotics: Amoxicillin, Erythromycin, Florfenicol, Oxytetracycline, Penicillin G Potassium, and Sulfadimethoxine-ormetoprim (Romet-30®)

Florfenicol, oxytetracycline, and Romet-30® (sulfadimethoxine-ormetoprim) are antibiotics that may potentially be used by the Discharger in feed formulations to control acute disease outbreaks. Erythromycin (injected or used in feed formulations) and amoxicillin (injected) also are antibiotics that may be used to control disease. These antibiotics must be used under conditions in the NADA approval (oxytetracycline and Romet-30®) or an INAD exemption or a veterinarian's prescription for extra-label use. In the NPDES General Permit for Aquaculture Facilities in Idaho (Idaho General Permit), USEPA Region 10 distinguishes between antibiotics applied in feed formulations and antibiotics applied in immersion baths. The Idaho General Permit concludes that drugs or chemicals administered via feed, and ingested by fish, pose little threat to aquatic life or beneficial uses because a majority of the drug is utilized by the fish, though some literature suggests otherwise. As stated in the Idaho General Permit, "USEPA believes that disease control drugs and other chemicals provided for ingestion by fish do not pose a risk of harm or degradation to aquatic life or other beneficial uses." Based on similar conclusions as those drawn by USEPA for the Idaho General Permit, the Regional Water Board has determined that oxytetracycline, Romet-30®, and florfenicol, (when used in feed formulations), erythromycin (when injected or used in feed formulations) and amoxicillin (when injected) are used in a manner that reduces the likelihood of direct discharge to waters of the United States or waters of the State, particularly when Dischargers implement BMPs, as required by this Order. Therefore, oxytetracycline, Romet-30®, and florfenicol, (when used in feed formulations), erythromycin (when injected or used in feed formulations) and amoxicillin (when injected) are not likely to be discharged from the Facility at levels that would cause, have the reasonable potential to cause, or contribute to an excursion of Basin Plan narrative water quality objectives for toxicity. Based on the conclusions stated above, this Order does not include water quality-based effluent limitations or effluent monitoring requirements for florfenicol, oxytetracycline, Romet-30®, erythromycin, or amoxicillin when used in feed formulations or injected directly into fish.

The hatchery may periodically use the antibiotics oxytetracycline and penicillin G potassium as therapeutic agents in bath treatments to control fish diseases. Penicillin G potassium is not approved under FDA's NADA program and its' extra-label use in aquaculture requires a veterinarian's prescription. Results of acute toxicity tests conducted by the DFG Pesticide Investigation Unit using *C. dubia* showed a 96-hour NOAEL of 890 mg/L. Results of 7-day chronic toxicity testing using *Pimephales promelas* showed 7-day NOEC for survival of 350 mg/L. Oxytetracycline, also known by the brand name Terramycin®, is an antibiotic approved through FDA's NADA program for use in controlling ulcer disease, furunculosis, bacterial hemorrhagic septicemia, and pseudomonas disease in Salmonids. Oxytetracycline is most commonly used at CAAP facilities as a feed additive. However, oxytetracycline may also be used as an extra-label use under a veterinarian's prescription in an immersion bath of approximately six to eight hours in duration. Results of acute toxicity tests conducted by the DFG Pesticide Investigation Unit using *C. dubia* showed a 96-hour NOAEL of 40.4 mg/L. Results of chronic toxicity tests using *C. dubia* showed a 7-day NOEC for reproduction of 48 mg/L. However, there is no

information regarding actual or estimated discharge concentrations of oxytetracycline and penicillin G potassium used in bath treatments to determine reasonable potential. Therefore, this Order does not include water quality-based effluent limitations for oxytetracycline or penicillin G potassium. However, use and monitoring of these substances must be reported as specified in the Monitoring and Reporting Program (Attachment E). In addition, toxicity testing data for oxytetracycline and penicillin G potassium must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order.

The Regional Water Board will review this information, and other information as it becomes available and this Order may be reopened to establish effluent limitations based on additional use and toxicity information.

MS-222 and Isoeugenol (Aqui-S®)

In the future, the Discharger may use the anesthetics tricaine methanesulfonate, commonly known as MS-222 (with trade names of Finquel® or Tricaine-S®) and isoeugenol (Aqui-S®) in bath treatments. MS-222 has been approved by FDA for use as an anesthetic for Salmonidae. It is intended for the temporary immobilization of fish, amphibians and other aquatic, cold-blooded animals. It has been recognized as a valuable tool for the proper handling of these animals during manual spawning (fish stripping), weighing, measuring, marking, surgical operations, transport, photography, and research. MS-222 is a crystalline powder used as an immersion bath in an enclosed tub. Aqui-S® is a water dispersible liquid anaesthetic for fin fish, crustacea and shell fish and is used in the United States under an INAD exemption.

Since the Regional Water Board does not have specific toxicity information for MS-222 or Aqui-S®, or estimates of potential discharge concentrations of MS-222 and Aqui-S® at this Facility, this Order does not include water quality-based effluent limitations for these anesthetics. However, use and monitoring of MS-222 and Aqui-S® must be reported as specified in the Monitoring and Reporting Program (Attachment E). In addition, toxicity testing data for MS-222 and Aqui-S® must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order.

The Regional Board will review this information, and other information as it becomes available and this Order may be reopened to establish effluent limitations based on additional use and toxicity information.

PVP Iodine

PVP Iodine (polyvinylpyrrolidone iodine), is an iodophor solution composed of 10% PVP iodine complex and 90% inert ingredients, is used at the Facility as a fish egg disinfectant and fungicide. FDA considers PVP iodine an LRP drug for use in aquaculture. Results of a single acute toxicity test with *Ceriodaphnia dubia* showed a 96-hour NOAEL of 0.86 mg/L.

Since the Regional Water Board does not have actual or estimated discharge concentrations of PVP iodine at this Facility to determine reasonable potential, this Order does not include water quality-based effluent limitations for this substance. However, use and monitoring of PVP iodine must be reported as specified in the Monitoring and Reporting Program (Attachment E). In addition, toxicity testing data for PVP iodine must be submitted within 12 months of adoption of this Order as specified in Section VI.C.2.b of this Order.

The Regional Board will review this information, and other information as it becomes available and this Order may be reopened to establish effluent limitations based on additional use and toxicity information.

Acetic Acid, Carbon Dioxide and Sodium Bicarbonate

The Discharger reports that acetic acid may be used at the Facility for the control of external parasites as flush and/or bath treatments. Carbon dioxide gas may be used in bath treatments to anesthetize fish prior to spawning. Sodium bicarbonate, or baking soda, may also be used as in bath treatments as a means of introducing carbon dioxide into the water to anesthetize fish. FDA considers these substances LRP drugs for use in aquaculture. Based upon available information regarding the use of these substances at CAAP facilities in the Region, the Regional Water Board does not believe that acetic acid, carbon dioxide gas, or sodium bicarbonate will be discharged at levels that cause, have the reasonable potential to cause, or contribute to an excursion of Basin Plan narrative water quality objectives for toxicity.

While the discharge of acetic acid, carbon dioxide, or sodium bicarbonate may affect the pH of the receiving water, current effluent and receiving water limitations for pH are adequate to ensure that any potential discharges of acetic acid, carbon dioxide, or sodium bicarbonate do not impact water quality (in addition, carbon dioxide gas added to water will quickly equilibrate with atmospheric carbon dioxide with aeration). However, the use of these substances must be reported, as well as effluent monitoring of pH during acetic acid or sodium bicarbonate use, and conductivity monitoring during sodium bicarbonate use are required as specified in the Monitoring and Reporting Program (Attachment E). In the future, if additional information becomes available regarding the use or toxicity of acetic acid, carbon dioxide gas, or sodium bicarbonate, the Regional Water Board will re-evaluate whether the discharge of any of these substances to receiving waters may cause, have the reasonable potential to cause, or contribute to an excursion of the Basin Plan objectives for toxicity and, if necessary, re-open this Order to include numeric effluent limits.

Analysis of Technology-based Effluent Limitations

In addition to numeric technology-based requirements based on BPJ, the Regional Water Board considered the need for more stringent water quality-based limitations for pH, TSS, and settleable solids for Discharge Point 001. The Regional Water Board determined that the numeric technology-based pH, TSS, and settleable solids limitations, along with the aquaculture ELG BMP requirements, are sufficient to attain and maintain WQOs for pH, suspended materials, and settleable materials.

DISCHARGE POINT 002

As described in Section IV.B.2 in this Fact Sheet, the previous Order did not contain monitoring requirements for Discharge Point 002. Therefore this Order will not establish water quality-based effluent limitations for Discharge Point 002 since there are no effluent data, and because most of the water discharged is unused treated supply water, with no aquaculture drugs or chemicals added to the discharge. However, monitoring requirements are being established in this Order to assess the quality of the discharge, and this Order may be reopened to establish effluent limitations.

4. WQBEL Calculations

Copper

Effluent limitations for metals must be expressed as a total recoverable concentration. Since a site-specific translator has not been developed for copper as described in the SIP Section 1.4.1, the USEPA conversion factor for copper of 0.960 was used for translating the dissolved copper criterion into a total recoverable effluent concentration allowance (ECA) with no dilution. The Regional Water Board established both an Average Monthly Effluent Limitation (AMEL) and Maximum Daily Effluent Limitation (MDEL) for copper based on procedures outlined in the SIP.

Once the need for effluent limitations for CTR priority pollutants has been established, the SIP requires the following steps to determine specific limitations. The tables in Attachment H summarize the development and calculation of all WQBELs for this Order using the process described below.

- A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limits for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of Aquatic Life AMEL and MDEL:

- For each water quality criterion/objective, an effluent concentration allowance (ECA) is calculated from the following equation to account for dilution, and background levels of each pollutant.

$ECA = C + D(C - B)$, where C is the converted/adjusted water quality criterion, D is the dilution credit, and B is the ambient background concentration.

The SIP permits an allowance for dilution only after characterization of the receiving water flow by the Discharger to determine a dilution ratio and/or whether or not a dilution credit is appropriate. In this Order, no credit is being allowed for dilution, and the ECA equals C.

For aquatic life criteria: $ECA_{acute} = 3.93 \mu\text{g/L}$
 $ECA_{chronic} = 2.95 \mu\text{g/L}$

- For each ECA based on an aquatic life criterion, the long-term average discharge condition (LTA) is determined by multiplying the ECA times a factor (a multiplier) to account for effluent variability. The LTA is a target of treatment performance.
- LTA multipliers are determined based on a coefficient of variation (CV) and on a specified probability of occurrence. The CV is a measure of the variability of a set of data; and in the analysis for this facility, because there were fewer than 10 data points, the CV was set equal to a default value of 0.6. The LTA multipliers are based on the following equations:

$$LTA_a = ECA_a \times \exp(0.5\sigma^2 - z\sigma)$$

$$LTA_c = ECA_c \times \exp(0.5\sigma^2 - z\sigma)$$

where

σ = standard deviation

CV = coefficient of variation (where $\sigma^2 = \ln(CV^2 + 1)$)

(CV = 0.6 where less than 10 data points are available)

z = z-statistic for 95th percentile probability and 99th percentile probability

ECA_a = acute effluent concentration allowance

ECA_c = chronic effluent concentration allowance

LTA_a = acute long-term average

LTA_c = chronic long-term average

From Table 1 of the SIP, the ECA multipliers for calculating LTAs at the 99th percentile occurrence probability for copper are 0.321 (acute multiplier) and 0.527 (chronic multiplier).

$$LTA_a = ECA_a \times \text{Multiplier}_{acute} = 3.93 \mu\text{g/L} \times 0.321 = 1.263 \mu\text{g/L}$$

$$LTA_c = ECA_c \times \text{Multiplier}_{chronic} = 2.95 \mu\text{g/L} \times 0.527 = 1.556 \mu\text{g/L}$$

- Using the most limiting (the lowest) LTA, water quality based effluent limitations (WQBELs) are calculated. WQBELs include an average monthly effluent limitation (AMEL) and a maximum daily effluent limitation (MDEL). The equations used to calculate these limits are as follows:

$$LTA = \min(LTA_a, LTA_c)$$

$$AMEL = LTA \times \exp(z\sigma - 0.5\sigma^2)$$

$$MDEL = LTA \times \exp(z\sigma - 0.5\sigma^2)$$

where

- LTA_a = acute long-term average
- LTA_c = chronic long-term average
- LTA = Most stringent long-term average
- σ = Standard deviation
- CV = coefficient of variation (where $\sigma^2 = \ln(CV^2 + 1)$
 (CV = 0.6 where less than 10 data points are available)
- z = z-statistic for 95th percentile probability (AMEL) and 99th percentile probability (MDEL)
- n = number of samples per month
- AMEL = average monthly effluent limitation
- MDEL = maximum daily effluent limitation

AMELs and MDELs are calculated by multiplying the most limiting LTA for each pollutant times a multiplier that accounts for averaging periods and exceedance frequencies of the effluent limitations, and for the AMEL, the effluent monitoring frequency. Here, the CV was set equal to the default value of 0.6 (CV = 0.6) and the sampling frequency was set equal to 4 (n = 4). A 99th percentile occurrence probability was used to determine the MDEL multiplier and a 95th percentile occurrence probability was used to determine the AMEL multiplier. From Table 2 of the SIP, the MDEL multiplier is 3.11, and the AMEL multiplier is 1.55.

$$LTA = LTA_a = 1.263 \mu\text{g/L}$$

$$AMEL_{\text{aquatic life}} = LTA \times AMEL_{\text{multiplier}} = 1.263 \times 1.55 = 1.96 \mu\text{g/L}$$

$$MDEL_{\text{aquatic life}} = LTA \times MDEL_{\text{multiplier}} = 1.263 \times 3.11 = 3.93 \mu\text{g/L}$$

Calculation of Human Health AMEL and MDEL:

- For the ECA based on human health, the AMEL is set equal to the ECA_{human health}

$$AMEL_{\text{human health}} = ECA_{\text{human health}} = 1,300 \mu\text{g/L}$$

- The MDEL for human health is calculated by multiplying the AMEL by the ratio of the Multiplier_{MDEL} to the Multiplier_{AMEL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples. As before, the CV was set equal to the default value of 0.6 (CV = 0.6) and the sampling frequency was set equal to 4 (n = 4). Using these values the MDEL multiplier is 3.11, and the AMEL multiplier is 1.55.

$$MDEL_{\text{human health}} = AMEL_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

$$MDEL_{\text{human health}} = 1,300 \mu\text{g/L} \times (3.11/1.55) = 2,608 \mu\text{g/L}$$

Determination of Final WQBELs:

- The lower AMEL and MDEL based on aquatic life and human health is selected as the WQBEL.

AMEL _{aquatic life}	MDEL _{aquatic life}	AMEL _{human health}	MDEL _{human health}
1.96 µg/L	3.93 µg/L	1,300 µg/L	2,608 µg/L

The final AMEL of **1.96 µg/L** and MDEL of **3.93 µg/L** for copper are based on limitations protective of aquatic life.

Formaldehyde

Effluent concentrations of formaldehyde may persist because of potential application procedures (e.g., successive raceway treatments) and due to retention of effluent in the settling basin. Therefore, both an average monthly effluent limitation and a maximum daily effluent limitation were calculated based on the 96-hour NOAEL value and using the procedure in USEPA’s TSD for calculating water quality-based effluent limitations.

The Regional Water Board calculated the AMEL and MDEL for formaldehyde, using the calculations and methods described previously for deriving the effluent limitations for copper.

Assuming:

- No in-stream dilution allowance.
- Coefficient of Variation (CV) = 0.6 for the lognormal distribution of pollutant concentrations in effluent.

Effluent Concentration Allowance based on NOAEL (acute toxicity) with no dilution allowance

$$ECA_a = 1.3 \text{ mg/L}$$

Effluent Concentration Allowance based on NOEC (chronic toxicity) with no dilution allowance

$$ECA_c = 1.3 \text{ mg/L}$$

Long Term Average concentration based on acute ECA

$$LTA_a = 1.3 \text{ mg/l} \times 0.321 = 0.4173 \text{ mg/L}$$

(where 0.321 = acute ECA multiplier at 99% occurrence probability and 99% confidence)

Long Term Average concentration based on chronic ECA

$LTA_c = 1.3 \text{ mg/l} \times 0.527 = 0.6851 \text{ mg/L}$
(where 0.527 = chronic ECA multiplier at 99% occurrence probability and 99% confidence)

Most Limiting LTA concentration

$LTA = 0.4173 \text{ mg/L}$

Average Monthly Effluent Limitation

$AMEL = LTA \times 1.55$
(where 1.55 = AMEL multiplier at 95% occurrence probability, 99% confidence, and $n = 4$)

$AMEL = 0.4173 \text{ mg/l} \times 1.55 = \mathbf{0.65 \text{ mg/L}}$

Maximum Daily Effluent Limitation

$MDEL = LTA \times 3.11$
(where 3.11 = MDEL multiplier at 99% occurrence probability and 99% confidence)

$MDEL = 0.4173 \text{ mg/l} \times 3.11 = \mathbf{1.3 \text{ mg/L}}$

These effluent limitations have been established for protection of aquatic life against toxic effects from exposure to formaldehyde in the discharge.

Hydrogen Peroxide

As hydrogen peroxide is a strong oxidizer, effluent concentrations are unlikely to persist for long periods. Therefore, only a maximum daily effluent limitation was calculated based on the 96-hour NOAEL value for *C. dubia* and using the procedure in USEPA's TSD for calculating water quality-based effluent limitations.

The Regional Water Board calculated the MDEL for hydrogen peroxide, using the calculations and methods described previously for deriving the effluent limitations for copper.

Assuming:

- No in-stream dilution allowance.
- Coefficient of Variation (CV) = 0.6 for the lognormal distribution of pollutant concentrations in effluent.

Effluent Concentration Allowance based on NOAEL (acute toxicity) with no dilution allowance

$$ECA_{\text{acute}} = 1.3 \text{ mg/L}$$

No chronic toxicity data, Long Term Average concentration based on acute ECA

$$LTA = 1.3 \text{ mg/l} \times 0.321 = 0.4173 \text{ mg/L}$$

(where 0.321 = acute ECA multiplier at 99% occurrence probability and 99% confidence)

Maximum Daily Effluent Limitation

$$MDEL = LTA \times 3.11$$

(where 3.11 = MDEL multiplier at 99% occurrence probability and 99% confidence)

$$MDEL = 0.08025 \text{ mg/l} \times 3.11 = \mathbf{1.3 \text{ mg/L}}$$

This effluent limitation has been established for protection of aquatic life against toxic effects from exposure to hydrogen peroxide in the discharge.

**Summary of Water Quality-based Effluent Limitations
 Discharge Point 001**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	1.96	3.93	--	--
Formaldehyde	mg/L	0.65	1.3	--	--
Hydrogen Peroxide	mg/L	--	1.3	--	--

**Summary of Water Quality-based Effluent Limitations
 Discharge Point 002**

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Not applicable. No water quality-based effluent limitations for Discharge Point 002.					

5. Whole Effluent Toxicity (WET)

The Basin Plan specifies a narrative objective for toxicity, requiring that “All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.” Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Regional Water Board. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for “experimental water” as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1992).

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

Numeric water quality criteria, or Basin Plan numeric objectives currently are not available for most of the aquaculture drugs and chemicals used by the Discharger or proposed for use at this facility. Therefore, the Regional Water Board used the narrative water quality objective for toxicity from the Basin Plan as a basis for determining “reasonable potential” for discharges of these drugs and chemicals. USEPA’s *Technical Support Document Water Quality-based Toxics Control (TSD)* specifies two toxicity measurement techniques that can be employed in effluent characterization; the first is Whole Effluent Toxicity (WET) testing, and the second is chemical-specific toxicity analyses. Whole effluent toxicity (WET) requirements protect the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative “no toxics in toxic amounts” criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and generally measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, growth, or other sub-lethal effects. WET testing is used most appropriately when the toxic constituents in an effluent are not completely known; whereas chemical-specific analysis is more appropriately used when an effluent contains only one, or very few, well-known constituents.

Due to the nature of operations and chemical treatments at this Facility, its effluent generally contains only one or two known chemicals at any given a time. Therefore, the Regional Water Board is using a chemical-specific approach to determine “reasonable potential” for discharges of aquaculture drugs and chemicals.

D. Final Effluent Limitations

Discharge Point 001

Section 402(o) of the Clean Water Act and 40 section CFR 122.44(l) require that, with some exceptions, effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Order. As described in Section IV.B.2 of this Fact Sheet, effluent limitations for pH, TSS and settleable solids are being carried over from Order No. 6-99-57, though in the case of TSS and settleable solids, the quarterly limitations are being revised to be expressed as average monthly effluent limitations. The limit for TSS was clarified to better communicate the intent in earlier permits that the TSS limit be net over influent. Removal of numeric limitations for pH, TSS and settleable solids would constitute backsliding under CWA Section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility and that backsliding is not appropriate. New effluent limitations are established in this Order for copper, formaldehyde, and hydrogen peroxide.

Discharge Point 002

As discussed previously, this Order will not establish new BPJ-based or water quality-based effluent limitations for Discharge Point 002. However, monitoring requirements are being established in this Order to assess the quality of the discharge, and this Order may be reopened to establish effluent limitations for Discharge Point 002 if new information indicates that the discharge will cause, have the reasonable potential to cause, or contribute to an in stream excursion above the water quality criteria or objective for dissolved oxygen, pH or suspended materials.

**Summary of Final Effluent Limitations
 Discharge Point 001**

Constituent	Units	Effluent Limitations				Basis
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
<i>Conventional Pollutants</i>						
pH	standard units	--	--	6.0	9.0	Previous Order
Total Suspended Solids (TSS)*	mg/L	6.0	--	--	15.0	Previous Order
<i>Priority Pollutants</i>						
Copper, Total Recoverable	µg/L	1.96	3.93	--	--	CTR, SIP
<i>Non-Conventional Pollutants</i>						
Formaldehyde	mg/L	0.65	1.3	--	--	Basin Plan
Hydrogen Peroxide	mg/L	--	1.3	--	--	Basin Plan
Settleable Solids	ml/L	0.1	--	--	--	Previous Order

*Limit is 6.0 mg/L net over levels in influent

**Summary of Final Effluent Limitations
 Discharge Point 002**

Constituent	Units	Effluent Limitations				Basis
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Not applicable. No effluent limitations for Discharge Point 002.						

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Lahontan Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR § 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water. In instances where more than one water quality objective was applicable to the receiving water due to multiple beneficial uses (for example, both WARM and COLD beneficial uses are designated), the most stringent water quality objective is applied to the receiving water.

The narrative objective for chemical constituents in the Basin Plan states that “Waters shall not contain concentrations of chemicals that adversely affect the water beneficial uses.” The receiving water has the beneficial use of municipal and domestic supply (MUN). USEPA and the State of California Department of Health Services (DHS) does not have a Maximum Containment Level (MCL) for formaldehyde, however the DHS Drinking Water Action Level is listed as 0.1 mg/L. The USEPA Integrated Risk Information System (IRIS) lists a reference dose of 1.4 mg/L as a drinking water level. The National Academy of Sciences’ Suggested No-Adverse-Response Level (SNARL) for formaldehyde is 1.0 mg/L as a drinking water health advisory level. To protect the beneficial use of municipal and domestic supply (MUN) of the receiving water, a receiving water limitation based on the DHS Drinking Water Action Level of 0.1 mg/L has been established in this Order.

