Lake Tahoe Geographic Response Plan

El Dorado and Placer Counties, California
and
Douglas and Washoe Counties, and Carson City, Nevada

September 2007

Prepared by:
Lake Tahoe Response Plan Area Committee (LTRPAC)

If this is an Emergency…

…Involving a release or threatened release of hazardous materials, petroleum products, or other contaminants impacting public health and/or the environment

Most important – Protect yourself and others!

Then:

1) Turn to the **Immediate Action Guide** (Yellow Tab) for initial steps taken in a hazardous material, petroleum product, or other contaminant emergency.

First On-Scene
(Fire, Law, EMS, Public, etc.)

*will notify local **Dispatch** (via 911 or radio)*

A complete list of Dispatch Centers can be found beginning on page R-2 of this plan

Dispatch will make the following Mandatory Notifications

California State Warning Center (OES)	(800) 852-7550 or (916) 845-8911
Nevada Division of Emergency Management	(775) 687-0300 or (775) 687-0400
National Response Center	(800) 424-8802

Dispatch will also consider notifying the following **Affected or Adjacent Agencies:**

- ❒ County Environmental Health
- ❒ Local OES - County Emergency Management
- ❒ Truckee River Water Master (775) 742-9289
- ❒ Local Drinking Water Agencies

2) After the ***Mandatory Notifications*** are made, use **Notification** (Red Tab) to implement the notification procedures described in the **Immediate Action Guide**.

3) Use the **Lake Tahoe Basin Maps** (Green Tab) to pinpoint the location and surrounding geography of the incident site.

4) Use the **Lake and River Response Strategies** (Blue Tab) to develop a mitigation plan.

5) Review the **Supporting Documentation** (White Tabs) for additional information needed during the response.

Lake Tahoe Geographic Response Plan
Table of Contents

Lake Tahoe Geographic Response Plan
Table of Contents
(continued)

Page Number

Small Tabs – Supporting Documentation for use in an Emergency Response

Lake Tahoe Geographic Response Plan
Table of Contents
(continued)

Page Number

Small Tabs – Supporting Documentation for use in an Emergency Response

ACKNOWLEDGEMENTS

The Lake Tahoe Geographic Response Plan (LTGRP) was developed through a collaborative effort among the local, state, and federal government agencies listed below.

Local Government

- Carson City Combined Dispatch
- Douglas County Emergency Management
- El Dorado County Environmental Management
- Incline Village General Improvement District
- Kingsbury General Improvement District
- Lake Valley Fire District
- Meeks Bay Fire Protection District
- Nevada Tahoe Conservation District
- North Lake Tahoe Fire Protection District (NV)
- North Tahoe Fire Protection District (CA)
- Placer County Environmental Health
- Placer County Office of Emergency Services
- Placer County Sheriff's Office
- Round Hill General Improvement District
- South Lake Tahoe Fire Department
- South Lake Tahoe Police Department
- Tahoe Douglas Fire Protection District
- Truckee Fire Department
- Washoe County District Health Department
- Washoe County Sheriff

State Government

- California Department of Toxic Substances Control
- California Highway Patrol
- California Office of Emergency Services
- California Department of Fish and Game, Office of Spill Prevention and Response
- California Regional Water Quality Control Board - Lahontan
- Nevada Department of Transportation
- Nevada Department of Wildlife
- Nevada Division of Emergency Management
- Nevada Division of Environmental Protection

Tribes

- Washo Tribe

Federal Government

- U.S. Environmental Protection Agency (EPA) Region 9
    - EPA's Superfund Technical Assessment and Response Team (START), URS Operating Services, Inc.
- U.S. Bureau of Reclamation
- U.S. Coast Guard
- U.S. Fish and Wildlife Service
- U.S. Geologic Survey
- USDA - Forest Service

Other Agencies/Companies

- Aramark/Lake Tahoe Cruises
- Desert Research Institute
- H2O Environmental
- H2O Vessel Assist
- High Sierra Marine, Inc
- Pacific Built
- Tahoe Environmental Research Center
- Tahoe Regional Planning Agency
- Tahoe Science Consortium
- Universal Environmental

PLAN OVERVIEW

Purpose

1. The Lake Tahoe Geographic Response Plan (LTGRP) establishes the policies, responsibilities, and procedures required to protect life, environment, and property from the effects of hazardous materials incidents.

2. This plan establishes the emergency response organization for hazardous materials incidents occurring within the Lake Tahoe watershed. The plan is generally intended to be used for oil spills or chemical releases that impact or could potentially impact drainages entering Lake Tahoe, Lake Tahoe itself, and its outflow at the Truckee River.

3. The LTGRP is the principal guide for agencies within the Lake Tahoe watershed, its incorporated cities, and other local government entities in mitigating hazardous materials emergencies. This plan is consistent with federal, state, and local laws and is intended to facilitate multi-agency and multi-jurisdictional coordination in hazardous materials emergencies, particularly among local, state, and federal agencies.

4. This plan is an operational plan as well as a reference document. It may be used for pre-emergency planning and emergency response. Agencies having roles and responsibilities established by this plan are encouraged to develop standard operating procedures (SOPs) and emergency response checklists based on the provisions of this plan.

5. This plan provides a description of various response strategies for use during oil spills or chemical releases in the Lake Tahoe Basin.

Plan Objectives

1. Describe the overall emergency response organization for hazardous materials incidents occurring within the Lake Tahoe response area.

2. Establish a prompt and efficient notification system that ensures that the appropriate local, state, and federal response agencies are informed of oil spills and chemical releases impacting the lake.

3. Identify lake and river response strategies in advance, so that response personnel can more effectively deploy personnel and equipment.

4. Delineate the responsibilities of local, state, and federal agencies in the event of a hazardous materials incident within the Lake Tahoe response areas.

5. Establish lines of authority, coordination and notification for hazardous materials incidents.

6. Facilitate mutual aid to supplement local resources.

7. Describe procedures for accessing outside funding (e.g., state and federal funding) for the mitigation of, and recovery from, hazardous materials incidents.

Incident Objectives

For emergency response personnel to evaluate hazardous materials and take appropriate emergency actions in order to save lives, reduce injuries, and prevent or minimize damage to the environment and property, the following actions should be taken:

1. Secure the *affected* area, isolate the hazard, deny the entry of unauthorized persons into the area, and ensure appropriate notifications.

2. Identify the hazardous material.

3. Provide rapid and effective warning, information, and instructions to threatened populations.

4. Provide means to access technical resources to stabilize the affected area and return to normal conditions as quickly as possible.

5. Train and equip emergency response personnel (hazardous materials (HazMat) team members as well as first responders) to mitigate hazardous materials incidents efficiently and effectively.

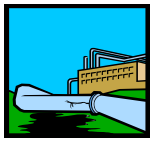
How to Use the Immediate Action Guide

IF YOU ARE NOT QUALIFED TO ACTIVATE THIS PLAN:
DIAL 911 AND ASK FOR ASSISTANCE

Complete the following steps to activate the Lake Tahoe Geographic Response Plan.

Make Initial Mandatory Notifications

Review General Information Regarding HazMat Response



Identify Lake, Roadway, and Fixed Facility Incidents

- and/or -

Abandoned/Unknown Containers and WMD

Public Information/Press Release

This is only a guide:
Nothing in this section shall supersede the experience, initiative, and ingenuity of the responders in overcoming the complexities of actual emergency conditions.

Make Initial Mandatory Notifications

Collect the following information whenever there is a threat or actual discharge of hazardous materials, petroleum products, or other contaminants into a waterway*.

* *A waterway is defined as any river, stream, tributary, creek, ditch, canal, storm drain, or sewer that is part of, connected to, or has the ability to discharge into Lake Tahoe.*

Provide the following information to Dispatch making initial ***Mandatory Notifications***:

- Caller name, agency or affiliation, and call back number
- Type of incident (Lake, Motor Transport, Fixed Facility, etc.)
- Date and time of the incident
- Location where the incident happened
- Number of injuries
- Product name (if known)
- Type of release
  - ☐ Solid ☐ Liquid ☐ Gas
- Size of spill
  - ➢ Quantity_____
- Location where the product entered or will enter the waterway
- Area threatened

Refer to the Red Tab for the Emergency Notification Guide and the Contact Number List to make additional notifications.

Review General Information Regarding HazMat Response

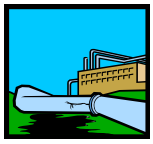
First Responder

1. Approach the incident location from an upwind, uphill, and/or upstream direction.
2. Position the vehicle heading away from the incident location.
3. If available wear full protective clothing (i.e., turnouts-pants, coat, hood, gloves, boots, helmet) and positive-pressure, self-contained breathing apparatus (SCBA).
4. Avoid “rushing” into the area.
5. Avoid entering or approaching vapors or smoke and contact with product.
6. Confine exposed victims for emergency decontamination.
7. Consider all unidentified containers or released products (including smoke) as a hazardous material until it is positively identified as non-hazardous.

Incident Command and Scene Security

1. Establish an Incident Command Post and fully implement the Incident Command System (ICS).
2. Isolate the scene and deny entry to all unauthorized personnel, vehicles, and equipment (establish a perimeter).
3. Notify appropriate emergency response agencies (**Notification -** Red Tab).
4. Ensure qualified personnel perform the items on the checklist.
5. Review the following checklist:

	Immediate Action Checklist	Date/Time
1.	Establish Incident Command	
2.	Determine isolation zones	
3.	Establish exact incident location	
4.	Determine lead agency	
5.	Identify product	
6.	Determine the size of exclusion zone	
7.	Determine level of response	
8.	Determine if additional resources are required	
9.	Established size of spill and spill potential	
10.	If spill can reach a waterway, begin downstream notifications	
11.	Establish evacuation routes	
12.	Determine medical needs	
13.	Determine entry level (Personal Protective Equipment (PPE))	
14.	Determine communications needs	
15.	Make appropriate notifications	
16.	Determine exposures	
17.	Develop Incident Action Plan	



Identify Lake, Roadway, and Fixed Facility Incidents

Responder

1. Notify Local Emergency Dispatch – Activate 911.
2. Isolate and deny entry to the area.
3. Shut down all possible ignition sources (Stop ALL vehicle traffic).
4. Establish Perimeters.
5. Attempt to identify the material.

Dispatcher

1. Determine the following information
   - Type of Incident (Lake, Motor Transport, Fixed Facility, etc.)
   - Date and Time of Incident
   - Location where the incident happened
     - Mile marker
     - Accessibility
     - Latitude/longitude
   - Number of Injuries
   - Product name (if known)
   - Type of release
     - ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity_____
     - (If quantity is unknown, describe size of the leaking container)
   - Has the spill ignited? Yes____ No____
   - Any information on container?
   - Has the spill been contained? Yes____ No____
   - Has the spill impacted the surface water? Yes____ No____
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Proximity to roadway, bridges, drainage structures, waterways
2. Make the initial ***Mandatory Notifications*** (**Notification** – Red Tab)
3. Determine and contact the owner and/or potentially responsible party
   - Vessel Owner or Operator
   - Trucking Company/Shipper
   - Fixed Facility Emergency Coordinator
4. Upon Incident Command/Unified Command approval, request assistance from local hazardous materials response team, state, and federal agencies as necessary.
5. Provide updates to all notified agencies as new information becomes available.

Abandoned/Unknown Containers and WMD

Responder

1. Notify Local Emergency Dispatch – Activate 911.
2. Isolate and deny entry to the area.
3. Shut down all possible ignition sources (Stop ALL vehicle traffic).
4. Establish Perimeters.
5. Attempt to identify the material. DO NOT MOVE THE CONTAINER OR DETERMINE IF IT IS FULL.
6. For Weapons of Mass Destruction (WMD) or Nuclear, Biological, or Chemical (NBC) device, determine if there are secondary devices or contact appropriate agency (police or bomb squad) to do so.
7. Treat location as a *possible crime scene*!

Dispatcher

1. Determine the following information:
   - Location of the container
   - Date and time of discovery
   - Number of Injuries
   - Product name (if known)
   - Has the container been breached? Yes____ No_____
   - Type of Release
     - ☐ Solid ☐ Liquid ☐ Gas
   - Size of spill
     - Quantity_____
     - (If quantity is unknown, describe size of the leaking container)
   - Has the spill ignited? Yes____ No____
   - Can the spill be contained? Yes____ No____
   - Has the spill impacted the surface water? Yes____ No____
   - Description of exposures
     - Occupied buildings
     - Important buildings or structures
     - Proximity to roadway, bridges, drainage structures, waterways
2. Make the initial ***Mandatory Notifications*** (**Notification** – Red Tab).
3. Upon Incident Command/Unified Command approval, request assistance from local hazardous materials response team, state, and federal agencies as necessary.
4. Provide updates to all notified agencies as new information becomes available.

Public Information/Press Release

To release information to the public/media:

1. Establish a Lead Public Information Officer (PIO). All releases of information to the public and/or the media must be approved by Incident Command/Unified Command.

2. Determine the following information for inclusion into a press release and/or press conference.
   - Nature of the incident
   - Precautions for the public and possible symptoms of exposure (High Hazard)
   - Date and time of incident
   - Approximate location where the incident happened (city, county, state)
   - Hotline number for public inquiries
   - Traffic patterns affected by spill
   - Number of injuries and property damage
   - Product name and normal uses
   - Response agencies involved
   - Any mitigation efforts underway
   - Evacuation instructions if incident is considered High Hazard
   - Mass care information if High Hazard

3. The following example statement can be used.

Hazardous Material Incident - Summary Statement for Media

At approximately (time) a.m./p.m. today, a spill/release of a potentially hazardous substance was reported to this office. Emergency services personnel were immediately dispatched to cordon off the area and direct traffic.

The material was later determined to be (substance), a (hazardous/harmless) chemical/substance/material/gas that, upon contact, may produce symptoms of (list symptoms). Precautionary evacuation of the (location) area surrounding the spill was (requested/required). Approximately (number) persons were evacuated.

Clean-up crews from (agency/company) were dispatched to the scene, and normal traffic was resumed by (time), at which time residents were allowed to return to their homes. There were no injuries reported – OR – (number) persons, including (number) of emergency personnel, were treated at area hospitals for (injuries/symptoms) and (all/number) were later released. Those remaining in the hospital are in (condition). Response agencies involved were (list agencies).

NOTIFICATION OVERVIEW

The chart below shows the flow of notifications that must be made in a hazardous material, petroleum product, or other contaminant emergency.

First On-Scene
(Fire, Law, EMS, Public, etc.)

*will notify local **Dispatch** (via 911 or radio)*

A complete list of Dispatch Centers can be found beginning on page R-2 of this plan

↓

Dispatch will make the following ***Mandatory Notifications***	
California State Warning Center (OES)	(800) 852-7550 or (916) 845-8911
Nevada Division of Emergency Management	(775) 687-0300 or (775) 687-0400
National Response Center	(800) 424-8802
Dispatch will also consider notifying the following **Affected or Adjacent Agencies**	
❒ County Environmental Health ❒ Local Office of Emergency Services (OES) - County Emergency Management ❒ Truckee River Water Master	(775) 742-9289
❒ Local Drinking Water Agencies	

To ensure that all affected agencies/organizations are notified:

1) First On-Scene will notify Dispatch. (Page R-2 for List of Dispatch Centers)
2) Dispatch will make the ***Mandatory Notifications.***
3) Use the **Emergency Notification Guide** (Notification – Red Tab) to contact additional agencies/organizations.
4) Use the **Contact Number List** (Notification – Red Tab) to find emergency phone numbers.

For updates to the contact information, contact Tom Dunkelman at (775) 687-9480 or dunkelman.tom@epa.gov or Jeryl Gardner at (775) 687-9385 or jgardner@ndep.nv.gov.

List of Dispatch Centers

Dispatch Center	Phone Number	Area of Dispatch	Agencies Notified
Law Enforcement and Fire/Emergency Medical Services			
Placer County, CA	(530) 581-6331	Placer County, North shore and West Shore of Lake Tahoe Basin including Tahoe City and Kings Beach	Placer County Sheriff, North Tahoe FD and PD, Meeks Bay FD
Grass Valley, CA	(530) 477-0641	Truckee, Tahoe National Forest	Truckee Fire, Truckee and Placer County OES Hazmat, CDF Tahoe National Forest
Carson City, NV	(775) 887-2007	Carson City (including portions of the Lake Tahoe Basin)	Carson City Sheriff, Carson City Fire, Carson City Environmental Health, Quad County Hazmat Team
Washoe County, NV	(775) 831-0555	Washoe County (including portions of the Lake Tahoe Basin – Incline Village)	Washoe County Sheriff, North Lake Tahoe Fire, Washoe County DEM, Reno Sparks Hazmat Team
Douglas County, NV	(775) 782-9911	Douglas County (including portions of the Lake Tahoe Basin – Stateline, Kingsbury, Round Hill, Glenbrook and Zephyr Cove	Douglas County Sheriff, Minden, Tahoe Douglas Fire, Quad County Hazmat Team
South Lake Tahoe, CA	(530) 542-6110	City of South Lake Tahoe and East Slope of El Dorado County	South Lake Tahoe Police, Lake Valley Fire, South Lake Fire, Fallen Leaf Fire, South Lake Tahoe Environmental Health
Fire/EMS Only			
Camino Dispatch	(530) 647-5224	West Slope of El Dorado County	El Dorado Fire, CDF, USFS
CALFIRE, Grass Valley, CA	(530) 477-0641	Nevada and Placer Counties	Truckee Fire, Placer County OES Hazmat Team, CDF-Tahoe National Forest

Dispatch Center	Phone Number	Area of Dispatch	Agencies Notified
Law Enforcement Only			
El Dorado County Sheriff (Placerville)	(530) 573-3300	El Dorado County outside of City of Lake Tahoe, portions of Lake Tahoe Basin including Tahoma, Meeks Bay, Emerald Bay, Fallen Leaf Lake, Meyers, Luther Pass, and Echo Summit/Echo Lakes	El Dorado County Sheriff and Environmental Health
California Highway Patrol (Truckee)	(530) 582-7550	All CA highways and county roadways in the Lake Tahoe Basin	CHP
Nevada Highway Patrol (Reno)	(775) 687-0400	All NV highways in the Lake Tahoe Basin	NHP
Nevada Department of Wildlife	(775) 688-1331	Lake Tahoe Basin	NDOW

Emergency Notification Guide

Emergency Notifications are made in accordance with the area plan developed by the appropriate Regional and Counties' Offices of Emergency Services.

Use the following checklist as a guide to contact additional agencies and organizations not listed in the Mandatory Notifications table above:

- Document the Time of Contact and Estimated Time of Arrival (ETA) in the space provided.
- Notifying the agencies downstream of the release may be mandatory or may have priority.
- Consider notifying other agencies listed when appropriate.
- Checklist may be used to identify agencies that can provide additional resources.

Local Agencies

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		Local Fire			Red Cross / Salvation Army
		Local Law			School Superintendent
		Hospital(s)			Local Government
		Property Owner(s)			Water Authorities
		Bordering Jurisdictions			Sewer Districts
		Airport			USA Underground
		Water Districts			Chemtrec or other product info sources
		Homeowner's Associations			Water Master
		News Media			Ditch Owners/Users
		Public Works			Other:
		Public Utilities			Other:

Continue on next page for further notifications

County Agencies

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		Sheriff's Office			Air Quality Control Board
		Environmental Health			Other:
		Office Emergency Services			Other:
		Health Officer			Other:
		Road Department			Other:

State of California Agencies

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		Highway Patrol			California RWQCB - Lahontan
		State Emergency Warning Center			Dept. of Forestry
		Fish and Game			State Historic Preservation Office
		CalEPA/DTSC			Other:
		CalOSHA			Other:
		CalTrans			Other:

Continue on next page for further notifications

State of Nevada Agencies

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		Highway Patrol			Div. of Forestry
		Div. of Emergency Management			State Historic Preservation Office
		Dept. of Wildlife			Other:
		Div. of Environmental Protection			Other:
		Div. of Industrial Relations			Other:
		Dept. of Transportation			Other:

Tribal Governments

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		Washo Tribe			Other:

Federal Agencies

Time Contacted	ETA	Agency	Time Contacted	ETA	Agency
		National Response Center (EPA and Coast Guard)			Bureau of Reclamation-Dams
		FBI			Other:
		Army Corps of Engineers			Other:
		USFWS			Other:
		USFS			Other:

Contact Number List

Agency	Emergency/24 hour	Daytime/Office	Agency/Company Purpose	Level
Agate Bay Water Company	(530) 386-4083	(530) 525-6659	Utilities	Local
Alpine County Sheriff (Markleeville, CA)	(530) 694-2231		Law	County
Alpine Meadows County Water District	(530) 546-1340	(530) 583-2342	Utilities	County
American Red Cross	(775) 856-1000		Volunteer Group	National
Aramark/Lake Tahoe Cruises	(530) 543-6123		Contract Support	Local
Barton Memorial Hospital (South Lake Tahoe)	(530) 541-3420	(530) 541-3420	Hospital	Local
BJs Barge Service (Salvage - Homewood)	(530) 525-5129	(530) 525-5129	Contract Support/Salvage	Local
Bureau of Alcohol, Tobacco & Firearms	(775) 784-5251	(775) 784-5251	Law	Federal
Bureau of Reclamation - Dam Operations	(775) 882-3436	(775) 882-3436	Environment/Operations	Federal
Boca & Prosser Lakes, Stampede Res. & Lake Tahoe Dams	(775) 882-3436	(775) 882-3436	Dam Operations	Federal
Bureau of Reclamation No. Nev. Ops- Water Master	(775) 882-3436	(775) 884-5241	Water Master	Federal
California Department of Fish and Game	(916) 358-1300	(916) 341-6957	Environment/Health	State
California Department of Forestry (CAL FIRE)	(530) 477-5761		Environment/Health	State
California Department of Parks and Recreation	(916) 358-1310	(530) 525-7232	Environment/Health	State
California Department of Toxics Substances Control	(800) 852-7550	(800) 260-3972	Environment/Health	State
California Environmental Protection Agency	(800) 260-3972		Environment/Health	State
California Highway Patrol	(530) 582-7500		Law	State
California Division of Occupational Safety and Health	(916) 263-2800	(800) 963-9424	Environment/Health	State
California Office of Emergency Services	(916) 845-8911		Emergency Management	State
California Public Utilties Commission	(800) 755-1447	(415) 703-2782	Utilities	State
California Regional Water Quality Control Board- Lahontan	(530) 542-5420	(530) 542-5400	Environment/Health	State
California Office of Historic Preservation	(916) 653-6624		Support	State
California State Warning Center	(800) 852-7550		Emergency Management	State
CalStar (Air Ambulance)	(530) 477-5761	(530) 477-0641	EMS	Local
CalTrans - District 3	(916) 859-7900		Roads	State
Camino Emergency Communication Center	(530) 644-5769		Dispatch	Local
Camp Richardson Marina	(530) 542-6570		Marina	Local
Carson City Combined Dispatch	(775) 887-2007		Dispatch	County
Carson City Public Works	(775) 887-2355		Public Works	County
Carson City Emergency Management	(775) 887-2007		Emergency Management	County
Carson City Environmental Health	(775) 887-2190		Environment/Health	County
Carson Tahoe Regional Healthcare (Carson City, NV)	(775) 445-8000		Hospital	Local
Carson Tahoe Minden Medical Center	(775) 445-8000		Hospital	Local
Cave Rock Skyland/Douglas County Water	(775) 782-6227		Utilities	Local
CHEMNET	(800) 424-9300		Support	National
Chemical Transport Emergency Center (CHEMTREC)	(800) 424-9300		Support	National
CHLORREP	(800) 424-9300		Support	National
Clean Harbors Environmental Services (Sparks)	(800) 645-8265	(775) 331-9400	Contract Support	Local

Contact Number List

Agency	Emergency/24 hour	Daytime/Office	Agency/Company Purpose	Level
Desert Research Institute	(775) 673-7322		Environment/Health	Local
Douglas County Road Department	(775) 782-9035		Roads	County
Douglas County Emergency Management	(775) 782-9911	(775) 782-9977	Emergency Management	County
Douglas County School District	(775) 782-5131		Schools	County
East Fork Fire and Paramedic (Douglas County)	(775) 782-9040		Fire and EMS	County
Edgewood Water Company	(775) 588-2205		Utilities	Local
El Dorado County Dispatch	(530) 573-3300		Dispatch	County
El Dorado County DOT	(530) 621-6600	(530) 573-3180	Roads	County
El Dorado County Office of Emergency Services	(530) 621-5895		Emergency Management	County
El Dorado County Environmental Management	(530) 621-6600	(530) 573-3451	Environment/Health	County
El Dorado County School District/Office of Education	(530) 622-7130		Schools	County
El Dorado County Sheriff	(530) 621-6600	(530) 573-3000	Law	County
Fallen Leaf Fire Department (South Lake Tahoe)	(530) 542-6148	(530) 542-1343	Fire	Local
Federal Avaition Administration	(310) 725-3300		Air Traffic	Federal
Federal Bureau of Investigations (FBI - Reno)	(775) 825-6600	(702) 385-1281	Law	Federal
Fulton Water Company	(530) 583-3644	(530) 583-3644	Utilities	Local
H2O Environmental (Spill Contractor - Reno)	(866) H2O-SPILL	(702) 396-4148	Contract Support	Local
H2O Vessel Assist (Salvage - Tahoe Keys)	(775) 832-0139	(530) 544-4522	Contract Support	Local
High Sierra Marine (Salvage - Tahoe City)	(530) 581-2628	(530) 581-2628	Contract Support	Local
Homewood Marina (Homewood)	(530) 525-5966		Marina	Local
Incline Village Community Hospital	(775) 833-4100		Hospital	Local
Incline Village General Improvement District - Public Works	(775) 832-1284	(775) 832-1203	Public Works	Local
Kinder Morgan	(775) 358-6971		Pipeline	National
Kingsbury General Improvement District	(775) 588-3548		Utilities	Local
KOLO Television (Reno)	(775) 858-8880		Media	Local
KVLV Radio (Reno)	(775) 423-2243		Media	Local
Lakeside Marina (South Lake Tahoe)	(530) 541-9800		Marina	Local
Lake Valley Fire Protection District	(530) 542-6148	(530) 577-3737	Fire	Local
Lead TV Emergency Alert System (Nevada)	(775) 858-8888		Media	Local
Lead TV Radio EAS (Nevada)	(775) 325-9178		Media	Local
Logan Shoals Marina (Glenbrook)	(775) 885-7775		Marina	Local
Meeks Bay Fire Protection District	(530) 525-7548		Fire	Local
Meeks Bay Marina	(530) 525-5588		Marina	Local
Minden Dispatch Center	(775) 883-5995		Dispatch	Local
Minden Medical Center	(775) 782-8181		Hospital	Local
NACA Pesticide Safety Team	(800) 424-9300		Support	Federal
National Park Service	(510) 817-1300		Environment/Health	Federal
National Response Center	(800) 424-8802		Environment/Health	Federal
National Weather Service	(775) 673-8100	(877) 687-6237	Support	Federal

Contact Number List

Agency	Emergency/24 hour	Daytime/Office	Agency/Company Purpose	Level
Nevada County Environmental Health	(530) 582-7842	(530) 582-7884	Environment/Health	County
Nevada County OES	(530) 273-2238	(530) 265-7880	Emergency Management	County
Nevada County Sheriff's Office	(530) 550-2320	(530) 582-7842	Law	County
Nevada Department of Transportation	(775) 888-7000	(775) 834-8300	Roads	State
Nevada Division of Emergency Management	(775) 687-0400	(775) 687-0300	Emergency Management	State
Nevada Div. of Environmental Protection - Spill Dept.	(775) 687-9485 (out state)	(888) 331-6337 (in state)	Environment/Health	State
Nevada Division of Forestry (Carson City)	(775) 883-5995	(775) 849-2500	Environment/Health	State
Nevada Division of State Parks (Incline Village)	(775) 831-0494		Environment/Health	State
Nevada Division of Water Resources	(775) 684-8641	(775) 684-2800	Environment/Health	State
Nevada Department of Wildlife	(775) 688-1331	(775) 688-1331	Environment/Law	State
Nevada Highway Patrol	(775) 688-2510	(775) 688-2830	Law	State
Nevada Homeland Security	(775) 687-0327		Law	State
Nevada OSHA (Reno)	(775) 824-4611	(702) 496-0447	Environment/Health	State
Nevada State Emergency Response Commision	(775) 687-6973		Environment/Health	State
Nevada State Health Division	(775) 684-4200		Environment/Health	State
Nevada State Historic Preservation Office	(775) 684-3448	(775) 684-3448	Support	State
Nevada Tahoe Conservation District	(775) 586-1610 x23		Environment/Health	State
Nevada Wing - Civil Air Patrol	(775) 687-0300	(775) 358-3700	Support	Federal
North Lake Tahoe Fire Protection District (NV)	(775) 831-0555	(775) 831-0351	Fire/EMS	Local
North Tahoe FPD (CA)	(530) 581-6335	(530) 583-6911	Fire	Local
North Tahoe Marina (Tahoe Vista)	(530) 546-8248		Marina	Local
North Tahoe Public Utility District	(530) 546-4212	(530) 546-4212	Utilities	Local
Northern Nevada Medical Center (Sparks)	(775) 331-7000		Hospital	Local
Northstar Community Services District	(530) 562-0747		Utilities	Local
Northstar Fire Department	(530) 477 0641	(530) 562-1212	Fire	Local
Obexer's Boat Company Marina	(530) 525-7962		Marina	Local
Occupational Safety and Health Agency (OSHA)	(800) 475-4020	(800) 321-6742	Environment/Health	Federal
Pacific Built (Salvage - Tahoe City)	(530) 583-3447		Contract Support	Local
PG & E	(800) 743-5000		Utilities	State
Placer County Department of Public Works	(530) 581-6207		Public Works	County
Placer County Dispatch	(530) 581-6331		Dispatch	County
Placer County Environmental Health	(530) 581-6331	(530) 581-6247	Environment/Health	County
Placer County OES/EOC	(530) 886-5375	(530) 886-5300	Emergency Management	County
Placer County School District/Office of Education	(530) 889-8020		Schools	County
Placer County Sheriff's Office	(530) 581-6330		Law	County
Poison Control Center - UC Davis	(916) 734-3692		Hospital	Local
REMSA/Care Flight - Air and Ground Ambulance	(775) 858-6005	(775) 858-5700	EMS	Local
Reno Dispatch	(775) 334-2161		Dispatch	Local
Reno Gazette Journal	(775) 788-6397	(775) 788-6200	Media	Local

Contact Number List

Agency	Emergency/24 hour	Daytime/Office	Agency/Company Purpose	Level
Reno Public Works	(775) 334-2350		Public Works	Local
Reno VA Hospital	(775) 786-7200		Hospital	Local
Round Hill General Improvement District	(775) 588-2571		Utilities	Local
Round Hill Pines Marina	(775) 588-3055		Marina	Local
Renown Regional Medical Center (Reno)	(775) 982-4100		Hospital	Local
Sacramento Bee	(916) 321-1000	(916) 321-1111	Media	Local
Saint Mary's Hospital (Reno)	(775) 770-3188	(775) 770-3000	Hospital	Local
Salvation Army	(775) 688-4555		Support	National
Sierra Boat Company Marina (Carnelian Bay)	(530) 546-2551		Marina	Local
Sierra Nevada Memorial Hospital (Grass Valley)	(530) 274-6000		Hospital	Local
Sierra Pacific Resources Power Company	(775) 834-4100	(775) 834-4444	Utilities	Local
Sierra Sun Newspaper (Truckee)	(530) 587-6061		Media	Local
Sierra View District Hospital (Porterville, CA)	(559) 784-1110		Hospital	Local
Sierra Water Mgmt, Glenbrook Water Company	(775) 790-0711		Utilities	Local
Ski Run Marina	(530) 544-0200		Marina	Local
South Lake Tahoe Fire	(530) 542-6163	(530) 542-6165	Fire	Local
South Lake Tahoe Police Department	(530) 542-6148	(530) 542-6100	Law	Local
Sunnyside Marina (Tahoe City)	(530) 583-7201		Marina	Local
Tahoe City Marina	(530) 583-1039		Marina	Local
Tahoe City Public Utility District	(775) 742-9827	(530) 583-3796	Utilities	Local
Tahoe Douglas Fire Protection District	(775) 782-9918	(775) 588-3591	Fire	Local
Tahoe Forest Hospital (Truckee)	(530) 587-6011		Hospital	Local
Tahoe Keys Marina	(530) 541-2155		Marina	Local
Tahoe Regional Planning Agency	(530) 416-2269	(775) 541-5020	Environment/Health	Regional
Tahoe Swiss Village Utilities, Inc	(530) 386-4083	(530) 525-6659	Utilities	Local
Tahoe Truckee Unified School District	(775) 742-9829	(530) 582-2510	Schools	Regional
Tahoe Water Suppliers Association	(775) 832-1284		Utilities	Local
Timber Cove Marina (South Lake Tahoe)	(530) 544-2942		Marina	Local
Truckee Donner PUD	(530) 587 2102	(530) 587 3896	Utilities	Local
Truckee Fire Protection District	(530) 477-0641	(530) 477-5761	Fire	Local
Truckee Meadows Water Authority	(775) 834-8273	(775) 834-8090	Utilities	Local
Truckee Office of Emergency Services	(530) 308-0607		Emergency Management	Local
Truckee Police Department	(530) 550-2320	(530) 582-7838	Law	Local
Truckee Public Works	(530) 582-7842	(530) 582-7707	Public Works	Local
Truckee River Federal Water Master	(775) 742-9289	(775) 530-4505	Environment/Health	Federal
Truckee Tahoe Sanitation Agency	(530) 587-2525		Utilities	Local
U.C. Davis Medical Center	(916) 734-2011		Hospital	Local
U.C. Davis Tahoe Environmental Research Center	(775) 583-3279		Environment/Health	Local
U.S. Army Corps of Engineers	(916) 557-6919		Environment/Health	Federal

Contact Number List

Agency	Emergency/24 hour	Daytime/Office	Agency/Company Purpose	Level
U.S. Coast Guard (Tahoe City)	(530) 583-4433	(530) 583-4433	Law	Federal
U.S. Department of Homeland Security	(202) 282-8000		Law	Federal
U.S. Department of Homeland Security FEMA REG 9	(800) 427-4661	(510) 627-7235	Law	Federal
U.S. Department of the Interior	(510) 817-1477	(415) 420-0524	Environment/Health	Federal
U.S. Department of Justice FBI (Reno, NV Office)	(775) 823-2623		Law	Federal
U.S. Environmental Protection Agency	(800) 424-8802	(800) 300-2193	Environment/Health	Federal
U.S. Fish and Wildlife Service	(775) 287-4678	(775) 861-6337	Environment/Health	Federal
U.S. Forest Service - Lake Tahoe Basin Mgmt. Unit	(602) 316-5531	(530) 543-2738	Environment/Health	Federal
U.S. Forest Service - Tahoe National Forest	(530) 477-7237	(530) 477-5761	Environment/Health	Federal
U.S. Geological Survey	(775) 887-7600	(650) 853-8300	Environment/Health	Federal
Underground Service Alert (USA)	(800) 227-2600		Support	National
Universal Environmental, Inc., Sparks, NV	(775) 351-2500	(775) 351-2500	Contract Support	Local
Washo Tribe	(775) 782-9087	(775) 265-8692	Environment/Health	Tribal
Washoe County Dept. of Transportation	(775) 888-7856	(775) 328-3010	Roads	County
Washoe County Division of Emergency Management	(775) 742-6944	(775) 337-5898	Emergency Management	County
Washoe County District Health	(775) 328-2436	(775) 328-2434	Environment/Health	County
Washoe County Public Works	(775) 771-9563	(775) 328-2040	Public Works	County
Washoe County School District	(775) 348-0200		Schools	County
Washoe County Sheriff (Incline Village)	(775) 832-4111		Law	County
Washoe County Sheriff (Reno)	(775) 334-2161		Law	County
Zephyr Cove Marina	(775) 588-5678		Marina	Local
Zephyr Water Utility District	(775) 782-6230		Utilities	Local

RADIO FREQUENCIES

LAKE TAHOE GEOGRAPHIC RESPONSE PLAN
COMMUNICATIONS PLAN

Communications at a hazardous materials incident occurring in the Lake Tahoe Basin will typically involve normal modes of communications, including telephones, cell phones, VHF radios, UHF radios, etc. A list of important phone numbers is provided in Notification section of this Plan. In addition, law enforcement agencies, fire departments and other emergency response groups operating in the Lake Tahoe Basin have FCC-assigned radio frequencies for conducting their normal operations. For security purposes, a decision was made not to list all of the agency-assigned frequencies in this plan; however, these frequencies may be obtained by contacting the agency of interest directly.

Radio communications within the Lake Tahoe Basin are complicated by the fact that the basin encompasses multiple municipalities, five counties, and two states; and may also involve both land and marine-based radio systems. During a significant incident that involves multiple jurisdictions, it will likely be necessary to develop an incident-specific communications plan. Typically this is accomplished with the use of an Incident Radio Communications Plan (ICS 205 form), a blank copy of which is included at the end of this section. A list of potential common VHF frequencies, which could be considered for use in an incident-specific communications plan, is provided in the following pages. These frequencies are in addition to the frequencies assigned to individual agencies.

It is anticipated that that the CALCORD frequency (156.075/CSQ) would be used for area wide coordination; while other available common frequencies (provided below) would be selected for command and tactical frequencies. Individual agency-assigned frequencies (not identified in this plan) could also be considered for use as tactical frequencies.

Other UHF frequencies exist which could also be considered for use as command or tactical frequencies. However, since the majority of agencies operating within the Lake Tahoe Basin operate on VHF frequencies, these UHF frequencies are not identified in this plan.

It is important to note that in order for an agency to operate on a particular frequency for which they do not have a license, that agency will need to obtain a letter license from the FCC licensed agency that utilizes the channel(s)/frequency(s) of interest or go through the FCC license process after coordination with that same state or local government agency. Provisions may exist which waive these requirements during times of an emergency.

INCIDENT RADIO COMMUNICATIONS PLAN	1. Incident Name TAHOE AREA CONTINGENCY DRAFT PG1	2. Date/Time Prepared	3. Operational Period Date/Time

4. Basic Radio Channel Utilization					
Radio Type/Cache	Channel	Function	Frequency/Tone	Assignment	Remarks
CALCORD	AS REQUIRED (A/R)	Interagency California	156.075 / CSQ	Incident command alt	All levels of government, all disciplines
NALEMARS	A/R	Law nationwide	155.475 / CSQ	Law command	All levels of government, law enforcement
WHITE 1	A/R	Fire nationwide	154.280 / CSQ	Fire command	All levels of government, fire, primarily used for command function
WHITE 2	A/R	Fire nationwide	154.265 / CSQ	Fire tactical	All levels of government, fire
WHITE 3	A/R	Fire nationwide	154.295 / CSQ	Fire tactical	All levels of government, fire
VCALL	A/R	Multi discipline nationwide	155.7525 / CSQ	Incident command	All levels of government, all disciplines, primarily a calling channel.
VTAC1	A/R	Multi discipline nationwide	151.1375 / CSQ	Tactical as required	All levels of government, all disciplines
VTAC2	A/R	Multi discipline nationwide	154.4525 / CSQ	Tactical as required	All levels of government, all disciplines
VTAC3	A/R	Interagency nationwide	158.7375 / CSQ	Tactical as required	All levels of government, all disciplines
VTAC4	A/R	Interagency nationwide	159.4725 / CSQ	Tactical as required	All levels of government, all disciplines

INCIDENT RADIO COMMUNICATIONS PLAN	1. Incident Name TAHOE AREA CONTINGENCY DRAFT PG1	2. Date/Time Prepared	3. Operational Period Date/Time

4. Basic Radio Channel Utilization

Radio Type/Cache	Channel	Function	Frequency/Tone	Assignment	Remarks
CLEMARS 1	A/R	Law California	154.920 / CSQ	Law tactical	All levels of government, law enforcement
CLEMARS 2	A/R	Law California	154.935 / CSQ	Law tactical	All levels of government, law enforcement
USCG CH 81A	81A OR A/R	Same as COLCORD USCG / interagency California	156.075 / CSQ	Incident command	Marine or land mobile public safety type accepted radios. All levels of government, all disciplines
USCG CH 83A	83A OR A/R	USCG and California OES	157.175 / CSQ	Tactical	Marine or land mobile public safety type accepted radios
USCG CH 16A	16A	USCG	16A	Tactical	Hailing or calling channel only. Marine type accepted radios only, land or water. Frequencies preprogrammed.
USCG CH 22A	22A	USCG	22/A	Tactical	Working or talking channel only. Marine type accepted radios only, land or water. Frequencies preprogrammed.

5. Prepared by (Communications Unit)

INCIDENT RADIO COMMUNICATIONS PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period Date/Time

4. Basic Radio Channel Utilization					
Radio Type/Cache	Channel	Function	Frequency/Tone	Assignment	Remarks

5. Prepared by (Communications Unit)

RESOURCES

The goal of the Resources section of this Plan is to identify significant resources, both personnel and equipment, that exist within the Lake Tahoe Basin or within close proximity; which could be utilized in the event of a significant oil spill or chemical release. This section does not identify response resources that would routinely be expected to be carried by response agencies such as personal protective equipment, basic air monitoring equipment, etc. This section also does not provide information regarding various pieces of equipment (such as pumps, heavy equipment, lights, generators, etc.) that may be available from Public Works Departments in the vicinity of the Tahoe basin; although some of this equipment may be useful during an oil or chemical spill. Contact city and county public works departments and emergency management offices regarding the availability of this type of equipment (phone numbers are provided in the Notification section (Red Tab) of this plan).

Additional information regarding the capabilities of response agencies is presented in the Roles and Responsibilities section of this plan. Phone numbers for the response agencies and private companies are presented in the Notification section of this Plan.

The following information is presented in this section:

- Response Vessel Summary. This information has been summarized into a table with information regarding the vessel owner, vessel type, vessel location, etc.
- Hazardous Materials Teams
- Other Specialized Teams
- Spill Response and Vessel Salvage Contractors
- Significant Response Equipment Inventory
    - Map depicting location of significant resources
    - Placer County OES Inter-agency HazMat Team (Type 2 Hazmat Entry Team)
    - Quad County Hazmat Team (Type1 Hazmat Entry Team)
    - Reno Sparks Hazmat Team (Type 1 Hazmat Entry Team)
    - Truckee Fire Oil Spill Response Trailer
    - U.S. EPA Oil Spill Response Trailer
    - Aramark/Lake Tahoe Cruises Response Trailer
    - Aramark/Lake Tahoe Cruises M.S. Dixie Boom
    - Aramark/Lake Tahoe Cruises Tahoe Queen Boom
    - U.S. EPA
    - Nevada Division of Environmental Protection
    - Tahoe Regional Planning Agency
    - City of South Lake Tahoe Fire Department
    - Tahoe Douglas Fire Department
    - El Dorado County Environmental Management
    - H2O Environmental
    - Universal Environmental
    - Clean Harbors

Response Vessel Summary

AGENCY	CONTACT	PHONE	VESSEL TYPE	VESSEL LENGTH	VESSEL LOCATION	TRAILERABLE	Year Round
U.S. Coast Guard	Duty Officer	(530) 583-4433	Safe Boat	25 feet	Pier lift at Coast Guard station	Yes	Yes
U.S. Coast Guard	Duty Officer	(530) 583-4433	Safe Boat	25 feet	On trailer at Coast Guard Station	Yes	Yes
TRPA	Dennis Zabaglo	(775) 588-4547 x255	Zodiac - rigid-hulled inflatable	17 feet	Camp Richardson	Yes	No
TRPA	Dennis Zabaglo	(775) 588-4547 x255	Alumaweld	23 feet	Tahoe Keys Marina	Yes	No
TRPA	Dennis Zabaglo	(775) 588-4547 x255	Almar - cuddy cabin	28 feet	Tahoe Keys Marina	Yes	Yes
Tahoe Env. Research Center	Brant Allen/Raph Townsend	(530) 583-3279	Aluminum with inboard/outboard engine	25 feet	Tahoe City Marina	No	Yes
Tahoe Env. Research Center	Brant Allen/Raph Townsend	(530) 583-3279	Aluminum with inboard engine	37 feet	Tahoe City Marina	No	Yes
Nevada Department of Wildlife	Dispatch	(775) 688-1331	Fishrite cabin, aluminum, jet in/outboard	23 feet	Round Hill Pines, NV	Yes	No
Nevada Department of Wildlife	Dispatch	(775) 688-1331	Boston Whaler, center console, twin Merc 700s	24 feet	Round Hill Pines, NV	Yes	No
El Dorado County Sheriff	Sgt. Bernie Morton	(530) 957-3742	Almar deep V, Aluminum, twin inboard with rescue cabin	27 feet	Tahoe Keys Marina, South Shore	Yes	Yes
El Dorado County Sheriff	Sgt. Bernie Morton	(530) 957-3742	Patrol Boats (plus rigid hull inflatable and personal watercraft)	21 feet	Tahoe Keys Marina, South Shore	Yes	Yes
Placer County Sheriff	Dave Cutting, Marine Patrol	(530) 581-6330	Almar deep V, Aluminum, twin inboard	33 feet	Sierra Boat Co. Marina, Carnelian Bay	No	Yes
Washoe County Sheriff	Carl Barrett	(775) 832-4111	Patrol Boat (plus 2 jet skis)	24 feet	On hoist, Incline Village	Yes	Yes
Douglas County Sheriff	Dispatch	(775) 782-9911	Fiberglass patrol boat	28 feet	Zephyr Cove	Yes	No
South Lake Tahoe Police Dept.	Steve O'Brien	(530) 542-6151	Design Concept	25 feet	Tahoe Keys Marina	Yes	No
South Lake Tahoe Police Dept.	Steve O'Brien	(530) 542-6151	Design Concept	22 feet	Tahoe Keys Marina	Yes	No
North Lake Tahoe Fire	Dispatch	(775) 831-0555	Boston Whaler (plus 2 jet skis)	18 feet	Pier at Crystal Bay	Yes	Yes
CA State Parks	Brian Barton	(530) 525-1263	Alumaweld	23 feet	Emerald Bay State Park	Yes	No

AGENCY	CONTACT	PHONE	VESSEL TYPE	VESSEL LENGTH	VESSEL LOCATION	TRAILERABLE	Year Round
Tahoe/Douglas County Fire	BC Van Ogami	(775) 586-1577	Northwind (plus rigid hull inflatable and personal watercraft)	20 feet	Bitlers Marina	Yes	No
South Lake Tahoe Fire	Capt. Jeff Valney	(530) 542-6163	Rigid-hull inflatable	17 feet	Tahoe Keys Marina	Yes	No
Aramark	Chris Burke	(775) 588-5678	Barge	40 feet	Zephyr	No	Yes
H2O Vessel Assist	Jeff Jallow	(775) 691-7385	Aluminum Pilot House, twin engine	22 feet	Tahoe Keys	Yes	Yes
H2O Vessel Assist	Jeff Jallow	(775) 691-7385	Aluminum Mid-ship cabin, twin engine	22 feet	Tahoe Keys	Yes	Yes
H2O Vessel Assist	Jeff Jallow	(775) 691-7385	Rigid Hull Inflatable, twin engine	26 feet	Tahoe Keys	Yes	Yes
High Sierra Marine	Geoff Burrows	(530) 581-2628	Aluminum Hull work boat with lifting/towing	32 feet	Tahoe City	Yes	Yes
High Sierra Marine	Geoff Burrows	(530) 581-2628	Aluminum Hull work boat with lifting/towing	26 feet	Tahoe City	Yes	Yes
Pacific Built	Tom Reagan	(530) 583-3447	Larc 5 Amphibious Craft with Crane	35 feet	Tahoe City	No	Yes
Pacific Built	Tom Reagan	(530) 583-3447	Larc 5 Amphibious Craft with Crane	35 feet	Tahoe City	No	Yes
Pacific Built	Tom Reagan	(530) 583-3447	Larc 15 Amphibious Craft with Crane	45 feet	Tahoe City	No	Yes

Hazardous Materials Teams

The following is a list of hazardous materials and specialized teams that operate in the Lake Tahoe Basin. These teams can be contacted through their dispatch centers. The Reno Sparks Hazardous Materials Team and the Quad County Hazardous Materials Team meet the FEMA typed resource definition of a Type 1 Hazmat Entry Team, while the Placer County OES Inter-agency Hazmat Team meets the FEMA typed resource definition of a Type 2 Hazmat Entry Team. By definition, Type 1 and Type 2 Hazmat Entry Teams can be expected to meet certain standards for field testing, air monitoring, sampling, radiation monitoring/detection, protective clothing, technical reference, special capabilities, intervention, decontamination, communications, staffing, training, and sustainability. As such, detailed equipment inventory lists are not provided for each team. The primary difference between a Type 1 and a Type 2 team is that a Type 1 team is capable of responding to incidents involving weapons of mass destruction (WMD).

In addition to the teams listed below, Placer County has two other Hazardous Materials teams that typically operate outside of the Lake Tahoe Basin, but could respond to the area if necessary. These teams include the Placer County Hazmat Team – Auburn (Type 2) and the Placer County Hazmat Team – Roseville (Type 1). These teams can be requested through the Placer County OES Inter-Agency Hazmat Team.

Placer County OES Inter-agency Hazardous Materials Team (530) 581-6331

The team currently has about 15 to 18 active Hazmat Technicians and Specialists. This team is the only California Hazmat Team on the eastern side of the Sierra crest. The primary response area covers well over 100 square miles in the eastern portion of Placer County and the Truckee Fire Protection District's jurisdictional boundaries. With Joint Powers Agreements, Automatic and Mutual-Aid coverage, the team is available for response to the whole Tahoe basin, Western Nevada, and all of California. Their Hazmat truck was delivered in 2001 and contains all the suits, equipment, and monitoring instruments necessary for Level A entries. They also have a trailer that contains all of their decon equipment. Another trailer contains all the booms and equipment necessary for initial swift water spill recovery booming. The truck and trailers are located in a Truckee fire station at the Truckee Airport and could be on site at some north shore locations within 15 to 20 minutes.

Quad County Hazardous Materials Team (775) 887-2007

The Quad County Hazmat Team is comprised of four connecting counties that have agreed to support and provide a Type 1 Level "A" Hazmat team. Personnel from all agencies train annually and respond to incidents within the four counties. These counties are Carson City, Lyon, Story and Douglas. Because Douglas and Carson City both border Lake Tahoe and the Carson River, the team can participate in incidents involving lake or river incidents. As the lead agency in the Quad-County Hazardous Materials Team, the Carson City Fire Department maintains a wide variety of equipment and a response vehicle.