B. Groundwater – Not Applicable

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this facility.

A. Influent Monitoring

The previous Order required routine facility supply water monitoring (influent monitoring) to determine the magnitude of settleable solids and TSS. As none of the effluent limitations in this Order are expressed as net limitations (where influent concentrations are subtracted from the effluent concentrations), influent monitoring requirements are being removed from this Order. However, in the event of any future violations of effluent limitations, the Regional Water Board may require influent sampling as part of any investigation to determine the cause of the violations.

B. Effluent Monitoring

Discharge Point 001

To demonstrate compliance with effluent limitations established in this Order and to assess the impact of the discharge on the beneficial uses of the receiving water, effluent monitoring for flow, conductivity, dissolved oxygen, nitrate, pH, dissolved orthophosphate, settleable solids, TSS, total nitrogen, and temperature, required in the previous Order, are being carried over to this Order. The requirement from the previous Order to collect *all* samples “during a periodic cleaning operation or during some other operational mode which increases the discharges of suspended matter,” is being carried over only for the monitoring of settleable solids and total suspended solids. This is because the monitoring of other parameters, such as the monitoring of aquaculture drugs and chemicals during their use, may not coincide with cleaning operations. In addition, the requirement to collect two grab samples (grab pairs collected not less than two hours, nor greater than four hours apart) for settleable solids and TSS are being carried over to this Order to better assess the range of solids concentrations during cleaning operations as well as to determine compliance with monthly average limitations. Other parameters previously requiring grab pair sampling will now be required to be sampled with only one grab sample in this Order, as historical data showed little variation in concentrations between the grab pair samples for these parameters. Therefore continued grab pair sampling was considered unnecessary for these parameters as the data did not provide any additional information.

As discussed in detail in Section IV.C.5 of this Fact Sheet, the Regional Water Board has determined that a chemical-specific approach to be the most appropriate measurement technique for effluent toxicity characterization at the Facility. Therefore, effluent monitoring of aquaculture chemicals is required in order to determine compliance with effluent limitations as well as determine whether discharges of aquaculture drugs and chemicals from the Facility may cause or contribute to an excursion of the Basin Plan narrative objectives for chemical constituents and toxicity. Monitoring for pH and electrical conductivity is required during the use of aquaculture chemicals that affect these parameters (pH during acetic acid and sodium bicarbonate use, and electrical conductivity during sodium bicarbonate and sodium chloride use).

The table below provides a reference of the parameters required to be monitored during the use of certain aquaculture drugs and chemicals.

Aquaculture Chemical Applied	Parameter(s) to be Monitored
Acetic Acid	pH
Aqui-S®	Isoeugenol
Chloramine-T	Chloramine-T
Copper Sulfate	Copper, Total Recoverable
Formalin	Formaldehyde
Hydrogen Peroxide	Hydrogen Peroxide
MS-222	MS-222
Oxytetracycline	Oxytetracycline
Penicillin G Potassium	Penicillin G Potassium
Potassium Permanganate	Potassium Permanganate
PVP Iodine	PVP Iodine
Sodium Bicarbonate	pH
	Electrical Conductivity
Sodium Chloride	Electrical Conductivity

Discharge Point 002

Effluent monitoring for flow, pH, dissolved oxygen, and TSS are being established in this Order to assess the impact of the discharge on the beneficial uses of the receiving water.

Priority Pollutant Monitoring

Section 1.3 of the SIP requires periodic monitoring for priority pollutants (at least once prior to the issuance and reissuance of a permit) for which criteria or objectives apply and for which no effluent limitations have been established. However, the Regional Water Board may choose to exempt low volume discharges, determined to have no significant adverse impact on water quality, from this monitoring requirement. As described in Section IV.C.3 of this Fact Sheet, the RPA of the priority pollutants did not demonstrate reasonable potential to exceed applicable water quality criteria. Based on this information, as well as priority pollutant monitoring data from other similar hatchery facilities, the Regional Water Board has determined that discharges from the Facility have no significant adverse impact on water quality for priority pollutants, except for copper when copper sulfate is used at the Facility. Therefore, priority pollutant monitoring will not be required in this Order, except for copper monitoring when copper sulfate is used at the Facility.

C. Whole Effluent Toxicity Testing Requirements – Not Applicable

D. Receiving Water Monitoring

1. Surface Water

To demonstrate compliance with receiving water limitations established in the Basin Plan and to assess the impact of the discharge to the beneficial uses of the receiving water, downstream receiving water monitoring required in the previous Order for conductivity, dissolved oxygen, pH, and temperature are being carried over to this Order. Monitoring requirements for copper and formaldehyde during their use at the facility are being established in this Order to assess impacts to the receiving water. An upstream monitoring location has been established to ensure any impacts to existing water quality can be properly assessed. In addition, visual monitoring requirements of Oak Creek from the previous Order are being carried over to this Order.

2. Sediment

Sediment sampling for aquaculture chemicals is being required to assess the impact of effluent released at Discharge Point 001 to the beneficial uses of the receiving water. Aquaculture chemicals that could potential be present in the sediment of the receiving water downstream of Discharge Point 001 are those chemicals applied in the fish rearing portion of the Facility (See Facility Description in this Fact Sheet). An aquaculture chemical (if present in the effluent) may have a tendency to precipitate or adsorb onto stream sediments. Some chemicals have the potential to be present in the effluent at Discharge Point 001 for only a few hours. Over time, however, there could be an accumulation of the chemical in the sediment. Sampling of the sediment is therefore being proposed.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements – Not Applicable

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR §§122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

B. Special Provisions

1. Reopener Provisions

Conditions that necessitate a major modification of a permit are described in 40 CFR §122.62, which include the following:

- (a) *When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision.* Therefore, if more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- (b) *When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.* The Discharger is required to report on usage of drugs and chemicals for which discharge is authorized by this Order. New information on usage or toxicity of drugs or chemicals used at the Facility may justify reopening and modifying this order.
- (c) *When facility alterations or changes in operations justify new conditions that are different from the existing permit.* The discharge of a new drug or chemical that is found to have reasonable potential to cause, or contribute to an in-stream excursion above any chemical-specific water quality criteria, narrative water quality objective for chemical constituents from the Basin Plan, or narrative water quality objective for toxicity from the Basin Plan, would be considered a change in facility operations that requires reopening this Order to establish new effluent limitations.

2. Special Studies and Additional Monitoring Requirements

Prior to using any new chemical or aquaculture drug at the Facility, the Discharger is required to submit to the Regional Water Board reporting and toxicity testing of the new chemical or aquaculture drug as specified in Section VI.C.2 of this Order. These reporting and toxicity testing requirements are needed for the Regional Water Board to determine if the discharge of a new drug or chemical by the Facility has reasonable potential to cause, or contribute to an in-stream excursion above any chemical-specific water quality criteria, narrative water quality objective for chemical constituents from the Basin Plan, or narrative water quality objective for toxicity from the Basin Plan.

3. Best Management Practices and Pollution Prevention

As authorized in 40 CFR §122.44(k), BMP requirements are being established in this Order due to the Facility's demonstrated potential to exceed TSS limitations and due to the potential discharges of aquaculture drugs and chemicals. The BMP requirements established in this Order are consistent with the BMPs required of other similar CAAP operations in the Region.

The Discharger is required to develop and implement the BMP plan to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State. The Discharger shall develop and implement a BMP plan consistent with the following objectives:

1. Solids Management
2. Operations and Maintenance
3. Recordkeeping
4. Training

The Discharger shall ensure that its operations staff are familiar with the BMP Plan and have been adequately trained in the specific procedures it requires. The Discharger must make the BMP plan available to the Regional Water Board upon request, and submit certification that the BMP plan has been developed.

4. Compliance Schedules – Not Applicable

5. Construction, Operation, and Maintenance Specifications

Solid waste disposal provisions in this Order are based on the requirements of CCR Title 27 and prevention of unauthorized discharge of solid wastes into waters of the United States or waters of the State. Other construction, operation, and maintenance specifications are to prevent other unauthorized discharges to waters of the United States or waters of the State.

The reasonable potential analysis (RPA) for discharges of Chloramine-T from the Facility were based on a maximum treatment of two raceways per day, as specified by the Discharger. As a result, a provision in this Order is included which prohibits the treatment of more than two raceways (per day) with Chloramine-T.

6. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

7. Other Special Provisions – Not Applicable

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Lahontan Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Mt. Whitney Fish Hatchery. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through publication in local newspapers.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on May 11, 2006.

C. Public Hearing

The Regional Water Board will hold a public hearing on the proposed WDRs during its regular Board meeting on the following date and time and at the following location:

Date: June 15, 2005
Time: 8:30 am
Location: The Village @ Mammoth Lakes
1111 Forest Trail
Mammoth Lakes, CA, 92546

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <http://www.waterboards.ca.gov/lahontan/> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address below at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (760) 241-6583.

California Regional Water Quality Control Board
Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Mary Dellavalle at (760) 241-3523.

Attachment G – Basin Plan Water Quality Objective Tables

**Table 3-1
 ONE-HOUR AVERAGE CONCENTRATION FOR AMMONIA^{1,2}**

Waters Designated as COLD, COLD with SPWN, COLD with MIGR (Salmonids or other sensitive coldwater species present)

pH	Temperature, °C						
	0	5	10	15	20	25	30
Un-ionized Ammonia (mg/liter NH ₃)							
6.50	0.0091	0.0129	0.0182	0.026	0.036	0.036	0.036
6.75	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
7.00	0.023	0.033	0.046	0.066	0.093	0.093	0.093
7.25	0.034	0.048	0.068	0.095	0.135	0.135	0.135
7.50	0.045	0.064	0.091	0.128	0.181	0.181	0.181
7.75	0.056	0.080	0.113	0.159	0.22	0.22	0.22
8.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.25	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.50	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.75	0.065	0.092	0.130	0.184	0.26	0.26	0.26
9.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
Total Ammonia (mg/liter NH ₃)							
6.50	35	33	31	30	29	20	14.3
6.75	32	30	28	27	27	18.6	13.2
7.00	28	28	25	24	23	16.4	11.6
7.25	23	22	20	19.7	19.2	13.4	9.5
7.50	17.4	16.3	15.5	14.9	14.6	10.2	7.3
7.75	12.2	11.4	10.9	10.5	10.3	7.2	5.2
8.00	8.0	7.5	7.1	6.9	6.8	4.8	3.5
8.25	4.5	4.2	4.1	4.0	3.9	2.8	2.1
8.50	2.6	2.4	2.3	2.3	2.3	1.71	1.28
8.75	1.47	1.40	1.37	1.38	1.42	1.07	0.83
9.00	0.86	0.83	0.83	0.86	0.91	0.72	0.58

1 To convert these values to mg/liter N, multiply by 0.822

2 Source: U. S. Environmental Protection Agency. 1986. Quality criteria for water, 1986. EPA 440/5-86-001.

Table 3-3
FOUR DAY AVERAGE CONCENTRATION FOR AMMONIA^{1,2}

Waters Designated as COLD, COLD with SPWN, COLD with MIGR (Salmonids or other sensitive coldwater species present)

	Temperature, °C						
pH	0	5	10	15	20	25	30
Un-ionized Ammonia (mg/liter NH ₃)							
6.50	0.0008	0.0011	0.0016	0.0022	0.0022	0.0022	0.0022
6.75	0.0014	0.0020	0.0028	0.0039	0.0039	0.0039	0.0039
7.00	0.0025	0.0035	0.0049	0.0070	0.0070	0.0070	0.0070
7.25	0.0044	0.0062	0.0088	0.0124	0.0124	0.0124	0.0124
7.50	0.0078	0.0111	0.0156	0.022	0.022	0.022	0.022
7.75	0.0129	0.0182	0.026	0.036	0.036	0.036	0.036
8.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.25	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.50	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.75	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
9.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
Total Ammonia (mg/liter NH ₃)							
6.50	3.0	2.8	2.7	2.5	1.76	1.23	0.87
6.75	3.0	2.8	2.7	2.6	1.76	1.23	0.87
7.00	3.0	2.8	2.7	2.6	1.76	1.23	0.87
7.25	3.0	2.8	2.7	2.6	1.77	1.24	0.88
7.50	3.0	2.8	2.7	2.6	1.78	1.25	0.89
7.75	2.8	2.6	2.5	2.4	1.66	1.17	0.84
8.00	1.82	1.70	1.62	1.57	1.10	0.78	0.56
8.25	1.03	0.97	0.93	0.90	0.64	0.46	0.33
8.50	0.58	0.55	0.53	0.53	0.38	0.28	0.21
8.75	0.34	0.32	0.31	0.31	0.23	0.173	0.135
9.00	0.195	0.189	0.189	0.195	0.148	0.116	0.094

1 To convert these values to mg/liter N, multiply by 0.822.

2 Source: U. S. Environmental Protection Agency. 1992. Revised tables for determining average freshwater ammonia concentrations. USEPA Office of Water Memorandum, July 30, 1992.

**Table 3-6
 WATER QUALITY CRITERIA FOR
 AMBIENT DISSOLVED OXYGEN CONCENTRATION^{1,2}**

	Beneficial Use Class			
	COLD & SPWN ³	COLD	WARM & SPWN ³	WARM
30 Day Mean	NA ⁴	6.5	NA	5.5
7 Day Mean	9.5 (6.5)	NA	6.0	NA
7 Day Mean Minimum	NA	5.0	NA	4.0
1 Day Minimum ^{5,6}	8.0 (5.0)	4.0	5.0	3.0

- ¹ From: USEPA. 1986. Ambient water quality criteria for dissolved oxygen. Values are in mg/L.
- ² These are water column concentrations recommended to achieve the required intergravel dissolved oxygen concentrations shown in parentheses. For species that have early life stages exposed directly to the water column (SPWN), the figures in parentheses apply.
- ³ Includes all embryonic and larval stages and all juvenile forms to 30-days following hatching (SPWN).
- ⁴ NA (Not Applicable).
- ⁵ For highly manipulatable discharges, further restrictions apply.
- ⁶ All minima should be considered as instantaneous concentrations to be achieved at all times.

Where natural conditions alone create dissolved oxygen concentrations less than 110 percent of the applicable criteria means or minima or both, the minimum acceptable concentration is 90 percent of the natural concentration. (page 35: USEPA. 1986. Ambient Water Quality Criteria for Dissolved Oxygen.)

ATTACHMENT I – PROJECTED AQUACULTURE DRUG AND CHEMICAL USE

Drug or Chemical	Purpose of Application	Expected Method(s) of Application or Treatment
Acetic acid.	Control of external parasites.	(1) <i>Flush</i> : 1.5 to 2.2 gallons of glacial acetic acid added as a bolus to top of raceway. Gives a treatment of level of approximately 335 to 500 ppm acetic acid. (2) <i>Bath</i> : used at a rate of 500 to 2,000 ppm for 1 to 10 minutes.
Amoxicillin trihydrate.	Control and prevention of external and systemic bacteria infections.	<i>Injected intraperitoneally</i> : into broodstock twice a week, prior to spawning, at a rate of 40 milligrams amoxicillin per kilogram of fish.
Carbon Dioxide.	Anesthetic.	<i>Bath</i> : bubbled in water. Usually used in small volumes of water.
Chloramine-T.	Control of external gill bacteria.	(1) <i>Flush</i> ^a : used at a concentration of 10 ppm for one hour. (2) <i>Bath</i> : used at a concentration of 10 ppm for one hour.
Copper sulfate pentahydrate.	Control of external parasites and bacteria.	<i>Flush</i> : used at a rate of up to 0.5 pounds of copper sulfate pentahydrate per cfs of raceway flow.
Erythromycin.	Control and prevention of external and systemic bacteria infections.	(1) <i>Injected intraperitoneally</i> : at a rate of 40 milligrams erythromycin per kilogram of fish, at 30 day intervals. (2) <i>Feed</i> : used in medicated feed or fish pills at a rate of 100 milligrams or less of erythromycin per kilogram of fish.
Florfenicol (Nuflor®).	Control and prevention of external and systemic bacteria infections.	<i>Feed</i> : mixed with vegetable oil and sprayed onto fish pills. Fish pills are fed to fish as feed at a rate of 15 milligrams of florfenicol per kilogram of fish per day, split into morning and afternoon feedings.
Formalin (37% formaldehyde solution).	(1) Control of external parasites. (2) Fungus control on fish eggs.	(1) <i>Flush</i> : Low dose - used at a concentration of 25 ppm of formalin for 8 hours. High dose - used at a concentration of 167 to 250 ppm formalin for one hour. (2) <i>Bath</i> : used at a concentration of 2,000 ppm formalin, or less, for 15 minutes.
Hydrogen peroxide.	Control of external parasites.	<i>Flush</i> : used at a rate of 100 ppm, or less, for 45 minutes to 1 hour.
Isoeugenol (Aqui-S®)	Anesthetic.	<i>Bath</i> : (a) 5 to 10 ppm for sedation. (b) 17 to 25 ppm for “handleable” fish in approximately 3 to 5 minutes and full anesthesia in approximately 10 minutes. (c) 34 ppm for full anesthesia in approximately 5 minutes.
MS-222 / tricaine methanesulfonate (Finquel®, Tricaine-S®).	Anesthetic.	<i>Bath</i> : used at a rate of 50 to 250 mg/L, usually in a small volume of water.
Oxytetracycline HCl (Terramycin®).	Control and prevention of external and systemic bacteria infections.	(1) <i>Bath</i> : used in tanks for six to eight hours at a concentration of 100 ppm or less. (2) <i>Feed</i> : fed at a rate of 3.75 grams of oxytetracycline per 100 pounds of fish per day.
Penicillin G potassium.	Control and prevention of external and systemic bacteria infections.	<i>Bath</i> : used in tanks for six to eight hours at a concentration of 150 IU/ml (500,000,000 IU/311.8 gm. Packet).

^a This Order prohibits Chloramine-T treatments in more than 2 raceways per day.

Drug or Chemical	Purpose of Application	Expected Method(s) of Application or Treatment
Potassium permanganate (Cairox™).	Control of external parasites and bacteria.	(1) <i>Flush</i> : used at a rate of 2 ounces per cfs of raceway flow, poured in all at once, for a total of 3 treatments, spaced 10 to 15 minutes apart (2.32 ppm for a 45 minute treatment, 3.48 ppm for a 30 minute treatment). (2) <i>Bath</i> : used at a rate of 2 ppm, or less, for one hour.
PVP Iodine	Disinfect and control diseases on fish eggs.	<i>Bath</i> : used at a concentration of 100 mg/L for 10 to 30 minutes.
Sodium bicarbonate.	Anesthetic.	<i>Bath</i> : used at a rate of 142 to 642 mg/L, usually in a small volume of water.
Sodium chloride (salt).	Fish cleansing, disease control, and stress reduction.	<i>Flush</i> : used at a rate of 150 to 700 pounds of salt per cfs of raceway flow.
Sulfadimethoxine-orometoprim (Romet-30®).	Control and prevention of external and systemic bacteria infections.	<i>Feed</i> : used at a rate of 50 milligrams of drug per kilogram of fish per day.

CALIFORNIA DEPARTMENT OF FISH AND GAME
MT. WHITNEY FISH HATCHERY
ORDER NO. R6V-2006-0029
NPDES NO. CA0102784
WDID NO. 6B140800004

ATTACHMENT J – DRUG AND CHEMICAL USAGE REPORT TABLE

Quarterly Drug and Chemical Use Report

Facility Name:
 Quarter/Year:

Name of Drug or Chemical, and Active Ingredient	Date(s) of Application	Location and Purpose of Application	Method of Application or Treatment	Duration of Treatment	Static or Flush Treatment	Total Amount Applied	Flow in Treatment Unit (cfs)	Total Facility Flow (cfs)	Method of Disposal for Used Drug or Chemical
EXAMPLE: Terramycin, active ingredient oxytetracycline	4/15/05 to 4/25/05	Raceways A, B, C. Treatment for pseudomonas disease.	As additive through feed.	10 days	Not Applicable	5000 pounds of feed total @ 2.5 g/lb formulation (grams of oxytetracycline/ pound of feed) = 12,500 grams oxytetracycline	4 cfs	25 cfs	Minimal amount of uneaten feed discharged via Discharge Point 001.
EXAMPLE: Cairox, active ingredient Potassium permanganate	8/21/05	Raceways B, D. Treatment for bacterial gill disease.	Added directly to water in raceways.	1 hour	Flush	3 grams per raceway = 3 x 2 = 6 grams total	4 cfs	22 cfs	Discharged via Discharge Point 001.
EXAMPLE: Salt, active ingredient sodium chloride	9/1/05 to 9/4/05	Raceways A, B, C, D. osmoregulatory aid for the relief of stress and prevention of shock	Added directly to water in raceways.	3 days	Flush	200 pounds per raceway per day = 200 x 4 x 3 = 2400 pounds total	5 cfs	28 cfs	Discharged via Discharge Point 001.

Quarterly Drug and Chemical Use Report

Facility Name:
 Quarter/Year:

Name of Drug or Chemical, and Active Ingredient	Date(s) of Application	Location and Purpose of Application	Method of Application or Treatment	Duration of Treatment	Static or Flush Treatment	Total Amount Applied	Flow in Treatment Unit (cfs)	Total Facility Flow (cfs)	Method of Disposal for Used Drug or Chemical

CALIFORNIA DEPARTMENT OF FISH AND GAME
MT. WHITNEY FISH HATCHERY
ORDER NO. R6V-2006-0029
NPDES NO. CA0102784
WDID NO. 6B140800004

ATTACHMENT K – SELF-MONITORING REPORT (SMR) FORMS

Date _____

California Regional Water Quality Control Board
Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392

Facility Name: _____

Address: _____

Contact Person: _____

Job Title: _____

Phone: _____

Email: _____

WDR/NPDES Order Number: _____

WDID Number: _____

Type of Report (circle one): **Monthly** **Quarterly** **Semi-Annual** **Annual** **Other**

Month(s) (circle applicable month(s)*: **JAN** **FEB** **MAR** **APR** **MAY** **JUN**

JUL **AUG** **SEP** **OCT** **NOV** **DEC**

*annual Reports (circle the first month of the reporting period)

Year: _____

Violation(s)? (Please check one): _____ **NO** _____ **YES***

***If YES is marked complete items A through G below
(Attach additional information as necessary)**

a) Brief Description of Violation: _____

**b) Section(s) of WDRs/NPDES
Permit Violated:** _____

c) Reported Value(s) or Volume: _____

**d) WDRs/NPDES
Limit/Condition:** _____

**e) Date(s) and Duration of
Violation(s):** _____

f) Explanation of Cause(s): _____

g) Corrective Action(s)
(Specify actions taken and a schedule
for actions to be taken)

MONITORING LOCATION:

MONTH:

YEAR:

PARAMETER:					
SAMPLING FREQUENCY:					
SAMPLE TYPE:					
UNITS:					
LIMITS	MONTHLY AVG.				
	DAILY MAX.				
	MINIMUM				
	MAXIMUM				
DATE OF SAMPLE:	1				
	2				
	3				
	4				
	5				
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DAILY MAX.					
MINIMUM					
MAXIMUM					

MONITORING LOCATION:

QUARTER AND/OR YEAR:

PARAMETER:						
SAMPLING FREQUENCY:						
SAMPLE TYPE:						
UNITS:						
LIMITS	MONTHLY AVG.					
	DAILY MAX.					
	MINIMUM					
	MAXIMUM					
Month and Date of Sampling						
January						
February						
March						
April						
May						
June						
July						
August						
September						
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December						
MONTHLY AVG.						
DAILY MAX.						
MINIMUM						
MAXIMUM						

RECEIVING WATER MONITORING: VISUAL CONDITIONS

MONITORING LOCATION: _____ **MONTH OR QUARTER:** _____ **YEAR:** _____

1. Is there the presence of floating or suspended matter present?	Yes	No
2. Is there discoloration present?	Yes	No
3. Is there visible film, sheen or coating present?	Yes	No
4. Is there bottom deposits?	Yes	No
5. Is there potential nuisance conditions present?	Yes	No
6. Is there aquatic life present?	Yes	No
7. Is there algae, fungi, slimes, or other aquatic vegetation present?	Yes	No
8. Is there sample odor?	Yes	No

Any additional comments.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, 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.

If you have any questions or require additional information, please contact _____ at the number provided above.

Sincerely,

Signature: _____

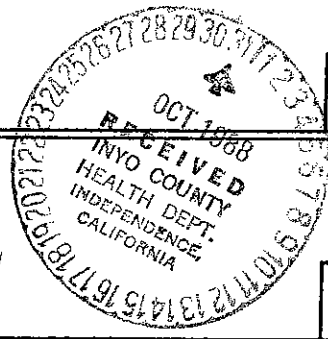
Name: _____

Title: _____

UST Removal & Remediation Documentation

OFFICE MEMO
STD. 100 (REV. 11-75)

82



DATE
10/27/88

TO:
Stacie Badgett
County of Inyo

ROOM NUMBER

FROM:
Mike Golden
Office of the State Architect

PHONE NUMBER
322-8994

SUBJECT:
Mt. Whitney Fish Hatchery
Attached is a letter (copy)
from Staal, Gardner & Dunne, Inc.

Staal, Gardner & Dunne, Inc.

Consulting Engineers and Geologists

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California State Department
of General Services
Office of the State Architect
Post Office Box 1079
Sacramento, California 95814

October 19, 1988

Reference: 88136

Attention: Mr. Michael Golden
Project Manager

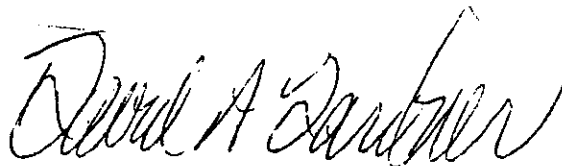
Subject: Technical Work Plan, Mt. Whitney Fish Hatchery Underground Fuel
Tanks.

Dear Mr. Golden:

Enclosed is the technical work plan for the preliminary assessment of the underground storage tank at the Mt. Whitney Fish Hatchery. Staal, Gardner & Dunne, Inc. is prepared to implement the technical work plan upon approval from your office. If you have any questions or require clarification, please contact me or Mr. Rod Farrell of our staff.

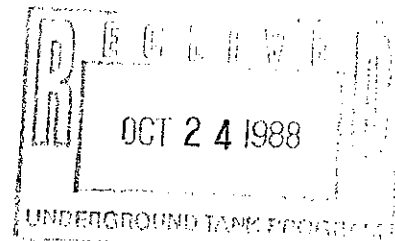
Sincerely,

STAAL, GARDNER & DUNNE, INC.



David A. Gardner
Vice President

DG:RF:ts/44T



Staal, Gardner & Dunne, Inc.

Consulting Engineers and Geologists

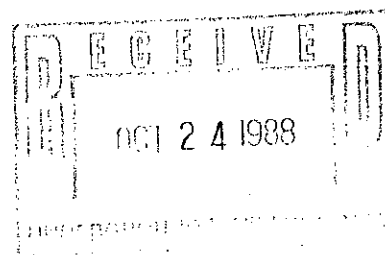
SGD

TECHNICAL WORK PLAN UNDERGROUND STORAGE TANK PRELIMINARY ASSESSMENT MT. WHITNEY FISH HATCHERY

BACKGROUND

One June 3, 1988 two underground storage tanks (UST) were removed from the Mt. Whitney Fish Hatchery by M. P. Vacuum Truck Service (Bakersfield, California). Both of the UST were used to store regular leaded gasoline and were of 1,000- and 550-gallon capacity. Two soil samples were collected from the floor of each UST excavation by M. P. Vacuum Service for chemical analyses for total volatile hydrocarbons (TVH), using the Department of Health Services (DOHS) "Headspace Technique" from the Leaking Underground Fuel Tank (LUFT) Manual, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using the same technique. According to Ms. Stacie Badgett, of the Inyo County Environmental Health Department (EHD), the soils contamination was limited and there was no observable evidence of extensive soils contamination. Ms. Badgett was on-site during the tank removal. Mr. Bob Grider, of the Mt. Whitney Fish Hatchery, concurred with Ms. Badgett on the extent of fuel contamination and was of the opinion that the soils contamination was related to overfilling the UST.

The results of the chemical analyses indicates that soils contamination does exist in the 1,000-gallon UST excavation. Results of the analyses, conducted by SMC Laboratory (Bakersfield, California) indicate that TVH levels are above 7,000 part per million (ppm) in one sample and BTEX levels exceed DOHS (Sanitary Engineering Branch) Action Levels for Drinking Water. Below is a table summarizing the results of the chemical analyses. Soils present in the 550-gallon UST excavation appears to be not contaminated in excess of regulatory limits.



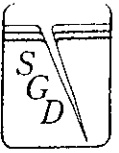


TABLE 1
RESULTS OF CHEMICAL ANALYSES
UNDERGROUND STORAGE TANKS, MT. WHITNEY FISH HATCHERY

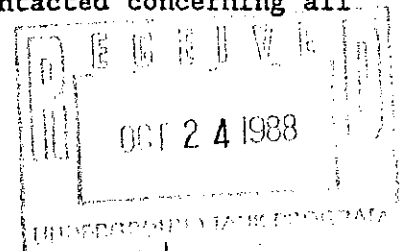
Sample No.	Laboratory Sample No.	Location of Sample	TVH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)
1	1122	Below 1,000 UST	6,700	9.9	140	10	461
2	1123	Below 1,000 UST	7,400	32	19	36	1,210
3	1124	Below 550 UST	24	ND	ND	ND	ND
4	1125	Below 550 UST	1.8	ND	ND	ND	ND
DOHS Action Level	---	---	100*	0.0007	0.10	0.68	0.62

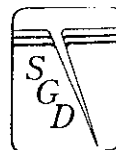
* LUFT Manual guideline for moderate leaching potential

The UST excavations were backfilled after soil sampling was conducted. As a result of the quantitative evidence that soils contamination does exist, Staal, Gardner & Dunne, Inc. (SGD) proposed to conduct a preliminary assessment of the UST excavation to determine if the contamination had migrated laterally and to determine the vertical extent of the contamination. If the contamination is limited, as is expected, the contaminated soils will be removed for aeration.

TASK 1 - QUALITY ASSURANCE/TECHNICAL WORK PLAN PREPARATION/MOBILIZATION

Prior to initiating field work at the site, a technical work plan will be prepared which outlines the procedures to be employed during the preliminary assessment and the equipment requirements for conducting the preliminary assessment. Regulatory agencies will be contacted concerning all aspects of the project.



**TASK 2 - FIELD ASSESSMENT**

SGD will conduct a soil vapor survey to determine the lateral extent of the soils contamination in the 1,000-gallon UST excavation. The soil vapor survey will be conducted with a photoionization detector (PID) manufactured by Photovac International (TIP-1). The TIP-1 is equipped with a 10.6 eV ultraviolet light source and an internal sampling pump which draws vapors at a flow rate of two liters per minute.

The soil vapor survey will be conducted by selecting sampling locations from a grid pattern placed over the UST excavation. A hollow 5/8-inch outside diameter stainless steel soil vapor probe will be driven into the subsurface with a slotted section on the lower end. The probe will be driven to the desired depth with a slide hammer. The hollow probe will be connected to a peristaltic pump and vacuum gage using stainless steel attachments and Teflon tubing. After purging the soil vapor sampling point for three to five minutes, the TIP-1 will be connected to the hollow stainless steel probe and the volatile organic vapors measured in parts per million and recorded.

Once the volatile organic vapors are measured from selected sampling locations, the lateral extent of the contamination can be determined. In order to determine the vertical extent of the contamination, a test pit will be excavated through the 1,000-gallon UST excavation.

A backhoe will be employed to dig the test pit and to remove contaminated soils from the excavation. PID measurements will be taken from the removed soils as they are brought to the surface. The test pit will be extended vertically until the PID readings are below background or the excavation is 15 feet in depth. The results of the soil vapor survey and the test pit will determine whether soils should be removed for aeration. If the contamination is greater than 15 feet deep, or the lateral migration of the soil is greater than 15 feet in any direction, the soils will not be aerated until the contamination is assessed further.

If the lateral migration of contamination is less than 15 feet in any direction and the vertical migration is less than 15 feet in depth the soils will be removed for aeration. The removed soils will be monitored with a PID

OCT 24 1988



until background levels are attained. Once the soils are removed they will be spread on a plastic liner and bermed (18 inches high) in an area selected for aeration of the soils. Once all contaminated soils have been removed, confirmatory soil samples will be collected from the UST excavation walls and floor.

The undisturbed soil samples will be collected by driving a 3-inch long, 2.5-inch inside diameter stainless steel sampling sleeve into the undisturbed soils. The sleeve will be removed, Teflon sheets placed over each end, capped, taped and labeled. Chain-of-custody documentation will accompany the sample from collection to analysis.

All sampling equipment used in the soil vapor survey and soil sampling will be properly decontaminated before sampling and between samples. All sampling equipment coming into contact with contaminated environmental media will be washed in trisodium phosphate (TSP) detergent, rinsed in tap water, followed by two distilled deionized water rinses.

TASK 3 - ANALYTICAL PROGRAM

The soil samples collected from the UST excavation walls and floor will be analyzed at a DOHS certified laboratory for hazardous materials testing. The samples will be analyzed for TVH and BTEX using EPA method 8240 modified (GC-MS) and total lead using EPA method 7240. Digestion for the total lead samples will be done via EPA method 3050. Five samples will be collected from the UST excavation and analyzed for TPH, BTEX, and total lead. An additional sample will be collected and analyzed for total lead and will serve as an indicator of lead background levels. Quality Assurance/Quality Control analyses will be done by the laboratory to validate reported results.

TASK 4 - AERATION SITE PREPARATION

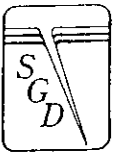
If aeration of contaminated soils is required an aeration area will be established on-site. The aeration area will be covered with plastic liner and bermed to prevent run-off or infiltration of contamination. The surface area required for aeration will depend on the volume of soil removed from the

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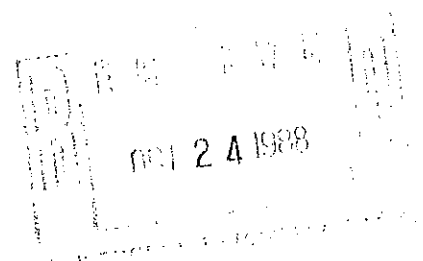


excavation. The plastic liner and sand for the aeration area will be provided by the Mt. Whitney Fish Hatchery.

TASK 5 - REPORT PREPARATION

Upon completion of the preliminary assessment, one draft and four final copies of a report will be prepared and submitted to the OSA and the lead regulatory agency summarizing the results of our findings and procedures employed in the assessment. Conclusions and recommendations will be made concerning any additional field assessment which may be required and/or additional remediation.

RF:GH:ts/44T





ROBERT L. KENNEDY, R.S.
Director, Environmental Health



(619) 878-2411

COUNTY OF INYO
DEPARTMENT OF HEALTH SERVICES
P. O. DRAWER H
INDEPENDENCE, CALIFORNIA 93526

August 3, 1988

Mr. Jay Conde
Office of the State Architect
Special Programs Section
P.O. Box 1079
Sacramento, California 95812

Reference: Mt. Whitney Fish Hatchery, Inyo County

Dear Mr. Conde:

On June 2, 1988 I was present at Mt. Whitney Fish Hatchery for the abandonment of two underground storage tanks. After the tanks were removed, two samples were obtained at each site. The first samples were taken directly below the tank (0-1ft) at the fill pipe location; the second samples were taken approximately 2 ft. below the first sample locations. As there did not appear to be any evidence of soil contamination, the consultant suggested they backfill with original material. Our department does not have a policy against that practice so I gave my approval. However, I did reiterate to the consultant that if contamination was found to be present based on soil sample results, the backfill would have to be removed, the sites excavated to a greater extent, then more samples obtained.

The results do warrant additional clean-up and our office has advised Mt. Whitney Fish Hatchery of this. Once arrangements have been made with the consultant, the fish hatchery will let us know so that we may be present during the cleanup.

If I can provide you with any additional information, please do not hesitate to call.

Sincerely,

Stacie Badgett

Stacie Badgett
Assistant Sanitation

SB/sm



Staal, Gardner & Dunne, Inc.

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Consulting Engineers and Geologists

UNDERGROUND STORAGE TANK SITE ASSESSMENT

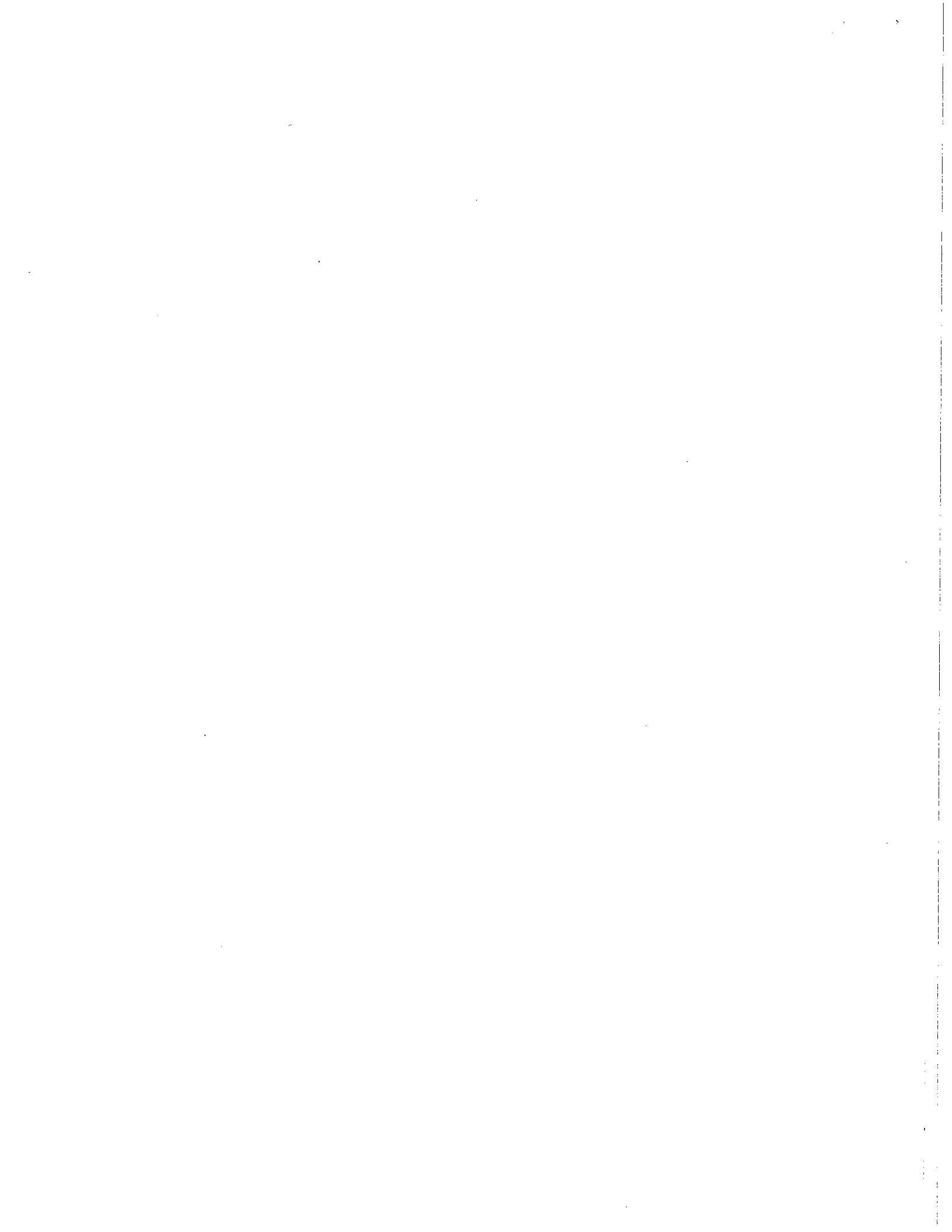
MT. WHITNEY FISH HATCHERY

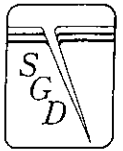
INDEPENDENCE, INYO COUNTY

FOR

DEPARTMENT OF GENERAL SERVICES
OFFICE OF THE STATE ARCHITECT

DECEMBER 1988





INTRODUCTION

GENERAL STATEMENT

Presented in this report are the findings and methods of investigation of the assessment of gasoline contaminated soils at the Mt. Whitney Fish Hatchery in Independence, California. The gasoline contamination is the result of an inadvertent release of gasoline from a 1,000-gallon underground storage tank (UST). The fish hatchery is located 3 miles north of Independence, California, and 1.5 miles east of Highway 395. A site plan is illustrated in Figure 1 - General Site Plan, and shows the location of the UST at the facility.

PURPOSE AND SCOPE

The purpose of this assessment was to determine the lateral and vertical extent of the soils contamination from the removed 1,000-gallon UST at the Mt. Whitney Fish Hatchery. In order to assess the migration of the gasoline contamination in the subsurface, the following tasks were conducted:

- 1) Review of the tank removal data and all other relevant information concerning the Mt. Whitney Fish Hatchery USTs.
- 2) Conduct a soil vapor survey to assess the lateral extent of the gasoline contamination using a photoionization detector (PID).
- 3) Excavate test pits through the removed UST position in the subsurface to determine the vertical extent of the gasoline contamination.
- 4) Remove as much contaminated soils as possible from the subsurface for temporary storage, prior to remedial action, during the excavations of the test pits (i.e., ideally all contaminated soils would be removed).
- 5) Collect soil samples from the floor and walls of the test pit excavations after contaminated soils have been removed to confirm its successful removal from the subsurface.
- 6) Secure the excavation by fencing it with temporary fencing and posting it with "Keep Out" signs.

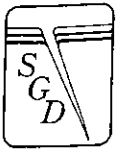
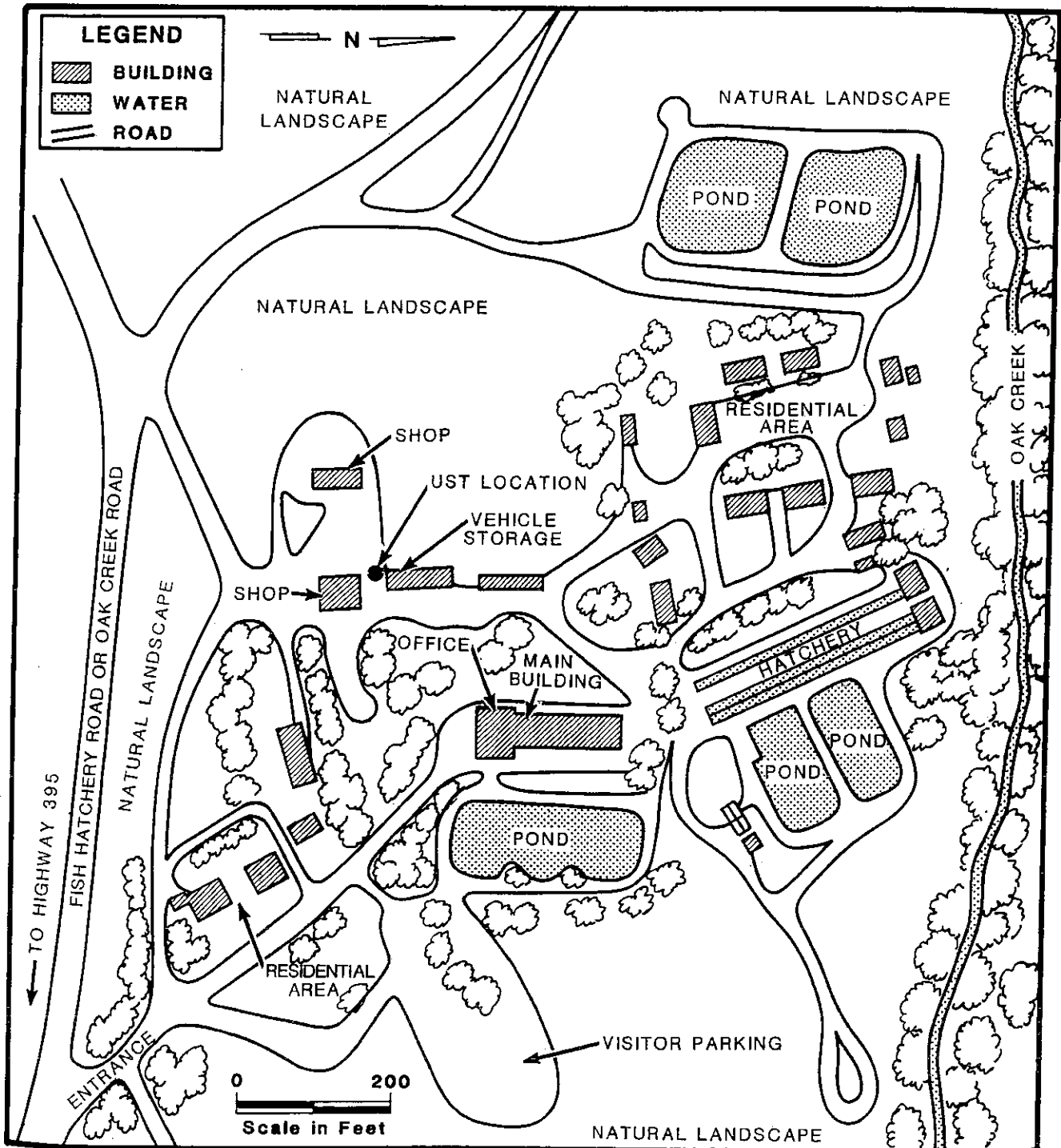
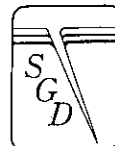


FIGURE 1
GENERAL SITE PLAN





- 7) Analyze the soils samples in a Department of Health Services (DOHS) certified laboratory for fuel fingerprint, total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and total xylenes (BTEX), and total lead.
- 8) Prepare a report documenting Staal, Gardner & Dunne, Inc.'s (SGD's) methods of investigation and findings for submittal to the Office of the State Architect (OSA) and the Inyo County Environmental Health Department (EHD).