Reno Sparks Hazardous Materials Team (775) 831-0555

The Reno Sparks Regional Hazmat team consists of approximately 27 firefighters from the Sparks Fire Department and 36 firefighters from the Reno Fire Department, as well as personnel from the Washoe County Health Department. This Triad Hazmat team also includes members of the former Truckee Meadows Fire Protection district, which is now part of the Reno

Fire Department. The Sparks Fire Department maintains and staffs a New Hazardous Materials Vehicle for the Triad Team.

Specialized Teams

There are numerous other specialized teams that operate in the vicinity of the Tahoe Basin. While these teams do not meet the requirements of Type 1 Hazmat entry teams, these teams have personnel with specialized training and equipment. Additional information regarding the capabilities of these teams is provided in the Roles and Responsibilities section (White Tab #1) of this Plan. A brief summary of equipment inventories for these teams is provided later in this section. These teams include the following:

- U.S. EPA (800) 300-2193
- Nevada Division of Environmental Protection (888) 331-6337
- El Dorado County Environmental Management (530) 621-6600
- City of South Lake Tahoe Fire Department (530) 577-9312
- Tahoe Douglas Fire Department (775) 782-9918

Spill Response and Vessel Salvage Contractors

The following is a list of spill response and vessel salvage contractors that are available in the Lake Tahoe Basin. This list is presented in no particular order. Additional information regarding the capabilities of these companies is provided in the Roles and Responsibilities section (White Tab #1) of this plan. Significant equipment lists are provided later in this section.

Agency	Contact	Phone	Type of Contractor
BJs Barge Service	Brian Johnson	530 525-5129	Salvage
H2O Environmental	John Bradley	702 643-8634	Spill Response
H2O Vessel Assist	Jeff Jallow	775 691-7385	Salvage
High Sierra Marine, Inc.	Geoff Burrows	530 581-2628	Salvage
Pacific Built	Tom Reagan	530 583-3447	Salvage
Universal Environmental	Garry Gray	775 351-2500	Spill Response
Clean Harbors	Leif Hammond	775 331-9400	Spill Response

Significant Response Equipment Inventory

Placer County OES Inter-agency Hazardous Materials Team
Location: Truckee Fire Station, Truckee Airport
Contact: (530) 581-6331

Type 2 Hazmat Entry Team

Quad County Hazardous Materials Team Location: Carson City, NV
Contact: (775) 887-2007

Type 1 Hazmat Entry Team

Reno Sparks Hazardous Materials Team
Location: Reno, NV
Contact: (775) 831-0555

Type 1 Hazmat Entry Team

Placer County OES/Truckee Fire Protection District Oil Spill Response Trailer
Location: Truckee Fire Station, Truckee Airport
Contact: (530) 581-6331

This response trailer and equipment are primarily intended for response to spills in the Truckee River, but are available for response to spills in the Tahoe basin.

20-foot tandem axle trailer
1,000 feet of containment boom (4-inch float, 6-inch skirt)
Rotary drum oil skimmer with air compressor and hose
Generator
Misc. sorbent pads
Misc. PVC pipe and materials for underflow dam construction
Misc. line, carabiners, anchors, pulleys, life jackets, etc.

EPA Oil Spill Response Trailer
Location: Carson City Fire Department
Contact: Carson City Fire Dispatch (775) 887-2007, or EPA (800) 300-2193

This response trailer and equipment is owned and operated by EPA, but is stored by the Carson City Fire Department. The Oil Spill Response Trailer is available for use by appropriately trained personnel.

14-foot tandem axle trailer with 2-inch ball receiver and trailer brakes
500 feet of containment boom (4-inch float, 6-inch skirt)
Rotary drum oil skimmer with air compressor and hose
1,000-gallon collapsible storage tank
Misc. sorbent pads, sorbent boom, and solidifiers
Misc. PVC pipe and materials for underflow dam construction
Misc. line, carabiners, anchors, pulleys, life jackets, etc.

Aramark/Lake Tahoe Cruises Oil Spill Response Trailer
Location: Zephyr Cove, NV
Contact: (530) 543-6123

This response trailer and equipment are intended for use in conjunction with the M.S. Dixie and Tahoe Queen; however the trailer and equipment may be available for use with other spills in the Tahoe basin.

14-foot tandem axle trailer with 2-inch ball receiver and trailer brakes
350 feet of containment boom (6-inch float, 12-inch skirt)
Absorbent Pads
Generator
Floodlights
Misc. Hand tools

Aramark/Lake Tahoe Cruises M.S. Dixie
Location: Zephyr Cove, NV
Contact: (530) 543-6123

350 feet of containment boom (6-inch float, 12-inch skirt)

Aramark/Lake Tahoe Cruises Tahoe Queen
Location: Ski Run Marina, South Lake Tahoe, CA
Contact: (530) 543-6123

350 feet of containment boom (6-inch float, 12-inch skirt)

EPA
Location: Carson City, NV
Contact: (800) 300-2193

Air Monitoring Equipment
- RAE Systems MultiRAE Plus CO/H2S/LEL/O2/VOC
- RAE Systems AreaRAE CO/H2S/LEL/O2/VOC
- Thermo TVA 1000B PID/FID
- Draeger Pac III Single Gas Monitor NH3, HCN, SO2, Cl, CO
- Draeger CMS Analyzer
- Ohio Lumex RA 915+ Mercury Vapor Analyzer with soil and water attachment

Air Sampling Equipment
- Gillian GilAir 5 Constant Flow Sampling Pump (5 ea.)

Radiation Detection Equipment
- Ludllum Model 192 MicroR Meter
- Ludlum 2241-3 w. alpha, beta gamma probes

Haztech Hazard Categorization (HAZCAT) Basic KT 1009 Kit
PPE – misc. PPE to Level A
Communication Equipment
- Motorola KXT 5000 VHF Radio (3 each)
- Iridium MS1-20 Satellite Phone

EPA maintains much larger equipment warehouses in San Francisco, Las Vegas, and Los Angeles. These warehouses contain a larger variety and number of the types of equipment

identified above, including WMD detection instrumentation. This equipment is available 24/7/365 for deployment to incidents in the Lake Tahoe Basin.

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
Location: Carson City, NV
Contact: (888) 331-6337

Air Monitoring Equipment
- RAE Systems MultiRAE Plus CO/H2S/LEL/O2/VOC
- Industrial Scientific Multigas Meter (HCN, Cl, NH3)
- MSA LEL/O2
- Draeger Accuro 2000 Gas Detection Pump
- Draeger Civil Defense Simultest (CDS) Kit
- Draeger tubes (assorted)

Radiation Detection Equipment
- Ludlum Model 2241-2 w. alpha, beta, gamma probes
- Exploranium GR-130 miniSPEC Radionuclide Identifier

Haztech HazCat Basic KT 1009 Kit
PPE – misc. PPE to Level A
Communication Equipment
- Motorola XTS 2500 VHF Radio (4 each)
- Iridium MS1-20 Satellite Phone

Response Van
Nevada Department of Conservation and Natural Resources Response Trailer
10 ft. aluminum skiff with 20 HP outboard
Honda Quad (2 each)
Honda Generator

City of South Lake Tahoe Fire Department
Location: South Lake Tahoe, CA
Contact: (530) 577-9312

Misc. PPE to Level A
Hazcat Kit
Plug n Patch Kit
Absorbent materials
Generator and lighting
Overpack Drum
Manhole covers

Tahoe Douglas Fire Department
Location: Zephyr Cove Fire Station, Hazmat Trailer
Contact: (775) 782-9918

Absorbent
- 80’ of 6” Pig (10’ sections) oil only
- 60’ of 6” Pig (15’ sections) absorb all
- 140’ of 3” Pig (12’ sections) absorb all
- 200 oil only pads
- 200 absorb all pads
- 24 small pig oil only
- 50 lbs (2 bags) loose absorbent hydrophyllic

50 lbs (2 bags) Diatomite
1 small Mercury spill cleanup kit
1 small acid spill kit
1 small caustic spill kit
PPE to Level A
Shelter
2 (15x15) EZ up shade
1 Emergency (blow-up) tent (12 x 20)
1 Heater unit for tent
1 cooling (mister) unit
Doff-it Donn-it suits
60 adult Doff-it
40 youth Doff-it
40 post decon Privacy Gown/kit
Decon Equipment
2 hot water shower/heater
1 walk through shower
1 complete “Decon Line”
Accessories
1 (5 gal) overpack drum
1 (35 gal) overpack drum
1 Hazcat kit
Assorted reference guides
6 Handi-talkies (VHF)

El Dorado County Environmental Management
Location: South Lake Tahoe, CA
Contact: (530) 621-6600

PPE to Level A
ACSI Decontamination Unit with Water Heater
1 person Decon Shower
Sorbent booms
40-DoffIT Personal Privacy Kits
Hazcat Kit
Ludlum radiation detector
Combustible Gas Indicator

H2O Environmental
Location: Sparks, NV
Contact: (702) 643-8634

Containment Boom, Las Vegas 4,000 Feet (4” floatation, 8” skirt)
Containment Boom, Reno 1,500 Feet (4” floatation, 8” skirt)
Containment Boom, Reno 500 Feet (6” floatation, 12” skirt)
2 - Oil Skimmers, Drum
2 - Oil Skimmers, Disk
3 - John Boats with Outboard Engines
2 - 4WD Quad ATV
100 - Absorbent Booms (6”D x 10’L)
50 - Absorbent Pads, Bale (24” x 24”)
10 - Emergency Response Vehicles, 1-5 Ton (fully stocked and equipped)

2 - Emergency Response Trailers, 30’
1 - Command Center, 32’ (fully equipped)
3 - Vactor Air Movers (2,200 gal.)
6 - Vacuum Trucks (3,000 gal.)
4 - Vacuum Tankers (5,000 gal.)
40 - Roll-Off Bins (15 – 40 cu. yd.)
6 - Side Dump Trailers (28 cu. yd.)
2 - Semi-Van Trailers w. Lift Gates
4 - Excavators
4 - Backhoes, 4WD Enclosed Cab
4 - Skid Steer Loaders
4 - Pressure Washers
4 - Generators w. 2,000 Watt Portable Lights
4 - Portable Storage Tanks (24,000 gal.)
5 - Portable Storage Tanks (2,000 – 5,000 gal.)

Universal Environmental
Location: Sparks, NV
Contact: (775) 351-2500

3 vacuum tankers (30 barrels (bbl), 70 bbl & 120 bbl)
1 vactor/guzzler unit
1 hydrovac
15 to 20 twenty-cubic-yard roll-off bins
3 to 4 interceptor bins
2 to 3 end dump units
1 trailer mounted pressure washer
1 mobile air compressor
3 to 5 portable poly storage tanks (6,000 gal. capacity being the largest)
1 40' flatbed trailer
2 40' box van
2 1 ton stake bed truck with lift gate
3 double diaphragm pumps
1 12' row boat

Clean Harbors
Location: Sparks, NV
Contact: (775) 331-9400

Vacuum Tanker Truck
Rack Truck
Vactor Truck
1,000 feet of containment boom (6-inch float, 12-inch skirt)
16 foot boat
Pressure washer
Air compressor
Emergency Response Trailer

TRPA (Spill Response Kit)
Location: 128 Market St., Stateline, NV
Contact: (775) 588-4547

3 containers measuring 45” X 56” X 32” each with a capacity of 28 cu. ft per container
One 1 – gallon container Bio-Solve emulsifier
40 17” X 17” oil only pillows
30 3” X 48” oil only socks
Six 5” X 20’ oil only booms
600 18” X 18” single weight absorbent mats
Misc. PPE and hand tools
Kit absorbs approximately 294 gallons

Lake Tahoe Marinas

All marinas at Lake Tahoe that dispense gasoline are required to have a spill response kits near their dispensers. Typically these kits include sorbent booms and sorbent pads.

LAKE TAHOE MAPS

The scale of the maps presented in this plan is intended to be useful for making Incident Command-level decisions and to provide information regarding the location of various features such as marinas, resources, sensitive areas, etc. Two sets of detail maps are presented – one that uses aerial photos as the background, and one that uses topographic maps as the background. Operational decisions may require larger scale maps. Fire departments operating in the Lake Tahoe Basin have indicated that they carry Forest Service Topographic maps and/or Thomas Brothers map books.

LAKE AND RIVER RESPONSE STRATEGIES

Introduction

The purpose of this section is to pre-identify specific sites within the Lake Tahoe Basin that could be used to capture oil and or chemical contamination that is released into the aquatic system in the event of a significant spill or release from a mobile source (i.e., truck) or a fixed facility. There are 63 creeks and streams that drain into Lake Tahoe. The larger of these creeks and streams are identified in the Lake Tahoe Maps (Green Tab) section of this Plan. A more thorough discussion of the hydrology of the Lake Tahoe Basin is presented in the Lake Tahoe Basin – General Information section of this Plan (White Tab #4).

Whenever spilled oil enters water it begins to spread quickly. In flowing water, oil will travel downstream with the current causing even more widespread environmental damage. Oil damages wildlife and their habitats by coating the surface of anything the oil contacts: soil, vegetation, rocks, feathers, and fur. The more area contaminated, the greater the environmental injury, the more time needed for cleanup, and the greater its cost. Environmental injury and cleanup cost can be minimized by taking prompt, effective action to contain spilled oil and limit its dispersion in the environment.

A chemical release into a lake or river is likely more difficult to respond to, because the chemical involved may be miscible in water or may sink in water. Depending on the physical properties of the chemical released, it is likely that booming strategies described here for responding to petroleum may not be relevant. However, other strategies may be of use, such as closing intakes to drinking water systems.

This Plan has been prepared as an aid to first responders to an oil spill or chemical release that threatens the waters of the Lake Tahoe Basin. Selection of response sites was based on the suitability of that location for diversion, containment, collection, and removal of spilled products. Site selection criteria used included access for response personnel and equipment, stream morphology and gradient, and development of a feasible, workable, site-specific response strategy.

Specific response strategies are identified in this section of the Plan for the larger creeks and streams that enter Lake Tahoe. Due to geographic and hydrologic similarities between the streams, response strategies are presented in four groups, south shore streams, east shore streams, north shore streams, and west shore streams.

A general strategy can be envisioned for addressing a spill that impacts a stream that enters Lake Tahoe. The primary threat is likely to be a vehicular accident on the perimeter roads that bound Lake Tahoe. In most cases, the distance from the perimeter road to the lake is less than a mile. As such, response to an oil spill into a stream or creek resulting from release along one of the perimeter roads would generally consist of the following actions:

- Containment booming, damming, diking and product recovery at the source.
- Opportunistic booming/construction of underflow dams along the stream or creek, between the source site and lake shore.
- Containment booming at the lake shore to minimize the amount of contaminant entering the lake, and protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat. **Since many of the creek inlets to Lake Tahoe are difficult to access via roads, a map and table are provided in the Lake Tahoe Maps (Green Tab) section of this Plan with GPS coordinates for the creek mouths, in order to assist responders arriving by boat.**
- Closing of drinking water intakes, as necessary

- Recovery of collected oil using skimmers, pumps and vacuum trucks.
- Given the short distance from most potential spill locations to the lake, it is imperative that action be taken as soon as possible to minimize impacts to the lake.

The Truckee River is the only surface water discharge from Lake Tahoe. A separate plan has been written to address spills that impact the Truckee River – The Truckee River Geographic Response Plan. General spill response strategies for the lake would likely consist of the following actions:

- Use of containment boom and sorbent materials at the source of the contamination.
- The use of specific solidifying agents by marina owners/operators has also been pre-approved, by the Regional Response Team.
- Protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat.
- Closing of drinking water intakes, as necessary.
- Use of containment boom in open water to corral and collect oil.
- Recovery of collected oil using skimmers, pumps, and vacuum trucks.

This Response Strategy section contains the following information:

- A description of the types of spill containment and recovery equipment typically used;
- Historical hydrologic data for Lake Tahoe, its tributaries, and the Truckee River;
- GPS coordinates for significant creek inlets to Lake Tahoe;
- Identification of specific booming sites and strategies that can be employed to deploy spill containment and recovery devices.

With regard to identification of specific booming sites and strategies, there are several considerations that need to be kept in mind:

- Many of the sites identified are on private property. As such, responders need to follow the appropriate procedures for obtaining access to private property.
- Flow conditions in streams entering Lake Tahoe and the level of Lake Tahoe vary tremendously throughout the season as a function of precipitation, snow-melt, and releases to the Truckee River. The booming sites and strategies identified here may or may not be appropriate depending on the flow conditions and lake level existing at that time. For example, a site that is boomable at low flow conditions may not be boomable at higher flow conditions. Similarly, the strategy employed at a specific location will likely change depending on flow conditions and lake level. The United States Geological Survey (USGS) is a valuable source of information regarding stream flow conditions and lake level. Real-time stream flow data, as well as lake level data, can be obtained from the USGS web page at **http://ca.water.usgs.gov/** (click on "data," then click on "real-time data," then click on "streamflow"). However, many, if not all Tahoe USGS gauging stations are running out of funding and will likely cease to provide any data after 09/30/07.

Response Considerations

Safety First

- Responder safety is the first priority.
- Be aware of the threat of fire and explosion, particularly when dealing with gasoline. As necessary, employ vapor suppression. Consider the safety issues associated with collection of gasoline versus allowing gasoline to evaporate. Depending on the size and nature of a gasoline

spill, protection of water intakes, sensitive areas, and private property may be more prudent than collection of the gasoline.
- Be aware of and prepared for cold air and water temperatures and watch closely for signs of hypothermia, and be prepared for responder rescue.

Speed is essential in recovery efforts:
- Oil spreads and drifts rapidly;
- Evaporation rapidly increases oil viscosity;
- Oil is usually easier to deal with in water than when it has contacted the shore.

Cleanup Priorities:
- Stop the discharge;
- Assess amount and type of spilled oil via surveillance and tracking;
- Document all actions taken to mitigate the spill;
- Contain and remove spilled oil at the source;
- Protect threatened resources and monitor shore-bound oil;
- Treat or contain and remove offshore oil that has escaped the primary control operation at the source;
- Skim the oil that has pooled along the shore in natural collection areas such as sloughs and coves;
- Clean up shorelines where oil has accumulated, to the extent possible and advisable; and
- Dispose of collected materials.

Oil Containment and Collection Devices

Containment Boom (also called hard boom, deflection boom or curtain boom)

Containment boom is used to contain spills of floatable materials, and to facilitate cleanup operations. Containment boom can be used to keep the oil and hazardous materials in a small area or to keep these materials out of a particular area. This latter approach is used to protect vulnerable natural resources and private property such as a marina.

Containment boom is a floating barrier designed with sufficient freeboard and draft to contain oil floating on the surface of the water. Most containment boom will have the following characteristics: a means of floatation or freeboard to contain the oil and to resist waves splashing oil over the top; a skirt to prevent oil from being carried underneath the boom; a longitudinal tensile strength member, such as chain or cable, to hold the boom together and provide a means of anchoring the boom; and a ballast to aid in maintaining a vertical skirt orientation. To be effective, containment boom must float and be stable in currents, winds, and waves. Containment boom should be made of materials that are not subject to deterioration from the sun, storage, and chemical attack. Containment boom is typically constructed of PVC-coated fabric; a top tension cable sealed in fabric and connected to aluminum “universal” end connectors; floatation of closed-cell foam sealed within the PVC fabric; a “skirt” of the same fabric, which extends below the water surface; chain ballast in an open pocket along the length of the skirt; and aluminum “universal” end connectors at each end to join 50-foot lengths of boom into longer sections. Oiled boom can be cleaned and re-used. Containment boom for river application should have 4-inch (diameter) floatation and a 6-inch skirt (vertical measurement). Containment boom for lake application should have at least a 12-inch skirt.

Generally booms are good as a containment device in calm waters. However, they will lose their effectiveness in currents greater than one mile per hour (MPH). In situations where the current is more than one MPH, the boom should be used as a deflection device, moving the oil to a quiet collection

location. Generally, such a collection location will be along one bank near the downstream end of a pool, on the inside of a bend in the river, or where a natural eddy occurs. Boom should be deployed at about a 30-degree angle across the current and it should be taut; the boom will not contain and collect oil if it is deployed in a "U" or "J" shape. The skirt of the boom must hang freely below the floatation along its entire length. If the skirt breaks the water surface because of some obstruction (log or rock), or if rope is tied around the floatation and skirt, or if the skirt is lifted out of the water near the end connector when tying the boom to an anchor point, the boom will fail to contain oil. In addition, at the collection point, the boom must be secured into the soil or gravel of the bank so that there is no way for collected oil to leak past, around, or under the boom. A 3/8-inch polypropylene line is recommended for securing booms and anchors. When all these are done properly, that is when the boom is deployed at a shallow angle to the flow of water, it is taut and well anchored to the banks with no leaks at the collection point, floating oil will be carried along the upstream face of the boom and into the slow-moving water of the collection point along the bank where the accumulated oil can be removed.

Booms are usually susceptible to two kinds of failure while they are deployed: entrainment and splashover. Entrainment is the loss of oil under the skirt, normally caused by a combination of increased headwave thickness and water current or wind. Splashover is directly affected by boom design, freeboard height, angle of approach of waves to the boom, and the size and interval of the waves.

River spills may require more than one boom because strong currents or turbulence cause oil losses beneath the boom. Oil slicks moving down a river will eventually drift to either side of the channel. By placing several booms at strategic points along the river one can take advantage of the oil's tendency to accumulate naturally in certain areas. Strategic booming locations can be the wide places in the river (pools) where the current speeds are lower and booms are likely to be more effective. Bends are also convenient places in the river where the floating oil can be more easily intercepted

Containment boom can be less difficult to set and more effective if deployed in "cascade" fashion. Two or more short boom lengths are used to span the river rather than one long continuous boom. Each boom segment is deployed to span a portion of the river so that oil streaming off the downstream end of one boom is captured by the next boom just downstream. The last boom downstream has a containment point against the bank and out of the main current just as other boom sets do. The advantage of a cascade system is that the short lengths of boom create less drag in the water and are easier to set than a single long diversion boom. Also, cascade systems can work well in a site that is not suitable for a single diversion boom. The disadvantage is that more rope and anchor points are required and therefore more of the stream bank must be accessible.

The most valuable element in boom deployment is a sound working knowledge of local waterways. Knowledge of currents, natural catch areas, water depth, etc., is invaluable in effecting a more rapid response. A second element necessary for timely, effective deployment is the ready availability of the containment boom, support equipment vessels, and trained personnel.

Sorbent Pads and Boom (also called sausage boom)
Sorbent boom is typically constructed of melt-blown or shredded polyethylene (same as sorbent pads or "diapers"). Sorbent boom collects oil by absorbing product into the body of the boom like a sponge. The sorbent material is generally contained in a net or sock, usually about 10 feet long and 4 to 6 inches in diameter; usually with a snap and ring near each end so that when the snap of one is connected to the ring of another, the two overlap alongside each other so that no space occurs between them that could allow oil to escape. Sorbent boom is very effective for recovery of light petroleum products like gasoline, diesel fuel, or home heating oil. **Sorbent boom is not a substitute for containment boom.**

Oil Snare (also called pom-pom)

Features of oil snare include the following: constructed of a multitude of polyethylene plastic strands bound in a bundle; come separate (pom-pom) or on a 50-foot rope with about 20 units attached (oil snare *or* snare boom); collects oil by adsorbing product *or* sticking it to the surface of plastic. These devices work well with heavy oil (i.e., #6 fuel oil). Each unit will collect about 50 to 60 times its weight in heavy oil. The snare is inefficient for recovery of light oils and thus is not recommended for recovery of products like diesel fuel.

Underflow Dams

Underflow dams are another type of barrier. This measure is used most frequently on small creeks or tributaries, but could be effectively used on slightly larger water bodies if the flow rate is low. Underflow dams are very easy to construct, using a backhoe, shovels, or sandbags. The primary objective is to allow the water to pass downstream while containing the oil. Water travels through inclined pipes, which pass through a dam that is constructed across the creek. The intakes to the pipes are placed below the water surface on the upstream side of the dam, and the outfalls of the pipes are placed above the water surface on the downstream side of the dam. Oil that collects behind the underflow dam can then be removed using appropriate means such as skimmers, vacuum trucks, sorbent pads, etc.

Berms and Barriers

Barriers other than containment booms may be used for containing, deflecting, or excluding oil. These types of berms or barriers may be constructed in a variety of means. It should be remembered that physical barriers, whether booms or dams, are intended to restrict the spread of oil/hazardous materials and decrease contamination. In all oil spill situations, rapid response is the key to an effective operation, and containment must be accomplished as soon as possible, using the best available resources. There are several types of berms and barriers that can be constructed for the collection of an oil spill:

Diversion Berms - Low barriers constructed of available material (dirt, gravel, snow, ice, sandbags, etc.) to divert oil flows to a recovery point or around a sensitive area. (In areas of sensitive species and habitats care must be taken to minimize impacts to those habitats). These are used primarily on low to moderately sloped terrain. The berms should be constructed by forming materials or placing sandbags in windrows or ridges parallel to the desired path of oil flow.

Containment Berms - Low barriers constructed of available materials (earth, gravel, sandbags, snow, ice, etc.) or sorbents are used to contain surface oil flow on relatively flat or low slope terrain or wetlands. Containment berms should be constructed by forming materials or placing sandbags or sorbents into windrows or ridges in a “U” or horseshoe configuration. If possible, the containment area should be flooded during winter and/or lined with plastic sheeting to inhibit soil penetration. Oil can be recovered from the water surface by skimming.

Physical Barriers - Typically chicken wire or something similar is strung across the stream/creek and straw or peat is placed on the upstream side of the wire. Natural debris such as a log jam may also be used to the responders’ advantage. It is important that only native materials be used for this purpose.

Bubble Barriers - Mechanical containment can be achieved with the use of a bubble barrier that can contain oil or even a miscible chemical. A bubble barrier is created by pumping compressed air through openings that occur at regular intervals in a submerged pipe. Bubble barriers are only practical in calm situations where there is a low current.

Interception Trenches - Excavated trenches are used to intercept or divert surface or subsurface oil flows to recovery points or around sensitive areas. The trench should be excavated at right angles to the flow of oil and should be angled slightly downslope (or in the direction of the surface water flow) to avoid excessive oil pooling in the trench. The depth of the trench is limited by the depth of the water

table, rock layer and/or wetlands. If possible, the downstream side of the trench should be lined with plastic sheeting to reduce seepage to groundwater or flow into adjacent uncontaminated soil.

Manual Removal

Relatively small spills on land may be contained and cleaned up using hand tools and sorbents. Sorbents and plastic liners may be used to control the immediate spread of oil and to minimize the amount of oil entering nearby water. In addition, a gravel surface may be sprayed with water during freezing conditions to provide an impermeable layer to minimize the penetration of the oil into the surface. To control oil movement at the surface, trenches and liners may be used, along with water flushing and rope mop skimming in the trenches. If the spill is at the shoreline, sorbent boom may be deployed and backed up with conventional containment boom if necessary to keep the oil from drifting away. Sorbent pads and rolls may be used both onshore and offshore to pick up small quantities of oil. In addition, snow provides a good sorbent material for oil and forms a mulchlike mixture that is easily removed with shovels or by heavy equipment such as front-end loaders and dump trucks.

Ice Slotting and Trenching Techniques

While Lake Tahoe does not freeze over; its tributaries, estuaries, and marinas may freeze. Oil spilled under ice floats up against the underside of the ice and collects in pockets or irregularities. In the presence of currents, oil will become mobile and move downstream on watercourses or spread in the direction of current movement on water bodies. The degree of movement will be affected by the irregularities under the ice was well as the currents. Subsequent freezing may also trap oil in the ice layer, which may then migrate toward the surface. Spill movement under ice is slower than in open water. Uninfluenced by wind, slicks follow the main current of the river and tend to stay in the center of the channel.

A floating spill moving on the surface of the ice and underneath it can be concentrated in slots cut in the ice and can be recovered by means of rope mop skimmers deployed in the slots. If the spill is thick enough, it can be removed using weir skimmers or direct suction. Booms can also be deployed through holes in the ice to recover a spill trapped in under-ice depressions. Two holes are drilled in the ice using augers or chain saws, and the boom is strung under the ice between the holes. Before ice modifications can be used, the ice must be sufficiently strong to support personnel and heavy equipment.

Ice Slotting Directions:

- Determine ice slot location to contain any product from migrating downstream.
- From the shore, cut a slot at a 30° angle upstream to the current. Slot width is about 1½ times the ice thickness and must be wide enough to house the oil skimmer.
- Cut ice into blocks and push under ice on downstream side or lift block with crane or ice tongs.
- Slot should be cut with a slight “J” curve angle at the upstream side to provide current flow toward the shoreline recovery area.
- Position skimmer or vacuum device at the downstream end to recover oil on its surface; oil is diverted along the back edges of the slot.
- Length of slot will be determined by width of river and position of slot deployment.
- Cut a second slot just downstream from first slot and extending from the opposite shore.
- If the oil has solidified, it will have to be shoveled out manually.
- A barrier (plywood) extending down into the water level may be fixed to the back edge of the slot to increase the holding capacity and prevent entrainment.
- For small quantities of oil in low current waterways or when recovery equipment is unavailable, slots may be cut perpendicular to the current to contain but not concentrate the oil. A slot can also be cut to allow oil to flow “out and over” the surface of the ice. It should be perpendicular to the current and long enough to span the area of highest current velocity. The downstream wall is cut at a 45° angle sloping upstream. If possible, locate the slot over a natural high point in the

river bottom or make one by dropping sandbags or large rocks through the slot. This causes the water level to rise in the slot and enhances the flow of oil and water out and over the ice.

Skimmers

Assuming that efforts to contain the discharged oil have proved successful, recovery of the spilled oil is then begun. Removal is usually accomplished with the use of mechanical devices called "skimmers." Skimmers are designed to collect, or skim, the floating product from the surface of the water. While there are several different types of skimmers, oleophilic drum skimmers are currently available in response inventories stored in Truckee, Reno/Sparks and Carson City. Vacuum trucks are also readily available for the removal of recovered oil.

Oleophilic Skimmers - Oleophilic ("oil-attracting") skimmers are operated on the principles of oil absorption. Almost all of the oleophilic components of this type of skimmer have the characteristic of being hydrophobic, or water resistant. The common denominator of all oleophilic recovery devices is the passing of the "absorbing" material continuously through the spilled oil. The oil adheres to the surface and is removed from the water. At this point, the oleophilic member is wiped or squeezed by rollers or blades and the oil is deposited in a reservoir. The product in the reservoir is then pumped into a holding container.

Solidifying Agents

The use of specific solidifying agents (including Rubberizer, ALSOCUP and CI-Agent) by marina owners/operators at Lake Tahoe has been pre-approved by the Region 9 Regional Response Team (RRT) for the period from May 25 to September 23, 2007. After this period, the RRT will reevaluate the appropriateness of this pre-approval. These products may only be used in a contained form including socks, booms or pillows. Loose material may not be broadcast along the water or shoreline of the lake. Solidifying agents absorb and solidify petroleum products. Once solidified, the material can be retrieved and disposed of.

Chemical Countermeasures

The physical recovery and removal of oil is the preferred cleanup technique. Under certain conditions, however, chemical agents can be an effective tool. There are no pre-approved uses of chemical agents in EPA Region 9, which includes the Lake Tahoe Basin. Prior to use of a chemical agent, consult the Federal Region 9, Regional Contingency Plan (RCP) - Dispersant Use Policy and Bioremediation Use Policy sections. This plan is available online at: http://www.dfg.ca.gov/ospr/organizational/scientific/acp/marine3/2005RCP/2005rcp_index.htm.

If chemical (dispersant) use is considered, the guidelines below are intended to aid in making a decision. It is important to note:

- EPA has compiled the National Contingency Plan (NCP) Product Schedule, a list of dispersants and other chemical or bioremediation products that the EPA Federal On-Scene Coordinator (FOSC) and/or potentially responsible party (PRP) may consider for use during a spill emergency. The Product Schedule does not authorize or pre-approve use of any of the listed products.
- The use of chemical countermeasures within the Lake Tahoe Basin requires the approval of the FOSC.
- The FOSC may authorize the use of any dispersant, surface washing agent, surface collecting agent, other chemical agent, burning agent, bioremediation agent, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT and, as appropriate, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, when, in the judgment of the OSC, the use of the product is necessary to

Controlled Burns/*In Situ* Burning

Under certain specific conditions, *in situ* burning may offer a logistically simple, rapid, inexpensive, and relatively safe means for reducing the shoreline impacts of an oil spill. Moreover, because a large portion of the oil is converted to gaseous combustion products, the need for collection, storage, transport, and disposal of recovered material can be substantially reduced. *In situ* burning may be able to remove a large amount of spilled oil before spreading and drifting of the spill fouls shorelines and threatens wildlife.

If *in situ* burning is a consideration, consult the Federal Region 9, Regional Contingency Plan – *In Situ* Burn Policy sections. This plan is available online at: http://www.dfg.ca.gov/ospr/organizational/scientific/acp/marine3/2005RCP/2005rcp_index.htm.

Since the Lake Tahoe Basin is not within an *in situ* burning pre-approval zone, the FOSC must receive the concurrence of the EPA and state representatives to the RRT, in consultation with the U.S. Department of the Interior (DOI) and the U.S. Department of Commerce (DOC) RRT members through the incident-specific RRT approval process as outlined in Appendix XIII subpart B of the Regional Contingency Plan.

Stream Flow Data

The following stream flow data was obtained from the USGS and may be of use to the responder in selecting booming locations based on stream flow discharge. Real-time stream flow data, as well as lake level data, can be obtained from the USGS web page at **http://ca.water.usgs.gov/** (click on "data," then click on "real-time data," then click on "streamflow"). Historic mean monthly stream flows are also available on this web page and are summarized in the table below:

Historic Mean Monthly Stream Flows – Lake Tahoe Basin (cubic feet per second)													
Location	Time-frame	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec
Upper Truckee River, Hwy 50 near Meyers,CA	1990-2005	44	36	62	118	285	230	79	17	11	9.5	17	21
Upper Truckee River, South Lake Tahoe, CA	1971-2005	63	65	106	164	307	233	84	19	12	15	38	47
Taylor Creek near Camp Richardson, CA	1968-1992	41	33	34	53	122	105	29	9.3	7.2	16	31	31
Meeks Creek near Meeks Bay, CA	1971-1975	17	7.8	19	25	78	52	8.7	0.5	0.2	0.7	11	10
Madden Creek at Homewood, CA	1971-1973	1.8	0.7	2.8	5.3	2.8	1.7	2.0	0.2	0.1	0.3	0.6	1.9
Ward Creek near Tahoe Pines, CA	1972-2005	16	14	21	43	95	74	21	3.6	1.6	2.8	9.6	11
Third Creek near Crystal Bay, NV	1969-2006	4.4	4.4	6.1	9.3	20	24	11	3.8	3.0	3.3	4.1	4.2
Incline Creek at Incline Village, NV	1989-2004	3.3	3.1	5.3	8.3	13	12	6.4	3.3	2.5	2.5	2.7	2.8
Edgewood Creek near Stateline, NV	1982-1987	2.5	2.7	3.7	4.6	5.2	3.4	2.0	1.8	1.8	2.5	2.7	2.6
Trout Creek at South Lake Tahoe, CA	1971-1992	20	17	26	39	61	61	24	14	11	13	16	17
Truckee River at Tahoe City, CA	1895-2006	232	285	252	174	163	235	274	310	261	176	190	224

* Please note that real-time stream flow data may not be available after September 30, 2007.

Description of Site Page Headings

Site Number: The number and name of the site; corresponds to the site number on the attached maps.

Site Rank: Sites are ranked as A, B, or C. Sites ranked "A" have a number of good attributes; "B" sites have at least one disadvantage; and "C" sites have more than one drawback but may be used, depending on the spill circumstances.

"A" sites have the following attributes: good stream morphology for boom placement and collection of oil; good access for deploying the boom for recovery of oil contained by the boom, and for boom maintenance; support vehicles and other equipment can be brought reasonably near the site; and the site is a safe work place for response personnel. "B" sites lack at least one of these attributes; "C" sites will lack several of these attributes.

Directions: How to locate the site; includes highway mileposts or notable landmarks.

Site Description and Response Strategy: A general description of the site is provided, including its attributes and drawbacks. The boom deployment strategy is described including placement of the upstream and downstream boom anchor points (using site landmarks if possible).

Boom Requirements: The minimum amount of containment boom necessary to fulfill the described deployment strategy using an angle of about 30 degrees across the river. The mistake made most often when setting boom is that oil containment or collection devices (hard boom, sorbent boom also called sausage boom, and pom-poms or oil snare) are deployed from one side of the river directly across to the opposite bank. As a result, the boom takes on a "U" shape. Oil tends to collect in the center where the current is strongest, and eventually entrains beneath (washes under) the boom, and is carried farther downstream. Photographs are provided for each of the boom sites. Many of these photographs have suggested boom deployments drawn in. **These suggested boom deployments are simply that – suggestions. Depending on water levels, equipment availability, and other factors, other boom deployments may be appropriate.**

Comments: Notes regarding other pertinent information about the site

USGS 7.5 min Quad.: Identifies the name of the appropriate 7.5 min USGS Quadrangle Map

Coordinates: Latitude and longitude of the site; for use with GPS navigation instruments.

Lake Tahoe – South Shore

For purposes of this Plan, the south shore of Lake Tahoe is generally considered to be the area extending from Cascade Lake to the California/Nevada border near Stateline. This area is entirely within El Dorado County, California. From west to east, the larger named streams along the south shore of Lake Tahoe include the following: Tallac Creek, Taylor Creek, Upper Truckee River, Trout Creek, and Bijou Creek (see Lake Tahoe Maps (Green Tab) Section - Lake Tahoe Stream, Shoreline and Sensitive Areas Map).

Due to their limited size and limited distance between their highway crossing and the lake, response strategies are not identified for Tallac Creek and Bijou Creek. However, general oil spill response strategies would include the following measures:

- Containment booming, damming, diking and product recovery at the source.

- Opportunistic booming/construction of underflow dams along the stream or creek, between the source site and lake shore.
- Containment booming at the lake shore to minimize the amount of contaminant entering the lake, and protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat.
- Closing of drinking water intakes, as necessary
- Recovery of collected oil using skimmers, pumps and vacuum trucks.
- Given the short distance from most potential spill locations to the lake, it is imperative that action be taken as soon as possible to minimize impacts to the lake.

Specific response strategies are identified below for Taylor Creek, the Upper Truckee River and Trout Creek.

Fallen Leaf Lake, which is about one mile south of Lake Tahoe, is approximately three miles long and one mile wide. Taylor Creek is the only outflow from Fallen Leaf Lake, and it is controlled by a long, low concrete dam with an adjustable spillway to control the rate at which the water leaves the lake. Taylor Creek flows from the dam, crosses Highway 89 and enters Lake Tahoe.

The Upper Truckee River has the largest watershed in the Tahoe Basin, and as a result is by far the largest river entering Lake Tahoe. The Upper Truckee River follows Highway 89 from Luther Pass to the intersection of Highways 89 and 50. Along this stretch of Highway 89, the Upper Truckee is potentially susceptible to spills from vehicular accidents. The Upper Truckee also crosses beneath Highway 50 at three locations (just west of the intersection of Highways 89 and 50, near the intersection of Highway 50 and Elks Club Road, and at Highway 50 near the Tahoe Amusement Park, and is again susceptible to spills from vehicular accidents.

Within a short distance of the final crossing of Highway 50, the Upper Truckee River enters the Upper Truckee Marsh and Wetland project, which consists of more than 500 acres of highly disturbed wetland on the shore of Lake Tahoe. Trout Creek also merges with the Upper Truckee River in this wetland. The Upper Truckee Marsh Wetland Project is managed by the California Tahoe Conservancy, with the goal of restoring the wetland to its natural function. As such, this wetland is considered sensitive habitat, and protection of this wetland in the event of a spill into the Upper Truckee River would be a priority.

The Trout Creek watershed is the second largest in the Lake Tahoe Basin. The main tributaries to Trout Creek include Cold Creek, Saxon Creek, Heavenly Valley Creek and Hidden Valley Creek. Trout Creek and its tributaries all merge to the south of Highway 50. The combined flow in Trout Creek crosses under Highway 50. A vehicular accident at the Highway 50 bridge is a potential source of contamination. Within a short distance of this bridge, Trout Creek enters the Upper Truckee Marsh. Trout Creek flows through this marsh prior to its confluence with the Upper Truckee River. The confluence is located within a few hundred yards of the lakeshore.

TAYLOR CREEK

Site: **Taylor Creek**
(Photo taken looking upstream towards Highway 89 Bridge)

Site Rank: A **Sensitive Site**: Yes

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 3 miles northwest to the bridge over Taylor Creek.

Stream Width: 30 feet **Boom Required**: 400 feet (minimum)

Site Strategy: Taylor Creek flows from the dam at Fallen Leaf Lake, under the Highway 89 bridge, through the Taylor Creek Visitor's Center (managed by the U.S.D.A. Forest Service), and into a marsh at the lakeshore - a total distance of about one mile. A vehicular accident at the bridge is the most likely source of a spill, although a spill of road surfacing material did occur upstream of the bridge in 2006. Upstream of the bridge, the creek is rocky and faster flowing and collection opportunities are limited. Downstream from the bridge, the creek is a little deeper, meandering, and slower, and there a several good boom locations between the Highway 89 bridge and the lake. There is a footpath that provides access to the south side of the creek at several locations downstream from the bridge. There are several good collection points along this footpath. As the creek flows closer to the lake, access to the creek becomes more difficult.

Comments: There is limited parking at the bridge, but ample parking in the area of the Taylor Creek Visitor's Center, which is downstream from the bridge. There is a large Kokanee Salmon run up Taylor Creek in the fall, typically in late September and early October.

USGS 7.5 min Quad: Emerald Bay (see also Detail Map #8 in this Plan)

Coordinates: N 38 55.989 W 120 03.322

UPPER TRUCKEE RIVER BOOMING SITES

Site: **Upper Truckee River Site #1 – Grass Lake**
(Photo taken from Highway 89 looking across Grass Lake)

Site Rank: B **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 7.0 miles south on Highway 89 to a turnout on the right side. This location is 1.3 miles west (toward Tahoe) of Luther Pass.

Stream Width: N/A **Boom Required**: 200 feet (minimum)

Site Strategy: The Grass Lake area consists of a wide marshy meadow that may become a shallow lake in wet months. In the event of a spill in this area, it would be desirable to capture the oil within the meadow before it enters Grass Lake Creek at the west end of the meadow. Grass Lake Creek, which is a tributary to the Upper Truckee River, quickly steepens as it follows Highway 89. In the event of a spill, construct diversion dams or place booms at appropriate locations within the meadow/lake to prevent the oil from entering the stream.

Comments: This is the uppermost location identified on the Upper Truckee River. There is ample parking at the turnout. Highway 89 comes within close proximity to Grass Lake at this location.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #17 in this Plan)

Coordinates: N 38 47.828 W 119 58.054

Site: **Upper Truckee River Site #2 – Livestock Meadow**
(Photo taken from meadow, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 4.2 miles south on Highway 89. This location is 4.2 miles west (Tahoe side) of Luther Pass. There is a large parking area here adjacent to a livestock loading pen and also adjacent to a large mountain meadow.

Stream Width: 6 to10 feet **Boom Required**: 100 feet (minimum)

Site Strategy: The stream gradient flattens substantially at this location, and the stream meanders through a mountain meadow. The stream then crosses from the north side of Highway 89 to the south side through a culvert. There are several excellent booming locations within the mountain meadow on the northeast side of Highway 89.

Comments: There is excellent parking here in close proximity to the booming locations. This is the first good booming location west (Tahoe side) of Grass Lake (meadow). Downstream from this site, the stream gradient steepens again for the next several miles.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #16 in this Plan)

Coordinates: N 38 47.493 W 120 00.587

Site: **Upper Truckee River Site #3A – Grass Lake Road**
(Photo taken from the northeast bank, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 2.4 miles south on Highway 89 to the intersection of Grass Lake Road. This location is 5.9 miles west (Tahoe side) of Luther Pass. Proceed 0.1 mile up Grass Lake Road to a large turnout on the right.

Stream Width: 25 feet **Boom Required**: 200 feet (minimum)

Site Strategy: There is a large deep pool at this location that is an ideal boom site. Anchor on the far (southwest) bank at the upstream of the pool, and collect on the near bank. The far bank can be accessed from the bridge at Portal Road, but the far bank appears to be on private property.

Comments: There are three good boom sites, all in close proximity to this location – Grass Lake Road, Portal Road, and West Portal. The Grass Lake Road site and West Portal site have the best access and are likely more desirable than the Portal Road site. Stream flow at this location is significantly greater than on the previous sites identified, because this is the main stem of the Upper Truckee River, rather than one of its tributaries.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #16 in this Plan)

Coordinates: N 38 48.829 W 120 01.025

Site: **Upper Truckee River Site #3B – Portal Road**
(Photo taken from bridge, looking downstream)

Site Rank: B **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 2.3 miles south on Highway 89 to the intersection of Portal Road. This location is 6.0 miles west (Tahoe side) of Luther Pass. On Portal Road, proceed 0.1 miles to the bridge.

Stream Width: 25 feet **Boom Required**: 200 feet (minimum)

Site Strategy: The Portal Road bridge provides access to both sides of the river. There are deep pools downstream from the bridge; however, access to these pools appears to be limited.

Comments: There are three good boom sites, all in close proximity to this location – Grass Lake Road, Portal Road, and West Portal. The Grass Lake Road site and West Portal site have the best access and are likely more desirable than the Portal Road site.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #16 in this Plan)

Coordinates: N 38 48.950 W 120 01.073

Site: **Upper Truckee River Site #3C – Portal Road West**
(Photo taken from the bank, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 2.2 miles south on Highway 89, almost to the intersection of Portal Road. This location is 6.1 miles west (Tahoe side) of Luther Pass. This location is just downstream from the Portal Road site. There is a turnout on the river side of the road, which provides access to the river.

Stream Width: 25 feet **Boom Required**: 200 feet (minimum)

Site Strategy: There is a large pool at this location. Anchor on the far bank, upstream of the pool, and collect at the near bank.

Comments: There are three good boom sites, all in close proximity to this location – Grass Lake Road, Portal Road, and West Portal. The Grass Lake Road site and West Portal site have the best access and are likely more desirable than the Portal Road site.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #16 in this Plan)

Coordinates: N 38 49.087 W 120 01.135

Site: **Upper Truckee River Site #4 – Christmas Valley Road**
(Photo taken from near bank, looking upstream)

Site Rank: B **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89 (the "Y") in South Lake Tahoe, proceed 2.0 miles on Highway 89. This location is 6.4 miles west (Tahoe side) of Luther Pass. This site is just downstream from the intersection of Highway 89 and Christmas Valley Road.

Stream Width: 25 feet **Boom Required**: 200 feet (minimum)

Site Strategy: There is a decent pool at this location; however, there are many obstructions including rocks and a fallen tree. The collection point would be on the near bank, and would be dependent upon water levels and obstructions.

Comments: At this location, the river is very close to the road. While this is a potential crash site, it is not a great boom site because of the limited parking. The sites at Grass Lake Road and Portal road are more desirable. Between this location and Highway 50, the river moves away from Highway 89 and continues for several miles through a residential neighborhood. There are likely good boom locations within this neighborhood although access will be through private property.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #16 in this Plan)

Coordinates: N 38 49.264 W 120 01.119

Site: **Upper Truckee River Site #5 – Highway 50 Bridge**
(Photo taken from the bridge, looking downstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and 89 (the "Y") in South Lake Tahoe, proceed 0.3 miles west on Highway 50 to Bridge 25-12. This location is 5.2 miles west of the "Y" in South Lake Tahoe.

Stream Width: 40 feet **Boom Required**: 300 feet (minimum)

Site Strategy: This is a potential release site, given that Highway 50 crosses the river at this location. This location is near the base of the long grade coming down from Echo Summit. While there is a decent pool downstream from the bridge, there is very limited access to the river here.

Comments: In the event of an accident at this bridge, hand crews could get in just downstream of the bridge, but access for trucks would be difficult. The best boom locations downstream from this bridge are at the Lake Tahoe Golf Course.

USGS 7.5 min Quad: Echo Lake (see also Detail Map #15 in this Plan)

Coordinates: N 38 50.902 W 120 01.605

Site: **Upper Truckee River Site #6 – Lake Tahoe Golf Course #1**
(Photo taken looking downstream at the bridge)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Highway 89, follow Highway 50 east to Country Club Drive. This location is 3.6 miles west of the "Y" in South Lake Tahoe. Turn north on Country Club Drive and go 0.3 miles to a sharp bend in the road. There is parking at this bend. Pass through the gate and go 100 yards north to the golf cart bridge over the river.

Stream Width: 30 to 40 feet **Boom Required**: 300 feet (minimum)

Site Strategy: Just downstream from the bridge there is a large eddy area with an adjacent bank that has been constructed of downed trees. This would be the collection area. The anchor point would be just upstream of the bridge on the north bank.

Comments: This would be an excellent location to use in event of a spill at Highway 50 Bridge 25-12 that is just west of Highway 89. Lake Tahoe Golf Course contacts: Jeff Stang and John Stanowski (530-577-0788).

USGS 7.5 min Quad: Echo Lake (see also Detail Maps #14 and #15 in this Plan)

Coordinates: N 38 51.977 W 120 01.135

Site: **Upper Truckee River Site #7 – Lake Tahoe Golf Course #2**
(Photo taken from the bridge, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the "Y" in South Lake Tahoe, proceed 3.2 miles west on Highway 50 to the Lake Tahoe Golf Course. From the pro shop follow the golf cart path about 100 yards to the golf cart bridge.

Stream Width: 30 feet **Boom Required**: 200 feet (minimum)

Site Strategy: The golf cart bridge provides access to both sides of the river. Anchor upstream from the bridge, on the north bank. The collection point is just upstream from the bridge on the south bank.

Comments: This would be an excellent location to use in event of a spill at Highway 50 Bridge 25-12 that is just west of Highway 89. Lake Tahoe Golf Course contacts: Jeff Stang and John Stanowski (530-577-0788). There is ample parking in the vicinity of the Clubhouse and maintenance area.

USGS 7.5 min Quad: Echo Lake (see also Detail Maps #14 and #15 in this Plan)

Coordinates: N 38 52.323 W 120 00.493

Site: **Upper Truckee River Site #8 – Elks Club**
(Photo taken from the south bank, looking upstream towards the bridge)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the "Y" in South Lake Tahoe, proceed 2.7 miles west on Highway 50 to Elks Club Drive. Turn left (south) and go 0.1 miles to the Elks Club. River access is behind the Elks Club building. Proceed about 100 yards downstream to the boom site.

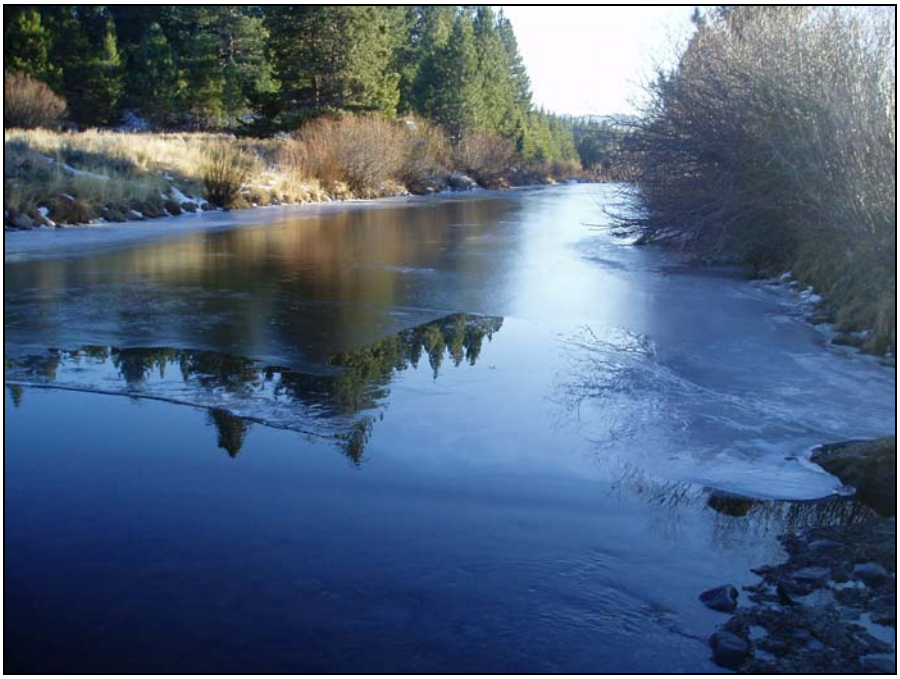
Stream Width: 40 to 50 feet **Boom Required**: 400 feet (minimum)

Site Strategy: The best boom location is down the path from the Elks Club, just upstream from an overhead rope crossing. This rope crossing is associated with a water quality monitoring station. The collection point would be just upstream of this rope crossing on the south bank, while the anchor point would be upstream on the north bank.

Comments: This site is downstream from Bridge 25-12 at Highway 50 near Highway 89 and Bridge 25-15 at Highway 50 near Elks Club Drive, and would be useful for a spill at either bridge; although it is in very close proximity (300 to 400 yards) to Bridge 25-15. There is ample parking at the Elks Club. Downstream from this location, the river meanders through a large meadow that passes adjacent to the airport.

USGS 7.5 min Quad: Echo Lake/South Lake Tahoe (see also Detail Maps #14 and #15 in this Plan)

Coordinates: N 38 52.547 W 120 00.233



Site: **Upper Truckee River Site #9 – Airport 1**
(Photo taken from the ford, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the "Y" in South Lake Tahoe, proceed 1.4 miles west on Highway 50 to the South Lake Tahoe Airport entrance. Within the airport proceed along the runway toward the northeast corner of the runway. There is an unmarked, locked gate (just north of gate V8). Go through this gate 50 yards to a ford across the river. This site can also be entered from the far side of the airport via Lodi Road. See directions for the Upper Truckee Sewer Station site.

Stream Width: 40 to 50 feet **Boom Required**: 400 feet (minimum)

Site Strategy: There is a long straight stretch of river here. Depending on which way you are accessing the site, the collection point would either be on the north or south bank, at the ford. Anchor upstream from the ford. **The ford is only passable under low flow conditions.**

Comments: There are several useful boom locations in the vicinity of the airport – Airport 1, Airport 2, and Upper Truckee Sewage Station. These locations can be entered through airport property or from the other side of the airport via Lodi Road. **If you enter through the airport, you must contact airport personnel (Smokey Rickerd 530-542-6182 or Krista Eissinger 530-541-0480).**

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #14 in this Plan)

Coordinates: N 38 54.212 W 119 59.444

Site: **Upper Truckee River Site #10 – Airport 2**
(Photo from bridge, looking downstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: See directions for Airport Site 1. Past the ford, continue 0.5 mile north on the paved path to the north end of runway. Turn left at the north end of runway and then turn right down a dirt road (just north of the runway lights). Follow this road to an old bridge over the river. **This bridge will not support vehicles.**

Stream Width: 40 to 50 feet **Boom Required**: 400 feet (minimum)

Site Strategy: There are good boom locations both upstream and downstream of the bridge.

Comments: If accessing the airport sites from Lodi Road, there are several locked gates. The first locked gate near Lodi is controlled by South Tahoe Public Utilities District (STPUD), while the other gates are controlled by the airport. There are three 12,000-gallon (one jet fuel, one aviation fuel, and one split unleaded/diesel) aboveground storage tanks at the northwest end of the airport.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #14 in this Plan)

Coordinates: N 38 54.698 W 119 59.431

Site: **Upper Truckee River Site #11 – Upper Truckee Sewer Station**
(Photo taken from the Sewer Station, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the intersection of Highway 50 and Lodi Road (1.0 miles east on Highway 50 from the "Y"), go 0.5 mile south on Lodi, almost to the dead end intersection with Santa Barbara. Just prior to this intersection turn right on an un-named road and go 0.1 mile to locked STPUD gate. Proceed 0.2 mile past the gate to the Upper Truckee Sewer station.

Stream Width: 20 feet **Boom Required**: 300 feet (minimum)

Site Strategy: The collection area is just behind the sewer station. It is an outside bend, but depending on stream flow conditions, it should be possible to collect here. There is parking and vehicle access at the sewer station.

Comments: From this site, it is possible to access the two Airport sites. Continue on this paved path, through two locked gates to airport property.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Maps #7 and #14 in this Plan)

Coordinates: N 38 54.876 W 119 59.131

Site: **Upper Truckee River Site #12 – Highway 50 Amusement Park**
(Photo taken from the east bank, looking upstream at the bridge)

Site Rank: B **Sensitive Site**: No

Directions to Site: Follow Highway 50 about 0.8 mile east from the "Y" in South Lake Tahoe to the bridge over the Upper Truckee River. Past the bridge, go another 0.2 mile and turn north on Lodi, then turn west (left) on Ponderosa. Go 0.2 mile on Ponderosa to the dead-end.

Stream Width: 30 to 40 feet **Boom Required**: 300 feet (minimum)

Site Strategy: There are several potential boom sites, just downstream from the bridge, although they are all fairly marginal because of limited access. The best location is immediately downstream from the bridge. Anchor on the west bank near the bridge, and collect on the east bank about 150 yards downstream from the bridge.

Comments: The Highway 50 Bridge adjacent to the Tahoe Amusement Park is a potential release site. A short distance downstream from this location, the river enters the Upper Truckee River Marsh and Wetland. It would be highly desirable to capture oil before it enters the wetland. However, for a release at this bridge, extremely rapid response would be needed to prevent oil from entering the wetland.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 55.369 W 119 59.510

Site: **Upper Truckee River Site #13 – Tahoe Keys 1**
(Photo taken from the west bank, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: Follow Highway 50 about 0.5 mile east from the "Y" in South Lake Tahoe to Tahoe Keys Blvd. Proceed north on Tahoe Keys Blvd. Turn right on Lake Valley Road toward the marina. This road dead-ends at a cul-de-sac. The boom location is several hundred yards before the cul-de-sac.

Stream Width: 40 feet **Boom Required**: 400 feet (minimum)

Site Strategy: There are several good locations in the vicinity of the big curve in the street, prior to reaching the cul-de-sac. The best location is just west of the fire hydrant where the street is in close proximity to the river. There is a small ditch that enters the river here on the north bank. This area could be used as a collection point. Anchor on the south bank upstream from here.

Comments: This is a critical area to capture oil before it enters the Upper Truckee Marsh and Wetland and then enters the lake. There is access to the river in the vicinity of the cul-de-sac, however this involves crossing a restoration area. This may be necessary in the event of a significant spill. A 2002 aerial photo is provided on page B-31, which depicts the Upper Truckee Marsh.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 55.975 W 120 00.025

Site: **Upper Truckee River Site #14 – Tahoe Keys 2**
(Photo taken from the west bank, looking downstream towards the lake)

Site Rank: A **Sensitive Site**: No

Directions to Site: Follow Highway 50 about 0.5 mile east from the "Y" in South Lake Tahoe to Tahoe Keys Blvd. Proceed north on Tahoe Keys Blvd. Turn right on Lake Valley Road toward the marina. This road dead-ends at a cul-de-sac. From the cul-de-sac there is a dirt path that leads along the river. Follow the dirt path for several hundred yards to the confluence of the Upper Truckee River and Trout Creek. This location is 200 to 300 yards from the lake entrance.

Stream Width: 50 to 100 feet **Boom Required**: 1,000 feet (minimum)

Site Strategy: This location is within the wetland near the confluence of the Upper Truckee River and Trout Creek. Although oil would already be in the wetland at this point, this location could be used to prevent oil from entering Lake Tahoe. No specific boom sets are identified here, as the actual location would be highly dependent on water levels.

Comments: This would be a critical location to capture oil in either the Upper Truckee River or Trout Creek, before it enters Lake Tahoe. There are many potential boom sites within the marsh. A 2002 aerial photo of the Upper Truckee Marsh is provided on page B-31. This photo may assist with boom site location.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 56.370 W 120 00.119

TROUT CREEK/UPPER TRUCKEE MARSH BOOMING SITE

Site: **Trout Creek Site #1 – Trout Creek/Upper Truckee Marsh**
(Photo taken from the east bank, looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: From the "Y" in South Lake Tahoe, proceed about 2 miles east on Highway 50 to San Francisco St. On San Francisco, go 0.7 mile north to a dead-end. At this location, there is access to Trout Creek and the Upper Truckee Marsh.

Stream Width: 25 feet **Boom Required**: 400 feet (minimum)

Site Strategy: Trout Creek, Cold Creek, Saxon Creek, Heavenly Valley Creek, and Hidden Valley Creek all merge south of Highway 50. The combined flow in Trout Creek crosses under Highway 50 at Bridge 25-13. A vehicular accident at this bridge is a potential source of contamination. Within a short distance of this bridge, Trout Creek enters the Upper Truckee Marsh. Access to Trout Creek, downstream of the bridge is limited. Trout Creek flows through the eastern side of the marsh until its confluence with the Upper Truckee River, which is located within a few hundred yards of the lakeshore. Within the marsh, Trout Creek flows within a defined stream channel during low water; although it does branch into several channels. At high water, the creek likely spills out of the channels. Prevention of oil entering the Upper Truckee Marsh, via either Trout Creek or the Upper Truckee River would be a major priority.

Comments: There is a locked gate at the end of San Francisco St. Through this gate it is possible to access much of the marsh. Vehicle access out to the marsh may be difficult. There may be other access points within the residential neighborhood that is present along the east edge of the marsh. There are many potential boom sites within the marsh. A 2002 aerial photo of the Upper Truckee Marsh is provided on the next page. This photo may assist in boom site location.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 56.388 W 119 59.520

LAKE TAHOE - EAST SHORE

For purposes of this Plan, the east shore of Lake Tahoe is generally considered to be the area extending from Stateline, NV to just north of Sand Harbor State Park. This area is entirely within Nevada and includes portions of Douglas and Washoe Counties. From south to north, the larger named streams along the east shore of Lake Tahoe include the following: Eagle Creek, Edgewood Creek, Burke Creek, McFaul Creek, Zephyr Creek, Lincoln Creek, Logan House Creek, North Logan House Creek, Glenbrook Creek, Slaughterhouse Canyon Creek, North Canyon Creek, Bliss Creek, Secret Harbor Creek, Marlette Creek, and Tunnel Creek (see Mapping Section - Lake Tahoe Stream, Shoreline and Sensitive Areas Map).

Due to smaller watersheds, shorter main channel lengths, and lower precipitation rates (about 30 inches per year); streams along the east shore of Lake Tahoe tend to have lower capacities and discharge rates than other streams in the basin. Generally speaking, these streams are narrow, short and swift. With the exception of Edgewood Creek, Burke Creek, Glenbrook Creek and North Canyon Creek the east shore streams all enter Lake Tahoe within a short distance of crossing Highway 50 or Highway 28 and present limited opportunities for collecting oil. General oil spill response strategies would include the following measures:

- Containment booming, damming, diking and product recovery at the source.
- Opportunistic booming/construction of underflow dams along the stream or creek, between the source site and lake shore.
- Containment booming at the lake shore to minimize the amount of contaminant entering the lake, and protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat.
- Closing of drinking water intakes, as necessary
- Recovery of collected oil using skimmers, pumps and vacuum trucks.
- Given the short distance from most potential spill locations to the lake, it is imperative that action be taken as soon as possible to minimize impacts to the lake.

There are two sizeable lakes on the east shore of Lake Tahoe – Spooner Lake and Marlette Lake. Both lakes are part of the Lake Tahoe – Nevada State Park. Both lakes would seem to be unlikely locations for oil spills, although there was a plane crash into Marlette Lake in 2006. Dams are present on the west shore of both lakes, and could be used to contain oil before it travels to Lake Tahoe (via North Canyon Creek from Spooner Lake and via Marlette Creek from Marlette Lake).

Detailed response strategies are presented below for Edgewood Creek, Burke Creek, and North Canyon/Slaughterhouse Creek.

Site: **Edgewood Creek**
(Photo taken at Golf Course, Pond 6 in foreground, Pond 10 in background)

Site Rank: A **Sensitive Site**: No

Directions to Site: Edgewood Creek crosses Highway 50 in Stateline, NV, about midway between Highway 207 (Kingsbury Grade) and the casinos.

Stream Width: 10 feet **Boom Required**: 500 feet (minimum)

Site Strategy: The Edgewood Creek watershed includes about 6.6 square miles at the southeast end of Lake Tahoe. Prior to entering Lake Tahoe, Edgewood Creek flows through a series of modified channels and ponds within the Edgewood Golf Course. There are numerous potential spill threats to Edgewood Creek including discharges along portions of Highways 50 and 207 (Kingsbury Grade), Heavenly Ski area (Boulder and Stagecoach base areas), residential areas, and the Edgewood Golf Course. In addition, storm water runoff from the casino parking lots in Stateline is directed through a series of drains, valves and underground vaults prior to entering the ponds within Edgewood Golf Course and then merging with water from Edgewood Creek and entering Lake Tahoe. Large property owners in Stateline have formed the Stateline Storm Water Association to address and implement storm water improvement projects.

In the event of a spill into the main stem of Edgewood Creek, the ponds within Edgewood Golf Course would make ideal recovery locations. A spill in the area of the casino parking lots would enter the Stateline Storm Water Improvement project. This project feeds to a 48-inch valve beneath Lake Parkway that could be closed in the event of a spill. This would eventually result in fluids backing up and finding an alternate path to the Edgewood Golf Course.

Comments: Given the complexity of the Edgewood Creek drainage and the Stateline Storm Water Improvement Project, the Tahoe Douglas Fire Department (FD) should be notified immediately in the event of a spill in this area. Tahoe Douglas FD keeps a copy of schematic drawings of the storm water runoff projects, has a key to the 48-inch valve under Lake Parkway and can contact operators of the Stateline Storm Water Improvement project.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 57.955 W 119 56.257 (Edgewood Creek/Highway 50 crossing)

Site: **Burke Creek**
(Photo taken from Nevada Beach looking at stream mouth)

Site Rank: A **Sensitive Site**: Yes

Directions to Site: From Highway 50 in Round Hill, NV, take Elks Point Road west to the entrance to Nevada Beach State Park. Within the park, follow the road to the south end of the campground. Burke Creek flows along the south edge of the campground.

Stream Width: 10 feet **Boom Required**: 200 feet (minimum)

Site Strategy: Burke Creek crosses Highway 50 near the Burger King restaurant. The creek crosses Highway 50 at this location via a conduit beneath the highway. The creek is only two to three feet wide at the highway and flows slowly. The creek then flows towards the lake, along the south end of Nevada Beach State Park. During most of the year, the creek entrance to the lake is blocked by a sand bar. Under these conditions, a pool forms adjacent to the lake. This pool would be an ideal collection point. During higher flow conditions, the creek does enter the lake, and booming and underflow dam construction would be necessary at this location.

Comments: Tahoe Water Cress, a proposed federally endangered plant species, is present in the vicinity of the pool located adjacent to the lake. To the extent possible, it would be desirable to catch oil before in enters this area. There are ample facilities at Nevada Beach State Park, including parking and restrooms.

USGS 7.5 min Quad: South Lake Tahoe (see also Detail Map #7 in this Plan)

Coordinates: N 38 58.604 W 119 57.117

Site: **North Canyon/Slaughterhouse Creek**
(Photo taken from beach looking upstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: Follow Highway 50 north from Stateline to Glenbrook, NV. Turn left into the private, gated community of Glenbrook. Tahoe Douglas FD has a key for after-hours access. Through the gate follow Pray Meadows Road past the golf course. Turn left on Slaughterhouse Creek Road and left on China Garden Court, which dead ends. From the dead end, follow the golf cart path to the beach.

Stream Width: 5 feet **Boom Required**: 200 feet (minimum)

Site Strategy: North Canyon Creek flows from near the southern end of Marlette Lake, past the western end of Spooner Lake, along the shoulder of Highway 28, then drops steeply down into Lower Pray Meadows, where it merges with Slaughterhouse Creek, flows through Slaughterhouse Canyon and finally into Lake Tahoe. A dam on the west side of Spooner Lake, allows water to flow into North Canyon Creek. A spill into Spooner Lake, although unlikely, could impact North Canyon Creek. A spill on Highway 28 in the vicinity of the North Canyon Creek crossing could also impact the creek. Any spilled oil at the Highway 28 crossing would quickly flow down into Lower Pray Meadows and Slaughterhouse Canyon. There is no motorized access to these brushy areas and spilled oil would be very difficult to remove. As such, preventing oil from entering Lower Pray Meadows should be a high priority. Eventually, oil could migrate through Slaughterhouse Canyon to the beach at Glenbrook. In the vicinity of Glenbrook, the creek moves very slowly through a marshy area and then across the beach. Underflow dams could be constructed in the vicinity of the beach to prevent oil from entering the lake.

Comments: Glenbrook Creek crosses Highway 50 and flows into Glenbrook. This seasonal creek carries only a small amount of water and enters the beach at Glenbrook to the south of Slaughterhouse Creek. During most of the year Glenbrook Creek forms a small pond adjacent to the beach.

USGS 7.5 min Quad: Glenbrook/Marlette Lake (see also Detail Maps # 3-4 in this Plan)

Coordinates: N 39 06.008 W 119 56.803 (Slaughterhouse Creek inlet to Lake Tahoe)
N 39 05.331 W 119 56.389 (Glenbrook Creek inlet to Lake Tahoe)

LAKE TAHOE – NORTH SHORE

For purposes of this Plan, the north shore of Lake Tahoe is generally considered to be the area extending from just north of Sand Harbor State Park to Crystal Bay NV (the CA/NV border). This area is entirely within Washoe County, Nevada. From east to west, the larger named streams along the north shore of Lake Tahoe include the following: Mill Creek, Incline Creek, Deer Creek, Rosewood Creek, Third Creek, Wood Creek, Second Creek and First Creek (see Mapping Section - Lake Tahoe Stream, Shoreline and Sensitive Areas Map).

Similar to the east shore streams, north shore streams also tend to have lower capacities and discharge rates due to smaller watersheds, shorter main channel lengths, and lower precipitation rates. Generally speaking, these streams are narrow, short and swift. Mill Creek, Second Creek and First Creek all enter Lake Tahoe within short distances of crossing Highway 28 and present limited opportunities for collecting oil. General oil spill response strategies would include the following measures:

- Containment booming, damming, diking and product recovery at the source.
- Opportunistic booming/construction of underflow dams along the stream or creek, between the source site and lake shore.
- Containment booming at the lake shore to minimize the amount of contaminant entering the lake, and protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat.
- Closing of drinking water intakes, as necessary
- Recovery of collected oil using skimmers, pumps and vacuum trucks.
- Given the short distance from most potential spill locations to the lake, it is imperative that action be taken as soon as possible to minimize impacts to the lake.

Within Incline Village, there are three creeks that flow in close proximity to each other (Incline, Deer, and Rosewood/Third Creek, and are of particular note as they all enter Lake Tahoe at Ski Beach Park. Third Creek and Deer Creek both cross Highway 431 in the vicinity of the North Lake Tahoe Fire Protection District Station#3. Third Creek, also known as Rosewood Creek, is located just west of Deer Creek. These creeks parallel each other through a residential neighborhood, through a golf course, across Highway 28, across Lakeshore Blvd. and then into Lake Tahoe at Ski Beach Park. Between Highway 28 and Lakeshore Blvd., Deer Creek merges with Incline Creek. Incline Creek drains a fairly large watershed generally located in the vicinity of Diamond Peak ski area. The combined flow of Incline Creek and Deer Creek (referred to as Incline Creek) enters Lake Tahoe at the east end of Ski Beach Park, which is owned by the Incline Village General Improvement District. Third Creek/Rosewood Creek also enters Lake Tahoe within Ski Beach Park, approximately 150 yards west of Incline Creek. Potential spills could enter Third Creek/Rosewood Creek and Deer Creek at the Highway 431 crossing, Highway 28 crossing and Lakeshore Blvd crossing. Potential spills could enter Incline Creek at the Highway 28 crossing and Lakeshore Blvd. crossing. Any such spill would be best captured within Ski Beach Park, prior to entering the lake.

Site: **Incline Creek and Deer Creek at Ski Beach Park**
(Photo taken at east end of Ski Beach Park, looking upstream from beach)

Site Rank: A **Sensitive Site**: No

Directions to Site: Ski Beach is located on Lakeshore Blvd. in Incline Village, NV.

Stream Width: 15 feet **Boom Required**: 400 feet (minimum)

Site Strategy: Within Ski Beach Park, construct underflow dams, set containment boom and shoreline protection boom as appropriate. This location is particularly well-suited for underflow dams. There are two stream entrances within Ski Beach Park. The stream to the east is Incline Creek, which also carries water from Deer Creek. The stream to the west is Third Creek/Rosewood Creek. Any spills into Deer Creek and Rosewood Creek are best captured here at the Ski Beach. Spills into Third Creek/Rosewood Creek and Deer Creek originating higher upstream, could also be captured at the Championship Golf Course just prior to where the creeks cross Highway 28.

Comments: Ski Beach Park is owned by Incline Village General Improvement District. There is ample parking, beach access and restrooms at this location.

USGS 7.5 min Quad: Marlette Lake/Mount Rose (see also Detail Map #1 in this Plan)

Coordinates : N 39 14.386 W. 119 56.687

Site: **Third/Rosewood Creek at Ski Beach**
(Photo taken from at west end of Ski Beach Park, showing an underflow dam)

Site Rank: A **Sensitive Site**: No

Directions to Site: Ski Beach is located on Lakeshore Blvd. in Incline Village, NV.

Stream Width: 15 feet **Boom Required**: 400 feet (minimum)

Site Strategy: Within Ski Beach Park, construct underflow dams, set containment boom and shoreline protection boom as appropriate. This location is particularly well-suited for underflow dams. There are two stream entrances within Ski Beach Park. The stream to the east is Incline Creek, which also carries water from Deer Creek. The stream to the west is Third Creek/Rosewood Creek.

Comments: Ski Beach Park is owned by Incline Village General Improvement District. There is ample parking, excellent beach access and restrooms at this location.

USGS 7.5 min Quad: Marlette Lake/Mount Rose (see also Detail Map #1 in this Plan)

Coordinates: N 39 14.345 W. 119 56.755

LAKE TAHOE – WEST SHORE

For purposes of this Plan, the west shore of Lake Tahoe is generally considered to be the area extending from the California/Nevada border near Crystal Bay to Cascade Lake. This area is entirely within California, and includes portions of Placer and El Dorado Counties. From north to south, the larger named streams along the west shore of Lake Tahoe include the following: Baldy Creek, Griff Creek, Snow Creek, Carnelian Creek, Watson Creek, Dollar Creek, Burton Creek, the Truckee River, Ward Creek, Blackwood Creek, Madden Creek, Homewood Creek, McKinney Creek, General Creek, Meeks Creek, Rubicon Creek, Eagle Creek and Cascade Creek (see Lake Tahoe Maps (Green Tab) Section - Lake Tahoe Stream, Shoreline and Sensitive Areas Map).

With the exception of the Truckee River, all of these creeks flow into Lake Tahoe. The Truckee River is the only surface water discharge from Lake Tahoe. Response strategies are identified below for the Truckee River Dam at Tahoe City. Other response strategies for the Truckee River are presented in a separate document – The Truckee River Geographic Response Plan.

Compared to east shore streams, west shore streams tend to have higher capacities and discharge rates due to larger watersheds, longer main channel lengths, and higher precipitation rates (80 inches per year). Many of these west shore creeks all enter Lake Tahoe within short distances of crossing Highway 28 and Highway 89 and present limited opportunities for collecting oil. General oil spill response strategies would include the following measures:

- Containment booming, damming, diking and product recovery at the source.
- Opportunistic booming/construction of underflow dams along the stream or creek, between the source site and lake shore.
- Containment booming at the lake shore to minimize the amount of contaminant entering the lake, and protective booming of sensitive areas such as beaches, wetlands, drinking water intakes, historical/cultural sites, marinas, spawning areas, or other sensitive habitat.
- Closing of drinking water intakes, as necessary.
- Recovery of collected oil using skimmers, pumps and vacuum trucks.
- Given the short distance from most potential spill locations to the lake, it is imperative that action be taken as soon as possible to minimize impacts to the lake.

Specific response strategies are identified below for the following creeks: Griff Creek, Snow Creek, General Creek, and Meeks Creek. Response strategies are also presented for the Truckee River Dam at Tahoe City and for Emerald Bay.

Site: **Griff Creek**
(Photo taken just east of the fire station, looking at the settling pond)

Site Rank: A **Sensitive Site**: No

Directions to Site: In Kings Beach, Griff Creek flows along the north side of Highway 267, along the north side of the North Tahoe Fire District Station 52, into a small settling pond, under Highway 28 and into Lake Tahoe.

Stream Width: 6 feet **Boom Required**: 100 feet (minimum)

Site Strategy: There is a good boom/underflow dam location just behind the fire station. Just downstream of the fire station the creek enters a settling pond that would also make a good collection area. Boom could be placed across the conduit that leads underneath Highway 28.

Comments: Griff Creek flows parallel to Highway 267, but the creek is a distance from the roadway. There appears to be minimal chance of a spill impacting the creek other than an accident on Highway 28. Oil from an accident at Highway 28 would enter Lake Tahoe almost immediately.

USGS 7.5 min Quad: Kings Beach (see also Detail Map #13 in this Plan)

Coordinates: N 39 14.312 W 120 01.826

Site: **Snow Creek**
(Photo taken from end of Winona Rd. looking downstream)

Site Rank: A **Sensitive Site**: No

Directions to Site: South of Kings Beach, turn west on Agatam Road, go 0.2 mile and turn north on Winona Road and go to the end of the road.

Stream Width: 3 feet **Boom Required**: 100 feet (minimum)

Site Strategy: The Snow Creek watershed is on the south side of Highway 267. It is conceivable that an accident on Highway 267 could impact Snow Creek. The creek enters a large marsh that is located east of Highway 89. There is a conduit that passes under Highway 89 and enters Lake Tahoe within a very short distance. At this location at the end of Winona Road, boom/underflow dams could be installed upstream of the marsh, to prevent oil from an accident on Highway 267 from entering the marsh. Oil from an accident near the Highway 89 crossing, would enter the lake almost immediately.

Comments: This is a very small creek, and the chances of a spill seem minimal.

USGS 7.5 min Quad: Kings Beach (see also Detail Map #13 in this Plan)

Coordinates: N 39 14.351 W 120 02.401

Site: General Creek
(Photo taken within Sugar Pine Point State Park, near the entrance to the lake)

Site Rank: A **Sensitive Site**: No

Directions to Site: General Creek crosses Highway 89 between Tahoma and Meeks Bay, in the vicinity of Sugar Pine Point State Park. From Highway 89 proceed east into the State Park and then turn north past a series of buildings to the creek.

Stream Width: 20 to 40 feet **Boom Required**: 400 feet (minimum)

Site Strategy: A spill at the Highway 89 crossing would enter Lake Tahoe fairly quickly. The area in the vicinity of the Highway 89 bridge is not boomable. However, within Sugar Pine Point State Park, the gradient of the creek flattens and the creek meanders before entering the lake. This area would provide a good opportunity for collecting oil. There are several boom locations within the creek meanders. The best collection point would be on the south side of the creek (near the person pictured above), as it gives the best access. Depending on water levels, construction of underflow dams may also be possible in this area.

Comments: There is ample parking and rest room facilities at the State Park.

USGS 7.5 min Quad: Meeks Bay (see also Detail Map #10 in this Plan)

Coordinates: N 39 03.125 W 120 07.070

Site: **Meeks Creek**
(Photo taken within the campground, downstream of the bridge)

Site Rank: A **Sensitive Site**: No

Directions to Site: Highway 89 to Meeks Bay. Turn east into the campground.

Stream Width: 20-30 feet **Boom Required**: 300 feet (minimum)

Site Strategy: Meeks Creek flows under Highway 89 and then through the campground into the marina. For a spill occurring at the Highway 89 crossing there are several excellent booming locations within the campground upstream of the marina. Water flow conditions are slow in the campground/marina complex and are ideal for collection of oil. The best location is at a bottleneck (pictured above) just upstream of the marina. Collect on the south side of the bank at the bottleneck. For a spill within the marina, place boom across the channel to the lake to prevent oil from entering the lake.

Comments: There is ample parking at the campground/marina. Facilities are available at this location seasonally. The campground/marina are located on USDA Forest Service land that is operated by the Washo Tribe.

USGS 7.5 min Quad: Meeks Bay (see also Detail Map #10 in this Plan)

Coordinates: N 39 02.166 W 120 07.520

LAKE TAHOE DAM BOOMING SITE

Site: **Lake Tahoe Dam Site #1**
(Photo taken from the north end of the dam, looking toward the lake)

Site Rank: A **Sensitive Site**: No

Directions to Site: The dam is located in Tahoe City off Highway 89, just south of the intersection of Highway 89 and Highway 28.

Stream Width: 140 feet **Boom Required**: 400 feet (minimum)

Site Strategy: Extend boom from the buoys at the north bank (just upstream of the dam) across the river diagonally to a point on the gravel beach on the south bank. T-post anchors can be used on both banks.

Comments: There is parking within about 60 feet of the collection area. This area should generally have quiet water, except with a southeast wind. Completed in 1913, Lake Tahoe Dam is a concrete slab and buttress structure with 17 vertical gates. It is 18 feet high and 109 feet long. Flows are controlled by 17 gates, each 5 feet by 4 feet. Since the gates release water from the bottom, the dam should act as an underflow dam, and not allow floating product to pass through to the Truckee River. Discharges through the dam to the Truckee River constitute the only surface water discharge from Lake Tahoe. Water releases to the Truckee River are regulated in accordance with the provisions of the Truckee River Operating Agreement. The U.S. Bureau of Reclamation (BOR) physically operates the dam; however, decisions regarding releases from the dam are made by the Truckee River Federal Water Master. In the event that it is necessary to alter flows into the Truckee River because of a spill or release, contact both the BOR (24-hour contact is through their Central Valley Operations at (916) 979-3004) and the Truckee River Federal Water Master at 775-784-5241 (Gary Stone or Chad Blanchard). Alternate contact phone numbers for the Truckee River Federal Water Master are (775) 742-9289 and (775) 530-4505. Although the BOR has an easement to operate the dam, land on either side of the dam is owned by California State Parks.

USGS 7.5 min Quad: Tahoe City (see also Detail Map #12 in this Plan)

Coordinates: N 39.16741 W 120.14298

Site: **Emerald Bay**
(Photo taken from Hwy 89 near Emerald Falls lookout parking looking east)

Site Rank: A **Sensitive Site**: No

Directions to Site: Emerald Bay is located on Highway 89, 7 miles north of the Highway 50/89 "Y" in South Lake Tahoe or 22 miles south of Tahoe City on Highway 89. The northwest shore of the bay can be accessed via a service road.

Stream Width: NA **Boom Required**: 1,000 feet (minimum)

Site Strategy: Emerald Bay, located at the southwest corner of Lake Tahoe, is a California State Park and a designated National Natural Landmark. Emerald Bay is approximately two miles long and one mile wide. Fannette Island is located within the bay. Emerald Bay is connected to Lake Tahoe by a narrow, shallow entrance. Eagle Falls, a large waterfall, drops into the western edge of Emerald Bay. There are several smaller creeks that also enter the bay. Emerald Bay receives both heavy vessel traffic and vehicle traffic. Vessel traffic to Emerald Bay includes both recreational and commercial (tourist) vessels. Vehicle traffic circles Emerald Bay via Highway 28, which is very windy and steeply drops off 500 vertical feet toward the bay. In the event of a spill (either from a vehicle accident on Highway 89 or from a vessel), it would be necessary to contain the source. Boom could be placed across the mouth of the bay to prevent oil from migrating into the lake. Given the status of Emerald Bay, response to an oil spill at this location would be a critical priority.

Comments: There is vehicle access to the northwest shore via a service road. There are limited facilities at the boat camp on the north shore of the bay (including a pier and restrooms) and at Vikingsholm on the west shore of the bay.

USGS 7.5 min Quad: Emerald Bay (see also Detail Map #8 in this Plan)

Coordinates: N 38.96521 W 120.08244

ROLES AND RESPONSIBILITIES

Incident Command

Of the many types of emergency situations encountered, few are as potentially complex as that of hazardous materials or WMD incident. And in any type of oil spill, hazardous materials, or WMD incident, many local, state, and federal agencies may become involved where each has different interests, responsibilities, and authorities. Each agency has the common goal of protecting life, property, and the environment. In order to provide a coordinated response effort and ensure that each agency's needs are met, it is strongly recommended that responders within the Lake Tahoe train with, exercise, and use the Incident Command System (ICS) for in-the-field emergency response management.

The ICS is a management system described as a set of policies and procedures, personnel, facilities, communications, and equipment integrated into a common organizational structure designed to improve emergency response operations of all types and complexities.

The complexity of incident management, coupled with the growing need for multi-agency and multi-functional involvement at incidents involving hazardous materials and the like, has increased the need for a single standard incident management system that can be used by all emergency response disciplines. ICS provides that framework from which all response agencies, as well as the responsible party, can work together in an efficient and effective manner. It should be noted again that ICS is a field level management tool.

In California and Nevada, ICS is the required organizational structure to be used by response agencies involved in a hazardous materials incident. This issue is further discussed in the California Hazardous Materials Incident Contingency Plan and in the Sate of Nevada Hazardous Materials Response Plan.

The National Fire Protection Association (NFPA) 1561 also requires the establishment and use of the ICS within fire departments.

Electronic ICS Forms can be downloaded from the NOAA Office of Response and Restoration website:

http://response.restoration.noaa.gov/oilaids/ICS/intro.html

or

http://training.fema.gov/EMIWeb/IS/ICSResource/ICSResCntr_Forms.htm

Local Government Agencies

Fire Departments

Local fire departments provide incident support for the incident commander. The fire department works within the ICS as needed for fire suppression and/or rescue activities. Fire departments also function to provide emergency decontamination, treatment, and transportation of patients injured as a result of a hazardous materials incident. The geographic jurisdictions of the various fire departments that surround the lake are depicted below.

North Tahoe Fire Protection District

The North Tahoe Fire Protection District (NTFPD) covers the whole Placer County portion of Lake Tahoe and the Truckee River past Alpine Meadows. This area covers most of the north and west shore of the lake on the California side. The NTFPD also provides ambulance service for all of El Dorado County on the west shore down to Eagle Falls at Emerald Bay. This coverage is provided from six fire stations. Staff includes about 40 full-time personnel and 10 part-time personnel. They have five Type I Structure Fire Engines, two Type III Wildland Engines, a 3000 Gallon Water Tender, seven Ambulances and a high pressure air supply trailer. Most line personnel are paramedics and all are trained to the Hazmat First Responder Operational (FRO) Decon level. Three personnel are part of the Placer County OES Inter-agency Hazmat Team and one of those is the Assistant Team Leader.

Meeks Bay Fire Protection District

The mission of the Meeks Bay Fire Protection District (MBFPD) is to "be responsive to the needs of the people of the District with a progressive organization that provides the community with fire prevention, suppression, rescue and life safety, and emergency medical services in a competent and professional manner." The MBFPD will protect lives, property and the environment in that order. If available, they will assist from land but do not have any water resources. MBFPD can help with perimeter control (on land) and with logistics. They are a small agency and often only have one person on duty during the off season, hence, must remain available to protect the District. The MBFPD jurisdiction extends from the Placer/El Dorado County line south to Emerald Bay.

All of the paid staff are EMTs and have been trained to the Hazmat FRO Decon level. One volunteer is currently being trained as a Hazmat specialist. Some of the staff have had Hazmat Incident Commander training from the state and therefore Meeks Bay can help with interim overhead for an evolving command team.

Other resources include fire engines, a small dump truck with plow, a chipper, a utility vehicle, a floating pump and portable pump, and a command vehicle. They also house an El Dorado County rescue vehicle that is mostly set up for back-country rescue. They have 800 MHz capability to communicate with the California State Parks; otherwise, normal radio communications are on VHF.

Lake Valley Fire Protection District

Lake Valley Fire Protection District (LVFPD) has a staff of 20 career firefighters, 10 volunteer firefighters, 4 Chiefs and one administrative assistant. They operate out of 3 fire stations and have four Type 1 engines; one of those is a State of California OES engine. They have two type 3 brush engines, one rescue squad and a 3,800-gallon water tender. LVFPD is part of a Joint Powers Agreement (JPA) with South Lake Tahoe Fire and Calstar and has two medic ambulances at the main station. Approximately half of the paid staff is trained to First Responder Decon level. They also have one Hazmat Tech and two Specialists. LVFPD maintains limited equipment: two decon showers, and some absorbent. The LVFPD jurisdiction begins at Emerald Bay and extends to the California/Nevada state line excluding the city of South Lake Tahoe limits, the community of Fallen Leaf and the areas surrounding Fallen Leaf Lake.

Fallen Leaf Lake Fire Department

The Fallen Leaf Lake Fire Department (FLLFD) consists of 20 volunteer personnel. The FLLFD jurisdiction covers the community of Fallen Leaf and the areas surrounding Fallen Leaf Lake; however, they will provide support for larger incidents in South Lake Tahoe and El Dorado County. They have 50 feet of 12-inch boom and absorbent pads.

South Lake Tahoe Fire Department

The City of South Lake Tahoe Fire Department has approximately 40 personnel (including two Hazmat technicians and one specialist), four type 1 engines, one 75 foot ladder quint, three ambulances, two wildland patrols, and one small-sized rescue boat. Also, the Department has access to the city of South Lake Tahoe Corp. Yard, which has several loaders, graders, trucks, and miscellaneous hazmat pads, booms, and sand.

The City of South Lake Tahoe Fire Dept. responds to emergency and non-emergency incidents within the city of South Lake Tahoe up to and including structure/wildland/misc. fires, motor vehicles accidents, hazmat incidents, utility emergencies, medical emergencies, public assistance events, natural disasters, and water related emergencies. In addition, they assist cooperating agencies by providing equipment and manpower upon request or predetermined automatic aid contracts.

Tahoe Douglas Fire Protection District

The Tahoe Douglas Fire Protection District (TDFPD) is an all-risk provider with 53 personnel operating out of four stations. The district has seven hazardous materials technicians and participates in the Quad County HazMat Team. In addition, all personnel are trained to the First Responder Operations and Decon levels. All chief officers and most company officers are trained to HazMat Incident Command level. The district operates a HazMat Decon trailer that contains various sorbents, Level B and limited Level A capabilities, as well as air monitoring and WMD detection capabilities. The district also operates a bomb squad whose capabilities include robotics. Other services are provided by four type I engines, one type III engine, one 104-foot ladder truck, one 2000-gal water tender, three ALS ambulances, one 19-foot RHIB marine vessel with fire suppression capabilities, and two personal watercraft.

North Lake Tahoe Fire Protection District

The North Lake Tahoe Fire Protection District (NLTFPD) is an “all risk organization”. All personnel are trained to decontamination level and two hazmat technicians are on staff. NLTFPD participates in the Placer County OES Inter-agency Hazmat Team and they have a decontamination trailer available. Suppression of structure and wildland fires are mitigated with the department’s four type-I Fire Engines, one 100 foot Ladder Truck, two type-III Brush Engines and one Heavy Rescue Squad. Advanced Life Support Emergency Medical Services are supplied with four ALS ambulances. Rescue needs for water and back country are met with one rescue boat, two jet skis, two ATVs and three snowmobiles. Hazmat, structural collapse and heavy rescue needs are supported with one Decontamination trailer, one Structural Collapse trailer and an Air trailer. All personnel have received training on all equipment above. The NLTFPD jurisdiction covers the area from the Douglas County/Carson City line to the Nevada/California state line to the north.

East Fork Fire Department

The East Fork Fire and Paramedic Districts (EFFPD) are an all risk fire and EMS service provider and are one of Nevada's largest combination fire and emergency medical services agencies. The career staff consists of one District Chief, three Deputy Chiefs, three Training Captains, two Fire Inspectors, three Battalion Chiefs, twelve Fire Captains, twelve Paramedic/firefighters, and eighteen EMT-II/ firefighters who work hand in hand with more than 170 volunteer fire and medical personnel to meet the service demands of a rapidly growing community.

The districts support ten volunteer departments working out of 13 all volunteer or combination fire stations to provide structural firefighting, emergency medical services, wildland firefighting, and operations based hazardous materials response. The EFFPD provides services to approximately 650 square miles, which includes most of Douglas County excluding the shoreline sections of Lake Tahoe. All staff has hazmat training to the operations level, eight are trained to technician level and 12 have Incident Command System training. EFFPD participate in the Quad County Hazmat Team. The major equipment that EFFPD maintains includes five command vehicles, one hazmat vehicle that is equipped to the operation level and includes decontamination capabilities, five paramedic rescue vehicles, absorbent, and boom.

Carson City Fire Department

Carson City Fire Department (CCFD) is a full service fire department that provides not only fire related response including wildland firefighting, but paramedic ambulances, technical rescue, Hazmat team, swift water rescue, and more. CCFD's role with the Lake Tahoe Fire Chiefs agreement enables them to utilize other Lake Tahoe resources if needed, and for the other participating Lake Tahoe agencies to use CCFD resources as needed. This agreement is exclusive of the participation with the Quad Hazmat Team.

Regional Hazmat Teams

Placer County OES Inter-agency Hazmat Team

The team currently has about 15 to18 active Hazmat Technicians and Specialists. This team is the only California Hazmat Team on the eastern side of the Sierra crest. Their primary response area covers well over 100 square miles in the eastern portion of Placer County and Truckee Fire Protection District's jurisdictional boundaries. With Joint Powers Agreements, Automatic and Mutual-Aid coverage, they are available for response to the whole Tahoe basin, Western Nevada and all of California. Their Hazmat truck was delivered in 2001 and contains all the suits, equipment and monitoring instruments necessary for Level A entries. They also have a trailer that contains all of their decontamination equipment. Another trailer contains all the booms and equipment necessary for initial swift water spill recovery booming. The truck and trailers are located in a Truckee fire station at the Truckee Airport and could be on site to some north shore locations within 15 to 20 minutes.

Quad County Hazardous Materials Team

The Quad County Hazmat Team is comprised of four connecting counties that have agreed to support and provide a Type 1 Level "A" Hazmat team. Personnel from all agencies train annually and respond to incidents within the four counties. These counties are Carson City,

Lyon, Story and Douglas. Because Douglas and Carson City both border Lake Tahoe and the Carson River, the team can participate in incidents involving lake or river incidents. As the lead agency in the Quad County Hazardous Materials Team, the Carson City Fire Department maintains a wide variety of equipment and a response vehicle.

Reno Sparks Regional Hazardous Materials Team

The Reno Sparks Regional Hazmat team consists of approximately 27 firefighters from the Sparks Fire Department and 36 from the Reno Fire Department, as well as personnel from the Washoe County Health Department. This Triad Hazmat team also includes members of the former Truckee Meadows Fire Protection district, which is now part of Reno Fire. The Sparks Fire Department maintains and staffs a New Hazardous Materials Vehicle for the Triad Team.

Public and Environmental Health Services

Within California, the county Environmental Health (EH) Department is usually designated as the administering agency for risk assessment in an emergency. Duties include identification of product, approval of cleanup, public notification, and determining when an event is ”clean” and safe for public reentry. County Environmental Health is responsible to contact CalEPA—Department of Toxic Substance Control to access California superfund monies for cleanup operations. Within Nevada, the role of County Environmental Health is similar. They may work closely with fire and hazmat in initial assessment, approval of cleanup, and determining when an event is “clean” and safe for public reentry. County Environmental Health agencies work closely with the Nevada Division of Environmental Protection.

Placer County Environmental Health

The role of Placer County Environmental Health Services is to respond to calls regarding hazardous materials incidents and their effect on public health. The roles and responsibilities this agency implements are as follows: respond to hazardous materials incidents as technical representatives, represent the Placer County Health Officer at the scene of hazardous materials incidents, provide incident commander with assistance and information regarding threats to public health and the environment, assist in identification and analysis of unidentified substances, establish criteria for cleanup and disposal of hazardous materials, oversee and supervise cleanup of hazardous materials, and declare incident sites safe for re-entry by the public.

El Dorado Environmental Management

The safe and efficient emergency response to hazardous materials events in El Dorado County depends on joint cooperation between multiple agencies. The Solid Waste and Hazardous Material Division leads this important team effort with close cooperation with law enforcement, fire and allied health agency officers and staff. Special attention is given to the hazardous materials used and transported frequently in the county by the local businesses. They also train and prepare for possible biological, nuclear, incendiary, chemical, and explosive hazards used in criminal or terrorist activities. Preparedness activities include training of team members to appropriate levels of response capability, multi-agency workshops, table-top exercises, field training, and drills.

Special equipment is needed to protect the safety of the responders and the public during an event that includes nuclear, biological, or chemical materials. Equipment used by the team includes personal protective clothing, suits, gloves, boots, and breathing respirators. Gas and radiological detectors and other field chemistry kits help identify unknown materials. Specialized tools and equipment are used for containment, control, and decontamination of released hazardous materials. In a typical year they will respond to about 40 to 50 incidents including routine spills of vehicle fuels, unknown white powders in the mail, the release of toxic chlorine gas, as well as a variety of other hazardous conditions.

The Solid Waste and Hazardous Materials Division is responsible for after hours on-call support for all Department Programs including Hazmat, Air Pollution, Sewage Spills, Water Pollution, Food Poisonings, and Union Mine Landfill Issues.

Washoe County District Health Department - Environmental Health Services

Washoe County District Health Department (WCDHD) has an Environmental Health Services Division, which has the role of protection of public health and the environment. WCDHD staff are trained in emergency response to hazardous materials incidents, hazmat transportation, and serve as a member organization of the Truckee Meadows Regional Hazardous Materials Response Team, but can also respond independently of the team. WCDHD staff can respond and fill a number of roles, including Level B entry, technical adviser to the Incident Commander on response and remediation strategies, conduct air monitoring and gas identification with a number of gas detectors and infrared gas identification, and perform chemical identification using infrared technology. WCDHD also has basic radiological detection equipment. WCDHD works closely with all local hazardous materials response companies, and is aware of the distinct capabilities of each one.

Carson City Environmental Health Department

Carson City Environmental Health Department (CCEH) is the key agency for public health in the Carson City boundaries. They are the main support for all city functions. During an emergency CCEH staff are assigned to the Carson City Emergency Operations Center as needed. After hours they can be reached through dispatch.

Law Enforcement - County Sheriff's Offices / Town Police Department

Law enforcement (LE) is designated by the area plan as the incident commander for off-highway areas including county and private properties. LE is responsible for overall scene management, resource coordination, and resource management. The US Coast Guard is the lead LE agency on the lake, and will act as IC during any incident on Lake Tahoe requiring law enforcement participation. More information on the local coast guard station and the US Coast Guard Pacific Strike Team (PST) can be found later under Federal agencies – EPA and Coast Guard in this section.

Washoe County Sheriff's Office

The Incline Village Substation of the Washoe County Sheriff's Office (WCSO) has the primary responsibility of providing law enforcement, search and rescue, and civil process services to the 60+ square miles from the Mt. Rose summit to Crystal Bay and Incline Village, Nevada, on the northeastern shores of Lake Tahoe.

The substation is staffed by 37 personnel and headed by a Commander under the Operations Bureau of the Sheriff's Office. The complement of personnel includes the Commander, five Sergeants, 16 Deputies, one K-9 Officer and one Detective. There are 12 dispatchers assigned along with one civilian clerk.

The substation maintains at least eight 4-wheel drive vehicles year round, two jet skis during the summer months and a Patrol/Rescue Boat available for immediate deployment year round. Deputies assigned to the Substation are trained and equipped with 12-gauge shotguns, AR-15 assault rifles, M-26X Tasers, and less lethal munitions. They are also provided with Level C protective clothing and masks.

Additional services available to the substation through the WCSO main station in Reno include a rapid response SWAT team, Bomb Team, Hostage Negotiators, RAVEN Helicopter support, Major Accident Investigation Team, Crime Scene Investigations, full service (air, land, and water) Search and Rescue teams, the Contractors Auxiliary with heavy equipment and generators, Critical Incident Stress Management (CISM) response team and a Mobile Command Post. Additional deputies and vehicles are also available for immediate response. Citizen Volunteer teams fully trained and equipped include the Citizen Emergency Response Team (CERT) and the Citizen Homeland Security Council (CHSC).

Placer County Sheriff's Office

The Placer County Sheriff's Office (PCSO) maintains a 33-foot Patrol and Rescue boat, kept at the Sierra Boat Company in Carnelian Bay. At five tons, it is too heavy to be moved by trailer in any practical manner. This vessel operates full time during the peak summer boating period (Memorial Day to Labor Day), Friday through Monday, from 0800 to 1600 hours. Normal crew is two, but they have six qualified Boat Officers. During the rest of the year, they are available on an on-call basis. They enforce the California Harbors and Navigation Codes laws within their jurisdiction, investigate accidents and perform search and rescue operations. The vessel is a twin engine, screw driven, with a top speed of over 45 knots. It is equipped with radar, depth finder, Global Positioning System (GPS), radio direction finder, first aid supplies, fire fighting equipment, and dive gear. It does not have any hazardous waste spill supplies aboard. They will respond as mutual aid to any other agency on the lake, at any time. They also have an eight-man Dive-Rescue Team, trained and equipped for high altitude and cold water operations. They can provide search and rescue, ice rescue, and salvage and recovery services. They also have a very limited swift water rescue capability, and a small outboard powered Zodiac inflatable boat.