BACKGROUND

On June 3, 1988, two USTs were removed from the Mt. Whitney Fish Hatchery by M. P. Vacuum Truck Service (Bakersfield, California). Both of the USTs were used to store regular leaded gasoline and were of 1,000- and 550-gallon capacity. Two soil samples were collected from the floor of each UST excavation by M. P. Vacuum Service for chemical analyses for total volatile hydrocarbons (TVH), using the DOHS "Headspace Technique" from the Leaking Underground Fuel Tank (LUFT) Manual, and for BTEX using the same technique. According to Ms. Stacie Badgett of EHD, the soil contamination was limited and there was no observable evidence of extensive soils contamination. Ms. Badgett was on-site during the tank removal. Mr. Bob Grider of the Mt. Whitney Fish Hatchery concurred with Ms. Badgett on the extent of fuel contamination and was of the opinion that the soils contamination was related to overfilling the UST.

The results of the chemical analyses indicates that soils contamination does exist in the 1,000-gallon UST excavation. Results of the analyses conducted by SMC Laboratory (Bakersfield, California) indicate that TVH levels are above 7,000 parts per million (ppm) in one sample and BTEX levels exceed DOHS (Sanitary Engineering Branch) Action Levels for Drinking Water. Below is a table summarizing the results of the chemical analyses. Soils present in the 550-gallon UST excavation appears to be not contaminated in excess of regulatory limits.



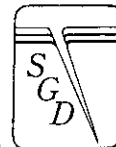
TABLE 1
RESULTS OF CHEMICAL ANALYSES
UNDERGROUND STORAGE TANKS, MT. WHITNEY FISH HATCHERY

Sample No.	Laboratory Sample No.	Location of Sample	TVH (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)
1	1122	Below 1,000 UST	6,700	9.9	140	10	461
2	1123	Below 1,000 UST	7,400	32	19	36	1,210
3	1124	Below 550 UST	24	ND	ND	ND	ND
4	1125	Below 550 UST	1.8	ND	ND	ND	ND
DOHS Action Level	---	---	100*	0.0007	0.10	0.68	0.62

* LUFT Manual guideline for moderate leaching potential

The UST excavations were backfilled after soils sampling was conducted. As a result of the quantitative evidence that soils contamination does exist, SGD conducted a preliminary assessment of the UST excavation to determine if the contamination had migrated laterally or vertically.

The preliminary assessment was conducted on November 22, 1988. The preliminary assessment included a soil vapor survey and test pit excavations to 12 feet below ground surface (bgs). The results of the preliminary assessment demonstrated that the lateral extent of the contamination was limited to 10 linear feet from the fill port area in the east-west direction, but extended vertically beyond 12 feet bgs, the vertical limit of the backhoe employed during the preliminary assessment. To further assess the vertical migration of the soils contamination, a larger excavator was employed to excavate beyond 12 feet bgs. On December 9, 1988, the vertical extent of the contamination was determined to be greater than 24 feet bgs using the larger excavator. All soils removed from the subsurface were monitored with a PID and segregated into



contaminated soils, amounting to approximately 10 to 15 cubic yards upon completion of the excavations.

METHODS OF INVESTIGATION

Soil Vapor Survey. The methods of investigation for the preliminary assessment of the UST at the Mt. Whitney Fish Hatchery is documented in a report dated December 16, 1988, to OSA entitled "Preliminary Assessment of Underground Storage Tank, Mt. Whitney Fish Hatchery." Refer to this report for the methods of investigation for the Soil Vapor Survey, and refer to Figure 2 - Underground Storage Tank Plot Plan, for sampling locations.

Test Pit and Lateral Excavations. The methods of investigation for the preliminary assessment of the UST at the Mt. Whitney Fish Hatchery is documented in a report dated December 16, 1988 to OSA entitled "Preliminary Assessment of Underground Storage Tank, Mt. Whitney Fish Hatchery." Refer to report for methods of investigation for the test pit and lateral excavations, and refer to Figure 3 - Soil Sampling Locations, for sampling locations.

Vertical Excavation and Contaminated Soils Removal. On December 9, 1988, a large excavator (trackhoe) was employed to remove contaminated soils from the subsurface of the 1,000-gallon UST and to determine the lateral extent of the gasoline contamination. The soils were monitored during soils removal using a PID (TIP-1 manufactured by Photovac International and equipped with a 10.6 eV ultraviolet source.)

As soils were removed by the trackhoe, a sample was collected from each bucket for monitoring. A 3-inch long, 2.5-inch outside diameter, stainless steel sampling sleeve with air-tight plastic caps, one with a hole cut into it, was used to collect and monitor the soils. The sampling sleeve was filled half-full of soils from each bucket of earth materials removed from the subsurface, the ends capped, and the sleeve shaken to liberate organic soil vapors into the void space of the sleeve. The PID probe was inserted into the opening in the plastic cap and the volatile organic vapors measured in ppm on the digital readout of the instrument. The PID measurement was recorded once it stabilized.

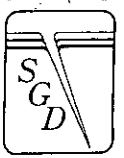
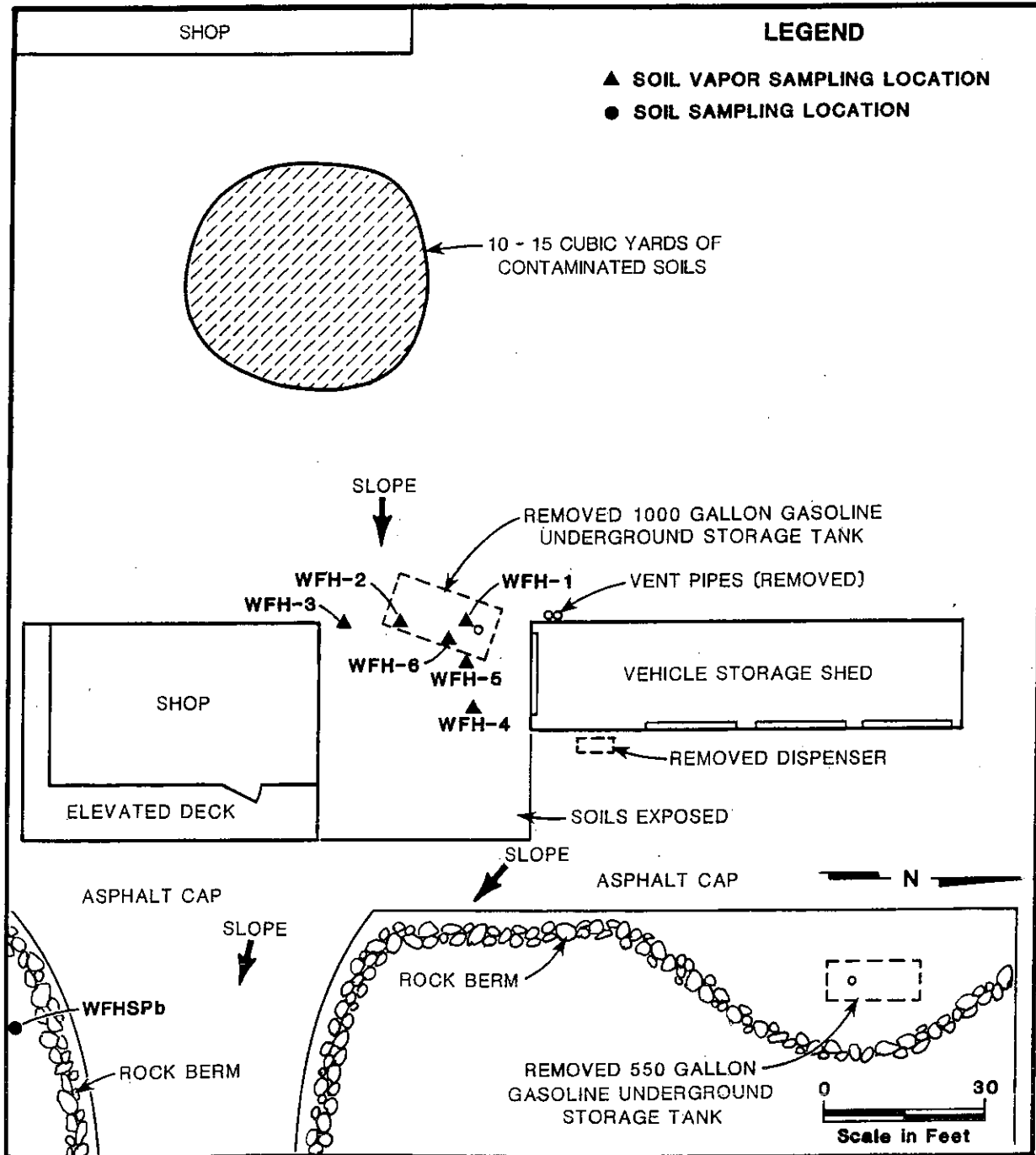


FIGURE 2
UNDERGROUND STORAGE TANK PLOT PLAN



Staal, Gardner & Dunne, Inc.

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Consulting Engineers and Geologists

UNDERGROUND STORAGE TANK SITE REMEDIATION

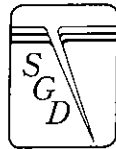
MT. WHITNEY FISH HATCHERY

INDEPENDENCE, INYO COUNTY

FOR

DEPARTMENT OF GENERAL SERVICES
OFFICE OF THE STATE ARCHITECT

JUNE 1989



INTRODUCTION

GENERAL STATEMENT

Presented in this report is a summary of the remedial actions completed at the Mt. Whitney Fish Hatchery (MWFH) and the remedial action plans for completion of the project. The MWFH is located in Independence, California, in the County of Inyo. The remedial actions which have taken place and those proposed are for soil contamination resulting from an inadvertent release of gasoline from a 1,000 gallon underground storage tank (UST) which was removed in June 1988.

PURPOSE AND SCOPE

The purpose of the remedial actions already completed at the MWFH was to remove volatile hydrocarbons associated with gasoline by on-site aeration. The contaminated soil removed during the preliminary assessment and site assessment conducted by Staal, Gardner & Dunne, Inc. (SGD) was aerated during this phase of the project (refer to reports entitled, "Preliminary Assessment of Underground Storage Tank Contamination, Mt. Whitney Fish Hatchery, December 16, 1988" and "Underground Storage Tank Site Assessment, Mt. Whitney Fish Hatchery, December 1988"). The purpose of the remedial action plan proposed in this report is to prepare the MWFH for in-situ volatilization of the gasoline contamination. Preparation of the site for soil vapor extraction (a volatilization technique) included the installation of a soil vapor extraction well and monitoring equipment and the performance of a pilot study to test the functionality of the soil vapor extraction well and associated monitoring equipment.

In order to remediate the contaminated soil generated during the preliminary site assessment and to prepare for in-situ volatilization of the soil contamination remaining in the subsurface, the following tasks were conducted:

- 1) Transfer of the contaminated soil generated during UST assessment to an area on the western boundary of the site for on-site aeration.

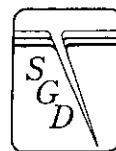
- 2) Dispersion of the contaminated soil over an unpaved road and along the roadside to enhance volatilization of the gasoline contaminants.
- 3) Collection of soil samples prior to, during, and upon completion of the aeration process. The analytical results of the soil sampling are used to monitor the progress and confirm the completion of the aeration process.
- 4) Monitoring the soil being aerated with a photoionization detector (PID) to track the progress of the aeration process.
- 5) Installation of a soil vapor extraction well and monitoring equipment to be employed for in-situ volatilization of the volatile gasoline contaminants by the soil vapor extraction alternative.
- 6) Conductance of a pilot study to test the functionality of the soil vapor extraction well and associated monitoring equipment.
- 7) Preparation of this report documenting the remedial action already completed and proposed remedial actions to be completed for submittal to the Office of the State Architect (OSA) and the County of Inyo Environmental Health Department (EHD).

Laboratory analytical data is presented in Appendix A - Laboratory Analytical Results. An APCD Permit Package for soil vapor extraction is presented in Appendix B - APCD Permit.

BACKGROUND

In June 1988, two USTs (550- and 1,000-gallon capacities) were removed from the MWFH by M.P. Vacuum Truck Service (Bakersfield, California). Analytical results of soil samples collected in the UST excavation bottoms indicated the 1,000-gallon gasoline tank had released ^{product} ~~project~~ into the sub-surface. The UST excavations were both backfilled upon removal of the tanks.

SGD conducted a preliminary site assessment of the UST soil contamination, followed by additional site assessment using a backhoe (Clair Trucking, Inc. of Bishop, California) and PID monitoring. The vertical extent of the contamination was not reached with the backhoe at 24 feet below ground



surface (bgs). Due to large boulders in the subsurface (as large as 4 feet in diameter), attempts to remove soil and extend the excavation deeper than 24 feet bgs was terminated. Approximately 100 cubic yards of soil were removed during the two assessments.

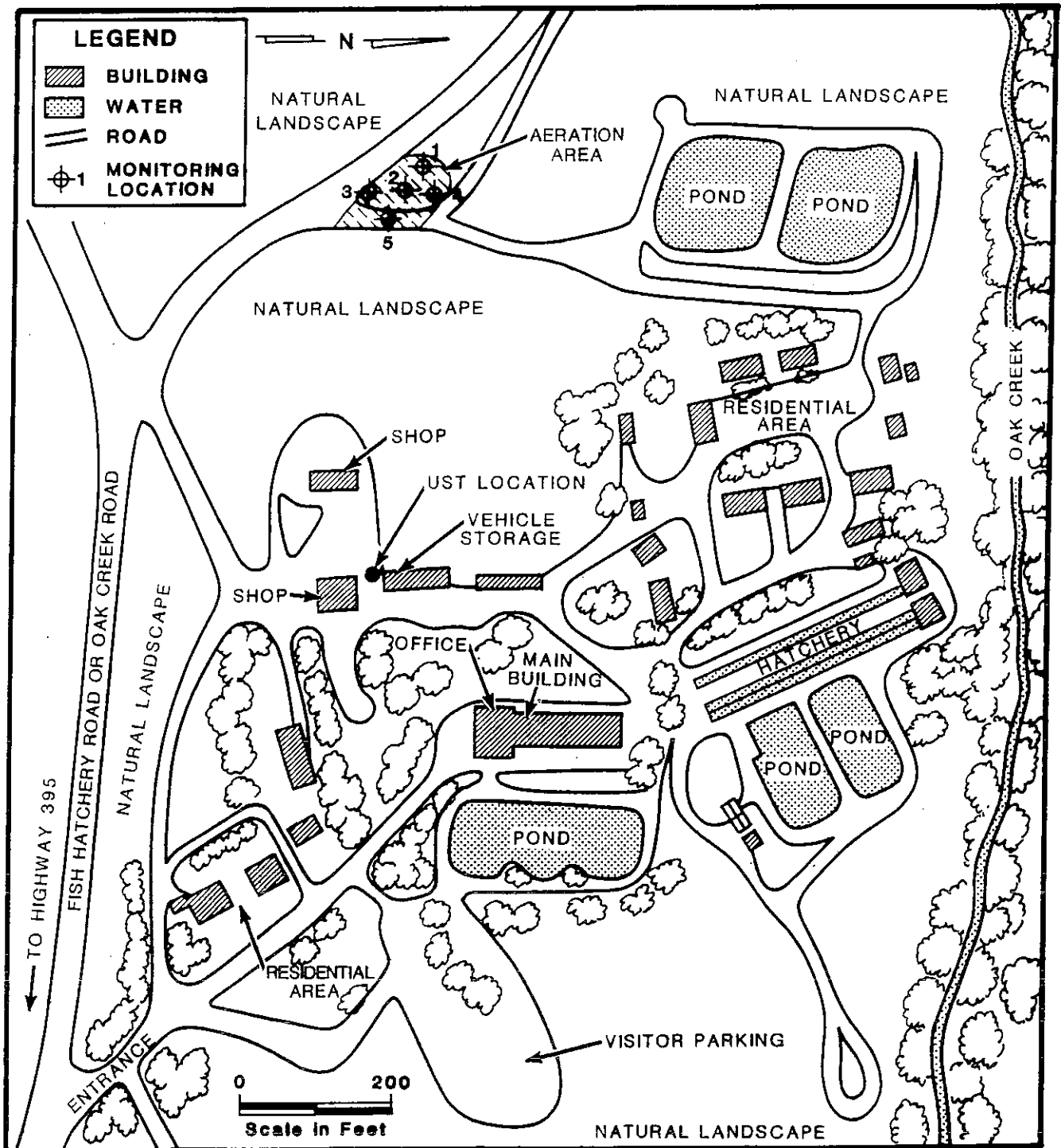
SGD recommended that further remediation of the subsurface contamination be done using a soil vapor extraction technique and that on-site aeration be done on the soil already removed from the subsurface. SGD was authorized to aerate the contaminated soil on-site by the EHD (Mr. Bob Kennedy) and the Great Basin Unified Air Pollution Control District (APCD, Mr. Larry Cameron) and to install the soil vapor extraction well provided that it was secure and capped. This report documents the implementation of the program.

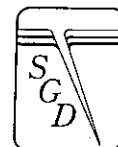
METHODS OF REMEDIATION

Aeration of Contaminated Soil. In order to remove the volatile gasoline contaminants by on-site aeration, the contaminated soil was transferred to the western border of the facility on an unpaved road which runs north/south (refer to Figure 1 - General Site Plan, for location of aeration area). Clair Trucking, Inc. loaded the contaminated soil with a loader onto a dump truck and transferred the soil to the designated area. The larger cobbles and boulders were pushed into a depression along the road with the loader and the soil spread over an area of approximately 2,500 square feet (see Appendix C - Photographs, photograph #1).

Undisturbed soil samples were collected from the stockpiled soil as it was being transferred to the aeration area. Four samples were collected by pushing a 3-inch long, 2.5-inch outside diameter, stainless steel sampling sleeve into the contaminated soil exposed during the transfer. The four samples were composited in the laboratory into two samples for chemical analyses. The ends of the samples were covered with Teflon sheets, capped with air-tight plastic caps, and the caps taped to the sleeve. The samples were labeled and placed on blue ice during transportation and subsequently were transferred to a refrigerator pending delivery to the laboratory. The soil samples were

FIGURE 1
GENERAL SITE PLAN





analyzed for total petroleum hydrocarbons (TPH), and benzene, toluene, ethylbenzene, and total xylenes (BTEX, collectively) in a California Department of Health Services (DOHS)-certified laboratory.

Monitoring of the Soil Aeration Spread. In order to track the progress of the aeration process, a PID was employed to periodically check the volatile hydrocarbon concentrations in the soil. The soil was monitored on February 28, April 7, and April 14, 1989 (refer to Figure 1 for monitoring locations). The soil was monitored by digging approximately 1 foot bgs into the aerating soil in the five monitoring locations in the aeration spread. A 3-inch long, 2.5-inch outside diameter, stainless steel sampling sleeve was used to scoop soil from the monitoring location (sampling sleeve filled approximately half full of soil). The sampling sleeve was shaken to liberate hydrocarbon vapors into the void space in the sleeve and the PID probe inserted into an opening in one of the plastic caps for measurement. Once the reading stabilized, it was recorded as parts per million (ppm) on the digital read-out.

INSTALLATION OF SOIL VAPOR EXTRACTION WELL

A vapor extraction well was installed in the open UST excavation (see Figure 2 - Soil Vapor Extraction Well). The extraction well is constructed of 4-inch outside diameter, Schedule 40 PVC casing. The casing is machine-slotted (0.020-inch slots) from 20 feet bgs to the bottom of the excavation (approximately 20 feet in depth). Blank riser casing was installed from 10 feet bgs to the ground surface. A double layer of 10-mil plastic sheeting was placed in the excavation at 8 feet bgs and the plastic sheeting taped to the PVC casing, thus preventing airflow from the atmosphere into the subsurface. The extraction well was sealed at the surface with 1.5 feet of concrete. Bentonite was not used as a seal because of the dry conditions in the soil in the area. A locking safety harness and traffic-rated utility vault were installed at the top of the extraction well. The well was capped with a PVC slip cap to prevent vapors from escaping from the extraction well (see photographs #2 and #3). In addition to the well installation, six soil vapor monitoring devices (points) were deployed in the UST excavation. Each monitoring point consists of a

slotted, stainless steel monitoring point connected to 3/16-inch outside diameter Teflon tubing which was taped to the PVC casing and brought to the surface. The Teflon tubing at the surface was capped with stainless steel Swagelock fittings which can be connected to a PID for monitoring purposes (see Figure 2). Once the PID is connected to the Swagelock fitting, soil vapors are drawn to the surface with the PID's internal pump (275 ml/min) and monitored on the digital display (see photographs #4 and #5).

SOIL VAPOR EXTRACTION PILOT STUDY

Before submitting an application to permit the use of the soil vapor extraction system with the APCD, a pilot study was conducted to test the operation of the monitoring devices and soil vapor extraction well. The test was done on April 14, 1989.

To test the ability of the monitoring points to retrieve soil vapor samples, the following test was employed. The monitoring device was attached to an ISCO sampling pump and the soil vapors pumped from the subsurface. The sample was passed through a vacuum gauge to check for blockage of the sample. The monitoring point was purged for two-minute intervals and monitored between purgescycles with a PID. The variability in the measurements would determine whether soil vapor sample was flowing from the subsurface into the monitoring devices unobstructed (see photograph #6).

The vapor extraction well was tested using the following procedure. A Shop Vac (16-gallon) industrial vacuum cleaner was connected and sealed with the vapor extraction well (see photograph #7). The Shop Vac has a vacuum blower with an output of 130 cubic feet per minute (CFM) which is slightly higher than blowers normally used in soil vapor extraction (100 CFM). The vacuum was turned on for 15-minute intervals before being turned off to monitor the soil vapors inside the extraction well. The PID was connected to a sampling port on the slip cap and allowed to equilibrate (stabilize) before the measurement was recorded (see photographs #8 and #9).