El Dorado County Sheriff's Office

The El Dorado County Sheriff's Office (EDSO) has the following organizational structure: Sheriff, Undersheriff with Financial reporting directly to the Undersheriff, and four Divisions: Custody

(Jails/Court Security/Transportation of inmates); Patrol Services (uniformed patrol out of both the Placerville office and Tahoe office including Central Dispatch); Investigation Services (detectives, OES, Coroner, and Search and Rescue out of both Offices); and Support Services (Personnel, Training, and Records). The Search and Rescue teams are a combination of sworn employees and civilian volunteers and respond to incidents from both the Placerville and South Lake Tahoe Offices. In the event of an incident, EDSO would routinely be the lead agency in any OES driven event or any criminal event in the unincorporated portions of the County and also have primary jurisdiction in Search and Rescue matters. In addition to the Search and Rescue volunteers, they have a very active volunteer group called the Sheriff's Team of Active Retirees (STARs) that provides assistance in a supporting roll to any emerging issues that are encountered. The EDSO participates in Mutual Aid agreements will all agencies in the Lake Tahoe Basin. The EDSO has three offices located in South Lake Tahoe, Placerville, and El Dorado Hills.

Carson City Sheriff's Office

The Carson City Sheriff's Office is committed to providing the highest level of law enforcement service to the citizens and visitors of the community, while continuously adhering to professional law enforcement ethical standards. The departments include Patrol, Traffic, Detectives, Crime Lab, SWAT, Crisis Negotiations, Detention, and Dispatch.

Douglas County Sheriff's Office

The Douglas County Sheriff's Department serves as the largest local law enforcement agency. There are 118 people employed by the Department that includes Divisions in Patrol, Investigations, Jail, and Administrative Services. The Department has capabilities in SWAT, Crisis Negotiation Team, Bomb Squad, K-9, motors, boat patrol, and School Safety Intervention Teams. They cover nearly 750 square miles including Lake Tahoe to the west and Topaz Lake to the south.

South Lake Tahoe Police Department

The South Lake Tahoe Police Department is solely responsible for law enforcement and related duties within the city limits of South Lake Tahoe. The city's marine unit is also responsible for law enforcement jurisdiction on the southern end of Lake Tahoe. Their jurisdiction abuts with El Dorado County Sheriff's Department (California) and Douglas County Sheriff's Department (Nevada). The South Lake Tahoe Communications Center is the primary public safety answering point for the City of South Lake Tahoe, as well as the dispatching agency for South Lake Tahoe Fire Department, Lake Valley Fire Protection District, and Fallen Leaf Lake Fire Protection District. All dispatchers are trained in Emergency Medical Dispatch and are able to provide instructions on life-saving techniques for those in medical distress. They are a communications center only, and their primary role in any hazardous materials emergency would be dispatching of police and fire resources as well as agency notifications.

County Office of Emergency Services

County Office of Emergency Services (OES) assists the incident commander with coordination of resources at incidents that involve multiple agencies, including local, state, and federal. OES also assists the incident Information Officer to ensure that timely and accurate information is disseminated to the public.

Placer County Office of Emergency Services

The Placer County Office of Emergency Services is the emergency management agency for Placer County and is headquartered in Auburn, California, the county seat. The office provides services countywide, in cooperation with local cities and special districts. They work closely with other emergency management disciplines such as fire, law enforcement, hospital, emergency medical services, and public health. Their roles, responsibilities, and capabilities include administering the County Emergency Management Program, acting as liaison to other county, state and federal agencies, coordinating fire protection and hazardous materials response, and maintaining public outreach and emergency public information.

Carson City Emergency Management

The Carson City Fire Department's Emergency Management Division coordinates overall Carson City response to major disasters at the local level. The Emergency Management Division is responsible for ensuring the city's readiness to respond to and recover from natural and manmade emergencies, and for assisting citizens in their emergency preparedness, response and recovery efforts. The Emergency Management Division maintains the Carson City Emergency Plan, which outlines the organizational structure for state management of the response to natural and manmade disasters, and assists citizens with emergency preparedness. The major components of Emergency Management are preparedness, response, and assistance. The Carson City Fire Department is available 24/7 and has mutual aid agreements with all Nevada fire departments. Their capabilities include full paramedic/ambulance service, technical rescue, urban search and rescue, high angle rescue and confined space rescue. Additionally, they have a Hazmat unit that is trained as a Level A Response Team.

El Dorado County Office of Emergency Services

In 1994, the Sheriff's Office assumed responsibility for managing the County's Office of Emergency Services (OES). Sheriff's employees assigned to the OES work in collaboration with fire services, emergency medical services, hospitals, schools, and public and private agencies to implement preparedness programs, develop emergency response plans, and conduct training drills. The OES also sponsors several community based programs such as the Neighborhood Emergency Services Team (NEST), that provide important information on what citizens can do individually and collectively, to prevent, respond to, and survive a disaster.

The mission of the Sheriff's OES is to continuously evaluate and improve their ability to prevent natural and man-made disasters. In the past, El Dorado County has been impacted by a wide variety of disastrous events. Examples include wildland fires, floods, earthquakes, severe winter storms, utility failures, and hazardous material spills. If a disaster should occur, the OES will activate and deploy emergency personnel and resources efficiently and effectively to minimize the effect of the disaster and to assist in recovery efforts.

Washoe County Emergency Management

The Washoe County Emergency Management Program functions as a coordination agency during a disaster, to provide such assistance as may be needed by the affected communities to

safeguard life and property. The intent is to assess and address the effects of the event. They use the ICS as part of the National Incident Management System (NIMS) during the response phase. Mutual aid assistance is often available from other communities, state and federal agencies, or from private sources.

County / Town Public Works Department

Public Works (PW) is responsible for cleaning up spills occurring on roadways maintained by their agency when the responsible party is unknown or unable to pay for cleanup.

Placer County Building Department

During an emergency in the Tahoe Region the Placer County Building Department (PCBD) can offer technical assistance where structures are involved. Generally emergency response is conducted by the local Fire District and/or Sheriffs Department. After the initial response by those emergency response teams, the PCBD will conduct an investigation and prepare an incident report.

The PCBD can offer technical assistance to emergency responses if needed. The Building Department has conducted damage assessments to structures and prepared reports to Placer County Office of Emergency Services and FEMA for large scale events such as the 1997 flooding. The Building Department would also conduct Post Disaster Structural and Safety Assessments of buildings in large scale events such as an earthquake, lake tsunami, or forest fire.

Placer County Department of Public Works

During an emergency the Placer County Department of Public Works (PCDPW) can offer technical assistance with regard to gas leaks, utility problems, etc. After the initial phase of the emergency is complete, the PCDPW can conduct damage assessments and prepare reports for submission to FEMA or other agencies. They also can conduct inspections to ensure safety during reestablishment and repair of utilities and can issue any needed permits.

State Agencies

State of California

Governor's Office of Emergency Services

The OES is the designated state agency responsible for coordinating the mitigation, preparedness, response, and recovery activities related to all disasters in California. To facilitate coordination of emergency response resources, OES operates the central notification and reporting system for the state of California through the OES Warning Center. Once the Warning Center receives a warning or notification of a hazardous materials incident, the on-duty Warning Center coordinator will then make the appropriate notifications (via fax, phone, and/or pager) to local, state, and federal agencies. OES coordinates mutual aid within the state and operates both the regional and state emergency operations centers. OES is delegated substantial emergency duties under the California Emergency Services Act.

California Department of Fish and Game

The California Department of Fish and Game (DFG) is the law enforcement agency charged to preserve, protect, and enhance the state's fish, wildlife, and their habitat (Fish and Game Code, Sec. 711.7). Because of this responsibility, and because polluting the environment of fish or wildlife or their habitat is a criminal offense (Fish and Game Code, Sec. 5650), DFG has traditionally accepted the role of lead state agency at off-highway spills whenever fish, wildlife, and/or their habitat are threatened or injured by a spill of oil, hazardous substance, or other deleterious material. When a hazardous substance spill is no longer a threat to public safety, but continues to pose a threat to fish or wildlife or the habitat, DFG may assume the lead state role as State On-Scene Coordinator (SOSC) for the remainder of the clean up.

The California DFG is the public trustee for the protection and management of California's native wildlife and the habitats upon which they depend. The Office of Spill Prevention and Response (OSPR) is DFG's pollution response division, and the lead state agency for off-highway oil spill prevention, response, and restoration. OSPR's objective is to prevent resource damage, minimize impacts, restore and rehabilitate California's wildlife populations and their habitats from the harmful effects of oil and other deleterious material spills in marine and inland waters and their associated habitats through the use of the best achievable technology and protection. Since its creation in 1990, OSPR staff have responded to more than 3,000 spills, and collected more than $130 million in natural resource damage assessments to be used for spill restoration projects. For more information, please visit us on the Internet at **www.dfg.ca.gov/ospr .**

California Highway Patrol

The CHP is the designated state agency responsible to function as the Incident Commander or part of the Unified Command for all hazardous materials incidents that occur on all state highways and freeways, as designated in California Vehicle Code § 2454. In addition, CHP is also the Incident Commander at all hazardous materials incidents that occur on county roads. In situations where another agency first becomes aware of an incident within CHP jurisdiction, the CHP shall be notified and provided with emergency information to ensure a safe response. CHP also operates an H-20 helicopter with a paramedic on board.

California Environmental Protection Agency

Emergency response for the California Environmental Protection Agency (CalEPA) is coordinated through the Emergency Response Management Committee (ERMAC), comprised of a representative and alternates from each of CalEPA's six boards, departments, and offices, and the office of the Secretary of the Environment. CalEPA is NIMS compliant and operates as a state agency with specific jurisdiction under the California State Emergency Management System (SEMS), as coordinated by the Governor's Office of Emergency Services (OES).

ERMAC is responsible for emergency planning, and coordinates the Secretary's office and all CalEPA entities in responding to and recovering from emergencies. The CalEPA Emergency Operations Center can be opened during a large scale event by authority of the Secretary's office or by request of OES. State-wide responsibilities during an emergency fall under their mission essential functions of protecting public health and the environment. These tasks are in support of local/county emergency management efforts via OES coordination, and can include, but are not limited to:

- Technical toxicological support (including pesticide exposure, aquatic toxicity; ecotoxicology, exposure assessment, risk assessment)
- Debris management and regulatory consultation;
- Disinfection/decontamination technical support and regulatory consultation;
- Air monitoring and modeling (with mobile and stationary lab capabilities);
- Mobile and stationary toxics identification/hazardous categorization laboratory capabilities (with limited entry capability);
- Emergency removals from clandestine drug labs and other Hazmat emergencies; and
- Surface and groundwater contamination technical support.

CalEPA is the umbrella agency designated to oversee the following Boards, Departments, and Offices:

- The *California Air Resources Board* (ARB) is the designated state agency responsible to protect and enhance the ambient air quality of the state. The ARB fulfills this responsibility through local and regional air pollution control authorities. Notification to the ARB is required for hazardous materials incidents that threaten to adversely affect air quality.

- The *California Department of Pesticide Regulation* (DPR) is the designated state agency responsible for regulating the registration, sale, and use of agricultural chemicals (including pesticides, fertilizers, and livestock drugs) prior to entering the waste stream.

- The *California Department of Toxic Substances Control* (DTSC) offers assistance to state and local law enforcement agencies and other emergency response agencies with the removal of hazardous waste from illegal drug lab sites as well as sites where drug lab waste was abandoned. In addition, DTSC provides assistance to local agencies for the removal of hazardous waste that is discovered as a result of "midnight dumping" activities, spills involving an unknown responsible party, or incidences requiring stabilization or mitigation to prevent potential emergencies. DTSC staff and their five contractors are available 24 hours a day, 7 days a week to provide this assistance. DTSC also has at their disposal a fully operational mobile laboratory that can be dispatched to an incident to provide analytical services for soil and water samples.

- The *California Integrated Waste Management Board* (IWMB) is the designated state agency responsible for overseeing municipal solid waste landfills, other non-hazardous waste or recycling facilities, used oil and household hazardous waste facilities, and waste tire facilities.

- The *Office of Environmental Health Hazard Assessment* (OEHHA) is the designated state agency responsible to assess health effects and characterize risk to public health and the environment from toxic chemical releases in the environment.

- The *State Water Resources Control Board* (SWRCB) is the designated state agency responsible to protect the state's surface, coastal, and groundwater resources. This involves a proactive role in providing technical assistance in evaluating the potential impact of hazardous materials spills to water resources. In addition, SWRCB issues cleanup and abatement or cease and desist orders to responsible parties, assesses fines, and pursues recovery of costs for abatement, mitigation, or contract cleanup.

  There are nine Regional Water Quality Control Boards (RWQCB), one located in each of the nine major watersheds of the state. Regional Water Quality Control Boards develop basin plans, issue waste discharge requirements, take enforcement action against violators, and monitor water quality. They carry out state and federal law and are guided by policies established by the State Water Resources Control Board. The Lahontan Regional Water Quality Control Board serves the Lake Tahoe area.

California Department of Forestry and Fire Protection

The California Department of Forestry and the State Fire Marshal's office have consolidated into the California Department of Forestry and Fire Protection (CAL FIRE) to protect the people of California from fires; respond to emergencies; protect and enhance forest, range, and watershed values; and to provide social, economic, and environmental benefits to rural and urban citizens. CAL FIRE performs fire protection suppression and prevention duties for about 30 million acres of wildland in the state. In addition to their state responsibilities, CAL FIRE may provide fire service to some local jurisdictions under contract. In such cases, CAL FIRE carries out the responsibilities of local fire suppression agencies as they relate to hazardous materials incidents.

The responsibilities of the State Fire Marshal's Office also include oversight responsibilities for pipelines within the state of California.

California Department of Health Services

The California Department of Health Services (CDHS) is the designated state agency responsible to protect public health from the effects of hazardous and radioactive materials. CDHS has statutory responsibility for the regulation of public water systems to ensure that drinking water is safe, wholesome, and potable. In the event of a hazardous materials spill or threatened release that affects a public water system or source of drinking water such as a lake, river, or aqueduct, the Drinking Water Field Operations Branch within CDHS will work with the water utility to prevent contamination of the system. Notification is required for radioactive material incidents; releases involving a public water system or drinking water source; releases affecting a food, drug, medical device, cosmetic, or bottled water manufacturer or wholesaler; or

significant releases affecting a large population or involving deaths, serious injuries, evacuations, or in-place sheltering.

California Department of Parks and Recreation

The California Department of Parks and Recreation (DP&R) is the designated state agency responsible for the administration of State Parks, and for the safety and well being of the public and employees using the state parks system. The California Department of Parks and Recreation maintains 10 park units in the Lake Tahoe basin. Their main focus is the public safety of park visitors and resource protection. Their local staff includes seven field rangers, two lieutenants, and a sector supervisor who is a fully certified peace officer. They have search and rescue capabilities and two staff members are high angle rescue certified. They maintain a patrol boat on Lake Tahoe during the summer months and maintain full cooperative agreements with all county agencies.

California Department of Transportation

The California Department of Transportation (CalTrans) is the designated state agency responsible for planning, designing, constructing, operating, and maintaining the state highway system. In coordination with other response agencies they ensure proper cleanup and restoration of the highway within its rights-of-way. CalTrans is responsible to determine the degree and type of maintenance required to restore the flow of traffic while protecting the health, safety, convenience, and welfare of the general public. It should also be noted that CalTrans determines when a roadway is re-opened. CalTrans is responsible for any hazardous spills on the state highway system. All CalTrans personnel in the numerous field stations are either FRA or FRO certified and there are also hazmat technicians and specialists available. All field stations have spill containment materials and a wide variety of heavy equipment. Clean up tasks for most large spills are contracted out.

California Department of Water Resources

The California Department of Water Resources (DWR) is the designated state agency responsible to protect the operation and water quality of the state Water Project. This includes providing water of a quality that can be used for agricultural, recreational, municipal, and industrial purposes. Activities supporting this responsibility include protection of state Water Project facilities and flood control facilities. Notification to DWR is required when an incident threatens to contaminate or otherwise disrupt the operation of the state Water Project and its man-made and natural conveyance facilities or if a significant release of a hazardous substance occurs into the San Joaquin Delta.

California National Guard

The California National Guard (CNG) is a state military agency that provides support to fire and law enforcement operations, aviation, general transportation, and other support for emergency operations. In the event of a major hazardous materials incident, the CNG can provide many resources and support functions. In addition, the CNG has Weapons of Mass Destruction Civil Support Teams (CST). The CSTs are designed to support local incident commanders and local emergency first responders 24 hours a day, seven days per week for any weapons of mass destruction terrorist event. The team assesses the situation, advises civilian authorities on

appropriate actions, and provides assistance to expedite the arrival of additional state and federal resources.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the designated state agency responsible to prevent and regulate occupational exposures and injuries in the workplace. Cal/OSHA also administers the Process Safety Management Program (which is closely aligned with the California Accidental Release Prevention (CalARP) program). Regulations regarding worker health and safety at hazardous materials incidents are contained in 8 CCR 5192. Cal/OSHA has the capability to evaluate the adequacy of health and safety plans designed to protect employees from exposure to hazardous materials during hazardous materials response and recovery operations. The Cal/OSHA Program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. The nearest Cal/OSHA district office is located in Sacramento, California. Specialized enforcement units such as the Mining and Tunneling Unit and the High Hazard Enforcement Unit augment the efforts of district offices in protecting California workers from workplace hazards in high hazard industries. All offices have 24-hour answering service. Other specialized units such as the Crane Certifier Accreditation Unit, the Asbestos Contractors' Registration Unit, the Asbestos Consultant and Site Surveillance Technician Unit, and the Asbestos Trainers Approval Unit are responsible for enforcing regulations pertaining to crane safety and prevention of asbestos exposure.

California Office of Historic Preservation

The California Office of Historic Preservation (OHP) is responsible for administration of federally and state mandated historic preservation programs in California. The mission of OHP and the State Historical Resources Commission, in partnership with the people of California and governmental agencies, is to preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enriched for present and future generations.

California Public Utilities Commission

The Railroad Operations and Safety Branch of the California Public Utilities Commission (CPUC) have responsibility and authority for investigation of railroad accidents. This includes those incidents involving hazardous materials. It performs railroad safety oversight of daily operations and inspections of new and existing facilities for compliance with the PUC General Orders and with 49 CFR.

California State Lands Commission

The California State Lands Commission (SLC) acting as trustee for the people of California holds and manages all sovereign lands of the state. These lands include the beds of more than 30 navigable rivers, 40 navigable lakes, and submerged land adjacent to the coast and offshore islands of the state from the mean high tide line to three nautical miles offshore. Additionally, SLC manages more than 500,000 acres of "school lands" and exercises general oversight authority on granted lands. SLC has specific statutory jurisdiction over the operation of marine

oil terminals located in the state, as well as trustee responsibility at other marine facilities on lands leased from the state.

Emergency Medical Services Authority

The Emergency Medical Services Authority (EMSA) is the designated state agency responsible for planning and coordinating the state's medical response to disasters. At the request of the impacted jurisdiction, EMSA can arrange for emergency procurement and distribution of medical supplies. In conjunction with the affected medical associations, EMSA develops general guidelines for the triage and handling of contaminated/exposed patients. Notification is required when a significant number of human exposures, any evacuation, or when a chemical fire or vapor cloud has occurred or is expected to occur.

State of Nevada

Nevada Division of Emergency Management

The Nevada Division of Emergency Management (NDEM) is responsible for coordinating mitigation, preparedness, response and recovery activities related to all disasters in Nevada. NDEM is the central contact for coordination of state and federal agencies during an emergency response situation. NDEM maintains a staff of duty officers who are available 24 hours a day/seven days a week. NDEM has emergency response notification responsibilities and serves as the central coordinating entity for mutual aid resources within the state. NDEM operates a warning center and state emergency operations center in support of local and regional emergency operations centers.

Nevada Highway Patrol

The Nevada Highway Patrol (NHP) has statutory responsibility to police all primary and secondary highways in Nevada and to investigate all accidents that occur on those highways, including hazardous materials incidents. NHP also controls the Nevada law enforcement communications net that may be used for emergency communications.

Nevada State Emergency Response Commission

The Nevada State Emergency Response Commission (SERC) is primarily responsible for Nevada's compliance with the Federal Emergency Planning and Community Right to Know Act. The SERC acts in a preventative/planning capacity to coordinate working relationships among state, local, federal, and private agencies and industries.

Nevada Division of Environmental Protection

NDEP is charged with protecting human health and the environment. NDEP has Duty Officers on call 24 hours a day to man the Spill Reporting Hotline. The Spill Hotline takes hydrocarbon/chemical spills and citizen complaints. The Duty Officers are also available to staff the State Emergency Operations Center when the Center is activated. In addition, the Duty officer is the primary point of contact to request assistance from NDEP for resources to fulfill Emergency Support Function 10 (Hazardous Materials).

NDEP also has personnel on call concurrently with the Duty Officers that act as Environmental Assistance Coordinators (EAC) for NDEP. The EAC is the State liaison for Counties to request federal resources and the EPA On-scene Coordinator. The EAC will also act as a liaison between local emergency responders and other State agencies for providing resources to stabilize or remediate hazardous materials spills. NDEP is not a first responder. However, NDEP will mobilize personnel to hazardous materials spills when requested. The EAC also provides (by phone or on scene) technical reference and regulatory support for the Incident Commander. The EAC can assist as needed in the NIMS ICS structure during the emergency phase of an incident. After an incident is stabilized, NDEP personnel may be assigned to oversee the remediation of the spill area.

Bureaus within NDEP include:

- *Corrective Actions* - Oversees cleanup of releases of regulated substances. Also administers the environmental response program, Brownfields, Superfund, and Abandoned Mine Lands programs, a reimbursement fund for petroleum claims, and a certification program for environmental consultants.
- *Waste Management* - Responsible for supervision and management of hazardous waste. Also provides technical assistance and oversight on containment and disposal of industrial, solid, and hazardous waste.
- *Water Pollution Control; Air Pollution Control* - Responsible for enforcing state and federal regulations for their respective media. Also issue permits for discharges.
- *Mining Regulation and Reclamation* - Regulates mining activities in Nevada under regulations adopted in 1989. BMRR is composed of three distinct technical branches; regulation, closure, and reclamation. The mission is to ensure that Nevada's waters are not degraded by mining operations and that the lands disturbed by mining operations are reclaimed to safe and stable conditions.
- *Safe Drinking Water* - The mission is to protect the public health of the citizens, tourists and visitors to the State by assuring that the public water systems provide safe and reliable drinking water.
- *Water Quality Planning; Air Quality Planning* - The mission is to achieve and maintain levels of water and air quality, respectively, which will protect human health and safety, prevent injury to plant and animal life, prevent damage to property, and preserve visibility and the scenic, aesthetic and historic values of the State.

Nevada Division of Health

The Nevada Division of Health (NDH) is responsible for the public's health and can test for contamination from chemicals and organisms. Other sections of the division that may assist are:

- *Radiological Health,* which is responsible for the incidents involving radioactive materials.
- *Emergency Medical Services (EMS),* which assists in coordinating emergency medical response.

Nevada Division of Investigations

The Nevada Division of Investigations (NDI) conducts criminal investigations at crime scenes, including HazMat incidents. Their responsibilities include protecting the crime scene, collecting

evidence, initiating investigations and providing investigative support to other agencies. NDI investigators are capable of making entries into hazardous environments.

Nevada Department of Transportation

The Nevada Department of Transportation (NDOT) has highway maintenance yards throughout the state with heavy equipment and other resources that may be used by the local responder under certain circumstances. NDOT has the power to close highways to traffic.

Nevada Division of State Parks

The Nevada Division of State Parks locally operates the Lake Tahoe-Nevada State Park which is based out of Incline Village. This park is comprised of four different areas; Cave Rock, Spooner Lake, Memorial Point and Hidden Beach, and Sand Harbor. The Lake Tahoe-Nevada State Park has four commissioned rangers with full law enforcement capability, one covering Spooner Lake and Cave Rock and the remaining three covering Memorial Point and Hidden Beach and Sand Harbor. The Nevada State Parks personnel will respond to any emergency on state park land but their main focus is public safety and law enforcement. The rangers also have pursuit jurisdiction throughout Nevada. Additionally, park personnel can assist other agencies with law enforcement needs. Park personnel also have limited fire fighting capability.

Nevada State Fire Marshal

The Fire Marshal's office functions to promote and develop ways and means of protecting life and property from fire. As part of the Division of the State Fire Marshal, the Nevada Hazardous Materials and Fire Training Center provides training statewide to fire personnel, industry, business, governmental agencies, and private citizens. The State Fire Marshal's Office provides technical assistance on fire and life safety issues, investigates the cause of fires, and provides law and code enforcement.

Nevada Department of Wildlife

The Nevada Department of Wildlife (NDOW) protects, restores and manages fish and wildlife, and promotes fishing, hunting, and boating safety. NDOW can provide manpower and two vessels to support emergency response personnel. Response time for these resources is usually one to two hours. One vessel is on the water at Round Hill Pines, NV on a year-round basis. A second vessel can be launched as necessary. Game Wardens can provide law enforcement support and Wildlife and Fisheries Biologists can provide technical expertise on resource issues.

Nevada Division of Forestry

The Nevada Division of Forestry (NDF) can provide manpower, aircraft, and heavy equipment to support emergency response personnel. Response times for these resources are usually two to four hours. Aircraft support includes several helicopters used for fire fighting, personnel transport, and rescue efforts. Heavy equipment that can be provided by NDF includes bulldozers and road graders. NDF utilizes inmate labor. The NDF has the capability of responding to All Risk incidents in the Lake Tahoe Basin area with the following resources. All Risk incidents would require Type 1 or 2 Incident Commanders, a Type 3 All Risk Incident Management Team command and general staff, numerous ICS single resource positions,

Resource Advisors, a Resource Specialist, Logistical support, five 20-person crews for immediate need (additional crews available with time delays), Type 2 helicopters, four Type 3 wildland engines, and a Communications Command trailer.

Nevada Occupational Safety and Health Enforcement Section

The Nevada Occupational Safety and Health Enforcement Section (OSHES) enforces health and safety standards required by the Nevada Occupation Safety and Health Act, and assists employers in identifying and correcting unsafe working conditions. OSHES can evaluate health and safety plans designed to protect employees from exposure to hazardous materials during HazMat responses and recovery operations.

The Nevada State Historic Preservation Office

The Nevada State Historic Preservation Office (SHPO) is a state agency created by the National Historic Preservation Act. The SHPO administers the Commission for Cultural Affairs grants, NPS grants, National and Nevada State Registers of Historic Places, the Historical Marker Program, and the Comstock Historic District Commission. The SHPO provides information on the location of historically sensitive areas as well as advice and assistance on the rehabilitation of these resources. Some SHPO offices also have a person on staff that has been trained by FEMA to assess building damage. The SHPO has a legal agreement with FEMA that dictates how they will respond during an emergency.

The Nevada Tahoe Conservation District

The Nevada Tahoe Conservation District (NTCD) is a subdivision of the Nevada government that serves the landowners of the Nevada Tahoe Basin with conservation related programs such as erosion control, stream restoration, irrigation management, and other renewable resource programs. The NTCD has nine employees in two programs: Backyard Conservation and Water Resources. In addition, NTCD has a public outreach specialist who assists with education and training elements of the two programs. NTCD is grant funded from numerous sources; however, currently none of their grants have an emergency assistance task. It is possible that these grants could be amended or new funding requested.

In an emergency, NTCD would be an appropriate resource, if funding allowed, to assist with education and outreach, assessment work in relation to habitat loss, stream or erosion evaluations. Pre-emergency, NTCD is in constant contact with home owners and the local communities and NTCD could provide education, facilitation, or forums on emergencies. The district manager has more than 30 years of environmental expertise including 15 years with the Nevada Division of Environmental Protection and is a Nevada Certified Manager.

Bi-State Agencies

Tahoe Regional Planning Agency

The Tahoe Regional Planning Agency (TRPA) is a bi-state agency that has authority within the Lake Tahoe Region. In 1969, the state legislatures of California and Nevada, ratified by the United States Congress, adopted the Tahoe Regional Planning Compact, creating the TRPA (Public Law 91-148). The TRPA Watercraft Team is responsible for implementation of TRPA regulations in the shorezone and lakezone of Lake Tahoe and other lakes in the Region. These include regulation of watercraft engine types, mooring buoys, noise, water quality degradation, a 600-foot no-wake zone and a proposed use/boat sticker program. The team consists of three qualified seasonal operators and one full time program manager. Currently the vessel resources available include a 19 foot Zodiac, a 21 foot Alumaweld cutty cabin, and a 28 foot all-weather vessel.

Tahoe Water Suppliers Association

The Tahoe Water Suppliers Association (TWSA) represents eight water suppliers in the Lake Tahoe Basin whose water supply is Lake Tahoe. The Association forms a united voice advocating the protection of Lake Tahoe from drinking water contaminants that are potentially harmful to our health. TWSA stresses the importance of conserving the overall quality of Lake Tahoe's water in addition to protecting its renowned clarity.

TWSA members have long acknowledged the regulatory environment imposed by the TRPA as essential in protecting the watershed as a drinking water source. Sharing similar challenges, TWSA allows its members to combine forces to address federal and state guidelines established to protect against waterborne diseases. Together they have created a watershed control plan with common standards and objectives while addressing the specific challenges that reside within each purveyor's service territory and surrounding watersheds. The program includes comprehensive data collection and analysis, education, and mapping. These plans are assessed yearly and updated every five years as a condition of the "exemption to filtration" granted to five of the purveyors by the Nevada Board of Health. During a spill event, TWSA could shut down potentially affected water intakes.

The Tahoe Environmental Research Center

The Tahoe Environmental Research Center (TERC) is dedicated to research, education and public outreach on lakes and their surrounding watersheds and airsheds. Lake ecosystems include the physical, biogeochemical, and human environments, and the interactions among them. The Center is committed to providing objective scientific information for restoration and sustainable use of the Lake Tahoe Basin.

Tribal Government

Washo Tribe of California and Nevada

The Washo Tribe's traditional territory covered an area from Honey Lake in Northern California and south to Topaz Lake California and extended outwards towards Pyramid Lake to the east and westward to the west slopes of the Sierra Nevada Mountains with Lake Tahoe as the center of the Washo World. The Washo Tribe has been dependent on the free flowing rivers, streams, springs, and lakes for thousands of years. There is great reverence to those places with stories and legends built around them. All water is viewed as life itself and has the healing power that has sustained the Washo People. The tribe has seen many changes in the environment, including the non-native immigrant population that has altered the ecosystem and river characteristics. The tribe has created the Washo Environmental Protection Department (WEPD) to respond to water quality impacts in Washoe Country.

The responsibility for the waters that flow through the tribal lands in Nevada rests with the Washo Tribe of California and Nevada and includes the management of two diversion dams located on the East Fork of the Carson River at the Dresslerville Ranch in Douglas County, Nevada.

The Washo Tribe of California and Nevada is working collaboratively with other agencies to develop a regional response system for the protection of the river system in the event of a disaster situation. The Tribe has very limited resources and can offer only limited involvement and resources in the event of a river disaster. The Washo Tribe's environmental capabilities as stated in the Lake Tahoe Hazardous Materials Response Plan include environmental assessments, cultural assessments, water quality monitoring, environmental enforcement and Geographic Information System (GIS) capabilities. The Washo Tribe also has a Police Department, two environmental rangers, and a conservation crew. Their resources include vehicles, GIS equipment, heavy equipment, and water quality monitoring equipment.

Federal Government

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has ten regional offices throughout the Nation. California and Nevada are within the boundaries of EPA Region 9. EPA is the primary federal agency involved in hazardous substances emergency response. In addition, EPA is the lead federal agency for oil spills impacting inland waterways, such as Lake Tahoe and creeks and rivers in the Lake Tahoe Basin.

EPA ensures that a timely and effective response is made to control and remove a release of hazardous substances or a discharge of oil. EPA will assign a Federal On-Scene Coordinator (FOSC) to manage federal response to the discharge or release. The FOSCs in the EPA Region 9 Emergency Response Section can be contacted through the 24-hour emergency hazardous materials spill phone line at (800) 300-2193. EPA has one FOSC located in Carson City, NV. The remainder of EPA Region 9 FOSCs are located in San Francisco, Los Angeles and Phoenix.

EPA FOSCs receive authorization and funding to respond under two federal laws: the Comprehensive Environmental Response Compensation and Liability Act and Oil Pollution Act. The EPA FOSC has access to several specialized teams including the Environmental Response Team (ERT), The U.S. Coast Guard PST, and the Superfund Technical Assessment and Response Team (START). Upon arrival on site, the EPA response organization can be integrated into the existing ICS command structure.

ERT, located in Las Vegas, NV, consists of EPA technical experts in a variety of fields, including oil spill response, air monitoring, engineering, geology, hydrology, etc.

The U.S. Coast Guard PST, located in Novato, CA, is a specialized unit whose mission is to prepare for, and respond to, oil and other chemical emergencies. The highly trained members of the PST maintain and deploy equipment in support of the FOSC in response to inland spills. The PST will provide assistance in response planning and logistics, spill response techniques, medical monitoring, cost documentation, and operations oversight.

The START contract is designed to provide the FOSC with a broad range of technical support services. The START maintains offices in San Francisco and Los Angeles. Professional disciplines include chemistry, geology, hydrogeology, biology, environmental engineering and industrial hygiene. Team capabilities include full media sampling, air monitoring, field and laboratory analysis, data management, quality assurance, health and safety, and other aspects of emergency response.

The FOSC also has access to cleanup contractors through the Emergency Rapid Response Services (ERRS) contract. The ERRS contractor provides physical cleanup services, including providing transport and disposal of waste material to appropriate disposal facilities.

U.S. Department of Homeland Security – U.S. Coast Guard

Since the waters of Lake Tahoe are owned and controlled by the Federal Government there is a contingent of the U.S. Coast Guard (USCG) there, located on the north shore at Lake Forest, about one mile east of Tahoe City. The Coast Guard Station provides continuous monitoring of

VHF Marine Radio Channel 16 (156.8 MHz) 24 hours a day. Their operational focus is search and rescue, and recreational boating safety. In partnership with the five local counties, their efforts are focused on education about and compliance with boating safety laws. The USCG is one of eight government agencies which share responsibility for law enforcement and emergency response on Lake Tahoe. They have patrol boats and are responsible for a certain jurisdiction, however, the Tahoe-Topaz Compact gives them authority to pursue and apprehend lawbreakers anywhere on Lake Tahoe.

U.S. Department of Agriculture – Forest Service

The U.S. Forest Service (USFS) has responsibility for protection and management of national forests and grasslands. The USFS has personnel, laboratories, and the field capacity to measure, evaluate, monitor, and control as needed, releases of pesticides and hazardous substances on lands under its jurisdiction. The USFS will respond to hazardous materials incidents and oil spills within the boundaries of the National Forest with available equipment and personnel as necessary when notified of such incidents. The Lake Tahoe Basin Management Unit (LTBMU) is managed by the US Forest Service and does not own or maintain any spill response equipment. All emergency response activities are contracted out to emergency response companies. LTBMU personnel are not expected to engage in any determination or cleanup of hazardous spills, but rather to follow the LTBMU Hazardous Spill Notification Plan, which outlines the appropriate contractors and/or agencies to contact.

U.S. Department of Interior

The U.S. Department of Interior (DOI) has stewardship responsibility for most of the nationally owned public lands and natural resources. The Bureaus of the DOI include:

National Parks Service
U.S. Fish and Wildlife Service

The Nevada Fish and Wildlife Office of the U.S. Fish and Wildlife Service has Environmental Contaminants Specialists with expertise that is sought by the On-Scene Coordinators (OSC) and various response agencies. The U.S. Fish and Wildlife Service is not a typical response agency for oil/chemical spills, but it does respond to spills and participates in removal activities as they are related to fish and wildlife and sensitive environments. There are direct and indirect responsibilities for the U.S. Fish and Wildlife Service during oil/chemical spills. The U.S. Fish and Wildlife Service's role during pre-spill planning, removal activities and pre-assessment activities has been enhanced and formalized by the new responsibilities identified in the Oil Pollution Act (OPA) and the mandated amendments to the Federal Water Pollution Control Act (FWPCA), which revises the National Contingency Plan (NCP). As a designated Natural Resource Trustee, the U.S. Fish and Wildlife Service's primary responsibility is the protection of natural resources including migratory birds, endangered species, anadromous fish, specified marine mammals, and lands of the National Wildlife Refuge System. Environmental Contaminants Specialists can provide specific services including the following:

- Providing spill response services in support of the FOSC;
- Coordinating and planning wildlife rescue and rehabilitation;
- Developing fish and wildlife response plans;

- Conducting natural resource damage assessments;
- Providing advice on cleanup and recovery methods; and
- Conducting emergency consultations under the Endangered Species Act when threatened or endangered species or their habitat are threatened or impacted by response operations.

U.S. Geological Survey

The U.S. Geological Survey (USGS) serves the nation by providing reliable scientific information. This information helps to minimize loss of life and property from natural disasters. In the Lake Tahoe Basin, USGS operates a network of 18 stream flow gauges on 10 of the major tributary streams and also at the outflow of Lake. USGS has an extensive historical stream flow database that can assist determination of changes in quantity due to an event. The stream flow gauge sites collect continuous flow data and most of them are on real-time status. This real-time status provides almost immediate flow data via satellites and USGS data bases and web pages (**http://waterdata.usgs.gov/nv/nwis/nwis**). Agencies can access the databases to determine current time and travel and extent of flow peaks.

With minimal notice USGS can collect water quality samples as needed at the 17 sampling sites on the Lake Tahoe Interagency Monitoring Program (LTIMP) network. USGS also has field meters, proper sampling equipment, manpower, and a small boat that could be used to determine the status of other stream and lake sites. USGS has an extensive historical water quality data base that can determine possible changes in stream and lake quality due to an event. USGS can also sample the quality of the groundwater at an established 32-site sampling network, if needed. USGS also has an extensive historical water quality data base that can determine possible changes in groundwater quality from an event.

Bureau of Reclamation

Established in 1902, the Bureau of Reclamation (BOR) is best known for the dams, power plants, and canals it constructed in the 17 western states. The Lahontan Basin Area Office, with headquarters in Carson City, covers about 80,000 square miles in northern Nevada and eastern California. The area extends from the Truckee, Carson, and Walker River drainages on the eastern slope of the Sierra Nevada Range to the Great Basin National Park in eastern Nevada and from the Nevada-Oregon border to within 60 miles of Las Vegas. The Newlands Project, formerly the Truckee-Carson Project, was one of the first Reclamation projects dating from 1903. The Lahontan Basin Area Office also manages the Truckee River Storage Project, Washoe Project, and Humboldt Project, involving a variety of issues including municipal water supplies, irrigation, fisheries, endangered species, and Tribal Trust concerns. Within the Lake Tahoe Basin, the Bureau of Reclamation is responsible for physical operation of the Lake Tahoe Dam. Water releases to the Truckee River are regulated in accordance with the provisions of the Truckee River Operating Agreement. The U.S. Bureau of Reclamation physically operates the dam; however, decisions regarding releases from the dam are made by the Truckee River Federal Water Master.

Truckee River Federal Water Master

The Water Master is an officer of the United States District Court for the State of Nevada. Funds to support the position do not come from the federal government but from the water users and litigants in the court actions on both river systems. The Federal Water Master maintains an office in Reno and administers it as an independent, autonomous fiscal agent, subject to the approval of the court which also has the ability to terminate the position. The Water Master's duty is to administer the federal court decrees with regard to the Truckee River, specifically the Truckee River Operating Agreement.

Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) is the lead agency for sites involving counterterrorism activities. In addition, the FBI would be responsible for a site involving weapons of mass destruction including nuclear, biological, and chemical weapons.

Private/Public Organizations

Private Contractors - Equipment lists for several of these contractors are provided in the Resources section (Orange Tab) of this plan.

BJs Barge Service

BJs Barge Services operates out of Homewood, California and offers the following services: lake water pumps; boat salvage and towing; and general engineering.

Clean Harbors Environmental Services

The Clean Harbors Environmental Services (CHES) Sparks, Nevada, Service Center is capable of responding to environmental emergencies 24/7/365. The office is staffed with trained and experienced personnel. For larger spills, CHES can draw additional equipment and personnel from a nationwide network of strategically placed service centers.

H2O Environmental, Inc.

H2O Environmental, Inc. (H2O) is a licensed environmental contractor, 24-hour hazmat spill response company and Oil Spill Response Organization (OSRO) certified by the Coast Guard for inland water way or swift water oil spill containment and recovery. H2O owns and maintains 4,000 linear feet of 18" containment boom, drum skimmers for effective oil recovery, vacuum trucks, roll-off bins and excavation equipment in compliance with OSRO standards. H2O is staffed with project superintendents, project managers, office administration, equipment operators, trained technicians and endorsed commercial drivers to provide a wide range of environmental field services. The current staff consists of 30 employees in Las Vegas and 15 employees in Reno. From these locations, H2O responds to hazmat spill incidents and serves a diverse client base throughout Nevada, California, Arizona, Utah, and Idaho.

H2O Vessel Assist

H2O Vessel Assist is the largest marine salvage operation on Lake Tahoe. They have three vessels in their fleet, one of which is on the lake year round. Available resources include tug boats, barges, cranes, and two amphibious vehicles with lifting capability. They also maintain several hundred feet of all sizes of oil boom located at the Tahoe Keys Marina. Their response time is five minutes during the season and one hour during the off-season. They carry all federal licenses through the US Coast Guard.

High Sierra Marine

High Sierra Marine, Inc., operating out of Tahoe City Marina, has been servicing Lake Tahoe and the surrounding lakes since 1964. They provide buoy service, boat towing and salvage, professional diving, lake water pump systems, and marine and boating supplies.

Universal Environmental

The main focus of Universal Environmental (UE) is hazardous waste management, including coordination of the transportation and disposal. They are also available for emergency response to accidental spills or releases. In many emergencies UE is among a select few

companies that possess the experience and/or technical know-how to respond safely and effectively. UE offers on-site waste management to characterize, organize, and perhaps even minimize any waste streams encountered. UE also has the ability and equipment to perform lab packing, site remediation work, roll-off bin and end dump services, vacuum tanker/vactor truck work, the complete management of aging underground storage tanks (USTs)/aboveground storage tanks (ASTs), and comprehensive industrial cleaning services including jobs where confined space entry is required. UE also has hydro-excavation (pot-holing) capabilities.

Health Care Agencies

Barton Memorial Hospital

Barton Memorial Hospital is an acute care hospital located in South Lake Tahoe. Since the inception of the hospital in 1963, Barton Memorial Hospital has been fully accredited by the Joint Commission on Accreditation of Health Care Organizations and the state of California. The hospital, which is just one component of the Barton HealthCare System, consists of 24-hour emergency care services but is not a certified Trauma Unit, 75 patient beds, a Skilled Nursing Facility with 48 resident beds, and many departments to serve the healthcare needs of patients, residents, employees, visitors, volunteers, and the community.

Tahoe Forest Hospital

Tahoe Forest Hospital District is located in Truckee and serves the communities of Truckee, North Lake Tahoe, Donner Summit, and the Sierra Valley. The hospital's emergency department handles more than 14,000 visits per year and is staffed 24 hours a day. Tahoe Forest Hospital is a 72-bed, not-for-profit health care facility. It serves a wide range of patients: full-time residents of the Truckee and North Lake Tahoe area, second homeowners, skiers, hikers, mountain climbers and other outdoor enthusiasts from around the country and the world, as well as Interstate 80 travelers. The hospital is not a classified but has capabilities similar to a Level III Trauma. The hospital does have decontamination equipment.

The Incline Village Community Hospital

The Incline Village Community Hospital is part of the Tahoe Forest Hospital. Incline Village Community Hospital is a 4-bed Critical Access Hospital, but not a trauma hospital.

Northern Nevada Medical Center

The Northern Nevada Medical Center is a 100-bed facility located in Sparks, Nevada. The Medical Center provides physicians and patients with the latest in technological innovations for diagnosis and treatment of the most acute clinical conditions. The emergency department is a certified Level III emergency department and serves more than 24,000 patients annually. They also have a decontamination tent and all the associated equipment.

Carson Tahoe Regional Healthcare

The main hospital located in Carson City has 140 beds and includes urgent and emergency care services with six fast track rooms and 18 ER bays. The emergency department is a certified Level II Trauma and has decontamination facilities. There are always two emergency

physicians on staff and they have Care Flight access with rooftop helipad. The Minden Medical Center is an Emergent Care facility.

Renown Medical Center

Renown Regional Medical Center is a Level II trauma center located in Reno, Nevada. They provide top-quality care to seriously injured patients who are transported to the hospital from a wide geographic area that covers northern Nevada, northeastern California, and adjacent areas of Oregon and Idaho. Requirements to be a Level II Trauma Center include on-site surgeons trained in trauma; surgeons on call at all times who have specific specialties such as neurosurgery and orthopedics; and nurses trained in trauma available at all times from the emergency room, intensive care unit and surgery. The hospital does have decontamination equipment.

Regional Emergency Medical Services Authority

Ground Ambulance: Each Regional Emergency Medical Services Authority (REMSA) ambulance is staffed with either a Paramedic or EMS-RN, and is equipped with the most advanced, life support equipment. Paramedic units must respond within eight minutes at least 90 percent of the time in life threatening emergencies.

Care Flight: Care Flight is on standby 24 hours a day, seven days a week with experienced critical care flight nurses, specially trained flight paramedics and skilled pilots to respond to the requests from public safety agencies, hospitals, physicians, or other health or public service organizations. AStar-B3 series helicopters are used by Care Flight to provide strong high-altitude performance while also providing highly reliable aircraft for emergency medical transportation. Care Flight provides service within a 150-mile radius of bases in Reno, Gardnerville, and Truckee, which includes many high-altitude and rugged mountain rescue locations. With a cruising speed of 130 miles per hour, Care Flight can get critical care levels of services to severely injured or ill patients.

REMSA's certified medical dispatchers consist of specially trained paramedics and emergency medical technicians who simultaneously dispatch ground paramedic ambulances and Care Flight, while giving lifesaving instructions to the caller. Medical dispatchers also provide critical pre-arrival medical communication between the hospitals, Care Flight, and ground ambulance units throughout northern Nevada and California. REMSA maintains mutual aid agreements with agencies in the Tahoe basin.

California Shock Trauma Air Rescue

California Shock Trauma Air Rescue (CALSTAR) is a regional, public, non-profit helicopter ambulance service. CALSTAR operates a fleet of seven Eurocopter MBB BO-105, and Bell 222 helicopters. All aircraft are modified with special medical interiors, high skid gear, high intensity search lights and over 20,000 radio frequencies for communications with any agency. A Cessna 421 airplane is also available for long-haul and all-weather transports. A Pilot and two critical care Flight Nurses (RNs) make up the normal CALSTAR flight crew. CALSTAR's flight crews respond from fixed bases in Auburn, Concord, Gilroy, Salinas, Santa Maria, South Lake Tahoe and Ukiah California. CALSTAR also provides helicopter transportation for medical teams and supplies.

Other Resources

CHEMTREC

CHEMTREC (Chemical Transportation Emergency Center) provides immediate advice to emergency responders on fixed-site as well as transportation emergencies. CHEMTREC contacts the shipper/producer of the hazardous material(s) involved in the emergency for more detailed assistance and appropriate follow-up. CHEMTREC also maintains contact with the Chlorine Institute for access to the Chlorine Emergency Plan (CHLORREP) and with the Pesticide Safety Team Network (PSTN) operated by the National Agricultural Chemical Association.

CHEMTREC serves as a round-the-clock resource for obtaining immediate emergency response information for accidental chemical releases. CHEMTREC is linked to the largest network of chemical and hazardous material experts in the world including chemicals and response specialists within the American Chemistry Council (ACC) membership, response specialists within the carrier community, public emergency services, and private contractors. CHEMTREC also provides a cost-effective method for shippers of hazardous materials to comply with U.S. Department of Transportation regulation 49 CFR § 172.604. Additionally, CHEMNET is activated upon the request of any shipper/carrier who requires a for-hire contractor's assistance. CHEMTREC can link the shipper/carrier with the CHEMNET contractor closest to the scene. CHEMNET is available 24-hours a day to CHEMTREC registrants. CHEMTREC can be contacted at 800-262-8200.

The Salvation Army Del Oro Division

Federal law has reaffirmed The Salvation Army's authority to provide disaster assistance with the passage of the Robert T. Stafford Emergency and Disaster Assistance Act, which also created the Federal Emergency Management Agency (FEMA). This Act specifically names The Salvation Army as a relief and disaster assistance organization.

When The Salvation Army initiates a disaster relief operation, the first aim is to meet the basic needs of those who have been affected, both survivors and first responders (such as firefighters).

The Salvation Army provides numerous disaster relief services. Each disaster creates its own unique circumstances. The Salvation Army's disaster response is community based, varying from place to place based upon the community's situation and the magnitude of the disaster. In a disaster, the Salvation Army has the ability to provide both immediate emergency assistance and long-term recovery help. Emergency response services are activated on short notice according to an agreed-upon notification procedure, while long-term recovery is strategically planned in response to the situation, through working and partnering with many other community entities. Even with the ability to be flexible and to respond based upon the community's situation, there are several basic services that the Salvation Army offers in most major disasters. These services include food services, hydration service, emergency shelter, cleanup and restoration, donations management, spiritual and emotional care, disaster social services, emergency communications, and administration and form the core of the Salvation Army's disaster services program.

American Red Cross

Red Cross disaster relief focuses on meeting people's immediate emergency disaster-caused needs. When a disaster threatens or strikes, the Red Cross provides shelter, food, and health and mental health services to address basic human needs. In addition to these services, the core of Red Cross disaster relief is the assistance given to individuals and families affected by disaster to enable them to resume their normal daily activities independently.

The Red Cross also feeds emergency workers, handles inquiries from concerned family members outside the disaster area, provides blood and blood products to disaster victims, and helps those affected by disaster to access other available resources. Red Cross offices are located in Reno, Nevada and Sacramento, California and a volunteer office is located in Incline Village. The Red Cross works closely with local fire departments and law enforcement agencies and is available 24 hours a day.