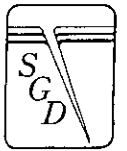
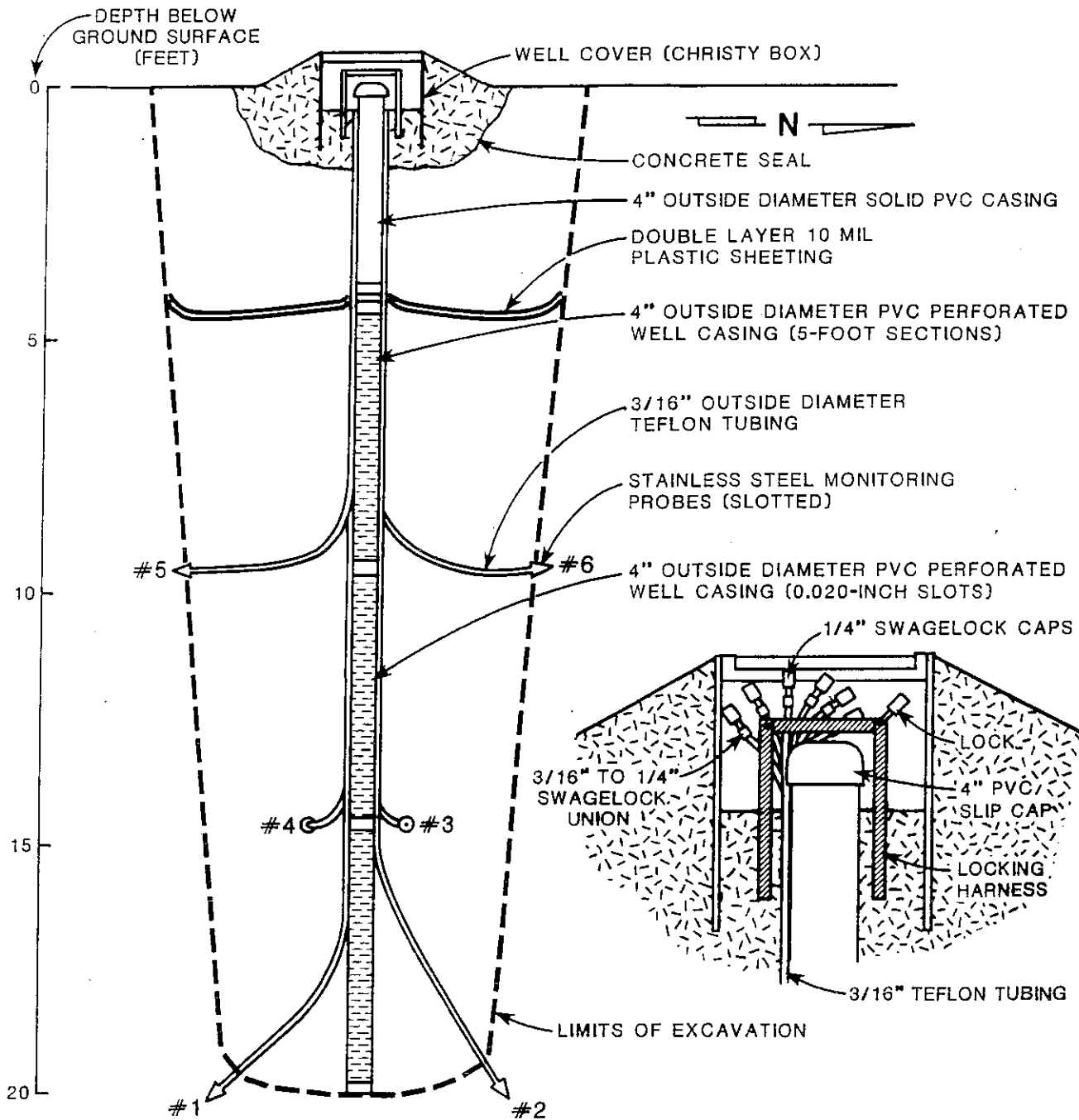


FIGURE 2
SOIL VAPOR EXTRACTION WELL



The Shop Vac was operated for a three-hour period, with monitoring of the interior of the vapor extraction well for hydrocarbons at 15-minute intervals. After three hours of testing with the vacuum cleaner, the six monitoring points deployed in the subsurface were again monitored to determine if any changes in the soil vapor concentrations had occurred during the test. The monitoring points were sampled with the PID as was done at the start of the three-hour test (see photograph #10). Upon completion of the pilot study, the soil vapor extraction well was secured (see photograph #11) and covered as before.

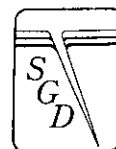
FINDINGS

MONITORING OF THE SOIL AERATION SPREAD

The results of the PID monitoring of the contaminated soil in the aeration spread are shown in Table 1.

TABLE 1
PID MONITORING OF AERATION SPREAD
MT. WHITNEY FISH HATCHERY

Monitoring Location (see Figure 1)	Date of Monitoring	PID Concentration (ppm)
1	2/28/89	500
	4/07/89	170
	4/15/89	120
	5/15/89	21
2	2/28/89	600
	4/07/89	120
	4/15/89	130
	5/15/89	24
3	2/28/89	680
	4/07/89	110
	4/15/89	40
	5/15/89	14
4	2/28/89	460
	4/07/89	50
	4/15/89	55
	5/15/89	8
5	2/28/89	510
	4/07/89	25
	4/15/89	30
	5/15/89	6



The PID monitoring results indicate a steady reduction in the volatile hydrocarbon concentrations in the soil. By mid-April, the volatile hydrocarbon concentrations were sufficiently reduced to warrant ~~collections were reduced enough to warrant~~ collection of soil samples to confirm the PID monitoring results. Soil samples were collected at monitoring locations 1 and 2, where PID readings were the highest on April 15, 1989. These two samples were composited in the laboratory for analysis for TPH and BTEX (see "Methods of Remediation" for soil sample collection procedures).

ANALYTICAL RESULTS OF SOIL SAMPLING

As described in Methods of Remediation, soils samples were collected during the soil transfer to the aeration area, during the aeration process, and to confirm the completion of the aeration process. These analytical results are found in Table 2.

TABLE 2
ANALYTICAL RESULTS OF SOIL SAMPLING
MT. WHITNEY FISH HATCHERY
(all results in mg/kg or ppm)

Sample Identification Number	Date of Sampling	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH
WFHA-1 & 2	2/28/89	ND	ND	ND	44	1000
WFHA-3 & 4	2/28/89	ND	ND	ND	47	1100
WFHA-5 & 6	4/15/89	ND	0.015	ND	0.008	31
WFHA-7 & 8	5/15/89	ND	0.019	ND	ND	6.8
WFHA-9 & 10	5/15/89	ND	0.029	ND	ND	11
Applied Action Levels		0.001*	0.10**	0.68*	1.75*	100***

* California Code of Regulations, Title 22, Section 64444.5, Maximum Contaminant Levels

** Department of Health Services (DOHS) Applied Action Levels for Drinking Water (Sanitary Engineering Branch)

*** Leaking Underground Fuel Tank (LUFT) Reference Manual (September 1988). TPH left in place for sites with moderate leaching potential

Samples WFHA-1 and -2 and WFHS-3 and 4 were collected during the transfer of the soil to the aeration area on February 28, 1989. The samples were collected from the interior of the stockpile and are representative of the soil contamination at the beginning of the aeration process. WFHA-5 and -6 were collected on April 14, 1989, during the aeration process, from monitoring locations 1 and 2 (see Figure 1 for monitoring locations). Monitoring locations 1 and 2 showed the highest PID readings during the monitoring procedures on that day.

The final confirmation samples were collected on May 15, 1989, after almost three months of aeration. The samples were collected in the same monitoring locations as described on Figure 1. Only toluene was detected in the samples; however, the toluene concentrations were below DOHS Applied Action Levels for drinking water and TPH concentrations at 6.8 and 11 ppm. The average TPH concentration was less than 10 ppm, demonstrating that the soil is adequately remediated.

SOIL VAPOR EXTRACTION PILOT STUDY

The first test in the pilot study was to check the utility of the monitoring equipment installed in the subsurface to ensure that soil vapor samples could be retrieved and that soil vapor sample was flowing from the subsurface into the monitoring equipment unobstructed. The results of the test are shown in Table 3. A second test was conducted on the monitoring equipment (see Table 5), therefore, this is labeled the "initial" test.

The results indicate that the soil vapor sample flows unobstructed from the subsurface into the monitoring points and to the surface for measurement. There was very little variability in the PID measurements, as the monitoring locations that were purged over ten minutes indicated the sample was flowing freely from the subsurface environment into the monitoring equipment.

The highest PID reading come from the deeper monitoring points (1 and 2) and those on the north and west walls of the excavation (4 and 6). These monitoring point locations are illustrated on Figure 2.

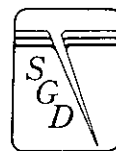


TABLE 3
RESULTS OF INITIAL MONITORING EQUIPMENT TEST
MT. WHITNEY FISH HATCHERY

Monitoring Point Location (see Figure 2)	Time Monitoring Point Purged (minutes)	PID Reading (ppm)
1	2	1350
	4	1300
	6	1320
	8	1310
	10	1300
2	2	1665
	4	1680
	6	1665
	8	1660
	10	1660
3	2	1440
	4	1450
	6	1445
	8	1440
	10	1435
4	2	>2000
	4	>2000
	6	>2000
	8	>2000
	10	>2000
5	2	150
	4	145
	6	140
	8	145
	10	140
6	2	1530
	4	1540
	6	1540
	8	1540
	10	1515

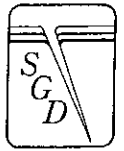
The second test in the pilot study was designed to test the functionality of the vapor extraction well. A vacuum was put on the soil vapor extraction well using a blower with a flow rate of 130 CFM (see Methods of Remediation). At 15-minute intervals, the volatile hydrocarbon concentration was checked inside the vapor extraction well. The results of this test are shown in the following table.

TABLE 4
RESULTS OF VAPOR EXTRACTION WELL TEST
MT. WHITNEY FISH HATCHERY

Sample Number	Duration of Extraction (minutes)	PID Reading (ppm)
0	0	30
1	15	130
2	30	130
3	45	140
4	60	140
5	75	145
6	90	210
7	105	225
8	120	250
9	135	480
10	150	460
11	165	470
12	189	490

The test demonstrated the utility of the vapor extraction well. The three-hour test showed an increase in volatile hydrocarbon concentrations which appeared 1.5 to 2.5 hours into the test, where the concentrations more than doubled from 200 ppm to 480 ppm.

The final test during the pilot study was a final check of the volatile hydrocarbon levels in the monitoring points upon completion of the testing of the vapor extraction well. This test allowed comparison to be made with the initial test on the monitoring points. Table 5 illustrates the volatile



hydrocarbon concentrations in the monitoring points following the testing of the vapor extraction well.

TABLE 5
RESULTS OF FINAL MONITORING EQUIPMENT TEST

Monitoring Point Identification	Location in Excavation	PID Reading (ppm)
1	south side 20' bgs	1760
2	north side 20' bgs	>2000
3	east side 15' bgs	915
4	west side 15' bgs	1990
5	south side 10' bgs	60
6	northside 10' bgs	1660

The volatile hydrocarbon concentrations deep in the excavation (20' bgs) and those on the north side of the excavation increased in value during the three hour soil vapor extraction test. This indicates that contaminants were pulled into these areas by the vacuum during the test. The results from the monitoring points on the south, east, and west sides of the excavation showed a decrease in volatile hydrocarbon levels, indicating that volatile hydrocarbons were removed from this area and were not replaced. These areas probably are not as contaminated as the deeper areas and at the north side of the excavation.

CONCLUSIONS AND RECOMMENDATIONS

The soil removed from the UST excavation has been successfully remediated by surface aeration. The remediated soil has been placed on the surface of an unpaved road on-site where it will remain.

The results of the pilot study demonstrated the applicability of soil vapor extraction as a remediation alternative and the utility of the extraction and monitoring equipment installed at the facility. SGD recommends that soil vapor extractions be employed at the Mt. Whitney Fish Hatchery to recover as much of the remaining released gasoline as possible. A proposed soil vapor extraction system is illustrated in Figure 3 - Proposed Soil Vapor Extraction System, and the permit application (APCD) is included in Appendix B. SGD is prepared to submit a proposal to install and operate the proposed soil vapor extraction system pending APCD approval.

SGD trusts that this report is to your satisfaction. If you have any questions, please contact me or Mr. Rod Farrell of our staff.

0 Soil sampling at end of
soil vapor extraction.

Sincerely,

STAAL, GARDNER & DUNNE, INC.



David A. Gardner
Engineering Geologist 969

DAG:RF:s1/26

c: County of Inyo Environmental Health Department
Great Basin Unified Air Pollution Control District



Staal, Gardner & Dunne, Inc.

S
G
D

Consulting Engineers and Geologists

TRANSMITTAL

TO: Office of the State Architect June 5, 1989
400 P Street, 5th Floor
Sacramento, California 95814 Reference: 88136C

ATTN: Mr. Mike Golden
Program Manager

SUBJECT: Underground Storage Tank Site Remediation, Mt. Whitney Fish
Hatchery, Independence, Inyo County, California, dated June 1989.

WE ARE SENDING:

Three (3) copies of the subject final report for your use. We appreciate the opportunity to be of service.

COPIES TO:

(1 Copy)

Great Basin Unified Air Pollution
Control District
157 Short Street, Suite 6
Bishop, California 93514

Attention: Mr. Larry Cameron

(1 Copy)

Inyo County Environmental Health
Department
2071 W. South Street
Bishop, California 93514

Attention: Mr. Bob Kennedy

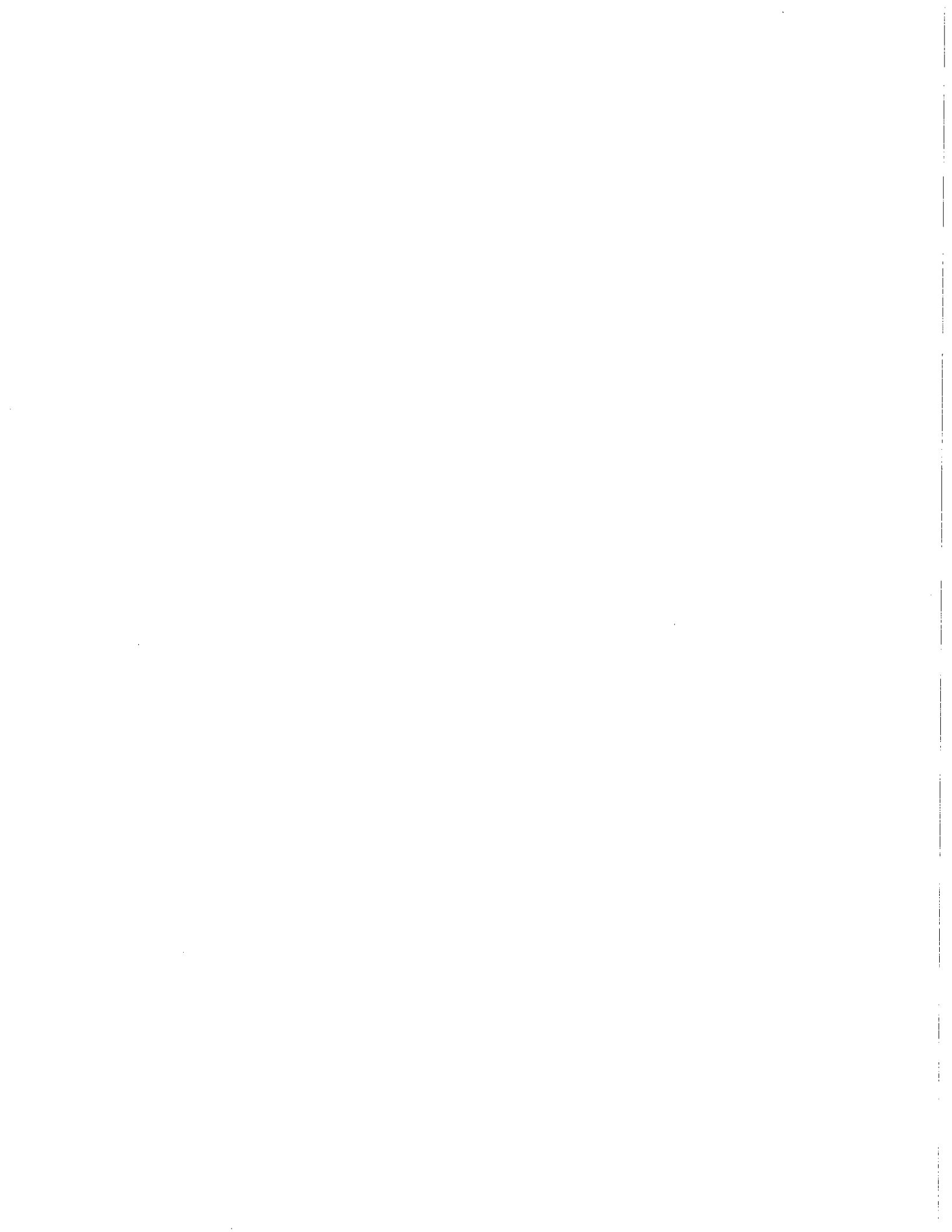
Sincerely,

STAAL, GARDNER & DUNNE, INC.

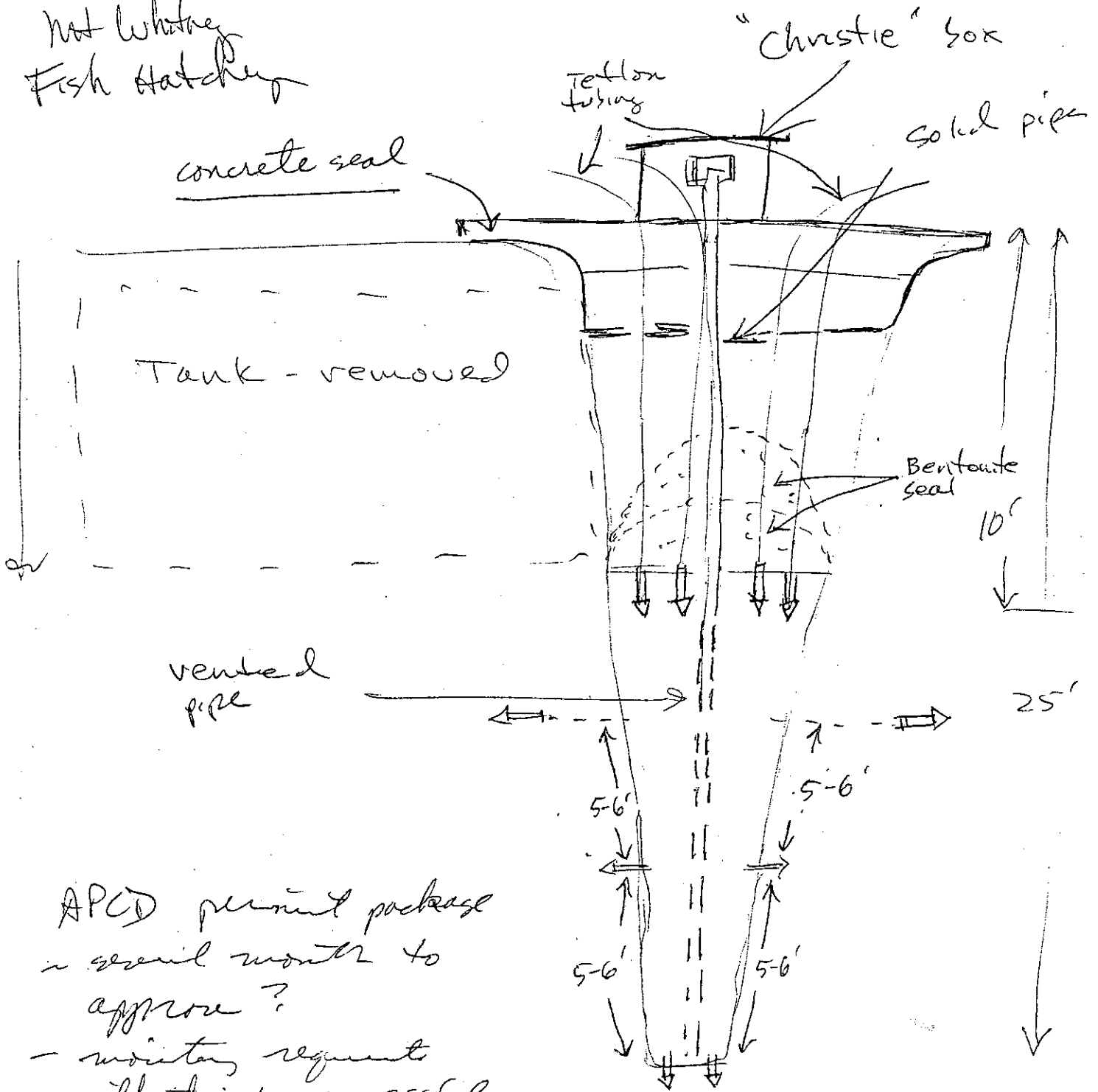


David A. Gardner
Engineering Geologist 969

DG:RF:dm/26



Not Whitney
Fish Hatchery



APCD permit package
in several months to
approve?

- monitoring requirements
- will this be successful
in clean's area?



(805) 653-3514 - Beach
Ventura Co.

Staal, Gardner & Dunne, Inc.

SGD

Consulting Engineers and Geologists
OSA has OK'd.



Department of General Services
Office of the State Architect
Post Office Box 1079
Sacramento, California 95814

January 26, 1989

Reference: P1558

Attention: Mr. Mike Golden
Project Manager

Subject: Aeration of Contaminated Soils and Vapor Extraction Well
Installation, Mt. Whitney Fish Hatchery.

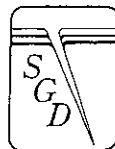
Dear Mr. Golden:

Staal, Gardner & Dunne, Inc. (SGD) is pleased to submit this proposal for the remediation of contaminated soils removed from the subsurface and the installation of a soil vapor extraction well at the Mt. Whitney Fish Hatchery (the site) near Independence, California. SGD has conducted a preliminary site investigation, followed by a site investigation of contaminated soils resulting from the release of gasoline from a 1,000-gallon underground storage tank (UST) at the facility. Reports entitled "Preliminary Assessment of Underground Storage Tank Contamination, Mt. Whitney Fish Hatchery (December 16, 1988)" and "Underground Storage Tank Site Assessment, Mt. Whitney Fish Hatchery (December 1988)" have been submitted to the Office of the State Architect (OSA) describing the methods of investigation, findings, and recommendations from the assessments.

In the December 1988 report, SGD recommended that the contaminated soils removed from the subsurface be aerated to remove the volatile gasoline contaminants after boulders and cobbles have been segregated from the soils. At the preference of the Inyo County Air Pollution Control District (APCD), the soils to be aerated will be transported to the Inyo County Landfill for aeration by a licensed hazardous waste transporter. If the soils are aerated on-site, the APCD will require a health risk assessment on the threat to public health and safety posed by the aeration of the contaminated soils. The transportation of the soils to the landfill seems a more viable alternative. SGD also recommended that a single soil vapor extraction well be installed in the UST excavation equipped with a blower to vent the volatile hydrocarbons from the subsurface.

10 Per Larry
away from site
results

The aeration of the contaminated soils and the installation of a vapor extraction well can be done at the current time without procurement of permits from regulatory agencies. The completion of a soil vapor extraction system and its operation will require APCD permits to construct and operate if and when the soil vapor extraction system is completed and put into operation. According to Mr. Larry Cameron (Inyo County, APCD), the installation of a soil vapor extraction well will not require a permit if the APCD is informed of the



installation and the extraction well is capped upon installation. All remedial action planning and implementation will be coordinated through both the APCD and the Inyo County Environmental Health Department (EHD).

The aeration of the soils removed from the subsurface and the installation of a soil vapor extraction well at the Mt. Whitney Fish Hatchery will include the following tasks:

TASK 1 - Project Management/Regulatory Agency Coordination

OK TO REMOVE ON SITE { Coordinate with the APCD and EHD on the transportation of the gasoline contaminated soils from the Mt. Whitney Fish Hatchery to the Inyo County Class II landfill in Bishop, California (approximately 65 miles) for remediation. SGD will ensure that the contaminated soils are properly manifested and transported by a licensed hauler. Arrangements will be made with the Inyo County landfill and EHD on receiving, spreading and tilling, monitoring, and final disposal of the contaminated soils.

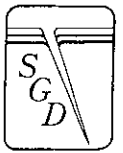
TASK 2 - Aeration of Contaminated Soils Removed from UST Excavation

Segregation of the large boulders and cobbles (larger than 24 inches across) from the soils removed from the UST excavation. The contaminated soils will be loaded onto trucks and transported to the Inyo County landfill by Clair Trucking from Bishop, California, accompanied by a manifest. One composite sample will be collected per 1,000 feet² of aeration surface area once the soils have been spread for aeration at the landfill.