Nevada Wing – Civil Air Patrol

The Nevada Wing of the Civil Air Patrol (CAP) oversees all CAP operations and squadrons in the state of Nevada. They provide search and rescue and emergency services, Cadet Programs and Aerospace Education for the state. CAP is the official Auxiliary of the United States Air Force and functions primarily as the Search and Rescue arm of the Air Force locating commercial, military and private downed aircraft under the Wings jurisdiction. CAP also serves as a public educational arm for the Air Force training cadets for careers in the Air Force and in commercial aviation.

Tahoe Science Consortium

The purpose of the Tahoe Science Consortium (TSC) is to contribute to the restoration of Lake Tahoe, its watershed, and its air basin by providing the best scientific information possible for management of the basin's natural resources. The work of the TSC will expand collaboration and cooperation with decision-makers, agency staff, managers of Environmental Improvement Program projects, and the public. Functions of the TSC include: 1) Scientific Advancement, 2) Adaptive Management, and 3) Scientific Consultation.

Underground Service Alert (USA)

Underground Service Alert, known as "USA", provides a high quality Underground Facility Damage Prevention service to Central / Northern California and Nevada. USA's purpose is to receive planned excavation reports from public and private excavators and to transmit those planned excavation reports to all participating members of USA who may have underground facilities at the location of excavation. The USA Members will mark or stake the facility, provide information, or give clearance to dig. Emergency numbers for each utility by county are also available on their website: www.usanorth.org.

MARINAS, RECREATIONAL, COMMERCIAL AND ABANDONED VESSELS

Recreational and commercial boating on Lake Tahoe may present a threat to water quality. Fuel and oil spills are a common occurrence. These accidental spills into the water result from careless boating habits, such as poor engine maintenance and repair, inattentive fueling habits, and improper disposal of waste oil. Sinking and/or grounding of vessels can also contribute to fuel and oil spills.

When oil is spilled into an aquatic environment, it can harm organisms that live in, on, and around the water. Oil can be harmful to fish and other aquatic life. Spilled oil can also damage parts of the food chain, including human food resources. Spilled oil can also have economic impacts including damage to private and public property.

Marinas

Marinas typically operate from Memorial Day to Labor Day. Private vessels and most commercial vessels, except for the Tahoe Queen and M.S. Dixie, only operate from May 15 to October 1. The M.S. Dixie and the Tahoe Queen are the only vessels that operate year-round on Lake Tahoe. Because of this seasonal activity and operational period, most law enforcement and response boats on the lake are less available for response.

Twenty-two marinas were identified at Lake Tahoe during EPA surveys and inspections conducted in August 2006 (see Table 1). Twenty-one of the EPA-identified marinas sell fuel to the public. In addition to these marinas, there are numerous private piers and docks that have fuel delivery systems. Marinas are likely areas for oil spills given the presence of fueling facilities. Also vessel maintenance work, conducted by marina staff or by vessel owners, may be sources of lake pollution. At the same time, marinas may also be resources in the event of an oil spill. All marinas selling fuel are required to have spill response equipment kits. Marina staff may also have limited spill response training.

During the EPA inspections conducted in August 2006, the majority of marinas appeared to be implementing best management practices in order to minimize spills during fueling. Examples of best management practices included wrapping the fuel nozzle with a sorbent pad during fueling operations and having spill response equipment kits available on the dock. One issue noted was that many boat owners fuel with five-gallon containers in order to avoid the higher fuel costs at the marinas. This practice leads to more fuel spillage. Many marinas prohibit this activity. Concerns were also raised with regard to the fueling practices employed with the Jet Ski rental fleets. These concerns included the fact that jet skis may not brought to the beach for fueling and may be refueled with portable gas cans.

Of the twenty-one marinas providing fuel for sale, eight are subject to EPA's Oil Pollution Prevention regulation. This regulation establishes requirements for facilities to prevent oil spills from reaching the navigable waters of the U.S. or adjoining shorelines. The text of the regulation is found at 40 CFR part112. The regulation applies to non-transportation-related facilities with a total aboveground (i.e., not completely buried) oil storage capacity of greater than 1,320 gallons, or total completely buried oil storage capacity greater than 42,000 gallons. The regulations apply specifically to a facility's storage capacity, regardless of whether the tank(s) is completely filled. In addition to the storage capacity criteria, a facility is regulated if due to its location the facility could reasonably be expected to discharge oil into navigable waters of the U.S. or adjoining shorelines.

Non-transportation-related facilities refer to all fixed facilities, including support equipment, but excluding certain pipelines, railroad tank cars en route, transport trucks en route, and equipment associated with the transfer of bulk oil to or from water transportation vessels.

The regulation requires that all regulated facilities have a fully prepared and implemented Spill Prevention, Control, and Countermeasure, or SPCC Plan. The SPCC Plan must be certified by a licensed professional engineer. Facilities must implement the Plan, including carrying out the spill prevention and control measures established for the type of facility or operations, such as measures for containing a spill (e.g., berms). In the event that a facility cannot implement containment measures, the facility must demonstrate that secondary containment is impracticable; conduct periodic integrity and leak testing of bulk containers and associated valves and piping; develop and incorporate a strong spill contingency plan into the SPCC Plan; and provide a written commitment of manpower, equipment, and materials required to quickly remove any quantity of oil discharged that may be harmful. In addition, facility owners or operators must conduct employee training on the contents of the SPCC Plan.

Within the state of Nevada, marina storage tanks are also regulated under Chapter 459 of the Nevada Administrative Code (NAC). NAC459 requires that marina storage tanks meet certain requirements, requires regular monitoring and inspection to detect leaks, requires the construction and maintenance of containment areas around the tanks, and addresses other issues regarding marina storage tanks. A marina storage tank is defined as a petroleum storage tank used to provide fuel to water vessels, at least 90 percent of which is either above ground level, in, or over water and which has a capacity of at least 110 gallons but not more than 12,000 gallons. The term marina storage tank includes all piping connected to the tank, except piping, valves, hoses, filters, and nozzles associated with the fuel dispenser.

While many of the marinas at Lake Tahoe fall under the jurisdiction of either the federal SPCC regulations or the Nevada marina storage tanks regulations; those marinas having underground storage tanks rather than aboveground storage tanks do not. These marinas are subject to a lower level of inspection and requirements and may be of concern.

Lake Tahoe Marinas

NAME	PUMP & LINE DESCRIPTIONS	TANK DESCRIPTIONS	PHYSICAL ADDRESS	PHONE NUMBERS	CONTACTS	GPS INFO		DRIVING DIRECTIONS
						Latitude	Longitude	
Ski Run Marina	2 pumps on pier; 1 gas, 1 diesel	1 split AST: 1K gas, 1K diesel, joined	900 Ski Run Blvd., South Lake Tahoe, CA	(530) 544-9500; (530) 544-0200; (530) 308-8200	Dan Jack, Ron Williams, Chris Gallup	38° 57.05'	119° 57.56'	Take Hwy 50 ~1 mi SW of Stateline, turn towards lake on Ski Run Blvd, go ~.1 mi, on left.
Timber Cove Marina	1 pump on pier, double lined from tanks to pump	2 ASTs: 1K each, gas	926 Bal Bijou Rd., South Lake Tahoe, CA	(530) 544-2942; (530) 544-5387	Bob Hassett	38° 56.90'	119° 58.03'	Take Hwy 50 ~2 mi SW of Stateline; turn towards lake on Bal Bijou Road, go ~.1 mi, on left.
Tahoe Keys Marina	3 pumps on pier; 1 duel: 1 diesel, 1 premium; 1 single - regular gas	2 ASTs: 12K, reg; 2K split, 1K diesel, 1K premium	2435 Venice Dr. E #100, South Lake Tahoe, CA	(530) 541-2155	Ray Carreau, Suzanne Carreau; Kiel Carreau	38° 56.39'	120° 00.35'	Take Hwy 50 ~6 mi SW of Stateline; turn towards lake on Tahoe Keys Blvd, go ~.9 mi, turn right on Venice, go ~.3 mi.
Camp Richardson Marina	2 pumps on pier: premium, regular	2 ASTs: 1K, reg; 4K split -2K reg, 2K premium	Hwy. 89, South Lake Tahoe, CA	(530) 542-6570	Bob Hassett	38° 56.44'	120° 02.58'	Take Hwy 89 ~2.5 mi N of int. with Hwy 50
Fallen Leaf Lake Marina	1 gas pump on pier	1 AST: 1K, reg gas	400 Fallen Leaf Rd., South Lake Tahoe, CA	(530) 544-0787	John Rich	38° 52.72'	120° 04.04'	Take Hwy 89 ~5 mi NW of int with Hwy 50, turn left, go W ~5 mi on Fallen Leaf Rd.
Meeks Bay Resort & Marina	no fuel, no boom, no containment for hand-delivered fuel	N/A; hand-delivered fuel by jerry cans	7941 Emerald Bay Rd., Meeks Bay, CA	(530) 525-5588	Bob Hassett	39° 02.24'	120° 07.29'	10 mi S of Tahoe City, 8 mi N of Emerald Bay on Hwy 89.
Obexer's Marina	2 pumps on pier; triple-walled from tank to pumps	1 AST: 6K gas	5300 B West Lake Blvd., Homewood, CA	(530) 525-7962	Jim Lane, Sarah Obexer	39° 04.91'	120° 09.39'	Take Hwy 89 ~6.5 mi SW of int. with Hwy 28 in Tahoe City
Homewood High and Dry Marina	2 pumps on pier	2 ASTs: 8-10K each, both gas	5190 West Lake Blvd., Homewood, CA	(530) 525-5966	Steven Cornwell; Camille Moore	39° 05.18'	120° 09.55'	Take Hwy 89 ~6.4 mi SW of int. with Hwy 28 in Tahoe City
Sunnyside Marina	1 pump on pier; double walled from tanks to pier, single walled from pier to pump	2 USTs: both gas, 8K, 4K	1850 West Lake Blvd., Tahoe City, CA	(530) 583-7201	Mike Schenone	39° 08.34'	120° 09.14'	Take Hwy 89 ~2 mi S of Tahoe City, just S of Sunnyside Resort

Tahoe City Marina	2 pumps on pier	2 ASTs: 6K each, gas	700 North Lake Blvd., Tahoe City, CA	(530) 583-1039	Jim Phelan, Steve Diel	39° 10.29'	120° 08.19'	Take Hwy 28 ~0.5 mi NE of int. with Hwy 89; behind Boatworks Mall in Tahoe City
Sierra Boat Company	3 pumps on pier	3 USTs:1 -2K, 2 -5K	5146 North Lake Blvd., Carnelian Bay, CA	(530) 546-2551	Dave Mahoney, Pat Bagan	39° 13.55'	120° 04.89'	Take Hwy 28 ~5.8 mi NE of int. with Hwy 89 in Tahoe City
North Tahoe Marina	6 pumps on pier -all premium	4 ASTs: 3 -2K convaults, 1 split tank -1K each, joined	7360 North Lake Blvd., Tahoe Vista, CA	(530) 546-8248; (775) 291-2628	Jim Walsh, Kari; Doug Wilsey	39° 14.28'	120° 02.59'	Take Hwy 28 ~8 mi NE of int. with Hwy 89 (~1 mi W of int. with Hwy 267)
Zephyr Cove Resort & Marina	2 pumps on pier; 1 gas, 1 diesel; 1 pump in parking lot -diesel	3 USTs: 1 diesel -12K; 2 gas - 10K, 8.5K	760 Hwy 50, Zephyr Cove, NV	(530) 308-8200; (775) 588-5678; (775) 589-4908	Chris Gallup, Chris Burke	39° 00.58'	119° 57.09'	Take Hwy 50 ~4.5 mi NE of Stateline, turn towards lake at light at Zephyr Cove
Lakeside Marina	1 pump on pier, double lined from tank to pump	2 USTs: 2K gas, 3K diesel (biodiesel in 2007)	4041 Lakeshore Blvd., South Lake Tahoe, CA	(530) 541-9800	Bob Hassett, John Scott	38° 57.54'	119° 57.12'	Behind Harveys, Stateline
Stillwater Cove Condos		1 UST: 1K	Hwy. 29, Crystal Bay, NV					
Round Hill Pines Marina	1 pump on pier,	1 AST -1K, gas	Hwy. 50, Round Hill, NV	(775) 588-3055; (775) 588-4155; (775) 815-8820	Frank Forvilly	38° 59.39'	119° 57.23'	Take Hwy 50 ~3 mi N of Stateline, turn towards lake, go 0.5 mi downhill

***Each marina should maintain a spill response plan that is readily available.**

AST Aboveground Storage Tank

UST Underground Storage Tank

N/A Not Applicable

Recreational Vessels

In November 2006, the Tahoe Regional Planning Agency released its Final Environmental Impact Statement (EIS) for the Shorezone Ordinance amendment. This document provides significant information regarding the level of boating activity on Lake Tahoe, including the following information regarding the current number of piers, buoys, ramps and slips.

TYPE	PRIVATE	PUBLIC	TOTAL
Piers	727	41	768
Buoys	3,440	1,014	4,454
Ramps	19	18	37
Slips	1,746	948	2,694

In addition, TRPA identified the following number of boat trips per year and boat launches per year (2004 baseline).

Boat trips per year 232,209
Boat launches per year 54,809

Based on this information, it is safe to say that there is significant boating activity on Lake Tahoe. This activity is projected to increase over the coming years.

Commercial Vessels

Numerous commercial vessels operate on Lake Tahoe including excursion vessels, charter fishing vessels, tow and salvage vessels, etc. In the event of a release of fuel from one of these vessels, the impacts may be more significant due to the larger volumes of fuel typically carried by these vessels. The two largest commercial vessels operating on Lake Tahoe are the Tahoe Queen and the M.S. Dixie II. Pertinent information relating to commercial vessels operating on Lake Tahoe is provided below.

LAKE TAHOE COMMERCIAL VESSELS

Vessel Name	Length (ft)	Fuel Capacity (gallons)	Fuel Type	Location	Contact	Phone
MS Dixie	126	1000	Diesel	Zephyr Cove Marina	Aramark, Chris Gallup	(530) 308-8200
Tahoe Queen	119	1000	Diesel	Ski Run Marina	Aramark, Chris Gallup	((530) 308-8200
Safari Rose	75	800	Diesel	Tahoe Keys Marina	Steve Dunham	(888) 867-6394
Paradice	75	600	Diesel	Ski Run Marina	Aramark, Chris Gallup	(530) 308-8200
Tahoe Gal	64	500	Diesel	Tahoe City Marina	North Tahoe Cruises, Larry Berner	(530) 583-0141
Tahoe Bleu Wave	64	500	Diesel	Round Hill Pines Marina	Ryan Forvilly	(775) 815-8820
Party Boat	52	400	Diesel	Tahoe Keys Marina	Stacey Todd	(530) 308-8016
Fun Runner	42	300	Diesel	Lakeside Marina	Bob Hassett	(530) 544-2942

LAKE TAHOE COMMERCIAL VESSELS

Vessel Name	Length (ft)	Fuel Capacity (gallons)	Fuel Type	Location	Contact	Phone
Odyssey	58	297	Diesel	Lakeside Marina	Bob Hassett	(530) 544-2942
Princess	65	175	Gas	Ski Run Marina	Aramark, Chris Gallup	(530) 543-6123

Commercial vessels operating at Lake Tahoe are also potential resources in the event of an oil spill. Salvage and towing contractors are likely able to respond. Aramark Parks and Resorts, which operates the Tahoe Queen and the M.S. Dixie II, has OSHA hazmat trained personnel and also has an oil spill response trailer that it keeps at Zephyr Cove. Detailed information regarding response resources is provided in other sections of this response plan.

Abandoned Vessels

As discussed previously, there are a significant number of recreational and commercial vessels operating on Lake Tahoe. The majority of these are small vessels. During the course of the year, a small number of vessels may become "abandoned." This "abandonment" may occur from a variety of circumstances such as mechanical breakdown, grounding, sinking at a mooring, breaking away from a mooring, etc. In the majority of these instances, the vessel is typically not truly abandoned, but rather is temporarily abandoned. Typically, the owner of the vessel is anxious to retrieve the temporarily abandoned vessel and a means to do so exists. There are a number of towing/salvage contractors operating at Lake Tahoe who are ready and able to retrieve such temporarily abandoned vessels. This situation arises on nearly a daily basis during the summer boating season, and there is an established process for retrieving these temporarily abandoned vessels.

Abandoned vessels may pose a threat to water quality by releasing fuel and lubricating oil in the event that the vessel sinks or breaks up. As the majority of abandoned vessel on Lake Tahoe tend to be small vessels, the amount of fuel and lubricating oil onboard tends to be relatively small (typically less than 100 gallons of gasoline and less then several gallons of lubricating oil).

In general, the process for addressing abandoned vessels consists of the following steps:

- A marina operator, law enforcement agency (i.e., County Sheriff or United States Coast Guard), etc. is notified of an abandoned vessel.
- An attempt is made to contact the owner of the vessel, in order to have the vessel owner retrieve the vessel.
- In the event that the vessel owner cannot be contacted, the agency receiving the notification contacts one of the existing towing/salvage companies operating on the lake.
- The towing/salvage company retrieves the vessel, and the vessel owner is billed for the towing/salvage.

However, in a few instances the regular procedures for addressing abandoned vessels do not work effectively. There are several issues that may contribute to this problem, including the following:

- The abandonment occurs outside of the summer boating season, when the weather becomes more problematic and when many of the towing/salvage companies are not operating.

- The owner of the vessel cannot be identified or the owner is unwilling or unable to recover the vessel.
- The vessel is of little or no value and the towing/salvage company is not willing to recover the vessel since the likelihood of recovering their costs is low.

The regulations and procedures for addressing abandoned vessels differ slightly in California and Nevada.

California Abandoned Watercraft Abatement Fund

In October of 1997, Senate Bill 172 created the California Abandoned Watercraft Abatement Fund (AWAF). It provides funds to public agencies to remove, store, and dispose of abandoned, wrecked, or dismantled vessels or any other partially submerged objects that pose a substantial hazard to navigation, from navigable waterways or adjacent public property, or private property with the landowner's consent.

The California Department of Boating and Waterways (DBW) administers this statewide program. It allows local public agencies to apply for funding and, upon approval, enter into a contract grant agreement with DBW. Local public agencies that have jurisdiction over navigable waterways in California and meet the application assessment criteria are eligible.

The grant covers average costs to remove, store and/or dispose of abandoned vessels and other navigational hazards. Extra consideration will be given to applicant agencies that are proactive in keeping abandoned vessels off state waters and maintain a navigational hazard abatement plan. Note: The removal of commercial vessels is not reimbursable.

DBW reimburses grantees for actual expenditures once a written request is submitted for completed approved work. Grantees must substantiate such requests by submitting the Reimbursement Claim Form and invoices to DBW. Grants are funded up to 15 months.

Section 525 (C) “Abandoned vessel grants” of the Harbors and Navigation Code states that, "A grant awarded by the department pursuant to subparagraph (A) shall be matched by a 10-percent contribution from the local agency receiving the grant.” AWAF recipients are required to expend their 10-percent contribution *before* receiving reimbursement from the AWAF program.

Federal Oil Spill Liability Trust Fund.

When all local and State possibilities for addressing an abandoned vessel have failed, it is possible that the Oil Spill Liability Trust Fund could be accessed by EPA to address the threat of a discharge or potential discharge of oil from the vessel. Procedures for accessing this fund are described more fully in the Cost Recovery/Funding/ Reimbursement section of this plan.

COST RECOVERY/FUNDING/REIMBURSEMENT

All actions taken during a hazardous materials incident should be carefully documented so that sufficient and accurate information is available to support the response and recovery operations and to recover the cost of these operations. In addition, documentation should be of sufficient quality and detail to prove the source and circumstances of the incident, to identify the Responsible Party (RP), and to determine the impact or potential impact to public health and/or the environment. Documentation may take the form of written, graphic, audio, visual, or other media and should include the location of the incident; time, date, and duration of the spill; amount and type of material spilled or released; source and cause of the incident; name of the RP; description of the material released; response actions taken; resources impacted or threatened; status of the response and cleanup; and accurate, detailed accounting of all public costs incurred.

The following may be utilized to document an incident:

- Record all relevant response activities and costs in daily or personal logs. Logs should be kept in bound notebooks for evidential purposes. Use photographic documentation to depict the source of the release, pathway of the discharge, and affected populations, biota, soils, and other resources.
- Collection of samples of the released material, and material from the suspected source should follow the sampling and chain-of-custody protocol established by EPA, National Enforcement Investigations Center (NEIC) Manual, and NEIC Policy and Procedures.
- Gather written statements of witnesses identifying the source of the release.

Whenever possible, the RP should bear all financial costs associated with a specific oil or hazardous materials incident. When the RP is unidentified, unwilling, or unable to provide adequate response, the responsibility for taking prompt action to protect public health and the environment will fall on a public agency. Some local, state, and federal level funding sources are available to response agencies. These are identified below. Generally, funding from local government sources should be accessed first. State and federal funding sources may be accessed when local funding is not available. Both state and federal funding sources require prior approval and extensive documentation for use.

Local Government Funding

Local government level can conduct recovery operations as long as the appropriate resources (equipment and personnel), training, and funding are made available. Funding for cleanups may be obtained at the local level in several ways:

- **Cost recovery** against the RP;
- **General fund** that is available for the purpose of financing the costs associated with a hazardous materials incident impacting their local jurisdiction. Accessing this fund is usually accomplished by contacting the agency controlling the fund or through local government emergency communications dispatch;
- **Special funds**, such as landfill tipping fees; and/or
- As part of a **Hazardous Materials Program fee**.

If the local government cannot obtain adequate funding, then funding may be made available from one or more of the following state or federal agencies to appropriate the necessary funds, as applicable.

California Funding/Reimbursement

The state of California operates a number of funds that are earmarked for specific aspects of hazardous materials emergency response. Three of these funds address the impacts or potential impacts of an incident, while the other funds address incidents that impact specific state agencies.

Both impact-specific and agency-specific funding sources are described below. For more information regarding these funding sources see the HazMat Incident Contingency Toolkit produced by the California Governor's Office of Emergency Services.

California Impact-Specific Funding

Illegal Drug Lab Cleanup Account

The DTSC Clandestine Lab Cleanup Program is authorized to expend funds from the Illegal Drug Lab Cleanup Account (IDLCA). It was established in the General Fund to provide assistance to state and local law enforcement agencies and other emergency response agencies in emergency hazardous substance removal actions at sites involving clandestine drug lab manufacturing activities and drug lab waste abandonment.

- **Funding Source:** Health and Safety Code § 25354.5
- **Annual Total:** $4,600,000 (subject to budget appropriation)
- **Administered by:** DTSC Emergency Response Program
- **Contact:** During normal business hours, contact the DTSC on-call Emergency Response Duty Officer at (916) 255-6504 or (800) 260-3972. After normal business hours, including weekends and holidays; contact the California State Warning Center at (916) 845-8911 or (800) 852-7550. Notify OES of the incident and that state assistance for the cleanup is needed. Request OES to contact the on-call DTSC Emergency Response Duty Officer.

Emergency Reserve Account

The Emergency Reserve Account (ERA) provides funds for the purpose of taking immediate corrective action necessary to remedy or prevent an emergency resulting from a fire, explosion, or human exposure to a release or threatened release of hazardous substances. This includes "midnight dumping," uncontrolled or threatened releases of hazardous substances, spill situations involving an unknown responsible party, or other actions (such as fencing, sampling, guard services, etc.) requiring stabilization or mitigation to prevent potential emergencies. This Emergency Response Program also allows DTSC to provide field response to major incidents and professional expertise in emergencies (e.g., toxicology, geology, alternative technology, and legal).

- **Funding Source:** Health and Safety Code § 25354
- **Annual Total:** $1,000,000
- **Administered by:** DTSC Emergency Response Program
- **Contact:** During normal business hours, contact the DTSC Emergency Response Duty Officer at (916) 255-6504 or (800) 260-3972. After normal business hours,

including weekends and holidays, contact the California State Warning Center at (916) 845-8911 or (800) 852-7550. Notify OES of the incident and that state assistance for the cleanup is needed. Request OES to contact the on-call DTSC Emergency Response Duty Officer,

Fish and Wildlife Pollution Account

The Fish and Wildlife Pollution Account (FWPA) provides funds to DFG for pollution incidents, with a focus on state wildlife and habitat resources. Several of the purposes of the FWPA include cleanup and abatement of pollutants from the environment, response coordination, resource injury assessment and valuation, and restoration or rehabilitation at sites damaged by pollution.

- **Funding Source:** Fish and Game Code § 12017, and 13010-13013.
- **Annual Total:** Sub-accounts under the Fish and Wildlife Pollution Account are listed below:
    - Oil Pollution Administration
    - Oil Pollution Response and Restoration
    - Hazardous Materials Administration
    - Hazardous Materials Response and Restoration
- **Administered by:** Department of Fish and Game (DFG), Wildlife Protection Division
- **Contact:** California Department of Fish and Game Inland Pollution Coordinator, Captain Paul Hamilton (916) 324-9829

Water Pollution Cleanup and Abatement Account

- **Funding Source:** California Water Code § 13440 –13442.
- **Administered by:** State Water Resources Control Board (SWRCB).
- **Contact:** (916) 341-5671 during business hours, or the California State Warning Center at (916) 845-8911 or (800) 852-7550 after hours and request that they contact someone at the SWRCB.
- **Maximum Single Expenditure:** Verbal requests for emergency funding are limited to $50,000. No limit for written requests.
- **Types of Incidents Covered:** Assistance to public agencies with the authority to clean up waste or abate its effect.
- **Limitations:**
    - Only releases directly impacting or threatening to impact the surface and groundwater are eligible.
    - Assistance is not provided on a retroactive basis.
    - Approval for use of these funds must be obtained prior to any expenditure.
    - The only costs covered are those over and above normal operating costs of the agency, which are directly incurred for cleanup and abatement.
- Assistance is not provided if other funds are available.

Abandoned Vessel Abatement Fund

- See the Marinas, Recreational and Commercial Vessels, and Abandoned Vessels section of this Plan, for a complete description of this fund.

California Agency Specific Funding

The following is a listing of state agency funds for addressing hazardous materials incidents that impact their mandate. Only Agency-specific funding sources that are relevant to the Lake Tahoe Basin are identified. Other public agencies cannot access these funds.

California Department of Transportation
CalTrans administers a fund for hazardous materials incidents that impact state highway rights-of-way (includes state highways, freeways, and adjacent property). Funding is only available when a responsible party is unknown, unable to provide adequate and timely cleanup, or unable to pay for damages. CalTrans has several hazardous materials response contracts, and will finance the removal of hazardous materials that impedes traffic on, but not beyond, the CalTrans rights-of-way (even though it originated on a state highway). A mechanism exists to recover costs from the RP. The RP will be subject to additional fees when accessing CalTrans emergency spill response funds.

California State Lands Commission
Lessees of state lands are required to possess insurance for bodily injury or property damage to third parties and each lease has a performance bond for hazardous materials cleanup.

California Department of Water Resources
Funding and resources for DWR only exist for minor self-generated hazardous materials incidents. Some equipment can be provided under mutual aid.

California Governor's Office of Emergency Services
In the event of gubernatorial disaster proclamation or presidential disaster declaration, federal and some state disaster funds (e.g., California Disaster Assistance Act) may be accessed through OES.

Nevada Funding/Reimbursement

If the responsible party is unknown or refuses to accept responsibility and the local government does not have the capability or funds to pay for cleanup, the local government and/or the State On-Scene Coordinator (SOSC) will seek additional state or federal assistance as follows:

Disaster Relief Fund/Emergency Assistance Account (NDEM)

The Disaster Relief Fund was created pursuant to NRS 353.2735. Money in the fund may be distributed as a grant to a state or local agency for the payment of expenses incurred by that agency because of a disaster. This funding is only available in the event of a disaster as declared by the Governor, and the requesting entity must demonstrate that they do not have adequate funding to address the problem**.** The NDEM administers this fund.

The Emergency Assistance Account was created pursuant to NRS 414.135 which states that the controller shall, at the end of each fiscal year, transfer the interest earned during the previous fiscal year on the money in the Disaster Relief Fund to the account in an amount not to exceed $500,000. NDEM administers the account. All expenditures from the account must be approved in advance by NDEM. Except as otherwise provided, all money in the account must be expended solely to (a) provide supplemental emergency assistance to this state or to local governments in this state that are severely and adversely affected by a natural, technological, or man-made emergency or disaster for which available resources of this state or the local government are inadequate to provide a satisfactory remedy or (b) pay any actual expenses incurred by NDEM for administration during a natural, technological, or man-made emergency or disaster.

Account for Management of Hazardous Waste (NDEP)

The Account for Management of Hazardous Waste is funded by fees paid by users of the state owned hazardous waste disposal area in Beatty, Nevada. As described in NRS 459.537, these funds may be used for payment of costs of responding to a leak, spill or accident involving hazardous waste, hazardous material or a regulated substance. The Account for Management of Hazardous Waste is used to provide long-term funding for several programs within NDEP. The account is also the funding source for the Environmental Mitigation, Assessment and Remediation Program (EMAR) contract. This contract was issued to Brown and Caldwell, and Broadbent, has an annual budget of $600,000 and has a contract term of two years (currently expires in August of 2008). The scope of this contract includes performing environmental assessment, mitigation and remediation related services. It specifically does not include performing emergency response services, but the contract could be modified to include such services.

Other State Agency Funding

Individual state agencies such as the Nevada Division of Highway Patrol and the Nevada Department of Transportation have internal funding that is available to respond to hazardous materials incidents. These agencies may be contacted regarding the availability of any such funding.

Federal Funding/Reimbursement

CERCLA Funding

EPA gets its primary authority for responding to hazardous substance releases from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which is better known as the Superfund law. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. CERCLA provides EPA with the authority to respond to hazardous substances that pose an imminent and substantial threat to human health and the environment. Furthermore, it provides EPA with broad authority to require Responsible Parties to conduct cleanup. The EPA Federal On-Scene Coordinator (FOSC) has immediate spending authority up to $200,000 and can spend up to $2 million with management approval.

CERCLA Local Governments Reimbursement Program

If you are a general purpose unit of local government or federally recognized Indian Tribe, you are eligible for reimbursement under EPA's Local Governments Reimbursement (LGR) program. A general purpose unit of local government includes a town, township, city, municipality, parish, or county. States are not eligible for reimbursement under this program.

Incidents involving releases, or threatened releases, of hazardous substances are covered under the LGR program. Among other things, EPA has reimbursed local governments for releases from transportation accidents, illegally dumped wastes, tire fires, and contamination from illegal drug labs. Releases of oil or oil-related products are not covered under this program, unless the oil is mixed with a hazardous substance.

EPA can reimburse local government or Indian Tribes up to $25,000 per incident for costs incurred in performing temporary emergency response measures. Only costs incurred as a result of the response are allowable. To be reimbursed, the applicant must properly document costs incurred and must certify that money does not exist in the applicant's budget for these costs. In the past, EPA has reimbursed local governments for:

- Expendable materials
- Renting or leasing equipment
- Special technical and laboratory services
- Evacuation services
- Decontamination of equipment
- Overtime pay for employees
- Replacement of equipment lost or destroyed

After an incident, the applicant must complete and submit to EPA a basic, four-page application and provide supporting cost documentation (e.g., receipts, invoices). The application must be submitted within one year of completing the emergency response. To obtain an application call (800) 431-9209 or visit **www.epa.gov/superfund/programs/er/lgr**

If you have questions regarding the LGR program call the EPA Region 9 Emergency Operation Center 24-Hour Emergency Number (800) 300-2193 or call the LGR Hotline at 800 431-9209.

Oil Spill Liability Trust Fund

The Oil Pollution Act of 1990 established the Oil Spill Liability Trust Fund (OSLTF or Fund) as a funding source to pay removal costs and damages resulting from oil spills or substantial threats of oil spills to navigable waters of the United States. The OSLTF is used for costs not directly

paid by the polluter, referred to as the RP. The fund is also used to pay, costs to respond to "mystery spills," for which the source has not been identified.

Appropriate Uses of the Fund include the following:

- Federal Removal Costs, which include payment to cleanup contractors, overtime for government personnel, equipment used in removal operations (generally at established standard rates or lease costs), testing to identify the type and source of oil, disposal of recovered oil and oily debris, and preparation of associated cost documentation.
- Claims for costs and damages specified in OPA:
- Uncompensated removal costs,
- Natural resource damages (NRD),
    - Real/personal property;
    - Loss of profits;
    - Loss of subsistence use of natural resources;
    - Loss of government revenues;
    - Increased costs of government services; and
    - Claims from RPs asserting a defense to liability.

The fund can be accessed by the following entities:

- All FOSCs obtain immediate access to a funding account and ceiling for incident response through a Web application managed by the National Pollution Funds Center (NPFC). The U.S. Coast Guard provides the FOSC for coastal waters, while the U.S. EPA provides the FOSC for inland waterways.
- Other Federal, State, Local, and Indian tribal government agencies assisting the FOSC get reimbursable funding authority via an FOSC-approved Pollution Removal Funding Authorization (PRFA). The NPFC works with the FOSCs and the agencies to set PRFAs in place.
- Natural resource trustees (designated by the President of the United States, state, territorial governor, or Indian tribal governing authority) have several tools for accessing the OSLTF to pay for natural resource assessments and restoration.
- Claimants (individuals, corporations, and government entities) can submit claims for uncompensated removal costs and OPA damages (listed above) caused by the oil spill to the NPFC if the RP does not satisfy their claims. NPFC adjudicates the claims and pays those with merit.

Limitations to accessing the OSLTF include the following:

- The discharge (or substantial threat of discharge) must be into or on the navigable waters of the United States or adjoining shorelines or the Exclusive Economic Zone (EEZ).
- The discharge (or substantial threat of discharge) must be ***oil***, which can include petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil; however, it cannot include any substance that is specifically listed or designated as a hazardous substance under CERCLA.

- In general, the maximum amount available from the OSLTF per incident is $1 billion or the balance in the OSLTF, whichever is less.
- Funding for federal removal (including response to a substantial threat) and natural resource damage preassessment activities is limited to the funds available in the OSLTF Emergency Fund, which receives an apportionment of $50 million on October 1st of each fiscal year (another $100 million can also be advanced from the OSLTF Principal Fund if necessary).
- Natural resource damage claims are limited to a maximum of $500 million per incident.

For questions regarding use of the OSLTF call EPA Region 9 Emergency Operation Center 24-Hour Emergency Number (800) 300-2193 or call the U.S. Coast Guard National Pollution Funds Center at (800) 280-7188.

LAKE TAHOE BASIN – GENERAL INFORMATION

Introduction to Lake Tahoe

Lake Tahoe is recognized as a national environmental treasure. The lake itself is the largest alpine lake in the continental United States, measuring 12 miles wide and 22 miles long. The average depth of the lake is 989 feet, with a maximum depth of over 1,645 feet, making it the third deepest lake in the United States. Lake Tahoe is situated in a granite graben near the crest of the Sierra Nevada Mountains on the California- Nevada border, at 39°North Latitude, 120°West Longitude. The natural rim of the lake is approximately 6,223 feet above mean sea level (msl).

The Lake Tahoe Basin is 506 square miles. The surface area of the Lake is 192 square miles, and the watershed area is 314 square miles. Most of the land in the basin is mountainous, limiting development mainly to relatively flat-lying areas along tributary streams, such as the southern part of the basin within the Upper Truckee River and Trout Creek basins. About 78 percent of the basin is at altitudes from about 6,500 feet to greater than 10,000 feet. This altitude range, combined with other factors such as prevailing storm systems from the Pacific Ocean, causes an unequal distribution of precipitation throughout the basin. More than 80 inches per year of precipitation, mostly as snow, falls on the western side of the basin, whereas about 30 inches per year falls on the eastern side. Habitats in the basin include marshes, riparian, grassy meadowlands, conifer forests, sagebrush, chaparral, and alpine. There are a number of streams and lakes surrounding Lake Tahoe. The basin is surrounded by mountain peaks of the Sierra Nevada to the west and the Carson Range to the east. Mountain peaks surrounding the lake reach heights of up to 10,880 feet.

The lake lies on the border between California and Nevada. This north-south border runs through a line just to the east of the approximate centerline of Lake Tahoe thereby placing approximately two-thirds of Lake Tahoe within the state of California and one third within the state of Nevada. Sixty-three creeks and streams that drain the Lake Tahoe Basin directly feed Lake Tahoe. The larger creeks and streams are identified in the mapping section of this plan. The principal tributaries of Lake Tahoe include the Upper Truckee River, which drains an area extending for 15 miles due south of Lake Tahoe, Trout and Taylor creeks, also located at the south end of Lake Tahoe, and Ward and Blackwood creeks. Together, these five streams carry more than one-half of Lake Tahoe's average surface water inflow of 310,000 acre-feet per year. Additional information regarding the Upper Truckee River and Trout Creek Watersheds is provided below.

The Lake Tahoe Basin also includes a number of other lakes, including Fallen Leaf Lake (1,400 acres), Marlette Lake (381 acres), Upper and Lower Echo Lakes (330 acres), Cascade Lake (210 acres), and Spooner Lake (97 acres). Numerous other small lakes and ponds comprise an additional 600 acres of surface water within the basin.

The Truckee River, which exits Lake Tahoe via the dam at Tahoe City, is the only surface water drainage from the lake. The Lake Tahoe Dam controls the top six feet of Lake Tahoe. With the surface area of the lake, this creates a reservoir of 732,000-acre-feet capacity and regulates the lake outflow into the Truckee River. Completed in 1913, Lake Tahoe Dam is a concrete slab and buttress structure with 17 vertical gates. It is 18 feet high and 109 feet long. Flows are controlled by 17 gates, each 5 feet by 4 feet.

The BOR modified Lake Tahoe Dam in 1987 under the Safety of Dams program. Reclamation constructed reinforced concrete stabilizing walls in the existing embankments, concrete embankment caps over both embankments, and reinforced embankment and slope protection. Each stabilizing wall is 44 feet long and extends about 20 feet down into the embankment. A cut-off wall was added to provide increased stability to the dam and embankment in a severe earthquake.

Storage water in Lake Tahoe and Boca Reservoir is regulated in accordance with the provisions of the Truckee River Operating Agreement, to which the United States, the Truckee-Carson Irrigation District, the Washoe County Water Conservation District, and the Sierra Pacific Power Company are parties. This agreement was made to stabilize and supplement the natural flow of the Truckee River. The current control and beneficial use of the Truckee River are the result of a long history of constructing and managing water storage and diversion facilities. The operating constraints of these facilities are defined by the exercise of water rights, court decrees, agreements, and regulations.

Hydrologic Overview of Lake Tahoe

Limnologists classify the lake as an oligotrophic, warm monomictic system; meaning the lake is low in primary productivity, the water temperature is always greater than 4° Celsius (C), and has a turnover once during the winter. Average surface water temperatures in February are 40 to 50 °Fahrenheit (F), and in August are 65 to 70°F. At depths below four feet below the surface, temperatures vary much less, and average 38 °F. The lake has a low productivity because of its large water capacity relative to precipitation, runoff, and low nutrient input. Nutrient loading or contamination resulting in nutrient loading could have significant ecological impacts on the lake system.

The lake is assumed to be composed of as many as 500 horizontal layers, each of which has its own set of temperature, salinity, and other water quality variables. Horizontal variations across the lake are assumed to be much smaller than the vertical variations. The hydrodynamic model predicts thermal stratification (or vertical layering of water in the lake) and mixing produced by climatic conditions. It then uses this result to account for the redistribution of lake properties. In addition, the model routes stream inflows, which carry nutrients and fine particles, into the lake at a depth consistent with their temperature. It also directs inputs of these pollutants to the lake from other sources such as direct runoff, groundwater inflow, and atmospheric deposition.

Circulation is an especially important yet difficult to measure factor affecting Lake Tahoe clarity. Lake mixing means that pollution from a single source or input can affect clarity throughout the lake, or conversely may not be visible at the input's location. Although circulation has been measured by tracking buoys left to drift along the surface, circulation patterns over the entire lake surface must be inferred from where the individual buoys go.

Surface temperature measurements derived from satellite data have been used by oceanographers for many years to map ocean currents based on tracking a parcel of water at a given temperature over time. Satellite derived temperature measurements have also been used to look at upwelling along coastlines where cold water is drawn to the surface, an extremely important source of nutrients that results in sudden increases in biological activity. A similar approach can be used to track circulation and upwelling events in inland water bodies. Both Landsat and the National Aeronautics and Space Administration's (NASA) Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) have sufficient spatial

resolution to map currents and upwellings. In order to extract the temperature information from the satellite data, it is necessary to correct the data for atmospheric and surface effects. Surface temperature maps are partially derived from ASTER data. Since these are temperature measurements, the data can be acquired during the day or during the night.

During a typical summer day, cold water upwells near the western shore around Homewood. The upwelling is induced by sustained high winds from the west and southwest that drive the warm water to the east, allowing cold water to upwell in the west. The cold water is eventually driven across the lake typically in the nighttime. The current speed can be derived by tracking the position of a parcel of water in the day and night image. This speed can also be checked by the time at which the cold water arrives at each of the NASA buoys. The cold water brings nutrients that provide the opportunity for increased biological activity. NASA recently funded a UC Davis student to use the satellite derived temperature data to help model lake circulation. More information about the collaborative efforts of NASA and UC Davis is available at: **http://laketahoe.jpl.nasa.gov** and **http://remote.ucdavis.edu/tahoe_location.asp** . Remote sensing also offers options for monitoring lake surface movements that may prove useful when predicting contaminant transport patterns.

Upper Truckee River Watershed

The Upper Truckee River, watershed is located almost entirely within El Dorado County, California, with about three square miles ($mi^{2)}$ of the southern tip is in Alpine County, California. Its headwaters, including tributaries, include the Stevens Peak and Red Lake Peak area near Carson Pass, both sides of Echo Peak, the south and eastern drainages of Ralston Peak, Grass Lake (meadow), and Big Meadow. This watershed is the largest in the Lake Tahoe Basin and occupies 56.5 mi^2, which is 18 percent of the total land area tributary to Lake Tahoe (314 mi^2). The Upper Truckee River has a drainage area of 53.9 mi^2. The Upper Truckee River main channel length is 21.4 miles. The land-surface altitudes range from lake level to 10,063 feet above sea level at Red Lake Peak.

The main tributary drainages to the Upper Truckee River include Grass Lake Creek (drainage area of 6.4 mi^2, Angora Creek (5.7 mi^2), Echo Creek (5.4 mi^2), and Big Meadow Creek (5.1 mi^2). Major wetlands include Grass Lake, Osgood Swamp, Truckee Marsh, Benwood Meadow, and Big Meadow. Major lakes include Upper and Lower Echo lakes and smaller lakes include Dardanelles, Round, Showers, Elbert, Tamarack, Ralston, and Angora Lakes. (USGS WRIR 00-4001 Surface- and Ground Water Characteristics in the Upper Truckee River and Trout Creek Watersheds).

The Upper Truckee River (including Grass Lake and tributaries to the Upper Truckee River) follows Highway 89 from Luther Pass to the intersection of Highways 89 and 50. Along this stretch of Highway 89, the Upper Truckee River is potentially susceptible to oil spills and chemical releases from vehicular accidents. The Upper Truckee River also crosses beneath Highway 50 at three locations (just west of the intersection of Highways 89 and 50, near the intersection of Highway 50 and Elks Club Road, and at Highway 50 near the Tahoe Amusement Park) and is again susceptible to spills and releases from vehicular accidents.

Within a short distance of its final crossing of Highway 50, the Upper Truckee River enters the Upper Truckee Marsh and Wetland Project, which consists of more than 500 acres of highly disturbed wetland on the shore of Lake Tahoe. Trout Creek also merges with the upper Truckee River in this wetland. The Upper Truckee Marsh and Wetland Project is managed by

the California Tahoe Conservancy, with the goal of restoring the wetland to its natural function. As such, this wetland is considered sensitive habitat, and protection of this wetland in the event of a spill into the Upper Truckee River would be a priority.

Trout Creek Watershed

The Trout Creek watershed is in El Dorado County, California, east of the Upper Truckee River watershed. The watershed is the second largest in the Lake Tahoe Basin (behind the Upper Truckee River watershed) and occupies 41.2 mi^2, which is 13 percent of the total land area tributary to Lake Tahoe. Trout Creek has a drainage perimeter of 34.8 miles. Trout Creek has a main channel length of 12.1 miles. The land surface altitudes range from lake level to 10,881 feet at Freel Peak.

The main tributaries to Trout Creek include Cold Creek (drainage area of 12.8 mi^2), Saxon Creek (8.2 mi^2), Heavenly Valley Creek (3.0 mi^2), and Hidden Valley Creek (1.7 mi^2). Major wetland areas include Truckee Marsh, High Meadows, and Hell Hole . The only lake in the Trout Creek watershed is Star Lake. The major basin diversion is groundwater withdrawal for municipal use.

Trout Creek, Cold Creek, Saxon Creek, Heavenly Valley Creek, and Hidden Valley Creek all merge to the south of Highway 50. The combined flow in Trout Creek crosses under Highway 50. A vehicular accident at the bridge at Highway 50 is a potential source of contamination. Within a short distance of this bridge, Trout Creek enters the Upper Truckee Marsh. Trout Creek flows through this marsh prior to its confluence with the Upper Truckee River. This confluence is located within a few hundred yards of the lakeshore.

References

California Institute of Technology. Jet Propulsion Laboratory. Lake Tahoe Validation. http://laketahoe.jpl.nasa.gov/

Nevada Division of Water Planning. *Walker River Basin 9: Nevada's Hydrogeographic Regions (Basins), Areas and Sub-Areas*. Retrieved August 1, 2005 from http://water.nv.gov/Water%20planning/basins/hydro_09.htm

Nevada Division of Water Planning. *Walker River Chronology – A Chronological History of the Walker River and Related Water Issues: Part I – Overview*. Retrieved August 4, 2005 from http://water.nv.gov/Water%20planning/carson/carson1.htm

U.S. Department of the Interior, Bureau of Reclamation. Lake Tahoe Dam. http://www.usbr.gov/dataweb/html/newlands.html

U.S. Geological Survey. Surface-Water Data for Nevada. Retrieved August 2005 from http://waterdata.usgs.gov/nv/nwis/sw

U.S. Geological Survey. Lake Tahoe Data Clearinghouse. Geography and History Overview. http://tahoe.usgs.gov/geography.html

U.S. Geological Survey. Lake Tahoe Data Clearinghouse. Facts About Lake Tahoe. http://tahoe.usgs.gov/facts.html

U.S. Geological Survey. Stream and Ground-Water Monitoring Program, Lake Tahoe Basin, Nevada and California. http://pubs.usgs.gov/fs/FS-100-97/

U.S. Geological Survey. WRIR 00-4001**.** Surface- and Ground Water Characteristics in the Upper Truckee River and Trout Creek Watersheds.
http://pubs.usgs.gov/wri/wri004001/Text/abstract.htm

DRINKING WATER INTAKES

In the event of a significant oil spill or chemical release, information regarding sensitive populations, including drinking water intakes, may be critical to decisions made by response personnel. The tables below provide information regarding drinking water intakes within the Lake Tahoe Basin. In addition, the detail maps presented in the Mapping Section of this plan also show the location of drinking water intakes, although for security purposes the maps only show a zone of influence within which the intake is located. For specific intake locations, it will be necessary to contact the appropriate water purveyor.

The Tahoe Water Suppliers Association

The Tahoe Water Suppliers Association (TWSA) represents eight water suppliers in the Lake Tahoe Basin whose water supply is Lake Tahoe. The Association forms a united voice advocating the protection of Lake Tahoe from drinking water contaminants that are potentially harmful to human health. TWSA stresses the importance of conserving the overall quality of Lake Tahoe's water in addition to protecting its renowned clarity. A map depicting the TWSA services areas by watershed follows this table.

Agency	Contact Name	Phone	Email	Address
Kingsbury General Improvement District	Candi Rohr	(775) 588-3548	candi@kgid.org	P.O. Box 2220 Stateline, NV 89449
Incline Village General Improvement District	Madonna Dunbar, Executive Director, TWSA	(775) 831-8603	madonna_dunbar@ivgid.org	1220 Sweetwater Incline Village, NV 89451
Edgewood Water Company	Steve Siebel	(775) 588-2205	steve@edgewood-tahoe.com	c/o Edgewood Golf P.O. Box 5400 Stateline, NV 89449
Zephyr Water Utility District managed by Douglas County	Carl Ruschmeyer	(775) 782-6230	cruschmeyer@co.douglas.nv.us	P.O. Box 218 Minden, NV 89423
Round Hill General Improvement District	Cameron McKay	(775) 588-2571	rhgid@aol.com	P.O. Box 976 Zephyr Cove, NV 89449
Sierra Water Mgmt, Glenbrook Water Company		(775) 790-0711	sierrah20@aol.com	P.O. Box 3002 Stateline, NV 89449

Agency	Contact Name	Phone	Email	Address
Tahoe City Public Utility District	Rob Lourey	(530) 583-3796	pud-info@tcpud.org	PO Box 5249 Tahoe City, CA 96145
North Tahoe Public Utility District	Lee Scheg	(530) 546-4212	ntpud@ntpud.org	PO Box 139 Tahoe Vista, CA 96148

Additional Water Purveyors that Utilize Lake Tahoe

Company	Contact Name	Phone Number
Agate Bay Water Company	Steve Glazer	(530) 525-6659
Fulton Water Company	John A. Fulton	(530) 583-3644
Tahoe City PUD	Bill Back	(530) 583-3796
Tahoe Swiss Village Utilities, Inc	Steven Glazer	(530) 525-6659
North Tahoe PUD	Steve Rodgers	(530) 546-4212
Cave Rock Skyland/Douglas County Water	Carl Ruschmeyer	(775) 782-6227

SENSITIVE AREAS

Listed Sensitive Areas and Unique Features

Sensitive sites and locations exist within the Lake Tahoe Basin. Examples of sensitive sites and locations may include the following: parks and beaches, historic sites (including properties listed on the National Register of Historic Places), archaeological sites, and cultural sites. In addition, the Lake Tahoe Basin has long been a home to Native Americans. The Washo Tribe has a history within the Lake Tahoe Basin dating back more than 9,000 years. As such, there are many tribally sensitive sites within the basin.

Drinking water intakes and locations/habitat for threatened or endangered species would also be considered sensitive areas, but these areas are addressed in separate Appendices of this plan.

This plan addresses the issue of sensitive areas and unique features in the following manner:

- Identifies point of contact for cultural/historical site identification;
- Provides specific information and contacts relating to the Lake Tahoe Dam; and
- Provides information on parks and beaches at Lake Tahoe.

Cultural/Historical Contacts

Congress passed the National Historic Preservation Act in 1966. The law establishes a national policy for the protection of historic and archaeological sites and outlines responsibilities for federal and state governments to preserve our nation's history. One of the essential pre-spill planning elements is the identification of those who will be responsible for providing reliable and timely expertise on historic properties during an emergency response, i.e., the Historic Properties Specialist.

In the event of an oil spill or chemical release that could potentially impact cultural or historical areas, responders should contact the following resources in order to determine if the location is within a sensitive area:

California Office of Historic Preservation (916) 653-6624

Nevada State Historic Preservation Office (775) 684-3448

Washo Tribe of California and Nevada (775) 265-4191

These agencies will either have personnel on staff that can be consulted about historic properties issues, or these agencies will be able to recommend Historic Properties Specialists who can be contracted to provide this service.

Lake Tahoe Dam

Completed in 1913, Lake Tahoe Dam is a concrete slab and buttress structure with 17 vertical gates. It is 18 feet high and 109 feet long. Flows are controlled by 17 gates, each 5 feet by 4 feet. Since the gates release water from the bottom, the dam should act as an underflow dam,

and not allow floating product to pass through to the Truckee River. Discharges through the dam to the Truckee River constitute the only surface water discharges from Lake Tahoe. Water releases to the Truckee River are regulated in accordance with the provisions of the Truckee River Operating Agreement. The U.S. Bureau of Reclamation physically operates the dam; however, decisions regarding releases from the dam are made by the Truckee River Water Master. In the event that it is necessary to alter flows into the Truckee River because of a spill or release, contact both the Bureau of Reclamation (24 hour contact is through their Central Valley Operations at (916) 979-3004 and Truckee River Federal Water Master at (775) 784-5241 (Garry Stone or Chad Blanchard). Alternate contact phone numbers for the Truckee River Federal Water Master are (775) 742-9289 and (775) 530-4505. While the Bureau of Reclamation has an easement to operate the dam, land on either side of the dam is owned by California State Parks. Additional information regarding spill response to the Lake Tahoe Dam is provided in the Lake and River Response Strategies section of this Plan (Blue Tab).

Lake Tahoe Parks and Beaches

West Shore Parks and Beaches

- **Coon Street Boat Launch and Picnic Area**
  - East end of Kings Beach, Coon Street.
  - Features restrooms, picnic area and BBQ grills.
  - Boat launch, parking.
- **Secline Beach**
  - End of Secline Street, Kings Beach.
  - Features picnic area and BBQ grills.
- **North Tahoe Beach**
  - At the intersection of Highway 28 and Highway 267, Kings Beach.
  - Features restrooms, picnic area, BBQ Grills and sand volleyball courts.
  - Group picnic shelter available for rental, contact the North Lake Tahoe Resort Association, (530) 581-6900.
- **Kings Beach State Recreation Area**
  - Center of Kings Beach, off Highway 28.
  - Features restrooms, picnic area, BBQ grills and playgrounds.
  - Long, wide beach, parking.
- **Moondunes Beach**
  - Near Pino Grande Avenue, Tahoe Vista.
  - Features restrooms and picnic area.
  - 600 foot sunbathing and swimming beach.
- **Sandy Beach**
  - Highway 28 in Tahoe Vista.
  - Campsites across highway.
- **Tahoe Vista Recreation Area**
  - Highway 28 and National Avenue, Tahoe Vista.
  - Features restrooms, picnic tables, boat launch (fee).
  - Extremely limited parking until construction of new parking lot is completed.
- **Patton Beach/Carnelian Bay Beach**
  - Highway 28 in Carnelian Bay.
  - Features seasonal restrooms, picnic tables.
  - Small building with full kitchen and outside deck available for rental from North Lake Tahoe Resort Association, (530) 581-6900.

    - Rocky beach.
- **Skylandia Park and Beach**
    - 24-acre park located 1.5 miles east of Tahoe City, Highway 28.
    - Skylandia Park provides bike trails, hiking trails, and picnicking facilities.
    - The park also features a beach, pier, and swimming.
- **Lake Forest Beach Park**
    - Located at the end of Bristlecone Avenue in Lake Forest, one mile east of Tahoe City.
    - Features restrooms, picnic area, BBQ grills, and playgrounds.
    - This park is a popular spot for swimming, sightseeing, bird watching, picnicking, and wind surfing with boat launch nearby (limited parking).
- **Commons Beach Park**
    - Four-acre park located in downtown Tahoe City.
    - Includes two children's playgrounds located within a large lakefront lawn area. Restrooms and BBQ grills also available.
- **Kilner Park**
    - 3.5 miles south of Tahoe City on Highway 89.
    - Wooded 7-acre park.
    - Has a children's playground, tennis courts, and a sand volleyball court, walking and biking trails, picnic tables, a group picnic area, and restrooms.
- **Elizabeth Williams Park**
    - North of Kaspian Campground on Highway 89.
    - U.S. Forest Service Beach.
- **Kaspian Recreaction Area**
    - Highway 89, South of Sunnyside.
    - U.S. Forest Service Beach.
    - Features restrooms, picnic area and BBQ grills, campsites across highway.
- **Chambers Beach**
    - One mile south of Homewood on Highway 89.
    - Access is limited to foot or bicycle traffic only, no public parking is available.
- **Meeks Bay Resort and Marina**
    - 7941 Emerald Bay Road (Highway 89), Tahoma.
    - U.S. Forest Service Beach.
    - Camping and marina.
- **Sugar Pine Point State Park**
    - Highway 89, just South of Tahoma.
    - California State Park.
    - Features: restrooms, picnic area, BBQ grills, pier and Ehrman Mansion.
    - Parking fee.
- **D. L. Bliss State Park**
    - Highway 89, South of Meeks Bay.
    - California State Park.
    - Features restrooms, picnic area and BBQ grills, trails, camping, and beach.
    - Admission fee.
- **Emerald Bay State Park**
    - Highway 89, South of Meeks Bay.
    - California State Park.
    - Designated National Natural Landmark.
    - Certain boating restrictions apply within Emerald Bay.
    - Features restrooms, picnic area, trails, and Vikingsholm Castle.

South Shore Parks and Beaches

- **Baldwin Beach**
  - Highway 89, 4 miles north of South Lake Tahoe "Y" Hwy 89/50 Junction.
  - U.S. Forest Service Beach.
  - Features restrooms, picnic area, and BBQ grills.
  - Admission fee.
- **Kiva Beach**
  - Highway 89, 2½ miles North of South Lake Tahoe “Y” (Hwy89/50).
  - U.S. Forest Service Beach.
  - Features restrooms, picnic area, BBQ grills.
- **Camp Richardson Beach**
  - Highway 89, 2½ miles North of South Lake Tahoe "Y".
  - U.S. Forest Service Beach.
  - Features restrooms, picnic area, BBQ Grills, boat rentals, food, playgrounds, parking, campground.
- **Pope Beach**
  - Highway 89, 2 miles North of South Lake Tahoe "Y" (Hwy89/50).
  - U.S. Forest Service Beach.
  - Features restrooms, picnic area, and BBQ grills.
  - Admission fee.
- **Regan Beach**
  - West of Highway 50, South Lake Tahoe, at Lakeview and Sacramento.
  - Features restrooms, picnic area, and playgrounds.
- **El Dorado Beach**
  - Highway 50 in South Lake Tahoe, between Rufus Allen and Lakeview.
  - Features restrooms, picnic area, BBQ grills, and playgrounds.
  - Boat launch subject to lake level.
- **Connolly Beach**
  - Highway 50 in South Lake Tahoe, at Timber Cove Lodge.
  - Features restrooms, picnic area, and boat launch at nearby marina.

East Shore Parks and Beaches

- **Nevada Beach**
  - Elk Point Road near Round Hill/Highway 50.
  - U.S. Forest Service Recreation Site.
  - Long sandy beach.
  - Features campground, restrooms, picnic area, BBQ grills.
- **Round Hill Pines**
  - Highway 50, north of Nevada Beach.
  - U.S. Forest Service Beach.
  - Sandy beach.
  - Features restrooms, picnic areas, pier, food, parking fees.
- **Zephyr Cove Beach**
  - Highway 50 at Zephyr Cove.
  - U.S. Forest Service Beach.
  - Features restrooms, picnic area, BBQ grills, pier, boat rentals, cruises, and food.
  - Parking fees.
- **Cave Rock**

  - Part of Lake Tahoe-Nevada State Park.
  - On Highway 50, three miles south of Glenbrook, just south of the Cave Rock tunnels.
  - Facilities include a boat launch ramp and dock, comfort station, picnic sites, and a small sandy beach.
- **Sand Harbor**
  - Part of Lake Tahoe – Nevada State Park.
  - On Highway 28, south of Incline Village, Nevada.
  - Featuring restrooms, picnic area, BBQ grills, lifeguards, and boat launch.
  - Parking fee.
- **Memorial Point:**
  - Part of Lake Tahoe-Nevada State Park.
  - On Highway 28, one mile north of Sand Harbor.
  - Views of Lake Tahoe and a trail to its rocky shoreline. Restrooms are available.
- **Hidden Beach:**
  - Part of Lake Tahoe-Nevada State Park.
  - On Highway 28, two miles north of Sand Harbor.
  - The narrow sands and large granite boulders of Hidden Beach are popular with local sunbathers and swimmers.
  - Hidden Beach has no parking lot, and roadside parking in the vicinity is very limited. There are no facilities available.
- **Incline Village Beaches**
  - Incline Village General Improvement District has three private beaches for the use of Incline Village residents and guests.
  - These beaches include Ski Beach, Incline Beach, and Burnt Cedar Beach.

SENSITIVE POPULATIONS – THREATENED AND ENDANGERED SPECIES

The Endangered Species Act provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The U.S. Fish and Wildlife Service (USFWS) of the Department of the Interior maintains a list of threatened and endangered species that are known to exist within the Lake Tahoe Basin.
If listed species and/or critical habitat are present or could be present, the FOSC shall initiate an emergency consultation by contacting the U.S. Fish and Wildlife Service.

This plan addresses the issue of threatened or endangered species in the following manner:

- Within this section of the Plan, contact information is provided for individuals and agencies maintaining additional information on issues pertaining to threatened and endangered species.
- Within this section of the Plan, tables are provided indicating threatened and endangered species known to exist within the Lake Tahoe basin. These tables include information provided by the U.S. Fish and Wildlife Service regarding federally listed species, and information provided by California Department of Fish and Game and the Nevada Department of Wildlife regarding state listed species.
- Within the Maps section of this Plan (Green Tab), generalized locations of threatened or endangered species are presented. Specific locations are not provided, in order to afford more protection of the threatened or endangered species.
- Within the Maps section of this Plan (Green Tab), areas of known sensitive habitat are provided.

Threatened and Endangered Species Points of Contact:

For additional information regarding threatened and endangered species within the Lake Tahoe Basin, use the following contacts:

Agency	Contact	Phone
U.S. Fish and Wildlife Service	Damian Higgins	(775) 861-6337 (775) 287-4678
California Department of Fish and Game	Duty Officer	(916) 445-9338 (916) 358-1300
Nevada Department of Wildlife	Dave Catalano	(775) 684-2742

Federal Endangered, Threatened, Proposed, And Candidate Species within the Geographic Area of the Lake Tahoe Basin

Species	Federal Status	Critical Habitat in NV/CA	Office Lead	State (CA/NV)
Mammals				
Fisher, *Martes pennanti* (West Coast DPS	C	N/A	YFWO	CA
Birds				
Yellow-billed cuckoo, *Coccyzus americanus* (Western U.S. DPS)	C	N/A	SFWO	CA/NV
Bald eagle, *Haliaeetus leucocephalus*	T	N	SFWO	CA/NV
Amphibians				
Yosemite toad, *Bufo canorus*	C	N/A	SFWO	CA
Mountain yellow-legged frog, *Rana muscosa* (Sierra Nevada DPS)	C	N/A	SFWO	CA/NV
Fishes				
Lahontan cutthroat trout, *Oncorhynchus clarki henshawi*	T	N	NFWO	CA/NV
Plants				
Webber ivesia, *Ivesia webberi*	C	N/A	NFWO	CA/NV
Tahoe yellowcress, *Rorippa subumbellata*	C	N/A	NFWO	CA/NV

Source: U. S. Fish and Wildlife Service, Nevada Fish and Wildlife Office

T = Threatened
C=Candidate
N = No
N/A = Not Applicable
NFWO = Nevada Fish and Wildlife Office
SFWO = Sacramento Fish and Wildlife Office
YFWO = Yreka Fish and Wildlife Office

California State Listed Species

Common Name	Scientific Name	Federal Status	State Status
American badger	*Taxidea taxus*		
American manna grass	*Glyceria grandis*		
California wolverine	*Gulo gulo*		Threatened
Carson Range rock cress	*Arabis rigidissima var. demota*		
Cup Lake draba	*Draba asterophora var. macrocarpa*		
Donner Pass buckwheat	*Eriogonum umbellatum var. torreyanum*		
Fen			
Great Basin rams-horn	*Helisoma newberryi*		
Lahontan cutthroat trout	*Oncorhynchus clarkii henshawi*	Threatened	
Lake Tahoe benthic stonefly	*Capnia lacustra*		
Mount Lyell salamander	*Hydromantes platycephalus*		
Munroe's desert mallow	*Sphaeralcea munroana*		
Nevada daisy	*Erigeron nevadincola*		
Nuttall's pondweed	*Potamogeton epihydrus ssp. nuttallii*		
Oregon fireweed	*Epilobium oreganum*		
Pacific fisher	*Martes pennanti (pacifica)*	Candidate	
Plumas ivesia	*Ivesia sericoleuca*		
Sierra Marten	*Martes americana sierrae*		
Sierra Nevada mountain beaver	*Aplodontia rufa californica*		
Sierra Nevada red fox	*Vulpes vulpes necator*		Threatened
Sierra Nevada snowshoe hare	*Lepus americanus tahoensis*		
Sphagnum Bog			
Tahoe draba	*Draba asterophora var. asterophora*		
Tahoe yellow cress	*Rorippa subumbellata*	Candidate	Endangered
Yosemite toad	*Bufo canorus*	Candidate	
Alpine dusty maidens	*Chaenactis douglasii var. alpina*		
Bald eagle	*Haliaeetus leucocephalu*	Threatened	Endangered
Bank swallow	*Riparia riparia*		Threatened
Fringed myotis	*Myotis thysanodes*		
Golden eagle	*Aquila chrysaetos*		
Great gray owl	*Strix nebulosa*		Endangered
Long-petaled lewisia	*Lewisia longipetala*		
Marsh skullcap	*Scutellaria galericulata*		
Marsh willowherb	*Epilobium palustre*		
Mingan moonwort	*Botrychium minganense*		
Mountain yellow-legged frog	*Rana muscosa*	Endangered	
Northern goshawk	*Accipiter gentilis*		
Osprey	*Pandion haliaetus*		

Common Name	Scientific Name	Federal Status	State Status
Shore sedge	*Carex limosa*		
Short-leaved hulsea	*Hulsea brevifolia*		
Slender-leaved pondweed	*Potamogeton filiformis*		
Subalpine cryptantha	*Cryptantha crymophila*		
Three-ranked hump-moss	*Meesia triquetra*		
Upswept moonwort	*Botrychium ascendens*		
Water bulrush	*Scirpus subterminalis*		
Western white-tailed jackrabbit	*Lepus townsendii*		
Willow flycatcher	*Empidonax traillii*		Endangered
Yellow warbler	*Dendroica petechia brewsteri*		
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*		

Source: California Department of Fish and Game, Natural Diversity Database
Government Version -- Dated September 01, 2006 -- Wildlife and Habitat Data Analysis Branch
Information Expires 03/01/2007

Nevada State Listed Species

Common Name	Scientific Name	Federal Status	State Status
Webber ivesia	*Ivesia webberi*		**CE**
Sand cholla	*Opuntia pulchella*		**CY**
Williams combleaf	*Polyctenium williamsiae*		**CE**
Tahoe yellowcress	*Rorippa subumbellata*	**Candidate**	**CE**
Washoe pine	*Pinus washoensis*		**CY**
Steamboat buckwheat	*Eriogonum ovalifolium var. williamsiae*		**CE**
Spotted bat	*Euderma maculatum*		**yes**
River otter	*Lontra canadensis*		**yes**
American marten	*Martes americana*		**yes**
Western burrowing owl	*Athene cunicularia hypugaea*		**yes**
Ferruginous hawk	*Buteo regalis*		**yes**
Swainson's hawk	*Buteo swainsoni*		**yes**
Peregrine falcon	*Falco peregrinus*		**yes**
Mountain quail	*Oreortyx pictus*		**yes**
Flammulated owl	*Otus flammeolus*		**yes**
Northern flying squirrel	*Glaucomys sabrinus*		**yes**
Sierra Nevada snowshoe hare	*Lepus americanus tahoensis*		**yes**
American pika	*Ochotona princeps*		**yes**
Tricolored blackbird	*Agelaius tricolor*		**yes**
Golden eagle	*Aquila chrysaetos*		**yes**
Short-eared owl	*Asio flammeus*		**yes**
Long-eared owl	*Asio otus*		**yes**
Juniper titmouse	*Baeolophus griseus*		**yes**
Yellow warbler	*Dendroica petechia*		**yes**
Prairie falcon	*Falco mexicanus*		**yes**
Common yellowthroat	*Geothlypis trichas*		**yes**
Pinyon jay	*Gymnorhinus cyanocephalus*		**yes**
Yellow-breasted chat	*Icteria virens*		**yes**
Loggerhead shrike	*Lanius ludovicianus*		**yes**
Lewis' woodpecker	*Melanerpes lewis*		**yes**
Long-billed curlew	*Numenius americanus*		**yes**
Macgillivray's warbler	*Oporornis tolmiei*		**yes**
Osprey	*Pandion haliaetus*		**yes**
American white pelican	*Pelecanus erythrorhynchos*		**yes**
Vesper sparrow	*Pooecetes gramineus*		**yes**
Red-naped sapsucker	*Sphyrapicus nuchalis*		**yes**
Orange-crowned warbler	*Vermivora celata*		**yes**
Wilson's warbler	*Wilsonia pusilla*		**yes**
Cui-ui	*Chasmistes cujus*		**yes**
Lahontan cutthroat trout	*Oncorhynchus clarki henshawi*	**Threatened**	**yes**
Warner Valley redband trout	*Oncorhynchus mykiss pop*		**yes**
Mono Basin mountain beaver	*Aplodontia rufa californica*		**yes**
Pygmy rabbit	*Brachylagus idahoensis*		**yes**

Common Name	Scientific Name	Federal Status	State Status
Northern goshawk	*Accipiter gentilis*		**yes**
Sage grouse	*Centrocercus urophasianus*		**yes**
Western snowy plover	*Charadrius alexandrinus nivosus*		**yes**
Black tern	*Chlidonias niger*		**yes**
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	**Candidate**	**yes**
Common loon	*Gavia immer*		**yes**
White-headed woodpecker	*Picoides albolarvatus*		**yes**
White-faced ibis	*Plegadis chihi*		**yes**
Great gray owl	*Strix nebulosa*		**yes**
California spotted owl	*Strix occidentalis occidentalis*		**yes**
Mountain plover	*Charadrius montanus*		**yes**
Greater sandhill crane	*Grus canadensis tabida*		**yes**
Harlequin suck	*Histrionicus histrionicus*		**yes**

Source: Nevada Natural Heritage Program, http://heritage.nv.gov/spelists.htm

CE Critically endangered - species threatened with extinction, whose survival requires assistance because of overexploitation, disease or other factors or because their habitat is threatened with destruction, drastic modification or severe curtailment.

CY Protected as a cactus, yucca, or Christmas tree

YES Species protected under NRS 501.

SENSITIVE POPULATIONS – HOSPITALS AND NURSING HOMES

In the event of a significant oil spill or chemical release, information regarding sensitive populations, including hospitals and nursing homes, may be critical to decisions made by response personnel. The following table provides information regarding the location of hospitals and nursing homes within the Lake Tahoe Basin.

Hospitals

Hospital	Location	Phone Number	Capacity (beds)
Incline Village Community Hospital	880 Alder Street, Incline Village, NV	(775) 833-4100	4
Barton Memorial Hospital	2170 South Avenue South Lake Tahoe, CA	(530) 541-3420	75

Nursing Homes

Nursing Home	Location	Phone Number	Capacity (beds)
Barton Skilled Nursing Facility	2170 South Avenue South Lake Tahoe, CA	(530) 543-5885	48
Vocational And Educational Training Services (Adult Day Care)	1950 Lake Tahoe Blvd., South Lake Tahoe, CA	(530) 541-8523	varies

Source: CA Dept of Social Services, Community Care Licensing Division http://ccl.dss.cahwnet.gov/

SENSITIVE POPULATIONS – SCHOOLS

In the event of a significant oil spill or chemical release, information regarding sensitive populations, including schools may be critical to decisions made by response personnel. The following table provides information regarding the location of schools within the Lake Tahoe Basin:

Douglas County, Nevada

School	Location	Contact Phone	Enrollment
George Whittell High School	240 Warrior Way, Zephyr Cove, NV	(775) 588-2446	228
Kingsbury Middle School	1900 Echo Drive, Zephyr Cove, NV	(775) 588-6281	173
Zephyr Cove Elementary School	226 Warrior Way, Zephyr Cove, NV	(775) 588-4574	268

Source: www.dcsd.k12.nv.us

Washoe County, Nevada

School	Location	Contact Phone	Enrollment
Incline High School	499 Village Blvd., Incline, NV	(775) 832-4260	394
Incline Middle School	931 Southwood Blvd Incline, NV	(775) 832-4220	274
Incline Elementary (K-2)	771 Southwood Blvd. Incline, NV	(775) 832-4240	197
Incline Elementary (3-5)	915 Northwood Blvd. Incline, NV	(775) 832-4250	214

Source: http://www.washoe.k12.nv.us/

Placer County, California

School	Location	Contact Phone	Enrollment
Kings Beach Elementary	8125 Steelhead, Kings Beach, CA	(530) 546-2605	403
North Tahoe High	2945 Polaris Rd., Tahoe City, CA	(530) 581-7000	449
North Tahoe Middle	2945 Polaris Rd., Tahoe City, CA	(530) 581-7050	335
Tahoe Lake Elementary	375 Grove St., Tahoe City, CA	(530) 583-3010	281

Source: http://www.cde.ca.gov/re/sd/

El Dorado County, California

School	Location	Contact Phone	Enrollment
Blue Ridge	1041 Al Tahoe Blvd. South Lake Tahoe, CA	(530) 626-4356	27
Charter Transitional Reporting Educational Center (TREC I)	1286 Kyburz Ave. South Lake Tahoe, CA	(530) 295-2257	12
Lake Tahoe Community College	One College Dr. South Lake Tahoe, CA	(530) 541-4660	
Bijou Community Elementary	3501 Spruce Ave. South Lake Tahoe, CA	(530) 543-2337	556
Lake Tahoe Environmental Science Magnet	1095 San Bernardino Ave. South Lake Tahoe, CA	(530) 543-2371	285
Sierra House Elementary	1709 Remington Trail South Lake Tahoe, CA	(530) 543-2327	506
South Tahoe High (including Mt. Tallac High and the Transitional Learning Center)	1735 Lake Tahoe Blvd. South Lake Tahoe, CA	(530) 541-4111	1,590
South Tahoe Middle	2940 Lake Tahoe Blvd. South Lake Tahoe, CA	(530) 541-6404	1,043
Tahoe Valley Elementary	943 Tahoe Island Dr. South Lake Tahoe, CA	(530) 543-2350	539
Saint Theresa School	1081 Lyons Avenue South Lake Tahoe, CA	(530) 544-8944	160
Tahoe Montessori House of Children, Inc	848 Glorene Ave. South Lake Tahoe, CA	(530) 544-1818	24

Source: http://www.cde.ca.gov/re/sd/

SENSITIVE POPULATIONS – CHILD CARE CENTERS

In the event of a significant oil spill or chemical release, information regarding sensitive populations, including child care centers, may be critical to decisions made by response personnel. The following table provides information regarding the location of day care centers within the Lake Tahoe Basin. There are no child care facilities within the portion of Washoe County covered by the planning area.

Douglas County, Nevada

Daycare Name	Contact	Phone Number	Location	Capacity
Bright Beginnings, Inc.	Eva Peck, Owner/Director	(775) 588-5437	143 Michelle; Stateline, NV	50
Janet Wells Day Care	Janet Wells, Owner/Operator	(775) 588-6049	183 Juniper Street; Stateline, NV	6
Roots and Wings	Michelle Martinez, Director	(775) 586-7271	236 Kingsbury Grade; Stateline, NV	21
Tahoe Douglas Christian Preschool	Beth Peterson, Director	(775) 588-5860	145 Daggett Lane; Stateline, NV	50

Source: NV Division of Child and Family Services, Bureau of Services for Child Care (775) 684-4463

El Dorado County, California

Daycare Name	Contact	Phone Number	Location	Capacity
Al Tahoe Child Development Center	Lundberg, Teresa	(530) 544-4813	1195 Rufus Allen Blvd. South Lake Tahoe, CA	45
Al Tahoe School Head Start and Infant Care	Slater, Deirdre	(530) 541-0284	1100 Lyons Ave. South Lake Tahoe, CA	64 (16 infant)
Bijou State Preschool	Lucas, Lynn	(916) 622-7130	3501 Spruce Avenue South Lake Tahoe, CA	24
Heavenly Ski Resort	Amato, Leslie	(530) 542-6912	3860 Saddle Road South Lake Tahoe, CA	44 (12 infant)
Hope Lutheran Preschool	Christine Triggs	(530) 541-2113	930 Julie Ln. South Lake Tahoe, CA	30
Kindertown Preschool	Crist, Maria B.	(530) 541-7310	2249 Helen Avenue South Lake Tahoe, CA	56
Lake Tahoe Child Development Center	Coppini, Susan	(916) 541-5887	3441 Spruce Avenue South Lake Tahoe, CA	66
Lake Tahoe Community College Child Devel Ctr	Sower, Michelle	(530) 541-4660	One College Dr South Lake Tahoe, CA	46 (16 infant)

Daycare Name	Contact	Phone Number	Location	Capacity
Lake Tahoe Head Start	Brodigan, Jane	(916) 541-0284	1200 Rufus Allen Blvd. South Lake Tahoe, CA	20
Mountainside Montessori	Hutton, Shannon	(530) 542-2126	3601 Vanda Lee South Lake Tahoe, CA	36
St. Theresa Little Flower School	Kruk, Patricia	(530) 544-8944	1081 Lyons Ave. South Lake Tahoe, CA	24
Tahoe Center	Director	(530) 541-7952	1286 Kyburz Avenue South Lake Tahoe, CA	54 (20 infant)
Tahoe Montessori House Of Children, Inc.	S.D.And S.L.Ward	(530) 544-1818	848 Glorene Avenue South Lake Tahoe, CA	33
Tahoe Parents Nursery School	Yure, Aileen	(530) 541-8767	1100 Lyons Ave. South Lake Tahoe, CA	40
Under The Magic Pine Tree	Bailey, Candice	(530) 541-4848	2111 South Avenue South Lake Tahoe, CA	60
Mt. Tallac Infant/Toddler Center	Alder, Elvia	(530) 622-7130	1735 Lake Tahoe Blvd. South Lake Tahoe, CA	18

Source: CA Dept of Social Services, Community Care Licensing Division http://ccl.dss.cahwnet.gov/

Placer County, California

Daycare Name	Contact	Phone Number	Location	Capacity
First Baptist Church Of Tahoe City A+ Program	Jackson, Gaynell	(916) 229-4530	390 Fairway Drive Tahoe City, CA	36
Homewood Mountain Resort Childrens Center	Mitchell, James	(530) 525-2992	500 Ski Bowl Way Homewood, CA	30
Kings Beach Head Start Preschool	Strothers, Rebecca	(916) 546-9076	8425 Dolly Varden Kings Beach, CA	27
Kings Beach State Preschool	Cole, Linda	(916) 546-8339	8125 Steelhead Kings Beach, CA	48
Little Sprouts Daycare	Stuart, Edward	(530) 583-7543	2810 Lake Forest Rd Tahoe City, CA	12
Tahoe Community Nursery School	Laura Stout	(530) 583-3331	3125 North Lake Boulevard Carnelian Bay, CA	36
Tahoe Lake State Preschool	Fernandes, Susan	(530) 546-7105	375 Grove Street Tahoe City, CA	24
Tahoe Vista State Preschool	Fernandes, Susan	(530) 546-3450	875 National Avenue Tahoe Vista, CA	48

Source: CA Dept of Social Services, Community Care Licensing Division http://ccl.dss.cahwnet.gov/

PLAN ADMINISTRATION

Distribution Log

Numbered copies of the Lake Tahoe Geographic Response Plan have been distributed to the following agencies and/or individuals:

Name	Agency	Address 1	Address 2	City	State	Zip

Name	Agency	Address 1	Address 2	City	State	Zip

Record of Review

The Lake Tahoe Geographic Response Plan is to be reviewed at least annually. Document plan reviews are listed in the following table.

Review Date	By (Print)	Signature

Record of Changes

Record changes to the Lake Tahoe Geographic Response Plan in the following table.

Change No.	Date Posted	Brief Description of Change	By (Print Name)	Signature

HAZARD ANALYSIS

A hazards analysis was conducted for the Lake Tahoe Basin area to identify facilities that store hazardous materials in quantities large enough to pose a potential danger to communities if a release should occur. Other man-made and natural potential hazards were also considered. For the purposes of this analysis the Lake Tahoe area is defined as the populated areas surrounding the lake; other areas of the participating counties were excluded.

The types, quantities, and locations of oil and hazardous material present in the Lake Tahoe Basin are identified here to facilitate planning for response to releases of those substances. The focus of this hazards identification is on those facilities that have reportable quantities of extremely hazardous substances (EHSs). EHSs are chemicals identified by EPA on the basis of acute toxicity (40 CFR Part 355, Appendices A and B). Other hazardous materials stored above threshold inventory reporting quantities are also identified. Hazardous waste facilities and facilities that routinely release regulated toxic chemicals are included. Major transportation routes and pipelines are included as potential locations of hazardous materials.

Fixed Facility Hazards

Hazards are posed by facilities that store hazardous materials and wastes, by abandoned facilities, and by oil and gas wells.

Facilities with Reportable Quantities of Hazardous Materials

Following this explanation is a list of facilities in the Lake Tahoe area that submitted Tier II information to their respective state emergency response commissions (SERCs) or local emergency planning committees (LEPCs). Tier I and/or Tier II information consists of aggregate information on the maximum and average daily amounts and general location of hazardous materials stored at a facility subject to SARA Title III. This information is submitted for combustible liquids, compressed gases, flammables, toxic gases, etc. Section 312 of SARA Title III establishes the reporting requirements for these hazardous materials. If materials are stored above threshold quantities, they must be reported. If established, the threshold planning quantity (TPQ), the reportable quantity (RQ) for extremely hazardous substances, and the threshold quantity (TQ) for each of the following substances can be found in the “Title III Lists of Lists - Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act, as Amended.” This document can be obtained by calling the EPCRA hotline at (800) 424-9346 or calling the National Service Center for Environmental Publications (NSCEP) at (800) 490-9198. It can also be downloaded from the Internet at:
http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/chemicalinfo.htm.

Douglas County, NV

Facility	Address	Chemical	CAS #	Amount Stored
Wimar Tahoe Corporation	50 Highway 50, Stateline	Diesel	68476-34-6	163200 lbs
		Oxygen	7782-44-7	1380 cft
		Acetylene	74-86-2	370 cft
Manchester Enterprises, Inc	270 Logging Lane Rd, Stateline	Diesel	68476-34-6	6000 gal
		Waste Oil	303-00-0	250 gal
		Acetylene	74-86-2	220 cft
		Oxygen	7782-44-7	560 cft
		Carbon Dioxide	124-38-9	50 cft
Harvey's Management Co Inc	15 Highway 50, Stateline	Diesel	68476-34-6	48156 lbs
		Gasoline	8006-61-9	10000 gal
		CO2	124-38-9	12000 gal
Douglas Co Sewer Imp Dist #1	Sewer Plant Road & Hwy 50, Zephyr Cove	**Chlorine**	**7782-50-5**	**1350 lbs**
		Waste Oil	303-00-0	110 gal
		Safety Kleen Premium Solvent	64742-47-8	30 gal
		Gasoline	8006-61-9	500 gal
		Granular Chlorine	7778-54-3	200 lbs
		Antifreeze	107-21-1	47 lbs
		Diesel	68476-34-6	5000 gal
Montbleu	55 Highway 50, Stateline	Acetylene	74-86-2	3 cyl
		Diesel	68476-34-6	10679 gal
		Freon R 22	75-45-6	66 lbs
		Cl-2112	111-30-8	37 gal
		Freon 404a	354-33-6	19 lbs
		Chlorinating Tablets	7778-54-3	100 lbs
		Easy Acid	7681-38-1	40 lbs
		Ex Filter Cleaner	64-02-8	5 gal
		Muriatic Acid	**7647-01-0**	**30 gal**
		Calcium Chloride	10043-52-4	25 lbs
		Sodium Sulfate	7757-83-7	25 gal
		Sodium Bicarbonate	144-55-8	50 lbs
		Liquid Carbon Dioxide	124-38-9	300 lbs
		Freon 134a	811-97-2	150 lbs
		Cyclohexlamine	**108-91-8**	**60 gal**

Facility	Address	Chemical	CAS #	Amount Stored
		Chemtreat Bl-4350	9003-04-7	60 gal
		Chemtreat Cl-40	7647-15-6	70 gal
		Chemtreat Na Coi	7681-52-9	28 gal
		Chemtreat Cl-1468	1310-58-3	50 gal
		Brominating Tablets	126-06-7	150 gal
		Freon R12 Chiller	75-71-8	2050 lbs
		Trichloroethane	71-55-6	4 gal
Heavenly Ski Resort	375 Quaking Aspen Lane, Stateline	Diesel	68476-34-6	60000 gal
		Gasoline	8006-61-9	10000 gal
		Diesel	68476-34-6	60000 gal
		Gasoline	8006-61-9	10000 gal
		Diesel	68476-34-6	20000 gal
		Diesel	68476-34-6	20000 gal
Verizon California Inc	207 Kingsbury Grade, Stateline	**Sulfuric Acid**	**7664-93-9**	**1642 lbs**
		Halon 1301	75-63-8	3168 cft
		Diesel	68476-34-6	4029 gal
Aramark Lake Tahoe	760 Highway 50, Zephyr Cove	Gasoline	8006-61-9	18500 gal
		Diesel	68476-34-6	12000 gal
		Propane	74-98-6	1250 gal
		Diesel	68476-34-6	12000 gal
		Propane	74-98-6	1250 gal
		Gasoline	8006-61-9	18500 gal
Harvey's Management Co Inc	Stateline Ave & Hwy 50, Stateline	Argon	7440-37-1	236 cft
		Diesel	68476-34-6	10000 gal
		Nitrogen	7727-37-9	2780 cft
		Perchloroethylene	127-18-4	220 gal
		Guardex Super Chloronator 35	1310-65-2	75 lbs
		Freon 502 Fluorocarbon	75-45-6	15 gal
		Freon 22 Fluorocarbon	75-45-6	30 lbs
		With Leak Detector	75-71-8	30 lbs
		Carpet Shampoo	111-76-2	30 gal
		Dual	68391-01-5	20 gal
		CO2	124-38-9	750 lbs

Facility	Address	Chemical	CAS #	Amount Stored
Harvey's Management Co Inc (continued)	Stateline Ave & Hwy 50, Stateline	Propane	68476-85-7	70 lbs
		Bleach	7681-52-9	220 gal
		Sterno Canned Heat	64-17-5	75 lbs
		Waste Oil	303-00-0	110 gal
		Acetylene	74-86-2	100 cft
		Propane	74-98-6	70 gal
		Compressed Air	7727-37-9	433 cft
		Acrytex Surface Conditioner	107-21-1	60 gal
		Super Trump	1310-73-2	90 gal
		Antifreeze	107-21-1	1026 lbs
		Nalco 2548 Oxygen Scavenger	7631-38-1	50 gal
		Oxygen	7782-44-7	300 cft

Washoe County, NV

Facility	Address	Chemical	CAS #	Amount Stored
North Lake Tahoe FPD	863 Tanager Way, Incline Village	Oxygen	7782-44-7	2204 cft
		Diesel	68476-34-6	2500 gal
Spitsen Lumber Company	1054 Tahoe Blvd, Incline Village	Antifreeze	107-21-1	15 gal
		Gasoline	8006-61-9	1000 gal
		Diesel	68476-34-6	3000 gal
		Antifreeze	107-21-1	15 gal
		Gasoline	8006-61-9	1000 gal
		Diesel	68476-34-6	3000 gal
AT&T Nevada	889 Northwood Blvd, Incline Village	**Sulfuric Acid**	**7664-93-9**	**6052 lbs**
		Sulfuric Acid	**7664-93-9**	**6052 lbs**
		Diesel	68476-34-6	14600 lbs
		Diesel	68476-34-6	14600 lbs
Disposal Services	1076 Tahoe Blvd, Incline Village	Gasoline	8006-61-9	1000 gal
		Diesel	68476-34-6	2000 gal
Hyatt Regency Lake Tahoe	111 Country Club Drive, Incline Village	Paint Thinner	64741-41-9	5 gal
		Paint Thinner	64741-41-9	5 gal
		Diesel	68476-34-6	6000 gal
		Diesel	68476-34-6	6000 gal

Facility	Address	Chemical	CAS #	Amount Stored
Diamond Peak Ski Resort	1210 Ski Way, Incline Village	Diesel	68476-34-6	5000 gal
		Gasoline	8006-61-9	1800 gal
		Waste Oil	303-00-0	400 gal
		Gasoline	8006-61-9	1800 gal
		Diesel	68476-34-6	5000 gal
		Waste Oil	303-00-0	400 gal

El Dorado County, California

Facility	Address	Chemical	CAS #	Amount Stored
Verizon Wireless	1054 Emerald Bay Road, South Lake Tahoe, CA	**Electrolyte/Sulfuric Acid**	**7664-93-9**	**2 lbs**
		Lead, Lead Compound	7439-92-1	NR
Fallen Leaf Lodge HOA	388 Fallen Leaf Road., South Lake Tahoe, CA	Propane	74-98-6	12,000 gal
Tahoe Verde MHP	1080 Julie Lane, South Lake Tahoe, CA	Oxygen	7782-44-7	NR
		Unleaded Gasoline	NA	5 gal
		Acetylene	74-86-2	NR
		Calcium Hypochlorite	7778-54-3	50 tablets
Charter Communications	984 Bal Bijou, South Lake Tahoe, CA	Diesel Fuel No. 2	68476-34-6	100 gal.
Steve's Transmission	2950 Highway 50, Lake Valley, CA	Gasoline	NA	30,000 gal
		Solvent	NA	10 gal
		Transmission Fluid	NA	55 gal
		Waste Oil	NA	55 gal
		Carbon Dioxide	124-38-9	435 lbs
		Motor Oil	NA	NR
		Used Absorbent	NA	5 lbs
Cut Rite	7062 West Lake Blvd. , South Lake Tahoe, CA	Propane	74-98-6	4,000 gal
		Diesel	68476-34-6	4,000 gal
		Propane	74-98-6	5 gal
Tahoe One Hour Cleaners	2301 Lake Tahoe Blvd., South Lake Tahoe, CA	Perc - Tetrachloroethylene	127-18-4	55 gal
		Waste Perchloroethylene	127-18-4	NR
Tahoe Tom's	4029 Lake Tahoe Blvd., South Lake Tahoe, CA	Regular Unleaded Gasoline	NA	10,000 gal
		Super Unleaded Gasoline	NA	8,000 gal
Kragen Auto # 4083	22317 Lake Tahoe Blvd., South Lake Tahoe, CA	Batteries	NA	10
		Motor Oil	NA	120 gal
		Safety Kleen	NA	16 gal
		Waste Antifreeze	107-21-1	55 gal
		Waste Oil	NA	220 gal
		Used Batteries	NA	10
		Used Absorbent	NA	NR
		Used Motor Oil	NA	220 gal

Facility	Address	Chemical	CAS #	Amount Stored
City of SLT - Campground	1150 Rufus Allen Blvd., South Lake Tahoe, CA	Fertilizer	NA	NR
City of SLT - Ice Arena	1176 Rufus Allen Blvd., South Lake Tahoe, CA	Freon	76-13-1	NR
South Tahoe Refuse	2132 Dunlap, South Lake Tahoe, CA	Waste Lacquer Thinner	NA	NR
Heavenly Valley	3860 Saddle at Wildwood, South Lake Tahoe, CA	2-Cycle Injector Oil	NA	55 gal
		Acetylene	74-86-2	NR
		Stoddard Solvent	NA	55 gal
		Waste Antifreeze	107-21-1	100 gal
		Nitrogen	7727-37-9	NR
		Delo 400 Motor Oil	NA	2,000 gal
		Propane Liquid Gas	74-98-6	10,000 gal
		Oxygen	7782-44-7	NR
		Inhibited Ethylene-Glycol	107-21-1	2,000 gal
		Petroleum Mid Distillate	NA	5,000 gal
		T04 Oil-Transmission Oil	NA	50 gal
		Hydraulic Oil	NA	2,000 gal
		Diesel Fuel #2	68476-34-6	15,000 gal
		Unisol	NA	55 gal
		Motor Oil 14W-40	NA	55 gal
		Carbon Dioxide Argon Mixture	124-38-9 / 7440-37-1	NR
		Argon	7440-37-1	NR
		Iron, Manganese, Silicon, Copper, Molybdenum Welding rods	NA	NR
		Detonation Cord	NA	NR
		Synthetic hydrocarbon Base Lubricating Fluid – Gear Lube	NA	55 gal
		Synthetic hydrocarbon Base Lubricating Fluid - Grease	NA	NR
		Anfo-Ammonite	NA	NR
		GST Oil 32	NA	55 gal
		Carbon Dioxide	124-38-9	NR
		Blasting Caps	NA	NR
		Safety Fuse	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Dynamite (Gelatin)	NA	NR
		Cast Primer	NA	NR
Sierra at Tahoe	1111 Sierra at Tahoe Road, South Lake Tahoe, CA	Unocal Unimix 2 cycle	NA	65
		Diesel (red)	68476-34-6	4,000 gal
		Unocal Kerosene 1-K	NA	65 gal
		Unocal MP Gear Lube LS	NA	65 gal
		Waste Oil	NA	400 gal
		Transmission Oil	NA	65 gal
		Gasoline	NA	5,000 gal
		Oxygen compressed	7782-44-7	NR
		Acetylene dissolved	74-86-2	NR
		Nitrogen compressed	7727-37-9	NR
		Propane	74-98-6	16,000 gal
		Mineral Spirits 66/3	NA	65 gal
		Unocal Guardol Motor	NA	65 gal
		Industrial Oil	NA	210 gal
		Crank Case Oil	NA	NR
Lake Tahoe Cruises	900 Ski Run Blvd., South Lake Tahoe, CA	Used Motor Oil	NA	55 gal
		Helium/CO2 Compound	NA	NR
		Used Absorbant Pads	NA	NR
		1-H Photo Fixer	NA	30 gal
		Used Oil Filters	NA	55 gal
		Oxy/Acetylene	74-86-2	30 lbs
Tahoe Keys POA Corp Yd.	Dover @ Tahoe Keys, South Lake Tahoe, CA	Lubricating Oil	NA	60 gal
		Fertilizer N.P.K. Turf Fertilizer	NA	47 gal
		Gasoline	NA	5 gal
		Diesel Fuel	68476-34-6	5 gal
Echo Chalet	9900 Echo Lake Road, South Lake Tahoe, CA	Gasoline	NA	950 gal
CSD/Fallen Leaf Marina	400 Fallen Leaf Road, South Lake Tahoe, CA	Gasoline	NA	1,000 gal
		Waste Oil	NA	55 gal
Midas Muffler	2709 Lake Tahoe Blvd., South Lake Tahoe, CA	Coolant / Ethylene Glycol	107-21-1	55 gal
		Motor Oil	NA	55 gal
		Transmission Fluid	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
Marriott - Timber Lodge	4100 Lake Tahoe Blvd., South Lake Tahoe, CA	Hydraulic Fluid	NA	NR
		Sodium Hypochlorite	7681-52-9	20
		#2 Diesel Fuel	68476-34-6	NR
		Muriatic Acid	**7647-01-0**	**NR**
Tires Plus	2317 Lake Tahoe Blvd. #B, South Lake Tahoe, CA	Antifreeze	107-21-1	55 gal
		Used Motor Oil	NA	250 gal
		Electric Storage Battery	NA	NR
American Tower #89311	Echo Summit – Hwy 50, South Lake Tahoe, CA	Nickel/Cadmium/Potassium Hydroxide Battery	NA	157
		Sulfuric Acid/Lead battery	**7664-93-9**	**200**
Tahoe Asphalt	1104 Industrial Ave., South Lake Tahoe, CA	Ar8000 Asphalt Cement	NA	20,000 lbs
		Diesel	68476-34-6	2,000 gal
		Asphalt	NA	6,000 lbs
		Oil	NA	55 gal
		Motor Oil	NA	55 gal
		Waste Oil	NA	500 gal
		Heat Transfer Oil	NA	55 gal
Sam's Auto Care	1670 Shop St. , South Lake Tahoe, CA	Ethylene Glycol	107-21-1	25 gal
		Petroleum Naphtha	8002-05-9	25 gal
		Refined Petroleum Oil	68476-34-6	55 gal
City of SLT - Airport	1901 Airport Road, South Lake Tahoe, CA	Waste Thinner	NA	55 gal
		Waste Antifreeze	107-21-1	55 gal
		Used Oil	NA	250 gal
		Waste Absorbent	NA	55 gal
		Petroleum Lubrication Oil	NA	65 gal
City of SLT – Airport (continued)	1901 Airport Road, South Lake Tahoe, CA	Petroleum Lubrication Oil	NA	65 gal
		Petroleum Lubrication Fluid	NA	65 gal
		Ethylene Glycol	107-21-1	65 gal
		Petroleum Lubrication Oil	NA	65 gal
		Petroleum Lubrication Oil	NA	5 gal
		Lubricating Base Oil	NA	NR
		Diesel Fuel #1	68476-34-6	500 gal
		Petroleum Naphtha	8002-05-9	5 gal
		Diesel Fuel #1	68476-34-6	1,000 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Petroleum Lubrication Oil	NA	5 gal
LTUSD	1021 Al Tahoe Blvd., South Lake Tahoe, CA	Acetylene Dissolved	74-86-2	228 lbs
		Argon	7440-37-1	228
		Oxygen	7782-44-7	280
		Antifreeze/Coolant	107-21-1	220 gal
		Hydraulic Oil - 76 Unax Aw32	55957-10-3	110 gal
		Motor Oil 76 Guardol Qlt	7727-37-9	110 gal
		Compressed Gases -Gold Gas C25	7440-37-1/7782-44-7	NR
		All Surface Cleaner - Zep Formula 158	NA	16 gal
		Floor Cleaner - Zep Flashlight	NA	20 gal
		Orange All Purpose Cleaner - Zep Big Orange	NA	16 gal
		Hydraulic Fluid (Low Pr Artic LP Hydraulic Fluid	NA	110 gal
Lake Tahoe Winter Sports	2171 Cebo Circle, South Lake Tahoe, CA	Oil	NA	55 gal
		Antifreeze	107-21-1	55 gal
		O2/Acetylene Cylinders	74-86-2	NR
		Oil	NA	55 gal
		Diesel Fuel	68476-34-6	NR
Lake Tahoe Community College	1 College Ave., South Lake Tahoe, CA	Oxygen	7782-44-7	NR
		CO2	124-38-9	NR
		Argon	7440-37-1	NR
Cal Trans South - Meyers Station	2243 Cornelian, Lake Valley, CA	Shaeffer #300nd Artic Fl	NA	55 gal
		Oxygen	7782-44-7	NR
		HB-Tri Mix	NA	NR
		Automatic Transmission	NA	55 gal
		Gear Lube	NA	55 gal
		Tractor Hydraulic Fluid	NA	55 gal
		Grease	NA	55 gal
		Antifreeze/Coolant	107-21-1	255 gal
		Acetylene	74-86-2	NR
		Waste Oil	NA	220 gal
		Tomahawk	NA	55 gal
		Windshield Washer Fluid	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Propane (LPG)	74-98-6	6,000 gal
		Unleaded Gasoline	NA	4,000 gal
		Used Antifreeze/Coolant	107-21-1	110 gal
		Diesel Fuel	68476-34-6	10,450 gal
		Omni- All 11	NA	55 gal
		Motor Oil	NA	55 gal
		Fusee-Highway Flare	NA	NR
Sierra Pacific Power Co	2129 Dunlap Dr., South Lake Tahoe, CA	Kerosene	NA	25 gal
		Hydraulic Oil	NA	25 gal
		Cleaner	NA	25 gal
Pacific Bell TB-661	2075 Eloise Avenue, South Lake Tahoe, CA	Acetylene	74-86-2	NR
		Gasoline	8006-61-9	NR
South Side Auto Body	934 Eloise Avenue, South Lake Tahoe, CA	Lacquer Thinner	NA	15 gal
		Waste Lacquer Thinner	NA	15 gal
		Antifreeze	107-21-1	55 gal
		Oxygen	7782-44-7	80
		Acetylene	74-86-2	130 lbs
American Oil # 1	1140 Emerald Bay Road, South Lake Tahoe, CA	Gasoline	NA	33,000 gal
		Diesel Fuel	68476-34-6	6,000 gal
STPUD - Fallen Leaf	Fallen Leaf Road, South Lake Tahoe, CA	No. 2 Diesel	68476-34-6	1,000 gal
Abbey Motors	2042 Fifth Street, South Lake Tahoe, CA	Antifreeze waste	107-21-1	55 gal
Sierra Pacific Pwr.-Meyers	Garbage Dump Road, South Lake Tahoe, CA	**Sulfuric Acid Electrolyte**	**7664-93-9**	**2 gal**
		Mineral Oil	NA	4,000 gal
STPUD - Luther Pass	3775 Grass Lake Road, South Lake Tahoe, CA	Diesel	68476-34-6	6,000 gal
		Ethylene Glycol – Antifreeze	107-21-1	120 gal
Alpine Automotive	2000 Hwy 50, South Lake Tahoe, CA	Cleaning Solvent	NA	50 gal
		Propane	74-98-6	500 gal
		Waste Antifreeze	107-21-1	100 gal
		Waste Oil	NA	100 gal
Propane, LP	2110 Hwy 50, Lake Valley, CA	Propane	74-98-6	30,000 gal
Lake Tahoe Golf Course	2500 Hwy 50, Lake Valley, CA	Sulfur	7704-34-9	NR
		Nonylphenol Ethoxylate	26027-38-3	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Diethanolamine	111-42-2	NR
		Waste Oil	NA	NR
		Lead Acid Batteries	NA	NR
		Chevron Thinner 325	NA	NR
		Granular Fertilizer, Nitrogen	NA	NR
		Fertilizer	NA	NR
		Diesel	68476-34-6	NR
		Gasoline	NA	NR
		Fungicide	NA	NR
Tahoe Paradise Sports	3021 Hwy 50, Lake Valley, CA	Nitrogen/Phosphate & Potash	NA	NR
		Waste Oil	NA	55 gal
		Two Cycle Oil	NA	55 gal
		Gasoline	NA	500 gal
USFS Meyers Work Center	3030 Hwy 50, South Lake Tahoe, CA	Tree Mark Paint – Blue Quarts	NA	NR
		Acetylene	74-86-2	1 lb
		Unleaded Gasoline	NA	5 gal
		Diesel Fuel #2	68476-34-6	5 gal
		Used Antifreeze – Ethylene Glycol	107-21-1	1 gal
		Tree Marking Paint (Aerosol)	NA	NR
Pacific Bell TB-484	3107 Hwy 50, South Lake Tahoe, CA	**Sulfuric Acid, Battery Electrolyte**	**7664-93-9**	**8**
		Diesel Fuel #2	68476-34-6	1,000 gal
Pacific Bell TB 699	Hwy 50, Lake Valley, CA	Nickel Cadmium Battery (Saft)	NA	196 lbs
		Diesel	68476-34-6	7,910 gal
Cal Trans - Echo Summit	Hwy 50, Lake Valley, CA	75 MM Cannon Shells	NA	NR
		Propane	74-98-6	1,000 gal
		Auto Transmission Fluid	NA	35 gal
		Hydraulic Oil	NA	35 gal
		Chevron Multigrade	NA	35 gal
		Deta Primers	NA	NR
		Electric Blasting Caps	NA	NR
		Fuse Caps	NA	NR
		Detonating Cord	NA	1
		Ammonium Nitrate	6484-52-2	4