? The soils will be monitored using a photoionization detector (PID) on a bi-weekly basis until remediation is completed (assume four months). Once the PID monitoring indicates the volatile organic vapor concentrations are below acceptable levels (20 parts per million) the aeration spread will be sampled using the same protocol as the initial sampling on the day the contaminated soils arrived at the landfill.

TASK 3 - Installation of Vapor Extraction Well

Install a vapor extraction well in the UST excavation as the excavation is backfilled. A 4-inch slotted PVC pipe will be placed from 10 feet below ground surface (bgs) to the bottom of the excavation at approximately 25 feet bgs. A 4-inch blank riser will run from 10 feet bgs to the surface of the ground. A bentonite slab 3 feet thick will be below a 2-foot concrete seal to the surface. The seals will have a diameter of at least 5 feet to provide a impermeable cap over the contamination remaining in place. A traffic-rated vault will protect the top of the vadose well and a harness will allow the well cap to be locked in place.



Six subsurface monitoring probes will be installed in the subsurface before the excavation is backfilled. The probes are 3 inches long, metal drive points which are connected to 3/8-inch outside diameter Teflon tubing which runs to the surface of the ground (inside the well vault). Two of the probes will be installed below the excavation bottom as far as possible and four in each side of the excavation. Each monitoring probe will be labelled for soil vapor/gas sample collection and monitoring.

The excavation will be backfilled with sand or decomposed granite. Once completed the area will be leveled and returned to operational conditions. Barricades will be placed around the vapor extraction well until the concrete has hardened.

TASK 4 - Analytical Program

Composite and analyze soil samples collected from the aeration spread. SGD proposes to employ Central Coast Analytical Services in San Luis Obispo, California to composite and analyze the samples using EPA method 8240, modified for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, xylenes (BTEX).

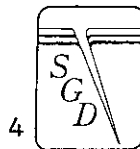
TASK 5 - Report Preparation

Prepare one draft and four final copies of a report summarizing the procedures employed during the remediation of the contaminated soils, the monitoring and sampling results, and the final disposition of the remediated soils. The report will also include specifications on the vapor extraction well and the monitoring hardware installed in the subsurface and recommendations on its future use.

The costs for the tasks described herein are as follows:

TASK 1 - Project Management/Regulatory Agency Coordination

Environmental Engineer	10 hrs @ \$70	\$ 700
Illustrator	3 hrs @ \$45	135
Word Processing	2 hrs @ \$40	<u>80</u>
	Subtotal:	\$ 915



TASK 2 - Aeration of Contaminated Soils Removed from UST Excavation

Environmental Engineer	24 hrs @ \$70	\$ 1,680
Transporter/Excavation Contractor	Lump Sum	2,500
*Staff Geologist (Monitoring)	64 hrs @ \$60	3,840
*PID Rental	9 days @ \$100	900
Soil Sampling Equipment	Lump Sum	<u>100</u>
	Subtotal:	\$ 9,020

TASK 3 - Monitoring Well Installation

Transporter/Excavation Contractor	Lump Sum	\$ 2,500
Well Materials	Lump Sum	500
Monitoring Materials	Lump Sum	<u>300</u>
	Subtotal:	\$ 3,300

TASK 4 - Analytical Program

EPA 8240, modified (TPH, BTEX)	4 samples @ \$155	\$ 620
Compositing Fee	4 samples @ \$10	<u>40</u>
	Subtotal:	\$ 660

TASK 5 - Report Preparation

Principal Hydrogeologist	5 hrs @ \$85	\$ 425
Environmental Chemist	20 hrs @ \$70	1,400
Project Geologist	4 hrs @ \$70	280
Illustrator	6 hrs @ \$45	270
Word Processor	4 hrs @ \$40	<u>160</u>
	Subtotal:	\$ 2,535

Total Estimated Cost: \$ 16,430

* Based on monitoring bi-weekly for four months.

The tasks outlined above are based on estimates and conditions which may change before initiating the work. These estimates and conditions are as follows:

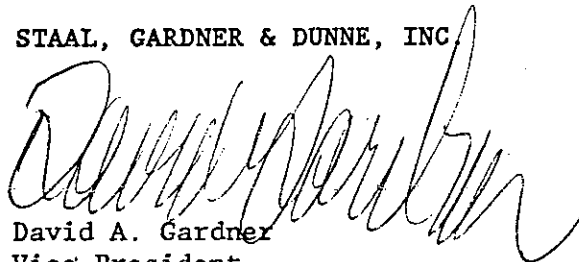
- 1) 40 yards³ of soils are contaminated and require transportation to the landfill for remediation. This estimate is liberal and less soil may have to be transported.
- 2) The monitoring of the soils at the landfill may be done by the Inyo County ECH if they receive their field monitoring instrument (OVA) before or while the soils are being remediated. This will reduce the costs of remediation as the monitoring of the soils (see Task 2) may not be required by SGD personnel.
- 3) The remediation program is based on a time factor of four months. The remediation of the contaminated soils may require less time and, therefore, will require less expense.

SGD is prepared to begin work on this project upon receipt of your written authorization to proceed.

We appreciate the opportunity to submit this proposal. Please contact me or Mr. Rod Farrell of our staff if you have any questions.

Sincerely,

STAAL, GARDNER & DUNNE, INC



David A. Gardner
Vice President

DAG:rf:av/P1

cc: Mr. Bob Kennedy and Ms. Stacy Badgett -
Inyo County Environmental Health Department

Mr. Bob Grider - Mt. Whitney Fish Hatchery



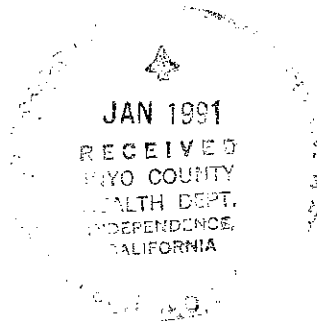


400 P Street, 5th Floor, Sacramento 95814

(916) 322-8994

January 22, 1991

Ms. Stacie Badgett
County of Inyo
Department of Health Services
P. O. Drawer H
Independence, CA 93526



Dear Ms. Badgett:

CALIFORNIA DEPARTMENT OF FISH AND GAME
MT. WHITNEY FISH HATCHERY
NEAR INDEPENDENCE, CALIFORNIA

Thank you for your recent letter concerning additional remediation of contaminated soil at the underground tank site. As you know, the tank was removed and much of the contaminated soil that could feasibly be excavated was removed down to a depth of 24 feet. A vapor extraction well was placed in the center of the backfilled hole to be used for removing what contamination may be remaining.

The additional work has not been performed due to a lack of funds with the Department of Fish and Game. The limited funds available have been assigned to higher priority environmental problems. Considering the cleanup that has already occurred and the apparent depth to groundwater at the site, this office does not anticipate that additional work can be performed during the remainder of the fiscal year. When new funds become available for the next fiscal year, we can better provide you a schedule for the remainder of the work.

Please contact me at (916) 322-8994 if I can provide further information.

Sincerely,

Michael J. Golden, Program Manager
Underground Storage Tank Program

MJG:skf

cc: Mr. Glen Swanson
Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95814

Mr. Kenneth W. McClellan
Chief of Special Programs
Office of the State Architect
400 P Street, Fifth Floor
Sacramento, CA 95814

Mr. Paul Hypnarowski
Supervising Electrical Engineer
PCB/UST Program
Office of the State Architect
400 P Street, Fifth Floor
Sacramento, CA 95814

Chron
Facility File



Appendix F
Sanborn Map Report



Mt. Whitney Fish Hatchery

1 Golden Trout Circle

Independence, CA 93526

Inquiry Number: 3389995.3

August 16, 2012

Certified Sanborn® Map Report

Certified Sanborn® Map Report

8/16/12

Site Name:

Mt. Whitney Fish Hatchery
1 Golden Trout Circle
Independence, CA 93526

Client Name:

BEC Environmental, Inc.
7660 West Sahara Ave
Las Vegas, NV 89117

EDR Inquiry # 3389995.3

Contact: Brian Loffman



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by BEC Environmental, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Mt. Whitney Fish Hatchery
Address: 1 Golden Trout Circle
City, State, Zip: Independence, CA 93526
Cross Street:
P.O. # Task 2HZW
Project: Mt. Whitney Fish Hatchery
Certification # 92CC-4002-9991



Sanborn® Library search results
Certification # 92CC-4002-9991

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix G

Historical Topography and Aerial Photo Review



Mt. Whitney Fish Hatchery

1 Golden Trout Circle

Independence, CA 93526

Inquiry Number: 3389995.4

August 16, 2012

EDR Historical Topographic Map Report

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

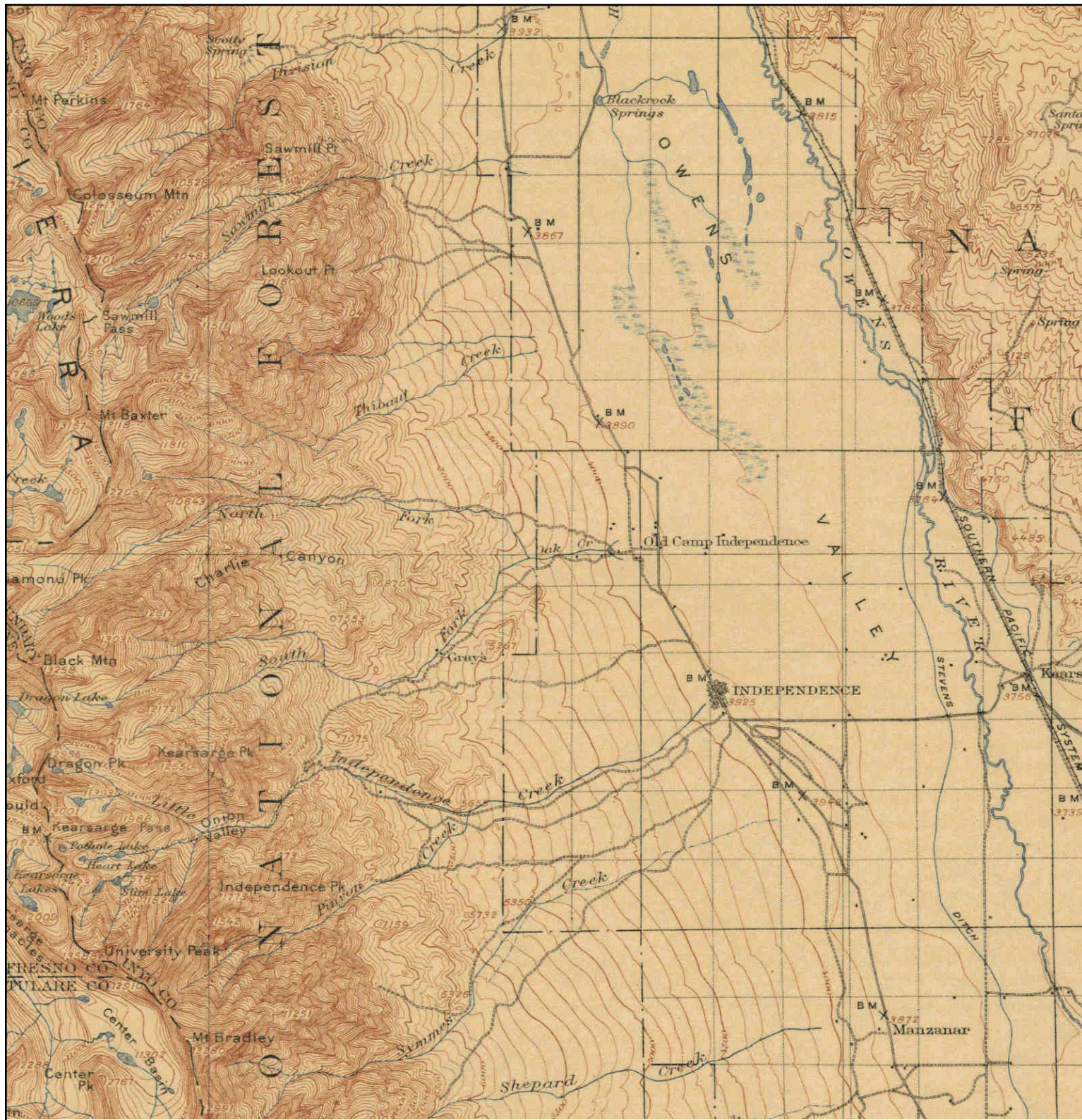
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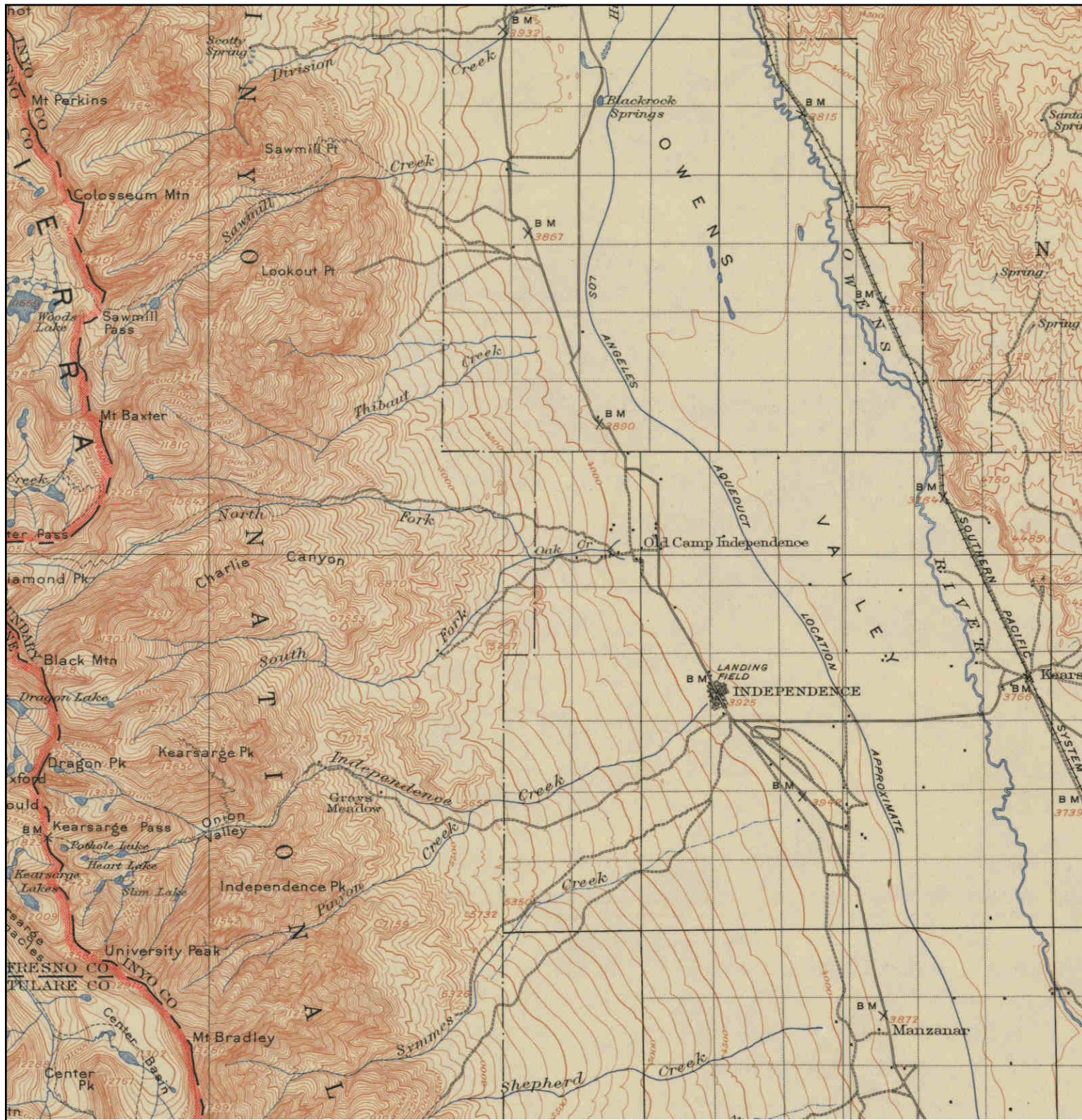
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Historical Topographic Map



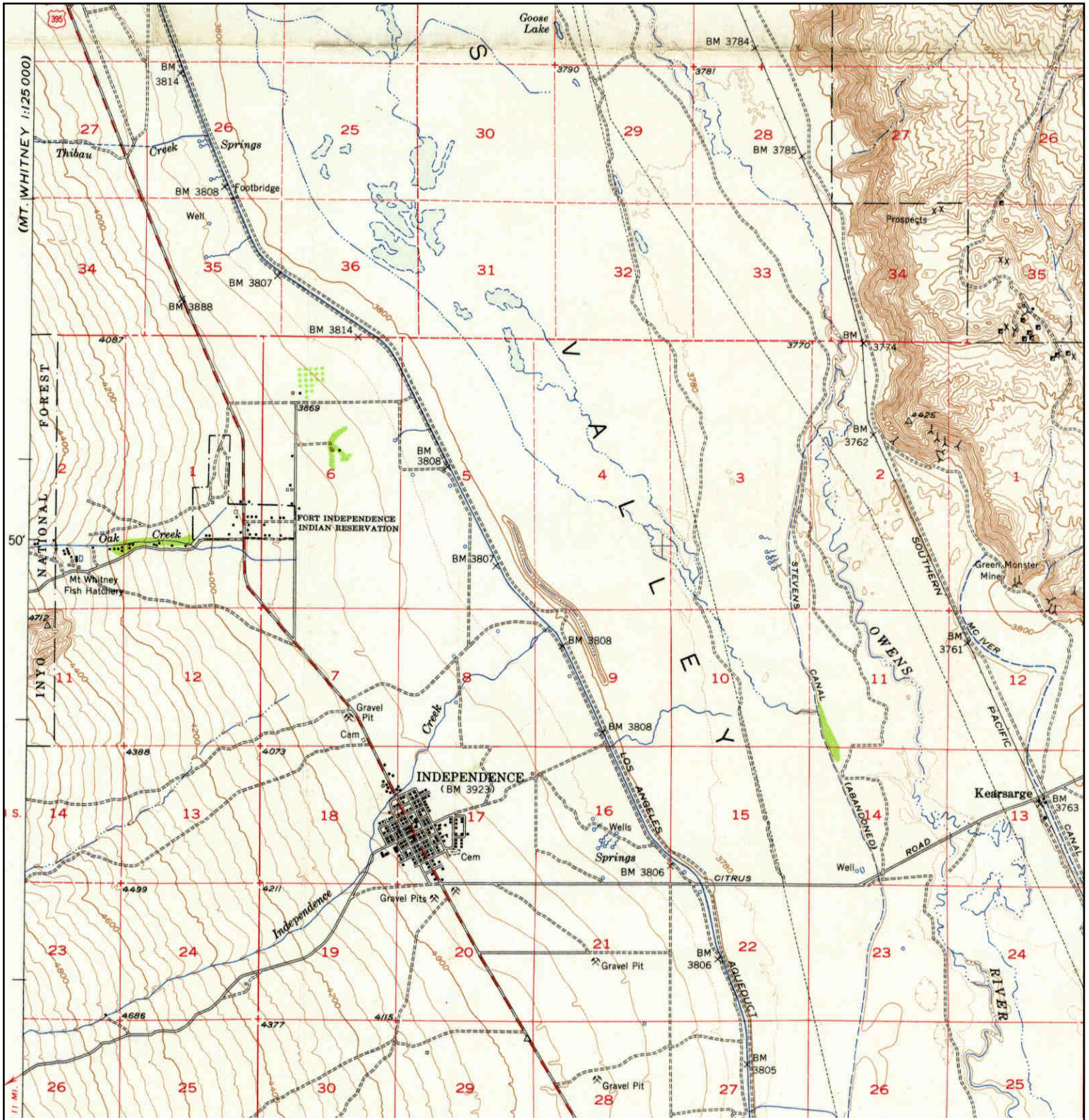
 N	TARGET QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: MOUNT WHITNEY		CONTACT: Brian Loffman
	MAP YEAR: 1919	ADDRESS: 1 Golden Trout Circle Independence, CA 93526	INQUIRY#: 3389995.4
	SERIES: 30	LAT/LONG: 36.8311 / -118.2446	RESEARCH DATE: 08/16/2012
	SCALE: 1:125000		


Historical Topographic Map



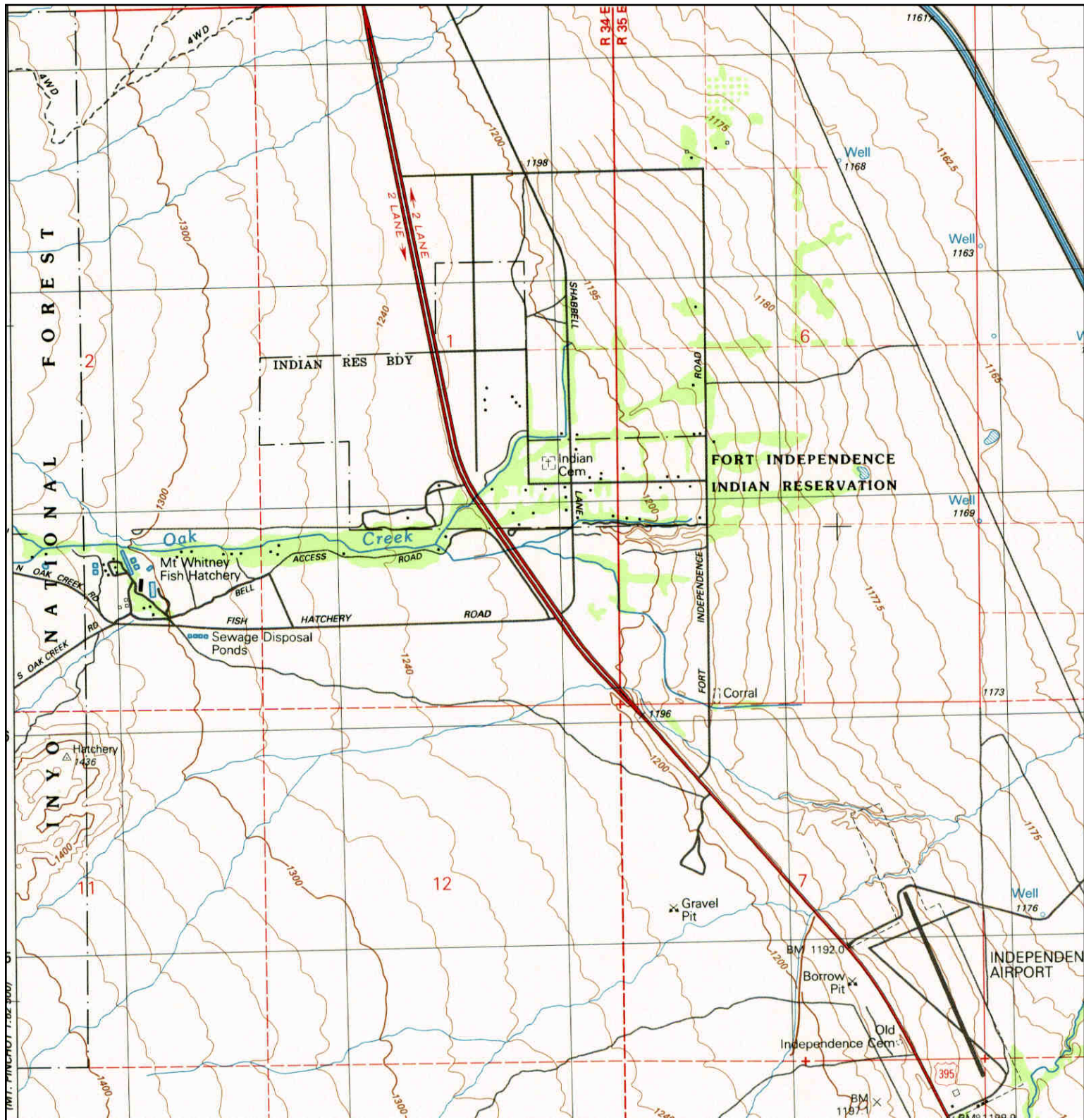
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	NAME: MOUNT WHITNEY	ADDRESS: 1 Golden Trout Circle	CONTACT: Brian Loffman	
	MAP YEAR: 1937	INDEPENDENCE, CA 93526	INQUIRY#: 3389995.4	RESEARCH DATE: 08/16/2012
	SERIES: 30	LAT/LONG: 36.8311 / -118.2446		
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Historical Topographic Map