Facility	Address	Chemical	CAS #	Amount Stored
		Diesel	68476-34-6	2,000 gal
Sugar Pine Point State Park	7360 Westlake, South Lake Tahoe, CA	Propane	74-98-6	250 gal
		Used Motor Oil	NA	NR
		Motor Oil	NA	NR
		Gasoline	NA	NR
		Diesel	68476-34-6	NR
		Hydraulic Fluid	NA	NR
		Cleaning Solvent	NA	NR
		Paint Thinner	NA	NR
D.L. Bliss State Park	9881 Emerald Bay Road, South Lake Tahoe, CA	**Liquid Chlorine**	**7782-50-5**	**1 gal**
		Chlorine Gas	**7782-50-5**	**150**
		Propane	74-98-6	7,304 gal
		Unleaded Gasoline	NA	1,000 gal
Emerald Bay State Park	Hwy 89, South Lake Tahoe, CA	Sodium Hypochlorite	7681-52-9	1
		Propane	74-98-6	272 gal
California Highway Patrol	2063 Hopi Ave., South Lake Tahoe, CA	Unleaded Gasoline	NA	12,000 gal
		Fusee	NA	NR
		Safety Kleen Premium Gold Solvent	NA	NR
		SAE 10W-30 Motor Oil	NA	NR
		Automatic Transmission Fluid	NA	100 gal
		Brake Fluid	NA	2 gal
Radiator Doctor	1012 Industrial Avenue, South Lake Tahoe, CA	Antifreeze	107-21-1	NR
		Sodium Hydroxide	1310-73-2	100 gal
		Propane	74-98-6	20 gal
		Muriatic Acid	**7647-01-0**	**55 gal**
		Oxygen	7782-44-7	NR
		Waste Antifreeze	107-21-1	125 gal
Tahoe Diesel Service	1012 Industrial Avenue, South Lake Tahoe, CA	Chevron Supreme Motor Oil	NA	100 gal
		Waste Antifreeze	107-21-1	55 gal
		Chevron Gear Lube	NA	100 gal
		Chevron Automatic Transmission Fluid	NA	100 gal
		Chevron Motor Oil	NA	100 gal
		Chevron Tractor Hydraulic	NA	100 gal

Facility	Address	Chemical	CAS #	Amount Stored
Rich's Small Engine	1012 James Avenue #B, South Lake Tahoe, CA	Oxygen & Acetylene	7782-44-7/74-86-2	NR
		Waste Solvents	NA	35 gal
		Used oil	NA	5 gal
Bi-State Propane	2070 James Avenue #A, South Lake Tahoe, CA	Propane	74-98-6	30,000 gal
Withrow Oxygen Service	2117 James Avenue, South Lake Tahoe, CA	Argon	124-38-9	280 lbs
		Argon/CO2	124-38-9 / 7440-37-1	280 lbs
		Acetylene	74-86-2	200 lbs
		Helium	7440-59-7	217 lbs
		Nitrogen	7727-37-9	255 lbs
		Carbon Dioxide	124-38-9	30,000 lbs
		Oxygen	7782-44-7	280 lbs
		Nitrous Oxide	NA	56 lbs
Napa/Lakeside #2	1935 Lake Tahoe Blvd., South Lake Tahoe, CA	Used Auto Batteries	NA	NR
Big O Tires	1961 Lake Tahoe Blvd., South Lake Tahoe, CA	Parts Cleaner	NA	20 gal
		Waste Oil	NA	350 gal
		Engine Oil	NA	55 gal
Eastern Sierra Histology	2176 Lake Tahoe Blvd., South Lake Tahoe, CA	**Formalin**	**50-00-0**	**5 gal**
		Xylene	1330-20-7	55 gal
So. Tahoe Mobil	2304 Lake Tahoe Blvd., South Lake Tahoe, CA	Regular Unleaded Gasoline	NA	32,000 gal
Seven Eleven	2620 Lake Tahoe Blvd., South Lake Tahoe, CA	Unleaded Gasoline	NA	20,000 gal
Lilly's Tire Svc.	2635 Lake Tahoe Blvd., South Lake Tahoe, CA	Oxygen	7782-44-7	NR
		Waste Oil	NA	55 gal
		Solvent - Naptha	NA	40 gal
		Antifreeze	107-21-1	30 gal
United Rentals	2724 Lake Tahoe Blvd., South Lake Tahoe, CA	Chevron Delo 400 / Petroleum Distillate	NA	85 gal
		Waste Oil	NA	250 gal
		Used Oil Filters	NA	NR
		Diesel Fuel #2	68476-34-6	250 gal
		Acetylene	74-86-2	NR
		Unleaded Gasoline with Oxygen	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Liquid Concrete Remover	NA	55 gal
		Transmission Fluid	NA	55 gal
United Rentals (continued)	2724 Lake Tahoe Blvd., South Lake Tahoe, CA	Oxygen	7782-44-7	NR
		Propane	74-98-6	500 gal
		Gasoline	NA	250 gal
		Parts Washer Solvent	NA	20 gal
		Diesel	68476-34-6	250 gal
Meeks Building Center	2763 Lake Tahoe Blvd., South Lake Tahoe, CA	Transmission Fluid	NA	55 gal
		Engine Oil	NA	55 gal
		Engine Oil	NA	55 gal
		Hydraulic Fluid	NA	55 gal
		Propane	74-98-6	23 gal
		Diesel Fuel	68476-34-6	102 gal
Timber Cove Marina	3411 Lake Tahoe Blvd., South Lake Tahoe, CA	Waste Oil	NA	55 gal
		Gasoline	NA	1,000 gal
		Solvent	NA	NR
		Propane	74-98-6	NR
John's Cleaners	3451 Lake Tahoe Blvd., South Lake Tahoe, CA	Perchloroethylene	127-18-4	200
		Synthetic Aliphatic Hydrocarbon	NA	200
		Waste Filter Cartridge	NA	NR
Conoco Phillips	4115 Lake Tahoe Blvd., South Lake Tahoe, CA	Premium Unleaded	NA	12,000 gal
		Used Antifreeze	107-21-1	40 gal
		Motor Oil	NA	125 gal
		Used Oil Filters -Petroleum Hydrocarbon	NA	200
		Used Motor Oil Petroleum Hydrocarbon	NA	100 gal
		Waste Lead Acid Battery	NA	55 gal
		Regular Unleaded	NA	24,000 gal
Conoco Phillips (continued)	4115 Lake Tahoe Blvd., South Lake Tahoe, CA	Antifreeze	107-21-1	55 gal
		Batteries Lead Acid	NA	NR
		Waste Oil	NA	NR
STPUD - Meadow Crest	1275 Meadow Crest, South Lake Tahoe, CA	Waste Antifreeze	107-21-1	NR
		Solid Hazardous Waste	NA	NR
		Bleach	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Propane	74-98-6	8,000 gal
		Chlorine	**7782-50-5**	**10,000 gal**
		Caustic Soda	1310-73-2	3 lbs
		Diesel	68476-34-6	8,000 gal
		Gasoline	NA	1,500 gal
		Waste Oil	NA	NR
TCPUD North Lane Sewer	North Lane, South Lake Tahoe, CA	Diesel Fuel #2	68476-34-6	395 gal
TCPUD Waters Edge	Pine St., South Lake Tahoe, CA	Diesel Fuel #2	68476-34-6	113 gal
TCPUD Rubicon Beach Sewer	8821 Rubicon Dr., South Lake Tahoe, CA	Diesel Fuel #2	68476-34-6	190 gal
EDC Vector Control	1170 Rufus Allen Blvd., South Lake Tahoe, CA	Waste Oil	NA	NR
		Pyrenone 25-5	NA	NR
		Motor Oil	NA	NR
		Mad Special Mosquitoci	NA	NR
		Dursban I Cg	NA	NR
		Ficam W	NA	NR
		Knox-Out 2fm	NA	NR
		Ficam D	NA	NR
		Bactimos Bti	NA	NR
		Altosid	NA	NR
EDC Vector Control (continued)	1170 Rufus Allen Blvd., South Lake Tahoe, CA	Kerosene	NA	NR
		Thinner	NA	NR
		Abate I Cg	NA	NR
		Golden Bear Oil	NA	NR
		Hydraulic Fluid	NA	NR
		Ficam W	NA	NR
Five Star Auto/Mike's	2119 Ruth Avenue, South Lake Tahoe, CA	Waste Solvent	NA	NR
		Solvent	NA	NR
		Waste Oil	NA	NR
		Oil	NA	NR
Norm's Auto Repair	2186 Ruth Avenue, South Lake Tahoe, CA	Antifreeze	107-21-1	110 gal
		Waste Oil	NA	390 gal
		Automatic Transmission Fluid	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Motor Oil 13w 40 Lube Oil-Chevron	NA	100 gal
		Used Oil Filters	NA	55
EDC DOT	1121 Shakori Dr., Lake Valley, CA	Lube Oil Petroleum	NA	240 gal
		Diesel Fuel No. 2	68476-34-6	14,000 gal
		Unleaded Gasoline	NA	6,000 gal
		Kerosene	NA	55 gal
		Wet Storage Vehicle Batteries Hydrochloric Acid	NA	NR
		Solvent Hydro coated Light Petroleum Distillates	NA	55 gal
		Antifreeze Ethylene Glycol	107-21-1	55 gal
		Pressure Washer Detergent	NA	55 gal
		Oxygen	7782-44-7	NR
EDC DOT (continued)	1121 Shakori Dr., Lake Valley, CA	Acetylene	74-86-2	55 gal
		Solvent De-Greaser Zep Sun Solve	NA	55 gal
		Propane	74-98-6	500 gal
		Oil Water Waste Mixture	NA	55 gal
		Oil Dirt Waste Mixture	NA	NR
		Waste Lube Oil	NA	1,000 gal
Campora Propane	1640 Shop Street, South Lake Tahoe, CA	Propane	74-98-6	30,000 gal
		Methane	74-82-8	800 lbs
City of SLT - Shop Street	1678 Shop St., South Lake Tahoe, CA	Black Fast Dry VOC Morline SB Traffic Paint	NA	55 gal
		White fast dry low VOC SB Traffic Paint	NA	55 gal
		Yellow fast dry Traffic Paint	NA	55 gal
		Blue OTC Based Steel Paint	NA	55 gal
		White Water Base Traffic Paint	NA	5 gal
		Easy Kote – Soap Compound	NA	50 lbs
		Paint Thinner	NA	50 gal
		Yellow Water Base Traffic Paint	NA	5 gal
TCPUD Rubicon Well	Silver Tip Drive, South Lake Tahoe, CA	Diesel Fuel #2	68476-34-6	115 gal
Pacific Bell/SBC - TB239	7731 Tamarack Pines Rd., Lake Valley, CA	**Lead/Acid Battery W/Sulfuric Acid**	**NA**	7
		Diesel Fuel #2	68476-34-6	1,000 gal
		Sulfuric Acid, Battery Electrolyte	7664-93-9	**500 gal**

Facility	Address	Chemical	CAS #	Amount Stored
		Diesel Fuel	68476-34-6	525 gal
TCPUD Rubicon Gold Coast Sewer	Three Ring Rd., South Lake Tahoe, CA	Diesel Fuel #2	68476-34-6	500 gal
TCPUD Meeks Bay	7901 West Lake Blvd.	Diesel Fuel #2	68476-34-6	500 gal
EDC DOT - Tahoma	7100 Wilson Ave., South Lake Tahoe, CA	Lube Oil	NA	55 gal
		Kerosene	NA	55 gal
		Antifreeze	107-21-1	55 gal
		Acetylene	74-86-2	1,000 gal
		Diesel Fuel	68476-34-6	1,000 gal
		Unleaded Gasoline	NA	500 gal
		Propane	74-98-6	500 gal
Sierra Tahoe Ready Mix	1526 Emerald Bay Rd., South Lake Tahoe, CA	Transmission Fluid	NA	25 gal
		Motor Oil	NA	110 gal
		Gear Oil	NA	55 gal
		Antifreeze – Ethylene Glycol	107-21-1	55 gal
		Acetylene	74-86-2	NR
		Oxygen	7782-44-7	NR
		Lubricant	NR	110 gal
		Carbon Dioxide in Argon	124-38-9/7440-37-1	NR
Calstar	1901 Airport Rd. #112, South Lake Tahoe, CA	Jet “A”	NA	270 gal
		ZEP 20/20	NA	55 gal
		Oxygen	7782-44-7	NR
Mathisen Automotive	1144 Emerald Bay Rd., South Lake Tahoe, CA	Waste Coolant	107-21-1	55 gal
		Waste Oil	NA	55 gal
		Solvent – Aliphatic Petroleum Distillates	NA	NR
New Cingular Wireless	2082 Eloise, South Lake Tahoe, CA	Lead Acid Batteries	NA	NR
Mt. Tallac Brewing Co.	2060 Eloise Avenue, South Lake Tahoe, CA	Carbon Dioxide	124-38-9	NR
Tahoe Motors	2133 Eloise Avenue, South Lake Tahoe, CA	Waste Antifreeze	107-21-1	55 gal
		Waste Oil	NA	55 gal
Serco Mgt. Services	3030 Highway 50, South Lake Tahoe, CA	Diesel #2 Clear	68476-34-6	NR
		Ethylene Glycol – Antifreeze	107-21-1	NR
		Used Oil	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Helium	7440-59-7	NR
		Oxygen	7782-44-7	NR
		Argon	7440-37-1	NR
		Nitrogen	7727-37-9	NR
		Kerosene	NA	NR
		Motor Oil	NA	NR
		Grease	NA	NR
		Acetylene	74-86-2	NR
		Propane	74-98-6	NR
		Transmission Fluid	NA	NR
Serco Mgt. Services (continued)	3030 Highway 50, South Lake Tahoe, CA	Carbon Dioxide	124-38-9	NR
		Diesel Fuel	68476-34-6	NR
Calif. Tahoe Conservation	931 Third Street, South Lake Tahoe, CA	2-Cycle Oil Petroleum Hydrocarbon	NA	110 gal
		Bar Oil (Chain Saw) Petroleum Hydrocarbon	NA	55 gal
		Bar Oil (Chain Saw)	NA	55 gal
Trajen, Inc.	1841 Airport Rd., South Lake Tahoe, CA	100 LL Avgas	NA	16,000 gal
		Unleaded Auto Gas	NA	2,500 gal
		Waste Motor Oil	NA	1,000 gal
		Diesel	68476-34-6	2,500 gal
		Propylene Glycol	107-21-1	NR
		A V Jet A	NA	41,000 gal
Tahoe Transportation Dist.	1901 Airport Rd., South Lake Tahoe, CA	Compressed Natural Gas	NA	NR
		Natural Gas	NA	NR
		Hydraulic Oil	NA	120
STPUD-Bakersfield	1825 Bakersfield, Lake Valley, CA	Sodium Hypochlorite	7681-52-9	500 gal
		20-40% Hydrogen Peroxide Concentration	7722-84-1	500 gal
		Oxygen - Gaseous Form	7782-44-7	NR
		Mixture Of Ozone & Oxygen	10028-15-6 / 7782-44-7	NR
Tahoe Import Auto	1748 D Street, South Lake Tahoe, CA	Used Coolant	107-21-1	55 gal
		Coolant	107-21-1	55 gal
		Used Oil	NA	55 gal
		Oil	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
Tahoe Import Auto (continued)	1748 D Street, South Lake Tahoe, CA	Used Solvent	NA	30 gal
		Hot Tank Sludge (Corrosive)	NA	35 gal
		Welding Kit	NA	NR
		Gold Gas	NA	NR
		Acetylene	74-86-2	NR
		Oxygen	7782-44-7	NR
Sierra Fleet Services	1748 D Street #6, South Lake Tahoe, CA	Used Oil	NA	80 gal
		Used Oil Filters	NA	NR
		Used Antifreeze	107-21-1	55
Marine Performance	2050 Dunlap, South Lake Tahoe, CA	Waste Gasoline	NA	NR
		Waste Oil	NA	55 gal
Tahoe Printing	2116 Dunlap, South Lake Tahoe, CA	Blanket Wash / Top Blanket Cleaner	NA	NR
George's Performance	2176 Eloise Avenue, South Lake Tahoe, CA	Used Oil Filters	NA	55
		Antifreeze Waste	107-21-1	55 gal
		Waste Oil	NA	55 gal
U-Haul	1105 Emerald Bay Road, South Lake Tahoe, CA	Propane	74-98-6	1,000 gal
Kirkwood Service Center	50991 Highway 88, South Lake Tahoe, CA	Diesel Fuel	68476-34-6	12,000 gal
		Propane	74-98-6	1,654 gal
		Propane	74-98-6	500 gal
		Gasoline - Regular	NA	5,200 gal
GB Scientific	1090 Industrial Avenue #B, South Lake Tahoe, CA	Carbon Dioxide	124-38-9	NR
		Helium	7440-59-7	NR
		Hydrogen	1333-74-0	NR
		Nitrogen	7727-37-9	NR
Tony's Automotive	1090 Industrial Ave. #E, South Lake Tahoe, CA	Waste Oil	NA	55 gal
		Waste Antifreeze	107-21-1	55 gal
Berry-Hinckley Industries	2070 James Ave., South Lake Tahoe, CA	Propane	74-98-6	35,897 gal
		Kerosene	NA	10,376 gal
		325 Thinner	NA	2,440 gal
		Kwik Dry Solvent	NA	60 gal
		Lubricating Oil	NA	5,100 gal
		Gear Lubricant	NA	3,230 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Antifreeze	107-21-1	550 gal
		Grease	NA	1,550 gal
		Regular Unleaded Gasoline	NA	19,432 gal
		Diesel	68476-34-6	23,989 gal
		Plus Unleaded Gasoline	NA	14,273 gal
		Supreme Unleaded Gasoline	NA	14,273 gal
		Heating Fuel #1	NA	12,901 gal
Ken's Tire Center	2104 Lake Tahoe Blvd., South Lake Tahoe, CA	Waste Solvent	NA	15
US Gasoline	2470 Lake Tahoe Blvd., South Lake Tahoe, CA	Gasoline	NA	20,000 gal
		Propane	74-98-6	15,000 gal
		Diesel	68476-34-6	5,000 gal
Welcome's Auto Body	1796 D Street, South Lake Tahoe, CA	Waste paint	NA	55 gal
		Oxygen / Acetylene	7782-44-7/74-86-2	132 lbs
		Thinner		NR
Eloise Automotive	2143 Eloise Ave., South Lake Tahoe, CA	Waste Oil	NA	55 gal
		Naptha Solvent	NA	16
		Absorbent Pads	NA	55
		Waste Coolant	107-21-1	55 gal
Nel's Tahoe Hardware	1050 Fremont, South Lake Tahoe, CA	Waste Gasoline	NA	55 gal
		Used Oil	NA	55 gal
Tahoe Blueprint	2540 Lake Tahoe Blvd., South Lake Tahoe, CA	**Ammonia Anhydrous Liquified**	**7664-41-7**	**NR**
City of SLT - Rec Ctr	1180 Rufus Allen Blvd., South Lake Tahoe, CA	**Chlorine**	**7782-50-5**	**NR**
		Propane	74-98-6	NR
Axelson Iron Shop	2184 Ruth Avenue, South Lake Tahoe, CA	TRI mix	NA	NR
		Argon / CO2	124-38-9 / 7440-37-1	NR
		Acetylene	74-86-2	NR
		Carbon Dioxide	124-38-9	NR
		Oxygen	7782-44-7	NR
		Argon	7440-37-1	NR
Alpine Metals	2152 Ruth Avenue # 4, South Lake Tahoe, CA	Argon	7440-37-1	NR
		Acetylene	74-86-2	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Blue Shield #8 Carbon Dioxide-Argon (75%) Mixture	NA	NR
		Carbon Dioxide	124-38-9	NR
		Oxygen	7782-44-7	NR
		Powder Coating Polyester/Tgic	NA	NR
		Tri Mix (90% Helium)	NA	NR
		Helium	7440-59-7	NR
		Diesel Fuel	68476-34-6	55 gal
Anything Gas	1612 Shop St. # D, South Lake Tahoe, CA	Used Petroleum Oil	NA	55 gal
		Anti-Freeze Waste	NA	55 gal
		Used Absorbent	NA	50 gal
Area Transit Management, INC	1679 Shop St, South Lake Tahoe, CA	Methyl Alcohol	67-56-1	55 gal
		Solvent	NA	55
		Motor Oil	NA	210 gal
		Waste Oil	NA	210 gal
		Kerosene	NA	55 gal
		Used Absorbent	NA	NR
		Parts Solvent	NA	55
		Coolant	107-21-1	55 gal
Napa/Lakeside #1	972 Tallac, South Lake Tahoe, CA	Used Auto Batteries	NA	1
Emerald Bay Towing	948 Third Street, South Lake Tahoe, CA	Used Oil Filters	NA	55
		Used Antifreeze	107-21-1	55 gal
		Used Absorbent	NA	55
		Used Motor Oil	NA	100 gal
Verizon Wireless – Echo Summit	Echo Summit, Lake Valley, CA	Valve-Regulated Lead/Acid Battery	NA	120
		Valve-Regulated/Acid Battery	NA	3
JT Roadrunner	2933 Hwy 50, Lake Valley, CA	Kerosene	NA	NR
		Unleaded Gasoline	NA	NR
		Regular Gasoline	NA	NR
		Premium Unleaded Gasoline	NA	NR
		Diesel #2	68476-34-6	NR
Meeks Building Center	2970 Hwy 50, South Lake Tahoe, CA	Paint	NA	5 gal
		Paint Thinner	NA	5 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Solvents	NA	5 gal
		Motor Oil	NA	55 gal
		Hydraulic Oil	NA	55 gal
		Waste Oil	NA	55 gal
Shehadi Motors	1855 Lake Tahoe Blvd., South Lake Tahoe, CA	Waste Oil	NA	500 gal
		Oil	NA	185 gal
		R-12 Freon / Dichlorodiflоromethane	75-71-8	NR
		R-134 Refrigerant / 1,1,1,2 Tetrafloroethane	NA	NR
		Transmission Fluid	NA	16 gal
		Gear Lube 80-90	NA	NR
Shehadi Motors (continued)	1855 Lake Tahoe Blvd., South Lake Tahoe, CA	Solvent – Mineral Spirits 66	NA	55 gal
		Safety Kleen Parts Waste	NA	20 gal
		Recycled Coolant	107-21-1	55 gal
		Argon	7440-37-1	NR
		Acetylene	74-86-2	NR
		Oxygen	7782-44-7	NR
		Waste Coolant	107-21-1	55 gal
South Shore Motors	2304 Lake Tahoe Blvd., South Lake Tahoe, CA South Lake Tahoe, CA	Trans Fluid	NA	100 gal
		Lubricating Oil	NA	100 gal
Tahoe Pool Service	971 Third, South Lake Tahoe, CA	**Chlorine / Sodium Hypchlorite**	**7782-50-5/7681-52-9**	**1**
		Bromine	7726-95-6	50
		Muriatic Acid / 20 Baume	**7647-01-0**	**1**
City of SLT - D Street	1700 D Street, South Lake Tahoe, CA	Hydraulic Oil AW 150 132	NA	55 gal
		Torque Fluid	NA	55 gal
		Gear Lubricant 80W-90	NA	55 gal
		Motor Oil SAE 30	NA	55 gal
		Motor Oil 15W-40	NA	55 gal
		Aerosol Lubricant	NA	NR
		Aerosol Choke & Carburetor Cleaner	NA	NR
		Aerosol Battery Terminal cleaner	NA	NR
		Steam Cleaning Compound	NA	55 gal
		Car Wash Liquid	NA	1 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Abrasive Hand Cleaner	NA	2
		Windshield Washer/Anti-freeze Compound	NA	55 gal
City of SLT - D Street (continued)	1700 D Street, South Lake Tahoe, CA	Concrete Cleaner	NA	5
		Tractor Hydraulic Fluid	NA	55 gal
		Aqueous Cleaner	NA	15 gal
		Premium Solvent	NA	NR
		Motor Oil 10W-30	NA	55 gal
		Heat transfer oil	NA	55 gal
		Automotive Grease	NA	NR
		Brake Friction Linings	NA	NR
		Oil Dye	NA	5 gal
		Automatic Transmission Fluid	NA	55 gal
		Aerosol Glass Cleaner	NA	NR
		Argon	7440-37-1	NR
		Aerosol Penetrant Spray	NA	NR
		Starting Fluid	NA	NR
		Hand Cleaner	NA	1
		Diesel Fuel #2	68476-34-6	10,000 gal
		Lead/Acid Battery	NA	NR
		Carbon dioxide	124-38-9	NR
		Nitrogen	7727-37-9	NR
		Brake Fluid	NA	NR
		Oxygen	7782-44-7	NR
		Acetylene	74-86-2	NR
		Ethylene Glycol	107-21-1	55 gal
		Aluminum etch	NA	1
		Unleaded Gasoline	NA	10,000 gal
City of SLT - D Street (continued)	1700 D Street, South Lake Tahoe, CA	Propane	74-98-6	NR
		Paint Thinner	NA	55 gal
		Traffic Paint	NA	55 gal
		Marking Paint	NA	55 gal
		Inhibited Ethylene Glycol	107-21-1	55 gal
		Steering Fluid	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Cutting Oil	NA	NR
Swiss Mart	913 Emerald Bay, South Lake Tahoe, CA	Propane	74-98-6	500
		Unleaded Gasoline	NA	15,000 gal
		Diesel	68476-34-6	5,000 gal
Meeks Bay Marina	7901 Emerald Bay, South Lake Tahoe, CA	Gasoline	NA	90 gal
Chevron - Tahoe Paradise	Al Tahoe Blvd., Lake Valley, CA	Used Batteries	NA	NR
		Waste Oil	NA	NR
		Acetylene	74-86-2	NR
		Antifreeze	107-21-1	NR
		Batteries	NA	NR
		LPG	74-98-6	NR
Camp Richardson Marina	1900 Jameson Beach, South Lake Tahoe, CA	Gasoline	NA	4,000 gal
		Waste Oil	NA	150 gal
		Propane	74-98-6	NR
		Diesel	68476-34-6	1,000 gal
Lake Tahoe Marine Center	1900 Jameson Beach, South Lake Tahoe, CA	Used Oil Filters	NA	55
		Used Oil	NA	55 gal
		Waste Solvent	NA	15
Tahoe Quik Lube	2513 Lake Tahoe, South Lake Tahoe, CA	Waste Oil	NA	55 gal
Kontessa/American Gas	2762 Lake Tahoe Blvd., South Lake Tahoe, CA	Unleaded Gasoline	NA	NR
		Super Unleaded Gasoline	NA	NR
		Regular Gasoline	NA	NR
Fox Gasoline Station / Tahoe Quik Market	3376 Lake Tahoe Blvd., South Lake Tahoe, CA	Gasoline	NA	NR
		Diesel	68476-34-6	4,000 gal
		Unleaded Gasoline	NA	12,000 gal
		Premium Gasoline	NA	8,000 gal
KB Chevron	3651 Lake Tahoe, South Lake Tahoe, CA	Mid-grade Gasoline	NA	12,000 gal
		Unleaded Gasoline	NA	12,000 gal
		Super Premium Gasoline	NA	12,000 gal
Lakeside Marina	4041 Lakeshore, South Lake Tahoe, CA	Unleaded Gasoline	NA	3,000 gal
		Waste Oil	NA	55 gal
		Oil	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
Ski Run Marina	900 Ski Run, South Lake Tahoe, CA	Gasoline	NA	1,000 gal
		#2 Diesel	68476-34-6	1,000 gal
Barton Memorial Hospital	2170 South Street, South Lake Tahoe, CA	ETO	NA	NR
		Formaldehyde	**50-00-0**	**5 gal**
		Diesel Fuel	68476-34-6	2,000 gal
		Waste X-ray Fixer	NA	97 gal
		N20	NA	NR
		Oxygen	7782-44-7	800 lbs
		Carbon Dioxide	124-38-9	NR
		Propane	74-98-6	11,700 gal
Barton Memorial Hospital (continued)	2170 South Street, South Lake Tahoe, CA	Nitrogen	7727-37-9	NR
Tahoe Keys Marina	2435 Venice, South Lake Tahoe, CA	Diesel	68476-34-6	NR
		Plus Unleaded Gasoline	NA	NR
City of SLT – Rufus Allen	1160 Rufus Allen, South Lake Tahoe, CA	Hydraulic Fluid	NA	55 gal
		Hydraulic Oil	NA	55 gal
		Potassium Hydroxide	NA	55 gal
		Windshield Washer/Antifreeze Compound	NA	55 gal
		Automatic Transmission Fluid	NA	55 gal
		Coolant/Antifreeze	107-21-1	55 gal
		Gear Lubricant	NA	55 gal
		Motor Oil SAE 30	NA	55 gal
		Motor Oil 15W-40	NA	55 gal
		Motor Oil SAE 10W	NA	55 gal
		Unleaded Gasoline	NA	10,000 gal
		Diesel Fuel	68476-34-6	10,000 gal
		Torque Fluid	NA	55 gal
El Dorado County Jail – SLT	1051 Al Tahoe, South Lake Tahoe, CA	Diesel Fuel	68476-34-6	1,000 gal
Embassy Suites Resort	4130 Lake Tahoe, South Lake Tahoe, CA	Gear Oil	NA	NR
		Diesel Fuel	68476-34-6	200 gal
KC's Automotive	867 Eloise, South Lake Tahoe, CA	Motor Oil	NA	NR
LTUSD – SO Tahoe High School	1735 Lake Tahoe, South Lake Tahoe, CA	Diethylamino Ethanol	100-37-8	55 gal
		Acetylene	74-86-2	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Waste Antifreeze	107-21-1	55 gal
LTUSD – SO Tahoe High School (continued)	1735 Lake Tahoe, South Lake Tahoe, CA	Oxygen	7782-44-7	NR
		Paint Thinners	NA	NR
		Argon	7440-37-1	NR
		Cutting Oils	NA	NR
		Argon/CO2	124-38-9 / 7440-37-1	NR
		Safety Solvent	NA	NR
		Motor Oil	NA	NR
		Photochemicals Kodak	NA	NR
		Solvent	NA	30
		Used Oil Filters	NA	55
		Potassium Hydroxide	1310-58-3	55 gal
		Antifreeze	107-21-1	55 gal
		Kerosene	NA	NR
		Carb Dip	NA	NR
		Lube Oils	NA	NR
		Olin 1851 Corrosion Inhibitor	NA	NR
		Boiler Water Treatment	NA	NR
		Used Safety Solvent	NA	NR
		Latex Paints	NA	NR
		Spray Paints	NA	NR
		Ammonia	**7664-41-7**	**NR**
		Mercuric Bromide	7789-47-1	NR
		Mercuric Chloride	**7487-94-7**	**NR**
		Potassium Thiocyanate	333-20-0	NR
		Mercurous Nitrate	10415-75-5	NR
LTUSD – SO Tahoe High School (continued)	1735 Lake Tahoe, South Lake Tahoe, CA	**Nitric Acid**	**7697-37-2**	**NR**
		Carpet Cleaner Concentrate	NA	NR
		Paint Waste	NA	NR
		Batteries	NA	NR
		Waste Oil	NA	NR
Marriott Grand Residence	1104 Park, South Lake Tahoe, CA	Hydraulic Fluid	NA	NR
		#2 Diesel Fuel	68476-34-6	500 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Battery Acid / Sulfuric Acid	**7664-93-9**	**NR**
		Chlorine – Sodium Hypochlorite	**7782-50-5/7681-52-9**	**1**
Nella Oil #3002	2070 James, South Lake Tahoe, CA	Supreme Unleaded	NA	14,273 gal
		Gear Lubricant	NA	3,230 gal
		Lubricating Oil	NA	5,100 gal
		325 Thinner	NA	2,400 gal
		Kwik Dry Solvent	NA	60 gal
		Kerosene	NA	20,076 gal
		Propane	74-98-6	35,897 gal
		Grease	NA	1,550 gal
		Heating Fuel #1	NA	12,901 gal
		Diesel	68476-34-6	14,273 gal
		Antifreeze	107-21-1	550 gal
		Petroleum Distillate Fuel – Carb Vehicular No. 2 Die	NA	14,000 gal
		Unleaded Gasoline	NA	38,832 gal
		Supreme 91 Octane Unleaded Gasoline	NA	14,200 gal
		Petroleum Distillate Fuel – Diesel (Red)-off Road	NA	12,900 gal
Nella Oil #3002 (continued)	2070 James, South Lake Tahoe, CA	89 Octane Unleaded Plus Gasoline	NA	28,473 gal
SBC TB122/Sussex	2633 Sussex, South Lake Tahoe, CA	**Lead Acid with Sulfuric Acid**	**7664-93-9**	**5 gal**
		Battery Electrolyte / Sulfuric Acid	**7664-93-9**	**15**
		Diesel Fuel #2	68476-34-6	5,000 gal
SBC TB661 – Eloise	2075 Eloise, South Lake Tahoe, CA	Nitrogen	7727-37-9	20 lbs
		Propane	74-98-6	20 gal
		Gasoline	NA	NR
		Acetylene	74-86-2	NR
Sierra Pacific Power CO – SLT	933 Eloise, South Lake Tahoe, CA	Motor Oil	NA	55 gal
		Electrical Cable Cleaner	NA	55 gal
		Safety Kleen / Hydrocarbon Solvent	NA	35 gal
		Mineral Oil	NA	55 gal
		Kerosene	NA	55 gal
		Hydraulic Oil	NA	55 gal

Facility	Address	Chemical	CAS #	Amount Stored
Sherwin William Store #8174	1035 Takela, South Lake Tahoe, CA	Oil Based Dryfall Product	NA	5 gal
		Solvent Based Paint	NA	NR
		Solvent Based Primers	NA	NR
		Solvent Based Varnish	NA	5 gal
		Solvent Based Thinners	NA	5 gal
Sierra Pacific Power	3770 Montreal, South Lake Tahoe, CA	**Sulfuric Acid Electrolyte**	**7664-93-9**	**2 gal**
		Mineral Oil	NA	9,325 gal
South Shore Motors, Inc	1875 Lake Tahoe, South Lake Tahoe, CA	Transmission Fluid	NA	250 gal
		Lubricating Oil	NA	250 gal
South Tahoe Mobil	2304 Lake Tahoe, South Lake Tahoe, CA	Unleaded Gasoline	NA	32,000 gal
South Tahoe Public Utility	1275 Meadow Crest, South Lake Tahoe, CA	Solid Hazardous Waste	NA	NR
		Gold Gas - 25% Argon/25%CO2	NA	NR
		Waste Antifreeze	107-21-1	300 gal
		Waste Motor Oil	NA	300 gal
		Unleaded Gasoline	NA	2,000 gal
		Diesel Fuel #2	68476-34-6	6,000 gal
		Argon	7440-37-1	NR
		Propane	74-98-6	10,000 gal
		Caustic Soda / Sodium Hydroxide	1310-73-2	7,000 lbs
		Oxygen	7782-44-7	NR
		Bleach – Sodium Hypochlorite	7681-52-9	7,000 gal
Verizon Wireless-Y Office	1054 Emerald Bay, South Lake Tahoe, CA	**Lead Acid Batteries – Electrolyte/Sulfuric Acid**	**7664-93-9**	**2**
		Lead Battery	NA	NR
Lake Tahoe Country Club	2500 Hwy 50, South Lake Tahoe, CA	Nonylphenol Ethoxylate	NA	NR
		Inorganic Chemical Fertilizer	NA	103 lbs
		Water Soluble Dye	NA	1 gal
		Bolster From Sustane Plant	NA	3 gal
		Fertilizer Compound	NA	50 lbs
		Glyphosate	NA	3 gal
		Gasoline	NA	NR
		Diesel	68476-34-6	NR
		Fertilizer	NA	NR

Facility	Address	Chemical	CAS #	Amount Stored
		Fungicide	NA	NR
		Thinner 325	NA	NR
Lake Tahoe Country Club (continued)	2500 Hwy 50, South Lake Tahoe, CA	Lead Acid Batteries	7664-93-9	NR
		Waste Oil	NA	NR
		Inorganic Salts	NA	50 lbs
		Sulfur	NA	50
		Diethanolamine	111-42-2	3
		Fungicide – Glacier 10 G	NA	50 lbs
		Fertilizer – Scotts	NA	25 lbs
		Nonionic General Purpose Spray Adjuvant	NA	3 lbs
		2,4 Dichlorophenoxyacetic Acid/Dicamba.mcpp	NA	3
		Herbicide Mixture – 2,4 D, Clopralid & Dicamba	NA	50 lbs
SBC TB 699	Hwy 50, South Lake Tahoe, CA	Diesel Fuel	68476-34-6	6,010 gal
		Diesel Fuel #2	68476-34-6	2,000 gal
		Nickel Cadmium Battery	NA	NR
SBC TB-484	3107 Hwy 50, South Lake Tahoe, CA	**Sulfuric acid, battery electrolyte**	**7664-93-9**	**8**
		Diesel Fuel #2	68476-34-6	1,000 gal
So. Tahoe Public Utility District	2039 Hopi, South Lake Tahoe, CA	Sodium Hypochlorite	7681-52-9	450 gal
		Liquid Oxygen	7782-44-7	1,500 gal
		Mixture of Ozone and Oxygen	10028-15-6 / 7782-44-7	NR
Tahoe Paradise Chevron	2986 Hwy 50, South Lake Tahoe, CA	Batteries	NA	NR
		LPG	74-98-6	NR
		Antifreeze	107-21-1	NR
		Acetylene	74-86-2	NR
		Waste Oil	NA	NR
		Used Batteries	NA	NR
Cut-rite Power Center	7062 Westlake, South Lake Tahoe, CA	Propane	74-98-6	4,005 gal
		Diesel	68476-34-6	4,000 gal

Placer County, California

Facility	Address	Chemical	CAS #	Amount Stored
SBC / Pacific Bell	Brockway Summit (Microwave), Kings Beach, CA	Diesel Fuel #1	68334-30-5	650 gal
		Nitrogen	7727-37-9	224 cu ft
Thompson Warehouse	8619 Speckled Ave, Kings Beach, CA	Propane	74-98-6	25 gal
		Oil Base Paint	NA	20 gal
		Latex Paint	NA	20 gal
		Diesel Fuel	68476-34-6	200 gal
		Motor Oil	64742-54-7	55 gal
		Tractor Hydraulic Fluid	64741-88-4	55 gal
Talmont Resort Improvement District	2010 Silver Tip Drive	Diesel Fuel	68476-34-6	120 gal
Tahoe Steel Inc.	2924 Rose Ave Tahoe City, CA	Acetylene	74-86-2	495 Cu ft
		Oxygen	7782-44-7	4,000 cu ft
		Carbon Dioxide	124-38-9	261 cu ft
		Propane	74-98-6	180 gal
Tahoe Raft and Gas	185 River Rd Tahoe City, CA	Diesel Fuel	68476-34-6	1,000 gal
		Gasoline – Regular Unleaded	86290-81-5	12,000 gal
		Gasoline – Supreme Unleaded	86290-81-5	12,000 gal
Tahoe Cross Country	925 Country Club Dr Tahoe City, CA	Diesel	64741599	500 gal
The Tahoe City Store	Tahoe City	Gasoline – Regular Unleaded	8006-61-9	15,000 gal
		Gasoline – Premium Unleaded	8006-61-9	7,500 gal
		Diesel Fuel #2	68476-34-6	7,500 gal
Verizon Wireless	Ward Peak	Diesel Fuel #2	68476-34-6	210 gal
		Propane	74-98-6	2,000 gal
		Valve-regulated lead-calcium battery (lead components)	7439-92-1	2,904 lbs
		Valve-regulated lead-calcium battery (Sulfuric Acid)	**7664-93-9**	**792 lbs**
Verizon Wireless	Alpine Meadows Ski Resort	Sealed, lead calcium battery	7439-92-1 7664-93-9	380 lbs
Verizon Wireless	Tahoe City	Valve-regulated lead-acid battery (lead components)	7439-92-1	2,400 lbs
		Valve-regulated lead-acid battery (sulfuric acid)	**7664-93-9**	**240 lbs**

Facility	Address	Chemical	CAS #	Amount Stored
Verizon Wireless	Kings Beach	**Sulfuric Acid (Battery Acid)**	**7664-93-9**	**50.4 gal**
		Lead	7439-92-1	2,282.4 lbs
		Diesel	68476-34-6	200 gal
Verizon Wireless	Alpine Meadows	**Sulfuric Acid (Battery Acid)**	**7664-93-9**	**30.48 gal**
		Lead	7439-92-1	1,411.2 lbs
		Diesel	68476-34-6	200 gal
U.S. Coast Guard	AST	Diesel	68476-34-6	100 gal
		Gasoline	8006-61-9	500 gal
Trent Fabrication	2905 Rose Ave, #1-3, Tahoe City, CA	Acetylene	74-86-2	252 cu ft
		Argon/Carbon Dioxide Gas Blend	N/A	513 cu ft
		Nitrogen	7727-37-9	100 cu ft
		Oxygen	7782-44-7	342 cu ft
		Used Engine Oil	N/A	90 gal
Sierra Pacific Power Co.	Kings Beach Generating Station	Diesel Fuel #1	68476-34-6	60,900 gal
		Motor Oil	NA	165 gal
		Sodium Nitrate Solution	NA	55 gal
		Lead Acid Batteries (lead)	7439-92-1	300 lbs
		Lead Acid Batteries (sulfuric acid)	**7664-93-9**	**12 gal**
Sierra Pacific Power Co.	North Tahoe Facility	Acetylene	74-86-2	100 lbs
		Incho Power Clean – 2- Butoxy Ethanol	111-76-2	1.5 gal
		Incho Power Clean – Sodium Metasilicate	6834-92-0	1.5 gal
		Incho Power Clean – blended alkaline solution	NR	55 gal
		Diesel Fuel #1	68476-34-6	1,000 gal
		Aircraft Hydraulic Oil	NR	55 gal
		Propane	74-98-6	110 lbs
		Motor Oil	NA	55 gal
		Insulating Oil	NA	9,000 gal
		Oxygen	7782-44-7	100 lbs
		Powersolv	64742-47-8	55 gal
		Unleaded Gasoline	86290-81-5	2,000 gal
		Waste Oil	NA	110 gal
Sierra Rainbow Inc.	2875 Hillcrest, Tahoe City / Lake	Mineral Spirits	64741-41-9	65 gal

Facility	Address	Chemical	CAS #	Amount Stored
	Forest	Boiled Linseed Oil	67746-08-1	55 gal
		Oil Based Paint	NA	200 gal
		Oil Based Stains	NA	80 gal
		Oil / Solvent Based Sealers	NA	110 gal
		Lacquer Coatings	NA	40 gal
Sierra Rainbow Inc. (continued)	2875 Hillcrest, Tahoe City / Lake Forest	Latex Paints	NA	350 gal
		Latex Stains	NA	250 gal
Suburban Propane	540 National Ave., Tahoe Vista, CA	Propane	74-98-6	18,000 gal
Suburban Propane	1700 River Road, Tahoe City	Propane	74-98-6	18,000 gal
Sunnyside Marina	1850 W Lake Blvd Tahoe City, CA	Gear Lube Oil	NA	165 gal
		Waste Fuel	NA	55 gal
		Gasoline	86290-81-5	12,000
		Argon Gas	7440-37-1	280 cu ft
		Acetylene	74-86-2	175 cu ft
		Oxygen	7782-44-7	200 cu ft
		Motor Oil	6474-18-84	55 gal
		Used Motor Oil	6474-18-84	230 gal
		Kerosene	8008-20-6	55 gal
		Diesel	68476-34-6	480 gal
Yankton Exc. Inc	Tahoe City, CA	Elastomer Sealer (Crack Filler)	NA	30 gal
		Pavement Sealer	NA	450 gal
		Diesel Fuel #2	68476-34-6	2,000 gal
		Kerosene	8008-20-6	55 gal
		Motor Oil	6474-18-84	55 gal
		Hydraulic Oil	64742-54-7	15 gal
		Inhibited Ethylene Glycol	107-21-1	55 gal
		Tractor Hydraulic Fluid	64741-96-4	55 gal
		Used Motor Oil	6474-18-84	110 gal
Tahoe City Public Utility District - Highway 89 Sewer Station	85 West Lake Blvd. Tahoe City, CA	Diesel Fuel #2	68476-34-6	115 gal
Tahoe City Public Utility	1780 Sequoia Avenue Tahoe	Diesel Fuel #2	68476-34-6	395 gal

Facility	Address	Chemical	CAS #	Amount Stored
District – Sunnyside Sewer Station	City, CA	d-Limonene	5989-27-5	100 gal
Tahoe City Public Utility District – Blackwood Sewer Station	3774 Eagle Rock Road Tahoe City, CA	Diesel Fuel #2	68476-34-6	500 gal
Tahoe City Public Utility District – Madden Sewer Station	5000 West Lake Blvd. Tahoe City, CA	Diesel Fuel #2	68476-34-6	395 gal
Tahoe City Public Utility District – Highlands Well	West End of Cedar wood Drive – Highlands Subdivision Tahoe City, CA	Diesel Fuel #2	68476-34-6	265 gal
Tahoe City Public Utility District – Grove Street Sewer Station	622 North Lake Blvd. Tahoe City, CA	Diesel Fuel #2	68476-34-6	150 gal
		Unleaded Gasoline	86290-81-5	150 gal
Tahoe City Public Utility District – Coast Guard Sewer Station	2554 Lake Forest Road Tahoe City, CA	Diesel Fuel #2	68476-34-6	500 gal
Tahoe City Public Utility District – Lower Utilities Yard	400 River Road Tahoe City, CA	Diesel Fuel #2	68476-34-6	300 gal
		Helium Gas	7440-59-7	200 cu ft
		Carbon Dioxide Gas	124-38-9	50 cu ft
		Argon Gas	7440-37-1	50 cu ft
Tahoe City Public Utility District – Lower Utilities Yard (continued)	400 River Road Tahoe City, CA	Acetylene Gas	74-86-2	50 cu ft
		Oxygen	7782-44-7	200 cu ft
Tahoe City Public Utility District –Tahoe City Well #1	690 Bunker Drive, Tahoe City	12.5% Sodium Hypochlorite (Bleach)	7681-52-9	105 gal
Tahoe City Public Utility District –Tahoe City Wells #2 and 3	690 Bunker Drive, Tahoe City	Diesel Fuel #2	68476-34-6	500 gal
		12.5% Sodium Hypochlorite (Bleach)	7681-52-9	120 gal
Tahoe City Public Utility District –Tahoe Tavern Well	440 Upper Road, Tahoe Tavern Heights	12.5% Sodium Hypochlorite (Bleach)	7681-52-9	120 gal
Tahoe City Public Utility District – Administration Bldg. A	221 Fairway Drive Tahoe City, CA	Diesel Fuel #2	68476-34-6	400 gal
Tahoe City Public Utility District – Parks Shop Bldg. B	221 Fairway Drive Tahoe City, CA	Princep 4L	NA	5 gal
		Dolomark (Baseball Field Base Liner)	NA	600 lbs
		Ester Herbicide (Turflon)	NA	5 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Herbicide (Rodeo)	NA	5 gal
		Herbicide (Ronstar 50 WP)	NA	1,000 lbs
		Herbicide (Roundup)	NA	5 gal
		Fertilizer (Osmocote)	NA	60 lbs
		Paint	NA	70 gal
		PVC Primer	NA	10 pints
Tahoe City Public Utility District – Parks Shop Bldg. B (continued)	221 Fairway Drive Tahoe City, CA	PVC Glue	NA	10 pints
		Diesel	68476-34-6	10 gal
		Spray Paint	NA	50 gal
		Parts Cleaner (Voltz II Red)	NA	20 gal
		Stoddard Solvent	8052-41-3	50 gal
		Oroaluminum solution (wood preserve)	NA	10 gal
		Aluminum Calcium Nitrate Decahydrate	NA	2000 lbs
Tahoe City Public Utility District – Utilities Vehicle Maintenance Bldg. C	221 Fairway Drive Tahoe City, CA	Mixed Fuels	NA	136 gal
		Unleaded Gasoline	86290-81-5	3,000 gal
		Motor Oil	6474-18-84	55 gal
		Hydraulic Oil	NA	55 gal
		Antifreeze	107-21-1	55 gal
		Gear Oil	NA	55 gal
		Diesel Fuel #2	68476-34-6	3,000 gal
Tahoe City Public Utility District – Utilities Vehicle Storage Bldg. D	221 Fairway Drive Tahoe City, CA	d-Limonene	5989-27-5	100 gal
		12.5% Sodium Hypochlorite (Bleach)	7681-52-9	300 gal
Tahoe City Public Utility District – Lower Utilities Yard	221 Fairway Drive Tahoe City, CA	Motor Oil	6474-18-84	55 gal
Tahoe City Public Utility District – McKinney Sewer Station	Chambers Landing Tahoe City, CA	Diesel Fuel #2	68476-34-6	193 gal
Tahoe City Public Utility District – McKinney / Quail Interim Water Treatment Plant	Chambers Landing Tahoe City, CA	Diesel Fuel #2	68476-34-6	193 gal