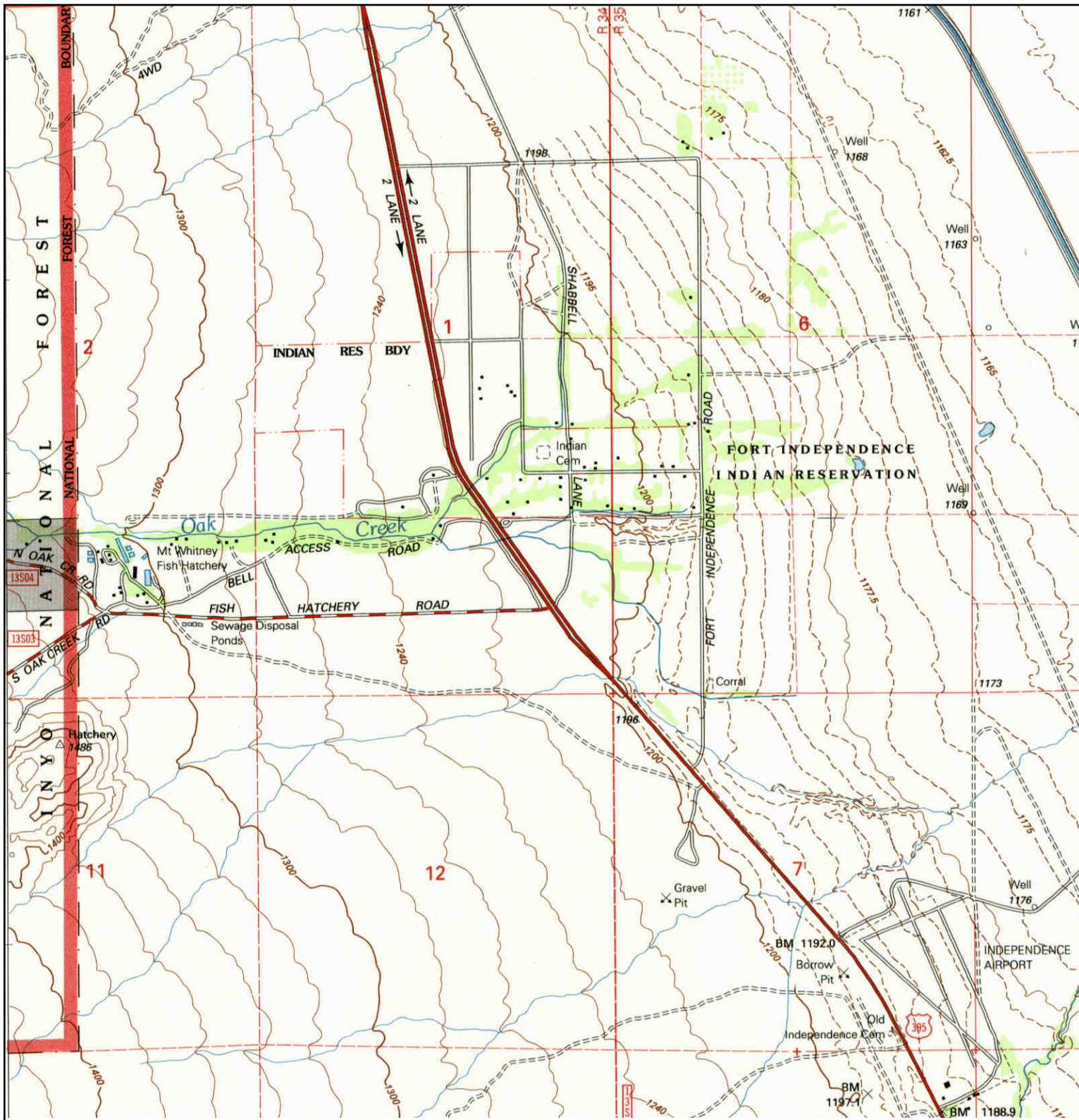
	TARGET QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: INDEPENDENCE	ADDRESS: 1 Golden Trout Circle	CONTACT: Brian Loffman
	MAP YEAR: 1951	INDEPENDENCE, CA 93526	INQUIRY#: 3389995.4
	SERIES: 15	LAT/LONG: 36.8311 / -118.2446	RESEARCH DATE: 08/16/2012
	SCALE: 1:62500		

Historical Topographic Map



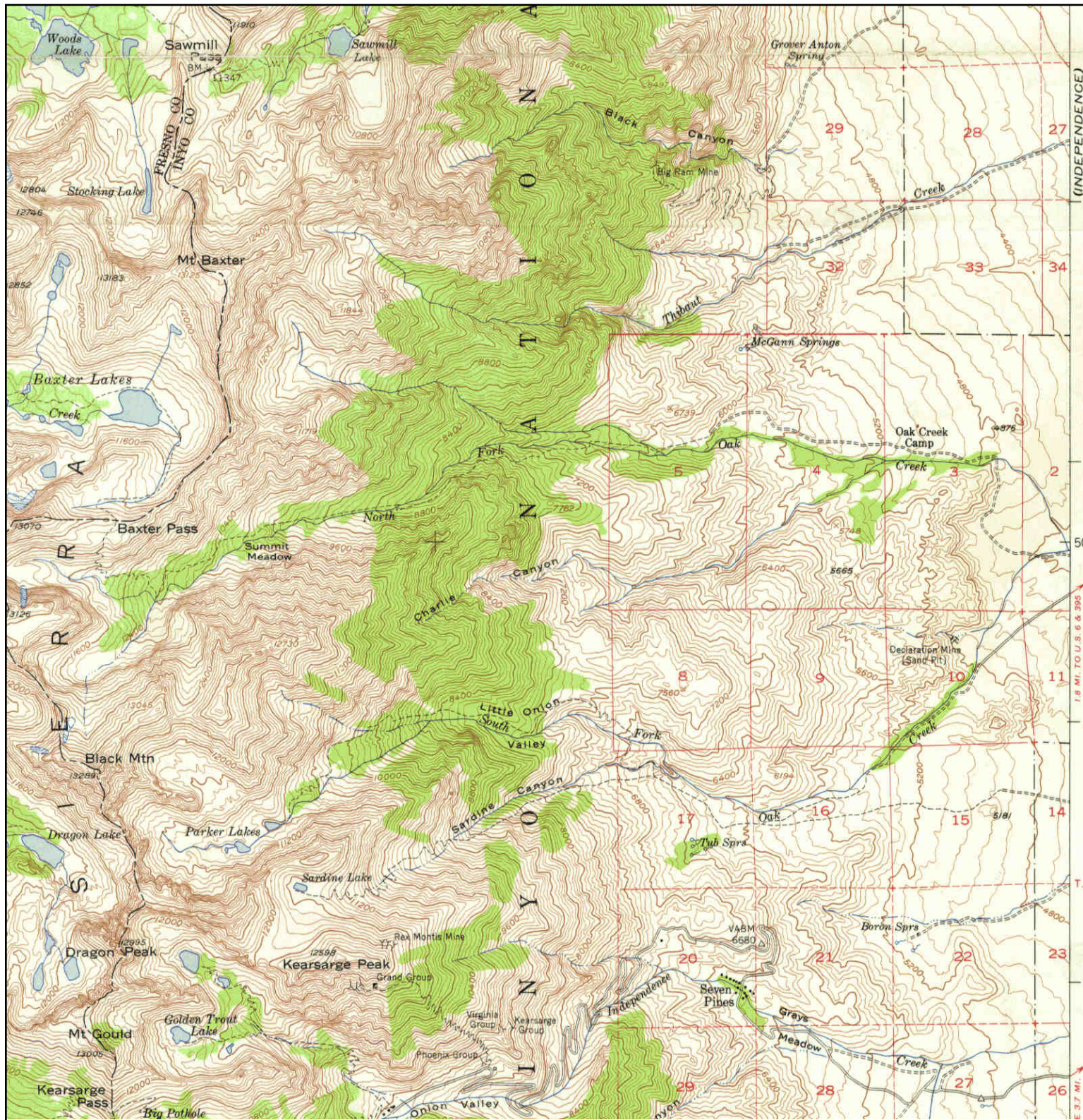
 N	TARGET QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: INDEPENDENCE		CONTACT: Brian Loffman
	MAP YEAR: 1982	ADDRESS: 1 Golden Trout Circle Independence, CA 93526	INQUIRY#: 3389995.4
	SERIES: 7.5	LAT/LONG: 36.8311 / -118.2446	RESEARCH DATE: 08/16/2012
	SCALE: 1:24000		

Historical Topographic Map



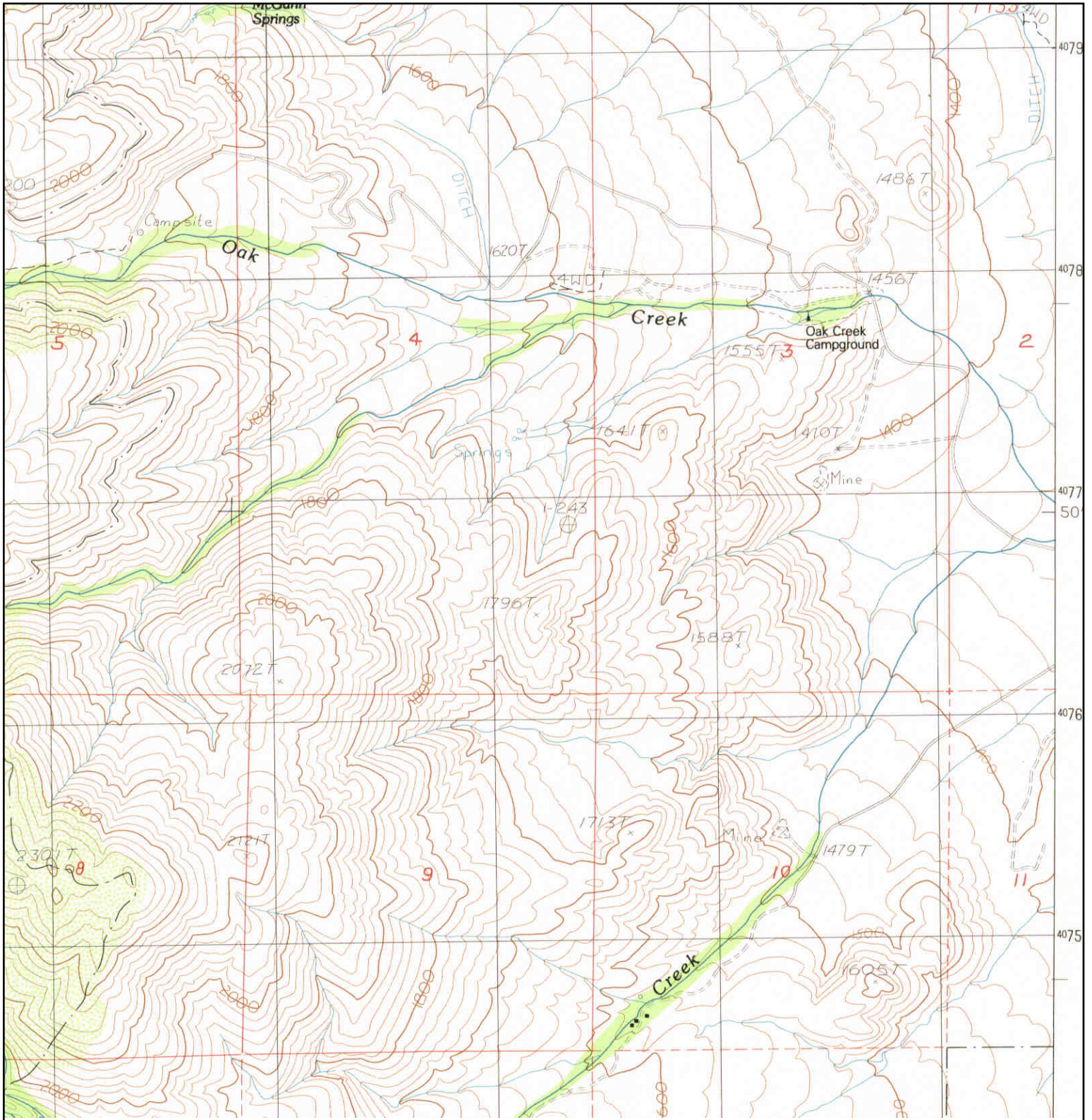
	TARGET QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: INDEPENDENCE		CONTACT: Brian Loffman
	MAP YEAR: 1994	ADDRESS: 1 Golden Trout Circle Independence, CA 93526	INQUIRY#: 3389995.4
	SERIES: 7.5	LAT/LONG: 36.8311 / -118.2446	RESEARCH DATE: 08/16/2012
	SCALE: 1:24000		


Historical Topographic Map



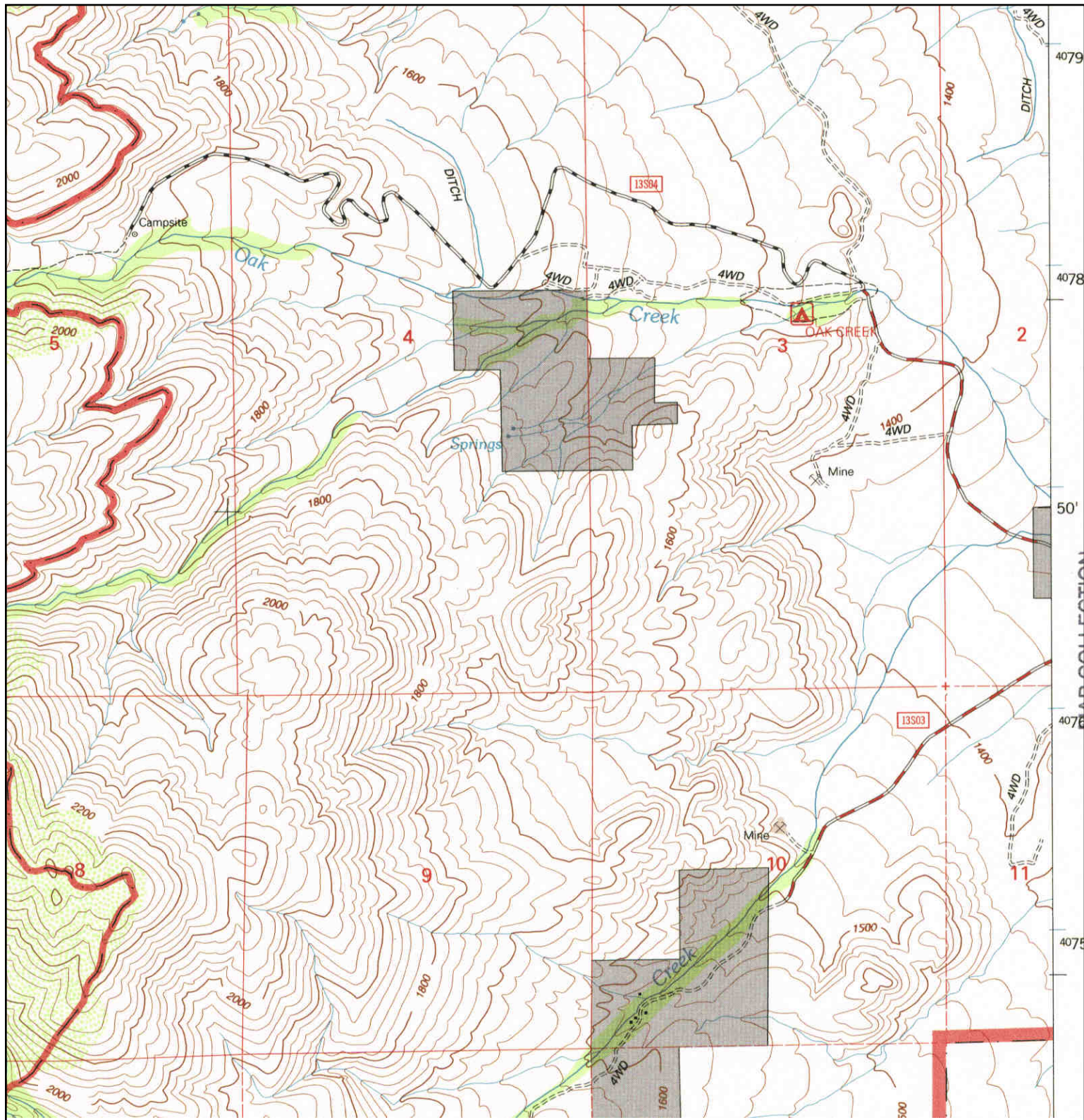
	ADJOINING QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: MOUNT PINCHOT	ADDRESS: 1 Golden Trout Circle	CONTACT: Brian Loffman
	MAP YEAR: 1953	INDEPENDENCE, CA 93526	INQUIRY#: 3389995.4
	SERIES: 15	LAT/LONG: 36.8311 / -118.2446	RESEARCH DATE: 08/16/2012
SCALE: 1:62500			

Historical Topographic Map



	ADJOINING QUAD	SITE NAME: Mt. Whitney Fish Hatchery	CLIENT: BEC Environmental, Inc.
	NAME: KEARSARGE PEAK		CONTACT: Brian Loffman
	MAP YEAR: 1985	ADDRESS: 1 Golden Trout Circle	INQUIRY#: 3389995.4
	PROVISIONAL	Independence, CA 93526	RESEARCH DATE: 08/16/2012
	SERIES: 7.5	LAT/LONG: 36.8311 / -118.2446	
	SCALE: 1:24000		

Historical Topographic Map



	ADJOINING QUAD						
	NAME:	KEARSARGE PEAK		SITE NAME:	Mt. Whitney Fish Hatchery	CLIENT:	BEC Environmental, Inc.
	MAP YEAR:	1994		ADDRESS:	1 Golden Trout Circle Independence, CA 93526	CONTACT:	Brian Loffman
	SERIES:	7.5		LAT/LONG:	36.8311 / -118.2446	INQUIRY#:	3389995.4
	SCALE:	1:24000			RESEARCH DATE:	08/16/2012	



Mt. Whitney Fish Hatchery

1 Golden Trout Circle

Independence, CA 93526

Inquiry Number: 3389995.5

August 21, 2012

The EDR Aerial Photo Decade Package

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography August 21, 2012

Target Property:

1 Golden Trout Circle

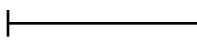
Independence, CA 93526

<u><i>Year</i></u>	<u><i>Scale</i></u>	<u><i>Details</i></u>	<u><i>Source</i></u>
1947	Aerial Photograph. Scale: 1"=623'	Flight Year: 1947	USGS
1954	Aerial Photograph. Scale: 1"=750'	Flight Year: 1954	ARMY
1978	Aerial Photograph. Scale: 1"=500'	Flight Year: 1978	USGS
1988	Aerial Photograph. Scale: 1"=666'	Flight Year: 1988	USGS
1998,1999	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1998,1999	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR

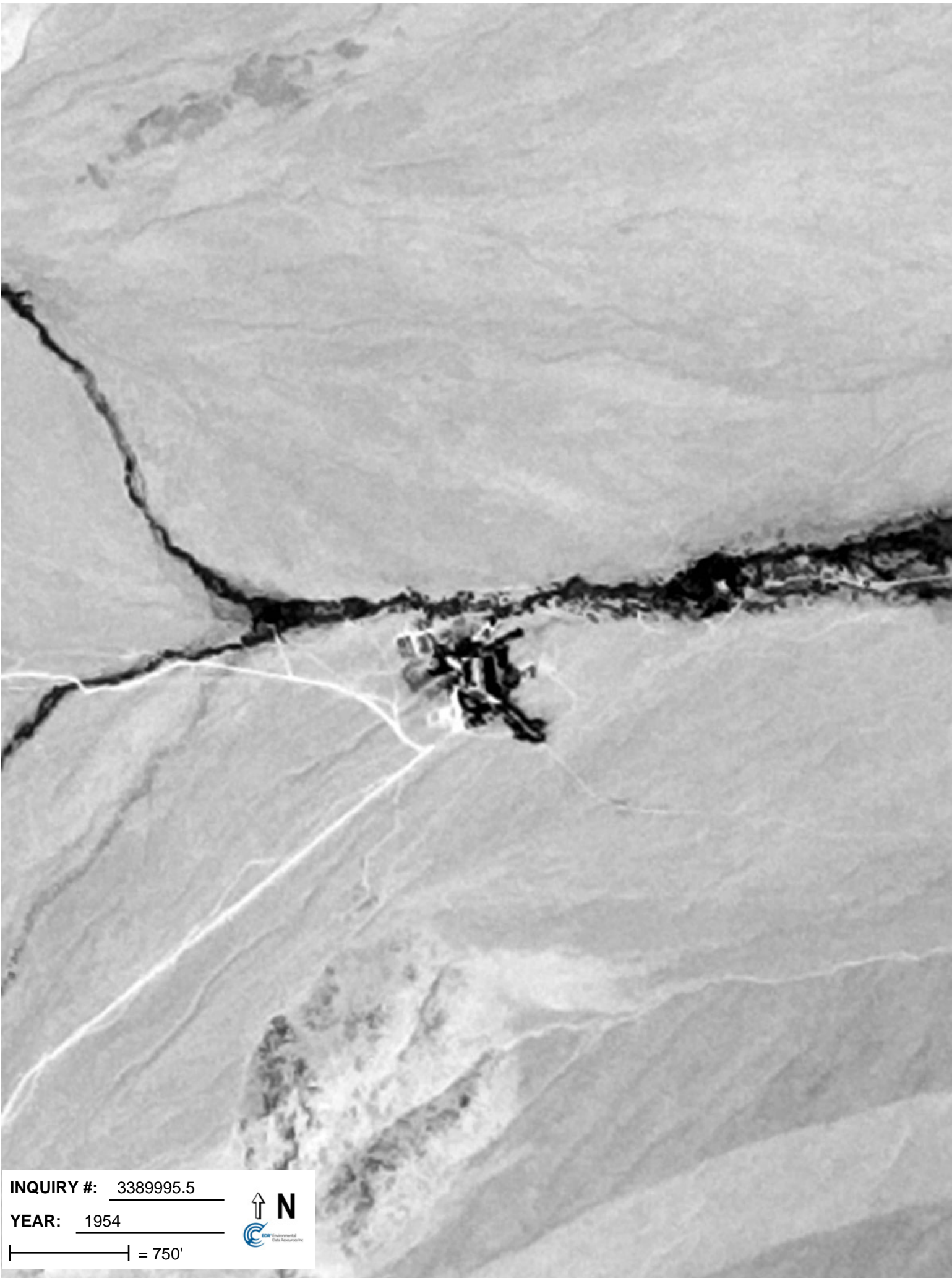


INQUIRY #: 3389995.5

YEAR: 1947

 = 623'