Facility	Address	Chemical	CAS #	Amount Stored
Tahoe City Public Utility District – McKinney / Quail Interim Water Treatment Plant	Crystal Way – McKinney Estates, Tahoe City, CA	12.5% Sodium Hypochlorite (Bleach)	7681-52-9	105 gal
Tahoe City Public Utility District – Crystal Way Well	Crystal Way – McKinney Estates, Tahoe City, CA	Diesel Fuel #2	68476-34-6	115 gal
		12.5% Sodium Hypochlorite (Bleach)	7681-52-9	105 gal
Swigard's True Value Hardware Inc.	Tahoe City, CA	Semi-Transparent Stain	NR	500 gal
		Kerosene	8002-05-9	285 gal
		Semi-Transparent Stain (Olympic Siding Stain)	NA	120 gal
		Solid Oil Stain	NA	120 gal
		Preserva Wood	NA	150 gal
		Super Deck	NA	150 gal
		Propane	74-98-6	500 gal
		Semi-Transparent Stain	NA	300 gal
Chevron #90071	310 River Rd., Tahoe City, CA	Regular Unleaded Gasoline (87 Octane)	8006-61-9	10,000 gal
		Super Unleaded Gasoline (92 Octane)	8006-61-9	10,000 gal
		Midgrade Unleaded Gasoline (89 Octane)	8006-61-9	10,000 gal
		Used Motor Oil	NA	900 gal
		Antifreeze	107-21-1	60 gal
		New Motor Oil	NA	400 gal
		Used Antifreeze	107-21-1	55 gal
		Sulfuric Acid in batteries	**7664-93-9**	**180 lbs**
Chevron #91234	Tahoe City, CA	Gear Lubricant	64741884	55 gal
Tahoe City Golf Course	251 North Lake Blvd Tahoe City, CA	Diesel	68476-34-6	70 gal
		Turf Supreme	NA	3,000 lbs
		Fungicide, Pentachlorondrobenzene (PCNB)		200 lbs
		Propane	74-98-6	500 gal
Tahoe City Marina	700 N. Lake Blvd Tahoe City, CA	Premium Unleaded Gasoline	8006-61-9	6,000 gal
		Regular Unleaded Gasoline	8006-61-9	6,000 gal
Tahoe City Lumber Company, Inc.	Tahoe City, CA	Diesel	68476-34-6	25 gal
		Unleaded Gasoline	100-41-4	25 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Paint Thinner	8052-41-3	55 gal
		Paint and Stains	NA	100 gal
		Motor Oil	6474-18-84	2 gal
		Propane	74-98-6	35 gal
		Kerosene	8002-05-9	55 gal
SBC – TB011	230 Carnelian Road, Carnelian Bay	Diesel Fuel #2	68476-34-6	400 gal
		Sulfuric Acid, battery electrolyte	**7664-93-9**	**110.4 gal**
SBC – TB079	290 Grove Street, Tahoe City	Diesel Fuel #2	68476-34-6	2,000 gal
		Sulfuric Acid, battery electrolyte	**7664-93-9**	**730.56 gal**
		Lead – Acid Battery with Sulfuric Acid	**7664-93-9**	**10 gal**
SBC – TB038	5455 Westlake Blvd., Homewood	Diesel Fuel #2	68476-34-6	200 gal
		Sulfuric Acid, battery electrolyte	**7664-93-9**	**110.4 gal**
Randy's Automotive	Tahoe City, CA	Waste Oil	NA	160 gal
		Antifreeze	107-21-1	55 gal
		Recycled Antifreeze	107-21-1	55 gal
		Oxygen	7782-44-7	249 Cu ft
		Acetylene	774862	126 cu ft
Burton Creek – Sheriff Station	2501 North Lake Blvd. Tahoe City, CA	Diesel	68476-34-6	500 gal
Tahoe Road Department	Burton Creek Drive, Tahoe City, CA	Diesel	68476-34-6	3,000 gal
		Antifreeze	107-21-1	50 gal
		Waste Oil	NA	55 gal
		Propane	74-98-6	20 gal
		Automatic Transmission Fluid	NA	55 gal
		Hydraulic Oil	NA	55 gal
		Motor Oil	6474-18-84	55 gal
Corban Communications Inc.	Tahoe City, CA	**Lead Calcium Battery with Sulfuric Acid**	**7439-92-1 7664-93-9**	**1440 lbs**
		Propane	74-98-6	1000 gal
Sierra Boat Company	Carnelian Bay, CA	Waste Oil / water	NA	65
		Acetylene	74-86-2	670 lbs
		Methanol	67-56-1	55 gal
		Motor Oil	6474-18-84	165 gal
		Lacquer Thinner	NA	85 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Diesel Fuel #2	68476-34-6	200 gal
		Midgrade Unleaded Gasoline (89 Octane)	86290-81-5	12,200 gal
		Gear Lube	NA	78 gal
		Oxygen	7782-44-7	701 cu ft
		Argon / Carbon Dioxide Gas	NA	200 cu ft
Secured Storage	705 N. Lake Blvd. Tahoe City, CA	Diesel	68476-34-6	250 gal
North Tahoe Beacon	Tahoe City, CA	Unleaded Gasoline	8006-61-9	24,334 gal
		Carbon Dioxide	124-38-9	870 cu ft
Old Brockway GC	400 Brassie Avenue Kings Beach, CA	Unleaded Gasoline	8006-61-9	500 gal
		Diesel	68476-34-6	100 gal
		Oil	NA	90 gal
		Waste Oil	NA	55 gal
Obexer's Boat Company	5340 West Lake Blvd. Homewood, CA	Oil	NA	200 gal
		Unleaded Gasoline	8006-61-9	6,000 gal
		New Oil	NA	60
		Acetylene	74-86-2	94 cu ft
		Liquid Oxygen	7782-44-7	281 cu ft
North Tahoe Public Utility District – Auto Shop	875 National Ave., Tahoe Vista, CA	Grease	251-70-9	60 gal
		Acetylene	74-86-2	560 cu ft
		Antifreeze	107-21-1	55 gal
		Waste Antifreeze	107-21-1	150 gal
		Argon Gas	7440-37-1	242 cu ft
		Hydraulic Oil	NA	55 gal
		Motor Oil	NA	55 gal
North Tahoe Public Utility District – Auto Shop (continued)	875 National Ave., Tahoe Vista, CA	Kerosene	8002-05-9	55 gal
		Oxygen	7782-44-7	532 cu ft
		Safety Kleen (105 Solvent – MS)	NA	30 gal
		Lubricating Oil	250102	120 lbs
North Tahoe Public Utility District – Auto Shop (continued)	875 National Ave., Tahoe Vista, CA	Waste Oil	NA	40 gal
		Diesel	68476-34-6	1,000 gal
		Gasoline	8006-61-9	1,000 gal
		Propane	74-98-6	60 gal

Facility	Address	Chemical	CAS #	Amount Stored
North Tahoe Public Utility District	141 Secline St., Kings Beach, CA	**Chlorine gas**	**7782-50-5**	**1800 lbs**
		Diesel	68476-34-6	550 gal
North Tahoe Public Utility District	7496 North Lake Blvd., Tahoe Vista	Propane	74-98-6	320 gal
North Tahoe Public Utility District	3630 North Lake Blvd., Tahoe Vista, CA	Diesel	68476-34-6	500 gal
North Tahoe Public Utility District	7010 North Lake Blvd., Tahoe Vista	**Chlorine gas**	**7782-50-5**	**1800 lbs**
		Diesel	68476-34-6	500 gal
North Tahoe Public Utility District – North Tahoe Regional Park	6600 Donner Road	**Chlorine gas**	**7782-50-5**	**300 lbs**
		Diesel	68476-34-6	543 gal
		Sodium Hypochlorite (Bleach)	7681-52-9	55 gal
North Shore Hardware	200 Secline Street, Kings Beach, CA	Kerosene	8002-05-9	200 gal
		Diesel	68476-34-6	200 gal
		Magnesium Chloride / Sodium Chloride	7786-30-3 7646-14-5	300 lbs
		Propane	74-98-6	200 gal
		Latex Paint	NA	25 gal
Northbilt Inc	865 Alpine Meadows Road, Alpine Meadows, CA	Propane	74-98-6	1500 gal
		Diesel	68476-34-6	1500 gal
Nextel Communications-1887	Tahoe City, CA	**Sulfuric Acid**	**7664-93-9**	**1200 lbs**
Nextel Communications-1885	645 North Lake Blvd., Tahoe City, CA	**Sulfuric Acid**	**7664-93-9**	**1824 lbs**
Mac's Welding	517 National Ave., Tahoe Vista, CA	Propane	74-98-6	15 gal
		Acetylene	74-86-2	560 cu ft
		Oxygen	7782-44-7	280 cu ft
		Argon Gas	7440-37-1	280 cu ft
		Carbon Dioxide	124-38-9	280 cu ft
		MAPP Gas	106-99-0	280 cu ft
North Tahoe High School	2945 Polaris Rd. Tahoe City, CA	Various Flammable Liquids	NA	7 gal
		Various Flammable Solids	NA	5 lbs
		Various Oxidizing Liquids	NA	3 gal
		Various Oxidizing Solids	NA	20 lbs
		Various Corrosive Liquids	NA	10 gal
		Various Corrosive Solids	NA	15 lbs

Facility	Address	Chemical	CAS #	Amount Stored
		Various Toxic Liquids	NA	3 gal
		Various Toxic Solids	NA	6 lbs
		Other Liquid Regulated Substances	NA	55 gal
		Other Solid Regulated Substances	NA	50 lbs
		Oil	NA	55 gal
		Latex Paint	NA	64 gal
		Pump Oil	NA	2 gal
		Paint Thinner	NA	0.5 gal
		Crystal Blue Cleaner	NA	55 gal
		Windex Glass Cleaner	67-63-0	15 gal
		Sodium Hypochlorite Solution (Bleach)	7681-52-9	35 gal
		Sodium Hypochlorite (Bleach)	7681-52-9	500 lbs
		WB-20 Aqua-Crete	NA	55 gal
		Spray Buff	NA	30 gal
		Carpet Cleaner (concentrate)	NA	5 gal
		Brilliance Cleaning Compound	NA	40 gal
		Pine Quaternary Ammonium Chloride	NA	20 gal
		Photo Fixer	NA	3 gal
		Photo Developer	NA	3 gal
		Photo Stop Bath	NA	3 gal
Clauss Excavation Inc	4919 W Lake Blvd. Tahoe City, CA	Diesel Fuel	68476-34-6	150 gal
Dollm Ponit Auto Care	3205 N. Lake Blvd., Tahoe City, CA	Used Oil, Used Antifreeze, New Oil, New Antifreeze	NA	55 gal
Fairway Excavating, Inc.	8472 Speckled Ave., Kings Beach, CA	Acetylene	74-86-2	450 cu ft
		Ethylene Glycol	107-21-1	55 gal
		Gear Lubricant	NA	55 gal
		Motor Oil	NA	65 gal
		Trans-Hydraulic Fluid	NA	55 gal
		Oxygen	7782-44-7	282 cu ft
		Propane	NA	2000 gal
		Solvent	NA	55 gal
Fleur Du Lac Estates Association	4000 W Lake Blvd Homewood, CA	Unleaded Gasoline	NA	500 gal
		Diesel	68476-34-6	500 gal

Facility	Address	Chemical	CAS #	Amount Stored
State of California, Department of Transportation, Tahoe City Maintenance Facility	551 Nelson Avenue, Tahoe City, CA	Oxygen	7782-44-7	900 cu ft
		Acetylene	74-86-2	900 cu ft
		Propane	74-98-6	30 gal
		15W-40 Motor Oil	NA	275 gal
		50W Motor Oil	NA	110 gal
		Hydraulic Tractor Fluid	NA	220 gal
		Automatic Transmission Fluid	NA	165 gal
		Grease	NA	55 gal
		LDL Fuel Blend	NA	110 gal
		Diesel Fuel	68476-34-6	16,000 gal
		Gasoline	NA	4,000 gal
		Anti-Freeze	NA	150 gal
		Used Anti-Freeze	NA	50 gal
		Used Motor Oil	NA	220 gal
		Fusee	NA	700 lbs
		Windshield Washer Fluid	NA	100 gal
		Waste Sump Sludges	NA	NR
		Waste Absorbents / Oils	NA	NR
Black Top Sealing	1700 River Rd # 2 Tahoe City, CA	Asphalt Emulsion	8052-42-2	4,500 gal
		Propane	74-98-6	15 gal
		Crack Filler	8052-42-4	600 lbs
Alpine Springs County Water District	270 Alpine Meadows Road • Alpine Meadows, CA	Motor Oil	NA	20 gal
		Diesel Fuel	68476-34-6	500 gal
		Unleaded Gasoline	NA	500gal
		Propane	74-98-6	1,000 gal
Alpine Meadows Condominiums	2090 Chalet Road	Diesel Fuel	68476-34-6	NR
	2201 Scott Peak Place	Diesel Fuel	68476-34-6	NR
Agate Bay Water Company	6000 North Lake Blvd.	Aluminum Sulfate Aqueous Solution	10043-01-3	50 gal
		Sodium Hypochlorite Solution	7681-52-9	70 gal
Snowmobiling Unlimited	Hwy 267 on Mount Watson Road	Gasoline	NA	550 gal
Lake Forest Shop LLC	2970 Rose Ave., Tahoe City, CA	Waste Oil	NA	360 gal
Lake Forest Metal Works	2945 Rose Ave., Tahoe City, CA	Argon	7440-37-1	336 cu ft
		Oxygen	7782-44-7	562 cu ft

Facility	Address	Chemical	CAS #	Amount Stored
Grimes Excavating and Snow Removal	2905 Rose Ave., Tahoe City, CA	Diesel Fuel	68476-34-6	1,000 gal
Homewood Mountain Resort	HWY 28, Homewood, CA	Highly Refined Base Oils with Additives	64742-54-7	100 gal
		Anti-Freeze	107-21-7	50 gal
		Torque Converter Fluid	64741-96-4	50 gal
		Kerosene	8008-10-6	55 gal
		Hydraulic Oil	647-96-4	100 gal
		Motor Oil	NA	175 gal
		Gear Oil	NA	105 gal
Kings Beach Chevron	8797 North Lake Boulevard. Kings Beach, CA	Propane	74-98-6	60 gal
		Carbon Dioxide Gas	124-38-9	348 cu ft
Lahontan Golf Club	Schaffer Mill Road, Truckee, CA	Surfside 37 – wetting agent	NA	110 gal
		Lubricating Base Oil	NA	80 gal
		Mono-Ammonium Phosphate	7722-76-1	34,000 lbs
		Ammonium Sulfate	7783-20-2	10,000 lbs
		Tractor Hydraulic Fluid	NA	55 gal
		Diesel Fuel #2	68476-34-6	500 gal
		Regular Unleaded Gasoline	NA	500 gal
		Potassium Sulfate	7778-80-5	10,000 lbs
		Pentacloro-nitrobenzene	82-68-8	10,000 lbs
		Motor Oil	NA	80 gal
Homewood Marina	5190 West Lake Boulevard, Homewood, CA	Propane	74-98-6	55 gal
		Diesel Fuel	68476-34-6	500 gal
		Oil Used Absorbent	NA	500 lbs
		Used Oil Filters	NA	500 lbs
		Waste Oil	NA	110 gal
		Gear Lube	NA	75 gal
		Gasoline	NA	12,000 gal
		30W Oil	NA	110 gal
Henrikson Excavating	1480 River Road, Tahoe City, CA	Ethylene Glycol	107-21-1	55 gal
		Kerosene	8008-10-6	55 gal
		Propane	74-98-6	65 gal
		Diesel Fuel #2	68476-34-6	1,000 gal

Facility	Address	Chemical	CAS #	Amount Stored
		Used Motor Oil	NA	110 gal
		Gear Oil	NA	55 gal
		Motor Oil	NA	55 gal
		Acetylene	74-86-2	209 cu ft
		Automatic Transmission Fluid	NA	55 gal
		Detergent	NA	55 gal
		Stoddard Solvent	8052-41-3	15 gal
Granlibakken Resort	725Granlibakken Road, Tahoe City, CA	Diesel Fuel #2	68476-34-6	1,000 gal
		Unleaded Gasoline	NA	2,000 gal
North Tahoe Public Utility District	275 Onyx St., Carnelian Bay, CA	**Chlorine Gas**	**7782-50-5**	**2250 lbs**
		Diesel Fuel	68476-34-6	750 gal
North Tahoe Marina	7360 North Lake Blvd., Tahoe Vista, CA	Unleaded Gasoline	NA	8,000 gal
		Waste Gasoline	NA	55 gal
		Motor Oil	NA	330 gal
		Waste Oil	NA	300 gal
		Waste Oil Filters	NA	NR
		Paint	NA	100 gal
		Gel-coat	NA	10 gal
		Acetone	67-64-1	4 gal
		Paint Thinner	NA	2 gal
		Gear Lubricant	NA	110 gal
		Acetylene	74-86-2	30 gal
		Safety-Kleen Solvent	NA	20 gal
		Carpet Cleaner	NA	15 gal
		Anti-Freeze	NA	4 gal
		Potable Anti-Freeze	NA	180 gal
		Batteries	NA	25 units
		Kerosene	8008-10-6	5 gal
		Fiberglass Resins	NA	2 gal

Three facilities in Douglas County, one facility in Washoe County, 21 facilities in El Dorado County, and 16 facilities in Placer County have reported possession of EHSs to the LEPC. These are shown in bold in the table above. It is likely that some facilities that are required to submit Tier II forms failed to do so; therefore, there may be some chemicals and facilities that are not presented in this analysis.

The table below provides the chemical names of all of the EHSs stored at these facilities, their chemical formulas, Reportable Quantities (RQ), Threshold Planning Quantity (TPQ), and Immediately Dangerous to Life and Health (IDLH) values.

Extremely Hazardous Substances in the Lake Tahoe Basin

Chemical Name	Formula	CAS Number	RQ (lbs.)	TPQ (lbs.)	IDLH*
Chlorine	Cl_2	7782-50-5	10	100	30 ppm
Sulfuric Acid	H_2SO_4	7664-93-9	1,000	1,000	15 ppm
Cyclohexylamine	$C_6H_{13}N$	108-91-8	10,000	10,000	ND**
Hydrochloric Acid (Muriatic Acid)	HCl	7647-01-0	5,000	500	50 ppm
Ammonia	NH_3	7664-41-7	100	500	300 ppm
Formaldehyde	H_2CO	50-00-0	100	500	20 ppm
Nitric Acid	HNO_3	7697-37-2	1,000	1,000	25 ppm

Source of IDLH Value: National Institute of Occupational Safety and Health (NIOSH). 2005. "Pocket Guide to Chemical Hazards." September 2005.

* Exposure to the IDLH value for 30 minutes or more may produce impairment or irreversible health effects.

** ND = Not Available; IDLH has not been established for this material.

Hazardous Waste Facilities

Information was obtained from EPA's Resource Conservation and Recovery Information System (RCRIS), which lists hazardous waste notifiers in the Lake Tahoe Basin. The RCRIS Notifiers list classifies these notifiers as either generators; transporters; treatment, storage, and disposal facilities; burner/blenders; or recyclers of hazardous wastes. The information received is shown below.

Facility Name	Facility Location	County	Facilty Type	Handler ID
Almost Instant Photo	930 Tahoe Blvd, Incline Village, NV	Washoe	CESQG	NVD986776045
Alpine Auto Body	1056 Tahoe Blvd, Incline Village, NV	Washoe	CESQG	NV0000895243
Auto Service By Allan	876 Oriole Way, Incline Village, NV	Washoe	CESQG	NVC2WC000347
Crystal Bay Club Casino	14 Hwy 28, Crystal Bay, NV	Washoe	CESQG	NVR000073718

Facility Name	Facility Location	County	Facilty Type	Handler ID
Finishing Touch	911 Incline Wy Unit 18 And 919 Incline Wy, Unit 19, Incline Village, NV	Washoe	SQG	NV0000724112/ NVD986776458
FW Carson Trucking Co	1064 Tahoe Blvd, Incline Village, NV	Washoe	TRANS	NVD981433410
Helical Wire	206 E Enterprise, Incline Village, NV	Washoe	Unknown	NVD982488058
Hyatt Resorts	111 Country Club Dr, Incline Village, NV	Washoe	CESQG	NVR000000034
Incline Cleaners	889 Tahoe Blvd, Incline Village, NV	Washoe	SQG	NVD982472474
Incline Property Mgmt Inc	876 Tanager St, Incline Village, NV	Washoe	CESQG	NVR000057976
Incline Village GID	893 Southwood Blvd, Incline Village, NV	Washoe	LQG	NVD986775195
Incline Village Golf Resort	855 Fair Way, Incline Village, NV	Washoe	CESQG	NVD986777084
Nevada Bell	889 Northwood Blvd, Incline Village, NV	Washoe	NGEN	NVT330010752
Nevada Division Of Forestry	885 Eastlake Blvd, Washoe Valley, NV	Washoe	CESQG	NV0000993360
North Lake Tahoe Fire Pro Dist	863 Tanager, Incline Village, NV	Washoe	NGEN	NVD986768935
Raleys 113	930 Tahoe Blvd Ste 301, Incline Village, NV	Washoe	SQG	NV0000908459
Shell Service Station 138259	898 Tahoe Blvd, Incline Village, NV	Washoe	CESQG	NVD986768919
Sierra Discount Printing	848 Tanager Unit C, Incline Village, NV	Washoe	CESQG	NVR000002576
Sierra Nevada College	800 College Dr, Incline Village, NV	Washoe	CESQG	NVR000002071
Tahoe Biltmore Inc	5 Hwy 28, Crystal Bay, NV	Washoe	Unknown	NVD986770675
Tanager St. Auto Service	851 Tanager St, Incline Village, NV	Washoe	CESQG	NVD986773240
Unocal Service Station #6140	790 Tahoe Blvd, Incline Village, NV	Washoe	Unknown	NVD982059446
Washoe County Equipment Services	State Route 431 And State Route 28, Incline Village, NV	Washoe	CESQG	NVD982493652
Allen Photo Harrahs Tahoe	Highway 50 At Stateline, NV	Douglas	CESQG	NVD986773612
Caesars Tahoe	55 Hwy 50, Stateline, NV	Douglas	CESQG	NVD098864010
Contel Glennbrook Co	Hwy 28 N On E Side Of Tahoe, Glenbrook , NV	Douglas	Unknown	NVD981437221
Contel Stateline Co	207 Kingsbury Grade, Stateline, NV	Douglas	Unknown	NVD981437809
Harrahs Auto Shop	272 Kingsbury Grade, Stateline, NV	Douglas	SQG	NV0000247924
Harrahs Hotel Casino	15 Highway 50, Stateline, NV	Douglas	SQG	NVD982508012
Harrahs Hotel Casino Garage	132 Market St, Stateline, NV	Douglas	Unknown	NVD982508020
Harveys Lake Tahoe Resort	Highway 50 & Stateline Avenue, Stateline, NV	Douglas	SQG	NVD981677305
Jos Design	197 Shadylane, Zephyr Cove, NV	Douglas	CESQG	NVD986771509
Kingsbury Auto Supply	180 Shady Ln, Stateline, NV	Douglas	CESQG	NV0000453019
Kingsburys Photo	259 Kingsbury Grade, Stateline, NV	Douglas	Unknown	NVR000001271
Lakeside Inn And Casino	Hwy 50 At Kingsbury Grade, Stateline, NV	Douglas	CESQG	NV0000133447

Facility Name	Facility Location	County	Facilty Type	Handler ID
Manchester Yard	270 Logging Rd Ln, Stateline, NV	Douglas	CESQG	NVR000048710
Mcfaul Building	100 Mcfaul St, Zephyr Cove, NV	Douglas	Unknown	NVD982507014
Pine Tree Printing	128 Market St 3e, Stateline, NV	Douglas	CESQG	NVR000002550
Pro Tow	128 Market St Unit G, Stateline, NV	Douglas	CESQG	NVD986771103
Ridge Tahoe	128 Market St 1b, Stateline, NV	Douglas	Unknown	NVD986769883
Shell Service Station 139684	Hwy 50 And Elk Point, Zephyr Cove, NV	Douglas	CESQG	NVD982494288
Tahoe Auto And Marine	104 Mcfaul, Zephyr Cove, NV	Douglas	CESQG	NV0000076935
Tahoe Automotive	127 Market St 1a, Stateline, NV	Douglas	Unknown	NVD982494254
Travel Systems Ltd	760 Highway 50, Zephyr Cove, NV	Douglas	CESQG	NVD982495947
Rite Aid 6106	8245 N Lake Blvd, Kings Beach, CA	Placer	SQG	CAR000157065
Shell Service Station 135394	Hwy 28 & Bear, Kings Beach, CA	Placer	LQG	CAR000108761
Pacific Bell	Front Street, Carnelian Bay, CA	Placer	Unknown	CAT080016660
Sierra Boat Co	5146 No Lake Blvd, Carnelian Bay, CA	Placer	SQG	CAD981684855
Big Tree Cleaners	531 N Lake Blvd, Tahoe City, CA	Placer	SQG	CAD981979677
Caltrans Tahoe City Maintenance Facility	553 River Rd, Tahoe City, CA	Placer	SQG	CAR000172718
Daves One Hour Photo	620 N Lake Tahoe Blvd, Tahoe City, CA	Placer	SQG	CAD983609041
Equilon Enterprises	Hwys 28 & 89, Tahoe City, CA	Placer	LQG	CAD981462054
European Performance	1730 River Rd, Tahoe City, CA	Placer	SQG	CAD983672502
Pacific Bell	298 Grove Street, Tahoe City, CA	Placer	SQG	CAT080014731
Pacific Bell	2945 Lake Forest Road, Tahoe City, CA	Placer	Unknown	CAT080024540
Pacific Bell	2929 Lake Forest Rd, Tahoe City, CA	Placer	Unknown	CAT080024557
Pacific Bell	565 West Lake Blvd, Tahoe City, CA	Placer	Unknown	CAT080024565
Pacific Bell	Jackpine & Tahoe Streets, Tahoe City, CA	Placer	Unknown	CAT080029044
Shell Station Wic 204-7686-0307	Highway 28 At Fabian Way, Tahoe City, CA	Placer	SQG	CAD981460751
Tahoe Boat Company	700 North Lake Blvd, Tahoe City, CA	Placer	SQG	CAD983661042
Tahoe Plumbing And Hydronics Inc	1877 N Lake Blvd Unit B, Tahoe City, CA	Placer	SQG	CAR000015370
Tahoe World Mount Rose Publishing	241 N Lake Blvd, Tahoe City, CA	Placer	SQG	CA0000138529
USCG Station Lake Tahoe	2500 Lake Forest Road, Tahoe City, CA	Placer	SQG	CA6690390525
Pacific Bell	5425 Westlake Blvd, Homewood, CA	Placer	Unknown	CAT080016736
Pacific Bell	Brockway Summit, Brockway, CA	Placer	Unknown	CAT080027741
Pacific Bell	Hwy Twenty Eighth, Brockway, CA	Placer	Unknown	CAT080027758
Area Transit Mgmt	1679 Shop St, South Lake Tahoe, CA	El Dorado	SQG	CAR000046359
Barkley Meat Co	1069 Industrial Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD029475514
Caltrans Dist 3 Echo Summit Site	Rte 50 Post Mile 66.7 Echo, South Lake Tahoe, CA	El Dorado	SQG	CAD983671892

Facility Name	Facility Location	County	Facilty Type	Handler ID
Caltrans District 03	Rte 50 Post Mi 75 & 5/10ths In, South Lake Tahoe, CA	El Dorado	SQG	CAD983670035
Equilon Enterprises	1020 Emerald Bay Rd, South Lake Tahoe, CA	El Dorado	LQG	CAD981460637
Equilon Enterprises	Hwy 50/ Fairway, South Lake Tahoe, CA	El Dorado	SQG	CAD981459449
Five Star Auto Mikes Garage	2119 Ruth Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD983596701
Five Star Texaco	2037 Hwy 50, South Lake Tahoe, CA	El Dorado	SQG	CAD981965650
Foto Fast 1 Hr	3673 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAD982508442
Heavenly Valley	Corner Wildwood And Saddle, South Lake Tahoe, CA	El Dorado	LQG	CAD983596131
Johns Cleaners	3451 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAD982513491
Lake Photography	1480 Ormsby Dr, South Lake Tahoe, CA	El Dorado	SQG	CA0000196493
Lake Tahoe Unified School District	1021 Al Tahoe Boulevard, South Lake Tahoe, CA	El Dorado	SQG	CAD076095058
Longs Drug Store No 371	2358 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAR000048181
Outpatient Medical Imaging	2169 South Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD983657297
Pacific Bell	Tamarack, South Lake Tahoe, CA	El Dorado	SQG	CAT080015241
Pacific Bell	Dunlap And Eloise, South Lake Tahoe, CA	El Dorado	SQG	CAT080024516
Pacific Bell	1900 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAT080024532
Pacific Bell	2633 Sussex, South Lake Tahoe, CA	El Dorado	SQG	CAT080029036
Pacific Bell C/O Allen Tb484	Hwy 50 W/O Apache Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD981982945
Pete Lilly`S Firestone	2630 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAD048942205
Precision Auto Body	867 Eloise Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD981689268
Raleys Drug Ctr 159	4018 Hwy 50, South Lake Tahoe, CA	El Dorado	SQG	CAD983648833
Raleys Drug Ctr 167	1045 Emerald Bay Rd, South Lake Tahoe, CA	El Dorado	SQG	CAD983648809
Rite Aid Corp No 6107	1040 Al Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CA0001008051
Safeway Store 170	1020 Johnson Ln, South Lake Tahoe, CA	El Dorado	SQG	CAD983669763
Sharpshooter Resort Photo Inc	Heavenly Valley Ski Area, South Lake Tahoe, CA	El Dorado	SQG	CAD983660754
Shehadi Motors, Inc	1855 Lake Tahoe Blvd, South Lake Tahoe, CA	El Dorado	SQG	CAD047885702
Shell Oil Co	Hwy 50/ Pioneer Trail, South Lake Tahoe, CA	El Dorado	SQG	CAD981462112
Shell Service Station	3953 Lake Tahoe Boulevard, South Lake Tahoe, CA	El Dorado	LQG	CAR000083063

Facility Name	Facility Location	County	Facilty Type	Handler ID
Sierra Shirts Inc	1030 Industrial Avenue, South Lake Tahoe, CA	El Dorado	LQG	CAT080024524
Sierra Tahoe Ready Mix Inc	1526 Emerald Bay Rd, South Lake Tahoe, CA	El Dorado	SQG/ TRANS	CA0001022466
City of South Lake Tahoe	1700 D St, South Lake Tahoe, CA	El Dorado	SQG	CAD981167885
South Side Auto Body	920 Eloise Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD981686041
South Tahoe Public Utility District	1275 Meadow Crest Drive, South Lake Tahoe, CA	El Dorado	SQG	CAD047122171
Tahoe Diesel Svc	1012 Industrial Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD071460018
Tahoe Film Works	2095 James Ave, South Lake Tahoe, CA	El Dorado	SQG	CAD983630229
United Parcel Service	1746 D St, South Lake Tahoe, CA	El Dorado	SQG	CAD981630585

Source:	http://www.epa.gov/enviro/html/rcris/rcris_query_java.html
SQG	Small Quantity Generator
CESQG	Conditionally Exempt Small Quantity Generator
LQG	Large Quantity Generator
TRANS	Transporter
Unknown	Classification was not reported
NGEN	Not a Generator

Abandoned Facilities (CERCLA Sites)

The EPA CERCLA Information System (CERCLIS) database lists one CERCLA site in the Lake Tahoe area. The site is located at 870 Emerald Bay Rd, South Lake Tahoe, in El Dorado County.

Oil Storage Facilities (SPCC)

Eight facilities in the Lake Tahoe Basin have been inspected by EPA under SPCC regulations, indicating they have the capacity to store oil in aboveground storage tanks in quantities greater than 660 gallons in one tank or 1,350 gallons total. These facilities are all comprised of marinas located around Lake Tahoe. Because the EPA SPCC Tracker database only includes facilities that have been inspected, additional SPCC subject facilities that are not identified here may be present in the Lake Tahoe Basin.

Risk Management Plan Facilities

Facilities that have more than the threshold quantity of a regulated substance in a process must prepare a Risk Management Plan (RMP) as per 40 CFR Part 68.10. The list of substances and their threshold quantities can be found in 40 CFR Part 68. These facilities store either chlorine or a flammable mixture. It is unknown how many facilities store these chemicals in the Lake Tahoe Basin, however, likely locations may include water treatment plants.

Radioactive Facilities

There are no identified radioactive facilities within the Lake Tahoe area. However, several facilities in the area may have limited quantities of radioactive materials on site such as:

1. Hospitals and clinics;
2. Academic and research facilities (universities and colleges);
3. State and local transportation departments;
4. Materials-testing consultants; and
5. Federal facilities.

This list is not meant to be all-inclusive, as there may be other facilities with limited or exempted quantities of radioactive materials on site.

Transportation Hazards

Highways are the main mode of transportation for hazardous materials through the Lake Tahoe area. The main transportation route for the area circles the lake and vehicular accidents may likely be the most significant danger to the lake. There are at least 63 steams that cross the roadways and enter the lake and numerous storm drains that would act as potential conduits into the lake. Flammable liquids, propane and heating oil are likely the most common hazardous materials that are transported in the area. In addition, icy conditions in winter may contribute to vehicular accidents.

Primary Highways

Several highways pass through the area. The largest highway in the area is Interstate 80 which runs in an east/west direction approximately eight miles north of the north end of Lake Tahoe. US 50 is the main north/south thoroughfare that connects Carson City with the eastern side of Lake Tahoe where it then continues down the southeastern side of the lake. SR 28 runs from

US 50 at Spooner Junction around the north end of Lake Tahoe to Tahoe City where it connects with SR 89. SR 89 comes south from I-80, connects with SR 28 and continues around the southern portion of Lake Tahoe before connecting with US 50. In 2005, a hazardous materials survey was conducted by the Carson City Fire Department on US 50. The survey showed that a total of 24 trucks entered Carson City using US 50 over a 24-hour period. From this it can be assumed that these trucks came from the Lake Tahoe area. The majority (54 percent) of the hazardous materials carried consisted of flammable liquids.

Railroads

There are no railroads that travel into the Lake Tahoe area. The closest rail line is to the north and follows Interstate 80 from east to west. This line is operated by Union Pacific.

Pipelines

Pipelines transporting hazardous materials run through all of the counties involved in this Plan; however, none of these pipelines enter the Lake Tahoe Basin. Numerous sewage pipelines do enter the Lake Tahoe Basin. There are some larger main lines and numerous smaller lines that service the area.

Hazardous Materials Spill Events

The tendency of a facility to have chronic or significant releases is a direct indication of the risk it may pose. Historical spill data can provide vital information when estimating the likelihood of a release from a specific facility or facility type. Historical spill data can also be used to identify transportation routes where accidents frequently occur. Emergency Response Notification System (ERNS) data, accessed through the EPA, provide information on chemical spills and releases.

According to the ERNS database, a total of 556 spills were reported in the Lake Tahoe area from November 1996 through November 2006. Additional information regarding the causes of spills and types of oil products involved is on file at EPA Region 9 offices.

Although releases involving oil are the most common, releases of other hazardous materials have occurred. It is probable many releases below reportable quantities have occurred, but were not reported. It is also possible that some releases that should have been reported were not.

Natural Hazards

It is important to take into account natural hazards in the Lake Tahoe area that may cause hazardous material spills or releases. Floods, earthquakes, wildfires, avalanches, and landslides are potential natural disasters of the area.

High streamflow (potential flooding) originating from rapid snowmelt, torrential rainfall, and ice jams in the Truckee and Walker Rivers commonly occur in early spring in the area. Most flooding occurs when warm temperatures cause a rapid snowmelt in conjunction with extensive rainfall. Torrential rainfall has occasionally resulted in flash flooding. Pipelines and highways that cross or are adjacent to the tributaries of Lake Tahoe could be damaged by flash floods, resulting in a hazardous material release. Average and maximum flow rates can be found at specified U.S. Geological Survey (USGS) gauging stations in the Lake Tahoe Basin. Stream and river flow rates are available from the USGS through the Internet at <http://water.usgs.gov>.

Earthquakes pose a high risk as the area is located in an active earthquake area. Numerous active faults occur within the Lake Tahoe basin. The rate(s) of activity of individual faults are still largely unknown. Those that have received the most study are the Tahoe-Sierra frontal fault zone, the West Tahoe-Dollar Point fault zone, and the North Tahoe-Incline Village fault zone. The Tahoe-Sierra frontal fault zone is a NW-trending zone of faults lying a few kilometers west of Lake Tahoe. The West Tahoe-Dollar Point fault zone is a north-trending zone of faults submerged along the western edge of the lake, and continuing on land north from Dollar Point. The North Tahoe-Incline Village fault zone is a northeast-trending zone of faults extending from the deepest part of the lake northeast near Stateline Point, and continuing on land through Incline Village. Each of these three fault zones includes faults believed to be capable of magnitude 7 (M7) earthquakes. Data from the Basin and Range region of the western U.S. suggests that faults such as these typically experience large earthquakes on average about every 3000 to 5000 years. The timing of the most recent large earthquakes in the Tahoe basin is unknown. The ~160 year-long historic earthquake record includes very few moderate earthquakes (M4-5) in the basin but numerous small earthquakes (M1-3). Many appear to be associated with minor slip events along faults.

Important natural hazards in the Lake Tahoe Basin include large earthquakes and related effects, although these are likely to be rare events. Effects include ground shaking, liquefaction of soils, and rupturing and displacement of the land surface along faults. Ground shaking and rupturing events may induce or trigger landslides and rockfalls. Tsunamis may be generated either by slip on a submerged fault causing displacement of water or by submarine landslides, whether or not these landslides are caused by earthquakes. Existing computer models suggest that tsunamis caused directly by large earthquakes on submerged faults would have waves ranging from 1-10 meters in height. In addition, evidence exists of larger tsunamis some tens of thousands of years ago caused by very large underwater landslides. Most shoreline areas lying within about 15 meters vertically above modern lake level should be considered susceptible to damage from tsunamis. During strong ground shaking, steep, rocky slopes within the basin are likely to produce local rockfalls, and some may experience landslides.

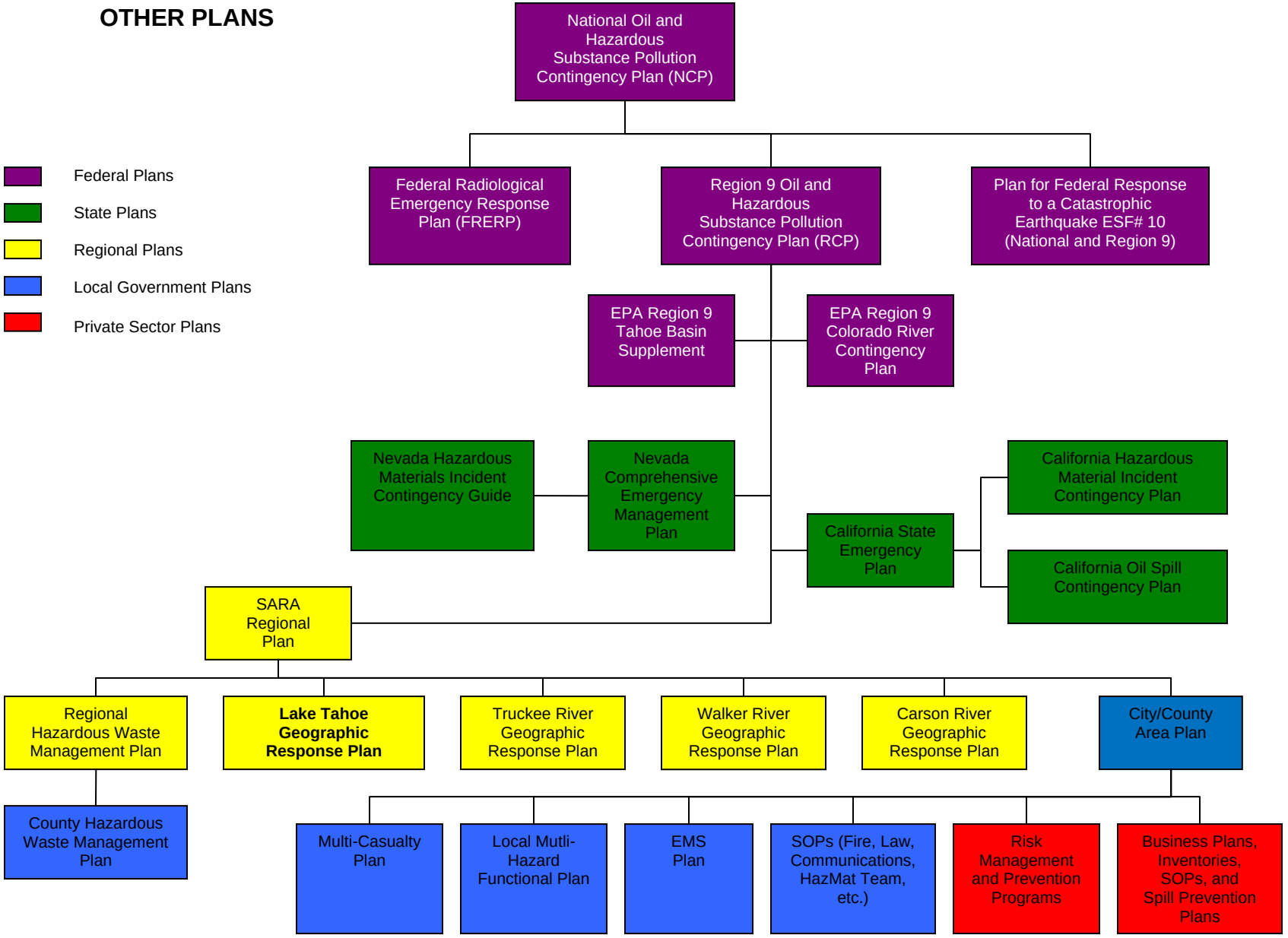
A worst-case scenario would include an M7 earthquake beneath the lake, with associated landslides both underwater and in steep topography. Tsunamis generated by these events would cause extensive damage to homes and facilities in most low-lying nearshore areas. Landslides and rockfalls (and avalanches in winter) could result both in damage to homes and closure of many roads and emergency facilities. Utilities, including water, sewers, electricity, and gas lines could have serious damage. Fuel and hazardous materials spills would cause environmental damage and fire hazards. Wildfires could be triggered by these spills and by damage to homes and businesses. Evacuation and emergency response and treatment would be very difficult under a worst-case scenario.

Wildfires occasionally occur following dry seasons and are initiated either by people or by lightning. Wildfires can cover significant amounts of terrain and would be intensified by releases of most hazardous materials. Fire stresses on hazardous material storage vessels can result in a boiling liquid expanding vapor explosion (BLEVE) resulting in widespread physical and environmental damage.

Landslides also pose a risk to the area. Landslides may be caused by earthquakes or torrential rainfall on unstable slopes. Landslides may damage pipelines and highways, or impact communities, resulting in a hazardous material release.

Avalanches are also a feasible natural hazard to this region. Avalanches can potentially affect surface road traffic throughout the mountainous region of the study area. Avalanches may damage power lines, pipelines, and highways. An avalanche could directly cause the release of a hazardous substance or it could prevent responders access to a hazardous substance release area.

LTGRP'S RELATIONSHIP TO OTHER PLANS



ACRONYMS

ACC	American Chemistry Council
ARB	Air Resources Board
AST	Aboveground Storage Tank
ATF	Bureau of Alcohol, Tobacco, and Firearms
ATSDR	Agency for Toxic Substances and Disease Registry
AWAF	Abandoned Watercraft Abatement Fund
bbl	Barrels
BCA	Bureau of Corrective Actions
BIA	U.S. Bureau of Indian Affairs
BLM	U.S. Bureau of Land Management
BOR	U.S. Bureau of Reclamation
BWPC	Bureau of Water Pollution Control
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Agency
CalARP	California Accidental Release Prevention
CAL FIRE	California Department of Forestry and Fire Protection
CALSTAR	California Shock Trauma Air Rescue
CalTrans	California Department of Transportation
CAP	Civil Air Patrol
CCEH	Carson City Environmental Health Department
CDC	Centers for Disease Control
CAL FIRE	California Department of Forestry
CDFG	California Department of Fish and Game
CDHS	California Department of Health Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERT	Citizen Emergency Response Team
CGC	California Government Code
CHEMTREC	Chemical Transportation Emergency Center
CHLORREP	Chlorine Emergency Plan
CHES	Clean Harbors Environmental Services
CHP	California Highway Patrol

CHSC	Citizen Homeland Security Council
CISM	Critical Incident Stress Management
CNG	California National Guard
CPUC	California Public Utilities Commission
CRGRP	Carson River Geographic Response Plan
CST	Civil Support Team
DBW	Department of Boating and Waterways
DEM	Division of Emergency Management
DFG	California Department of Fish and Game
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of Interior
DOT	U.S. Department of Transportation
DP&R	California Department of Parks and Recreation
DPR	California Department of Pesticide Regulation
DTSC	California Division of Toxic Substance Control
DWR	California Department of Water Resources
ea.	Each
EAS	Emergency Alert System
EDC	El Dorado County
EDEM	El Dorado Environmental Management
EDSO	El Dorado County Sheriff's Office
EEZ	Exclusive Economic Zone
EH	Environmental Health
EIS	Environmental Impact Statement
EMAC	Emergency Management Assistance Compact
EMAR	Environmental Mitigation, Assessment, and Remediation Program
EMS	Emergency Medical Service
EMSA	Emergency Medical Services Authority
EPA	U.S. Environmental Protection Agency
ERA	Emergency Reserve Account
ERMAC	Emergency Response Management Committee
ERRS	Emergency Rapid Response Services

ETA	Estimated Time of Arrival
FBI	Federal Bureau of Investigations
FD	Fire Department
FEMA	Federal Emergency Management Agency
FLLFD	Fallen Leaf Lake Fire Department
FOSC	Federal On-Scene Coordinator
FPD	Fire Protection District
FRA	Federal Railroad Administration
FRERP	Federal Radiological Emergency Response Plan
FRO	First Responder Operational
FWPA	Fish and Wildlife Pollution Account
FWPCA	Federal Water Pollution Control Act
GID	General Improvement District
GIS	Geographic Information System
GPS	Global Positioning System
H2O	H20 Environmental, Inc.
HAZCAT	Hazard Categorization
HazMat	Hazardous Materials
HWMP	Hazardous Waste Management Plan
IAP	Incident Action Plan
ICS	Incident Command System
IDLCA	Illegal Drug Lab Cleanup Account
IRIS	Incident Reporting Information System
IWMB	California Integrated Waste Management Board
JPA	Joint Powers Agreement
LE	Law Enforcement
LEPC	Local Emergency Planning Committee
LGR	Local Governments Reimbursement
LTBMU	Lake Tahoe Basin Management Unit
LTGRP	Lake Tahoe Geographic Response Plan
LTIMP	Lake Tahoe Interagency Monitoring Program
LVFPD	Lake Valley Fire Protection District
MBFPD	Meeks Bay Fire Protection District
MBO	Management by Objectives

MPH	Miles per Hour
MSA	Mine Safety Appliances
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
NAC	Nevada Administrative Code
NASA	National Aeronautics and Space Administration
NBC	Nuclear, Biological, Chemical
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NDEM	Nevada Division of Emergency Management
NDEP	Nevada Division of Environmental Protection
NDF	Nevada Division of Forestry
NDH	Nevada Division of Health
NDI	Nevada Division of Investigations
NDOT	Nevada Department of Transportation
NDOW	Nevada Department of Wildlife
NEIC	National Enforcement Investigations Center
NEST	Neighborhood Emergency Services Team
NFPA	National Fire Protection Association
NFWO	Nevada Fish and Wildlife Office
NHP	Nevada Highway Patrol
NIMS	National Incident Management System
NLTFPD	North Lake Tahoe Fire Protection District
NOAA	National Oceanic and Atmospheric Administration
NPFC	National Pollution Funds Center
NRD	Natural Resource Damages
NRS	Nevada Revised Statutes
NRT	National Response Team
NTCD	Nevada Tahoe Conservation District
NTFPD	North Tahoe Fire Protection District
NV DOW	Nevada Department of Wildlife
NWS	National Weather Service
OEHHA	California Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	California Office of Historic Preservation

OPA	Oil Pollution Act
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSHES	Nevada Occupational Safety and Health Enforcement Section
OSLTF	Oil Spill Liability Trust Fund
OSPR	California Office of Spill Prevention and Response
OSRO	Oil Spill Response Organization
PCBD	Placer County Building Department
PCDPW	Placer County Department of Public Works
PCSO	Placer County Sheriff's Office
PG&E	Pacific Gas and Electric
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRFA	Pollution Removal Funding Authorization
PRP	Potentially Responsible Party
PST	U.S. Coast Guard, Pacific Strike Team
PSTN	Pesticide Safety Team Network
PUD	Public Utilities District
PW	Public Works
RCP	Region 9 Oil and Hazardous Substance Pollution Contingency Plan
REMSA	Regional Emergency Medical Services Authority
RP	Responsible Party
RRT	Regional Response Team
RSPA	Research and Special Programs Administration
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCBA	Self Contained Breathing Apparatus
SEMS	California State Emergency Management System
SERC	State Emergency Response Commission
SHPO	State Historic Preservation Office
SLC	California State Lands Commission
SLT	South Lake Tahoe
SOP	Standard Operating Procedure

SOSC	State On-Scene Coordinator
SPCC	Spill Prevention, Control, and Countermeasure
START	Superfund Technical Assessment and Response Team
STPUD	South Tahoe Public Utilities District
SWRCB	State Water Resources Control Board
TDFPD	Tahoe Douglas Fire Protection District
TERC	Tahoe Environmental Research Center
TRPA	Tahoe Regional Planning Agency
TSC	Tahoe Science Consortium
TWSA	Tahoe Water Suppliers Association
UC	University of California
UE	Universal Environmental
USA	Underground Service Alert
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WCDHD	Washoe County Environmental Health Services
WCSO	Washoe County Sheriff's Office
WEPD	Washo Environmental Protection Department
WMD	Weapons of Mass Destruction
WRGRP	Walker River Geographic Response Plan