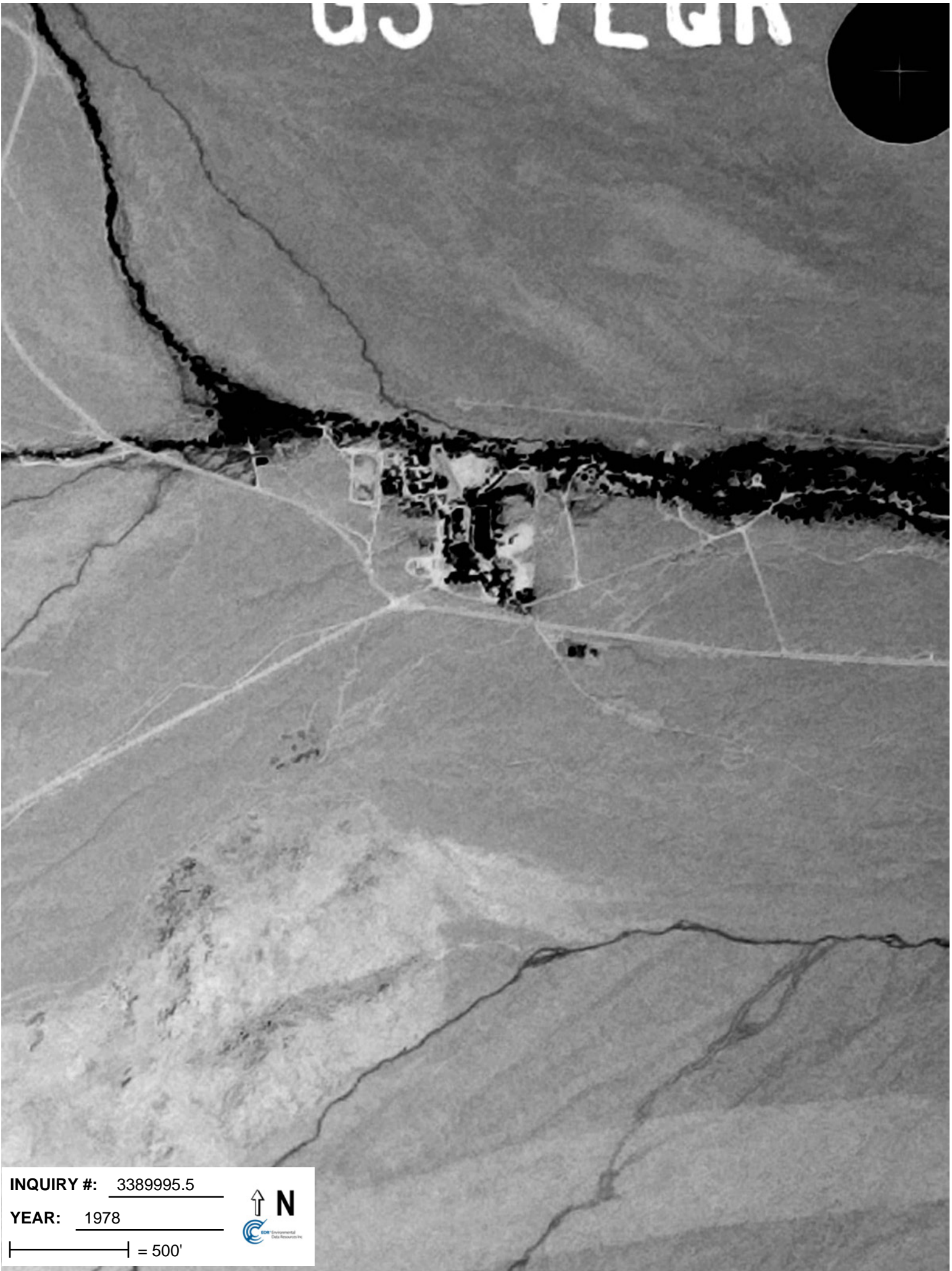
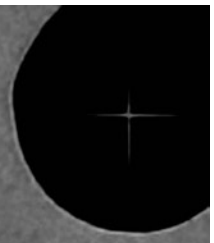
INQUIRY #: 3389995.5

YEAR: 1954

| = 750'



US - VEGR



INQUIRY #: 3389995.5

YEAR: 1978

| = 500'





INQUIRY #: 3389995.5

YEAR: 1988

| = 666'





INQUIRY #: 3389995.5

YEAR: 1998, 1999 (DOQQ)

| = 500'





INQUIRY #: 3389995.5

YEAR: 2005

| = 500'





INQUIRY #: 3389995.5

YEAR: 2006

| = 500'



Appendix H
Interview Documentation

PURCHASER QUESTIONNAIRE

Note: In order to qualify for one of the *Landowner Liability Protections* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendment*") the PURCHASER must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "All Appropriate Inquiry" is not complete.

Site Name: Mt. Whitney Fish Hatchery

Address: 1 Golden Trout Circle, Independence, California 93526

The person who will use the Phase One Report should provide the following information. Please fill in this form to the best of your ability, explaining any Yes answers on a separate sheet of paper. Without these answers, our report would have to note that the Phase One is incomplete, and your Landowner Liability Protections could be at risk.

1. **Environmental Cleanup Liens.** ASTM requires the User to check for environmental liens that may be filed or recorded against the subject property under federal, tribal, state or local law. Such liens might be listed in the "exceptions to coverage" in the property's title insurance commitment or policy. Failure to check for these liens could put your Landowner Liability Protections at risk.

Have you checked for these environmental cleanup liens?

Yes No

Are you aware of any such liens against the subject property?

Yes No

2. **Activity and Use Limitations (AULs).** These include engineering controls (e.g., slurry walls, caps) and land use restrictions or institutional controls (e.g., deed restrictions, covenants) that may be in place at the site or filed under federal, tribal, state or local law.

Are you aware of any possible AULs involving the subject site?

Yes No

3. **Specialized Knowledge.** This involves personal knowledge or experience related to the subject property or nearby properties. For example, if you are involved in the same line of business as the current or former occupants of the property or an adjoining property, you would probably know of any chemicals, oil, degreasers, gasoline, or other hazardous substances commonly used in that type of business.

Do you have any specialized knowledge that might indicate the past or present use of such substances on the subject or nearby properties?

Yes No

4. **Fair Market Value (FMV).** A purchase price significantly below FMV may indicate an environmental problem. Please note that this question does not require an appraisal of the property. If the price is significantly below FMV, the User should consider whether it might be because contamination may be present at the property.

Is the purchase price significantly below fair market value?

Yes N/A

5. **Obvious Indicators.** This involves past or present spills, stains, releases, cleanups, etc. on or near the site.

Do you know of any obvious indicators of possible contamination on or near the site?

Yes No

6. **Common Knowledge.** Please use a separate sheet if necessary.

a. Describe the past uses of the property:

See Addendum

b. Describe any specific chemicals that may have been present at the property:

See Addendum

c. Describe any other information that may help us identify possible contamination:

See Addendum

Printed Name: Jim Branham

Jim Branham
Your Signature

10/30/12
Date

of separate sheets attached: _____
Explain Yes answers on a separate sheet.

Addendum to Purchaser Questionnaire

Property: Mt. Whitney Fish Hatchery; 1 Golden Trout Circle, Independence, CA 93526

Form Submitted By: The California State Sierra Nevada Conservancy (SNC), a State of California Public Agency

The California State SNC, a State of California Public Agency, is considering acquiring the subject property, as a no-cost transfer from the California Department of Fish & Game (DFG), a State of California Public Agency. The transaction, if it occurs, will be a State of California inter-agency real property transfer, and will not be a purchase transaction. The transfer itself, and its processes, are governed by California statute and rules, and may be subject to the oversight, review and/or approval by certain California control agencies.

The terms of the transfer are presently under development and are awaiting, among other things, the completion of the *Phase 1 Report* and property appraisal, so that they may be reviewed by the SNC. The SNC is also awaiting the DFG completion of its proposed transfer agreement; the SNC will be reviewing the terms and conditions of that agreement.

The SNC has, at this time, conducted no investigations of the property. It is first waiting to review the *Phase 1 Report*, and the proposed transfer agreement. The SNC will also be reviewing any legal encumbrances affecting the property, including existing easements and leases.

In the event that the SNC takes title to the property, it is its intent, consistent with its statutory mandate, to transfer the property to the County of Inyo (or another suitable and eligible partner), within a relatively short time period. The SNC does not intend to keep any portion of the property, to improve it, or to itself use it in any way, subject to any existing and continuing leases, easements or other rights.

Because it is not a purchaser of the property, but a potential recipient of the property from another State agency, because it does not intend to use or develop the property, and because its sole intent is to quickly transfer the entire property to the County of Inyo, the SNC has acted consistently with its intent and purpose, as reflected by the following answers to the *Purchaser Questionnaire*

1. Environmental Cleanup Liens.

Have you checked for these environmental cleanup liens? **No**

Other than reviewing the preliminary title report that was provided to the SNC that does not show any such liens, and the other documents made available to it, the SNC has not checked for filed or recorded liens against the property. Please see the above narrative.

Are you aware of any such liens against the subject property? **No**

Please also see the above narrative.

2. Activity and Use Limitations (AULs).

Are you aware of any possible AULs involving the subject site? **No**

Please also see the above narrative.

3. Specialized Knowledge.

Do you have any specialized knowledge that might indicate the past or present use of such substances on the subject or nearby properties?

No

The SNC has had no working exposure to the property, has no experience on or with the property, and is not involved in any business related to fish hatcheries. Please also see the above narrative.

4. Fair Market Value (FMV).

Is the purchase price significantly below fair market value?

N/A

Not applicable. There will be no payment or consideration made by the SNC for the property acquisition from DFG; there is no purchase price being paid. Please also see the above narrative.

5. Obvious Indicators.

Do you know of any obvious indicators of possible contamination on or near the site?

No

Please see the above narrative.

6. Common Knowledge.

Describe the past uses of the property:

The SNC is informed that the property, consisting of several earlier parcels, was acquired and used by the State of California as a fish hatchery for ninety (90) years. Prior to that the parcels making up the property were owned by several individuals and used for several purposes including residential quarters. Please also see the above narrative.

Describe any specific chemicals that may have been present at the property:

The SNC has no direct or indirect knowledge of chemical use on the property. Please see the above narrative.

Describe any other information that may help us identify possible contamination

The SNC is informed "whirling disease" has been identified in the creek serving as the water source which is one reason for DFG to cease using the facility as a fish producing facility.

Whirling disease affects fish in the trout and salmon family. By damaging cartilage, whirling disease can kill young fish directly, or cause infected fish to swim in an uncontrolled whirling motion. This can make it impossible for them to escape predators or to effectively seek food.

Whirling disease is caused by a microscopic parasite called *Myxobolus cerebralis*. The parasite was introduced to the United States from Europe in the 1950s and has spread to many streams across the United States. The whirling disease parasite has been found in wild fish and fish hatcheries in 25 states.

Once established in a stream, the parasite cannot be eradicated, nor can its worm host, without significantly damaging the ecosystem. Whirling disease has no known human health effects. Please also see the above narrative.

Submitted by:

A handwritten signature in cursive script that reads "Jim Branham". The signature is written in black ink and is positioned above a horizontal line.

Jim Branham, Executive Officer
Sierra Nevada Conservancy
October 30, 2012

USER QUESTIONNAIRE

Note: In order to qualify for one of the *Landowner Liability Protections* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendment*") the USER must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "All Appropriate Inquiry" is not complete.

Site Name: Mt. Whitney Fish Hatchery
Address: 1 Golden Trout Circle Independence, CA

The person who will use the Phase One should provide the following information. Please fill in this form to the best of your ability, explaining any Yes answers on a separate sheet of paper. Without these answers, our report would have to note that the Phase One is incomplete, and your Landowner Liability Protections could be at risk. We need these answers before we conduct the site visit.

1. **Environmental Cleanup Liens.** ASTM requires the User to check for environmental liens that may be filed or recorded against the subject property under federal, tribal, state or local law. Such liens might be listed in the "exceptions to coverage" in the property's title insurance commitment or policy. Failure to check for these liens could put your Landowner Liability Protections at risk.

Have you checked for these environmental cleanup liens? Yes No
Are you aware of any such liens against the subject property? Yes No

2. **Activity and Use Limitations (AULs).** These include engineering controls (e.g., slurry walls, caps) and land use restrictions or institutional controls (e.g., deed restrictions, covenants) that may be in place at the site or filed under federal, tribal, state or local law.

Are you aware of any possible AULs involving the subject site? Yes No

3. **Specialized Knowledge.** This involves personal knowledge or experience related to the subject property or nearby properties. For example, if you are involved in the same line of business as the current or former occupants of the property or an adjoining property, you would probably know of any chemicals, oil, degreasers, gasoline, or other hazardous substances commonly used in that type of business.

Do you have any specialized knowledge that might indicate the past or present use of such substances on the subject or nearby properties? Yes No

4. **Fair Market Value (FMV).** A purchase price significantly below FMV may indicate an environmental problem. Please note that this question does not require an appraisal of the property. If the price is significantly below FMV, the User should consider whether it might be because contamination may be present at the property.

Is the purchase price significantly below fair market value? Yes No

5. **Obvious Indicators.** This involves past or present spills, stains, releases, cleanups, etc. on or near the site.

Do you know of any obvious indicators of possible contamination on or near the site? Yes No

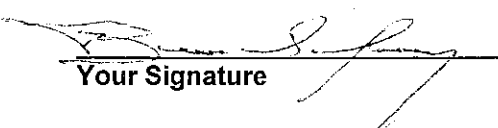
6. **Common Knowledge.** Please use a separate sheet if necessary.

a. Describe the past uses of the property: Commercial Fish hatchery
operated by the California Dept of Fish & Game

b. Describe any specific chemicals that may have been present at the property: general house hold
cleaning chemicals

c. Describe any other information that may help us identify possible contamination: N/A

Printed Name: Bruce S. Ivett

Your Signature 

8-23-2012
Date

of separate sheets attached: _____
Explain Yes answers on a separate sheet.

SITE MANAGER QUESTIONNAIRE

Note: In order to qualify for one of the *Landowner Liability Protections* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendment*") the USER must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "All Appropriate Inquiry" is not complete.

Site Name: Mt. Whitney Fish Hatchery

Address: 1 Golden Trout Circle, Independence, CA

How long have you been associated/operated the facility listed above 42 years

Describe the type of business State of California Commercial Fish Hatchery

1. **Environmental Cleanup Liens.** ASTM requires the User to check for environmental liens that may be filed or recorded against the subject property under federal, tribal, state or local law. Such liens might be listed in the "exceptions to coverage" in the property's title insurance commitment or policy. Failure to check for these liens could put your Landowner Liability Protections at risk.

Have you checked for these environmental cleanup liens? Yes No
Are you aware of any such liens against the subject property? Yes No

2. **Activity and Use Limitations (AULs).** These include engineering controls (e.g., slurry walls, caps) and land use restrictions or institutional controls (e.g., deed restrictions, covenants) that may be in place at the site or filed under federal, tribal, state or local law.

Are you aware of any possible AULs involving the subject site? Yes No

3. **Specialized Knowledge.** This involves personal knowledge or experience related to the subject property or nearby properties. For example, if you are involved in the same line of business as the current or former occupants of the property or an adjoining property, you would probably know of any chemicals, oil, degreasers, gasoline, or other hazardous substances commonly used in that type of business.

Do you have any specialized knowledge that might indicate the past or present use of such substances on the subject or nearby properties? Yes No

4. **Fair Market Value (FMV).** A purchase price significantly below FMV may indicate an environmental problem. Please note that this question does not require an appraisal of the property. If the price is significantly below FMV, the User should consider whether it might be because contamination may be present at the property.

Is the purchase price significantly below fair market value? Yes No

5. **Obvious Indicators.** This involves past or present spills, stains, releases, cleanups, etc. on or near the site.

Do you know of any obvious indicators of possible contamination on or near the site? Yes No

6. **Common Knowledge.** Please use a separate sheet if necessary.

a. Describe the past uses of the property: Commercial Fish Hatchery
operated by the CA Dept of Game & Fish.

b. Describe any specific chemicals that may have been present at the property: gasoline, hydraulic
fluid, formaldehyde, ammonia, Malachite Green, used motor oil

c. Describe any other information that may help us identify possible contamination: (1) 500 gal UST
and (1) 1,000 gal UST removed in late 1980's, one tank leaked.

Printed Name: JAMES G. RILEY JR

James G. Riley Jr
Your Signature

9-23-12
Date

of separate sheets attached: _____
Explain Yes answers on a separate sheet.

CONVERSATION RECORD			TIME 3:40	DATE 8/23/12
TYPE	<input checked="" type="checkbox"/> VISIT	<input type="checkbox"/> CONFERENCE	<input type="checkbox"/> TELEPHONE	
	Location of Visit / Conference:			<input type="checkbox"/> INCOMING
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU		ORGANIZATION (Office, dept., bureau,	TELEPHONE NO.	
Sheri Aust		Inyo County	760 878-0261	
SUBJECT				
Mt. Whitney Fish Hatchery				

SUMMARY

Spoke with Sheri regarding records & permits for the Mt. Whitney Fish Hatchery site.

- Sheri said since it was a state owned & operated facility, Inyo Co maintained very few records. Sheri requested I speak w/ Marvin Moskowitz (Director) for more info.

- Sheri was able to provide reports & records for the UST removal & clean up.

ACTION REQUIRED

Copied all UST related docs

NAME OF PERSON DOCUMENTING CONVERSATION	SIGNATURE	DATE
Brian Loffman		8/23/12

ACTION TAKEN	SIGNATURE	TITLE	DATE

CONVERSATION RECORD

TIME 2:05

DATE 8/27/12

TYPE

VISIT

CONFERENCE

TELEPHONE

INCOMING

OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit / Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Bruce Kinney

ORGANIZATION (Office, dept., bureau,

CA Dept Fish & Game

TELEPHONE NO.

760-872-1129

SUBJECT

Mt. Whitney Fish Hatchery

SUMMARY

Inquired if any records/documents were available for the Mt. Whitney Fish Hatchery. records specific to operations, chemicals, Petroleum or hazardous materials used at the site.

- Bruce was not aware of the specific operations at the MWFH Site or chemicals used but who would put me in touch with Gary Williams.

- Gary is the hatches manager for the region.

Bruce Kinney - Regional Manager
CA Dept Fish & Game

ACTION REQUIRED

Speak w/ Gary Williams.

NAME OF PERSON DOCUMENTING CONVERSATION

Brian Coffman

SIGNATURE



DATE

8/27/12

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD

TIME 3:45 pm

DATE 8/27/12

TYPE

VISIT

CONFERENCE

TELEPHONE

INCOMING

OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit / Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Mark Long

ORGANIZATION (Office, dept., bureau, Inyo County Env Health Services

TELEPHONE NO. 760-878 0361

SUBJECT

Mt. Whitney Fish Hatchery.

SUMMARY

Spoke with Mark Long regarding records, permits etc that Inyo County may have on the fish hatchery site.

Mark said Inyo County regulated the site under CUPA for several years for the propane usage.

CUPA - Certified Unified Program Agencies -> administers the technical implementation of hazardous materials coordination under DTSC.

Mark performed site visits, while regulated, and did not discover or observe the prescence of hazardous materials.

ACTION REQUIRED

none

NAME OF PERSON DOCUMENTING CONVERSATION

Brian Loffman

SIGNATURE



DATE

8/27/12

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD			TIME	DATE 9/10/12
TYPE	<input type="checkbox"/> VISIT	<input type="checkbox"/> CONFERENCE	<input checked="" type="checkbox"/> TELEPHONE	
			<input type="checkbox"/> INCOMING	<input type="checkbox"/> OUTGOING
Location of Visit / Conference:				
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU		ORGANIZATION (Office, dept., bureau,	TELEPHONE NO.	
Merie Hannah		Inyo County	760-878 0222	
SUBJECT		Recorders office.		

SUMMARY

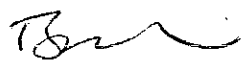
Inquired as to the ownership history of the Mt. Whitney Fish Hatchery site.

Hannah stated she needed some time to review files and would get back to me.

- Hannah stated records & documentation for parcels and transactions that occurred nearly 100 years ago would be very time consuming.

She did find that the site was owned by Andrew Neal Bell prior to 1915 and from 1915 to current it was CA DF&C.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION	SIGNATURE	DATE
Brian Loffman		9/10/12

ACTION TAKEN

SIGNATURE	TITLE	DATE

CONVERSATION RECORD			TIME 1145	DATE 10/25/12	
TYPE	<input type="checkbox"/> VISIT	<input type="checkbox"/> CONFERENCE	<input checked="" type="checkbox"/> TELEPHONE		
Location of Visit / Conference:			<input type="checkbox"/> INCOMING	<input checked="" type="checkbox"/> OUTGOING	
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU	ORGANIZATION (Office, dept., bureau,	TELEPHONE NO.			
Gary Williams	CA DF&G	760-241-8472			
SUBJECT				ROUTING	
Mt. Whitney Fish Hatchery Operations				NAME/SYMBOL	INT

SUMMARY

Spoke with Gary Williams (Senior Hatcheries Supervisor) regarding environmental issues at the site. Williams stated he was a former manager of the MWFH and was unaware of any significant environmental issues at the site with the exception of the LUST case.

Discussed the chemicals listed in the active NPDES permit for the MWFH. Williams said the list seemed to be consistent with the types of chemicals used at the site.

Williams will have one of his staff look for historical records on the MWFH site.

ACTION REQUIRED
None

NAME OF PERSON DOCUMENTING CONVERSATION	SIGNATURE	DATE
Brian Loffman		10/25/12

ACTION TAKEN	SIGNATURE	TITLE	DATE

Appendix I

Qualification of the Environmental Professional

STATEMENT OF QUALIFICATIONS

I declare, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject site. I have developed and performed all appropriate inquiries in conformance with the standard and practices set forth in CFR Part 312.



Brian K. Loffman, CEM
Project Manager

Brian K. Loffman, CEM

BS, Water Resources. University of Arizona, Tucson, Arizona, 1995.
Certified Environmental Manager (CEM), No. 2265, NDEP.

Brian Loffman has more than 15 years of experience and expertise in the environmental and water resources industries. Brian has conducted environmental investigations for hazardous and non-hazardous wastes for commercial, municipal and federal projects throughout the southwest and Mexico. He has managed and prepared numerous Environmental Site Assessments (ESAs) for real estate transfers, bank loans, and redevelopment projects. Brian has been directly involved with the design, installation, and operations and maintenance of a variety of groundwater and soil remediation systems including groundwater pump and treat, aquifer sparging, soil vapor extraction, bioventing, in-situ circulation cell, oxygen releasing compound, hydrogen peroxide, and high vacuum dual phase extraction. His experience includes groundwater monitoring and sampling, relevant Quality Assurance/Quality Control (QA/QC) methodologies, and National Pollutant Discharge Elimination System (NPDES) permitting.