ATTACHMENT I

December 14, 2005
Administrative Civil Liability Complaint
No. R6T-2005-0029

California Regional Water Quality Control Board
Lahontan Region

Alan C. Lloyd, Ph.D.
Agency Secretary

2501 Lake Tahoe Boulevard, South Lake Tahoe, California 96150
(530) 542-5400 • Fax (530) 544-2271
http://www.waterboards.ca.gov/lahontan

Arnold Schwarzenegger
Governor

December 14, 2005

Thomas J. Ragan, President/RMO
Pacific Built Inc.
P.O. Box 6694
Tahoe City, California 96145

Certified Mail: 7099 3220 0003 9762 2249

C. Geoffrey and Christine Davis
547 El Arroyo Road
Hillsborough, California 94010

Certified Mail: 7099 3220 0003 9761 9997

Hans and Margaret Coffeng
310 15th Avenue
Santa Cruz, California 95062-4828

Certified Mail: 7099 3220 0003 9762 2225

COMPLAINT NO. R6T-2005-0029, ISSUED TO C. GEOFFREY AND CHRISTINE DAVIS, HANS AND MARGARET COFFENG, AND PACIFIC BUILT, INC., FOR THE UNAUTHORIZED DISCHARGE OF UNTREATED DOMESTIC WASTEWATER TO LAKE TAHOE, LOCATED AT 7770 AND 7780 NORTH LAKE BOULEVARD, KINGS BEACH - PLACER COUNTY ASSESSOR'S PARCEL NOS. 117-180-017 AND -018, U.S. ARMY CORPS OF ENGINEERS IDENTIFICATION NO. 200400589, WDID NO. 6A310408003

Enclosed for your immediate consideration is the above-referenced Complaint. The Complaint is issued in response to the discharge of raw sewage to lands below the high-water rim of Lake Tahoe. The discharge occurred when your contractor punctured a sewer force main while driving a piling for a pier support. The discharge volume is estimated to be at least 120,000 gallons. The discharge occurred on July 19, 2005.

The July 19, 2005 discharge was in violation of Waste Discharge Prohibitions specified in the *Water Quality Control Plan for the Lahontan Region*.

If you decide to waive a hearing regarding this matter and remit payment to the Regional Board, sign and return the original WAIVER OF HEARING form (enclosed) to our South Lake Tahoe office. In accordance with 40 CFR Section 123.27(a), a 30-day public comment period will be required for a proposed settlement of administrative civil liability.

If you choose not to waive the hearing, it will be held at the Regional Board's February 8 and 9, 2006 meeting in Kings Beach. To ensure the Regional Board has the opportunity to fully study and consider written material, all material must be submitted at least ten (10) days before the hearing. This will allow distribution of material to the Board Members in advance

of the hearing. Pursuant to Title 23 California Code of Regulations Section 648.4, the Regional Board may refuse to admit written testimony into evidence if submitted late, unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from the late admission of the written testimony, the Regional Board may refuse to admit it.

You may petition the State Water Resources Control Board to review the decision of the Regional Board in accordance with Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The State Board must receive the petition within 30 days after the Regional Board meeting at which the action will be taken. Copies of the law and regulations applicable to filing petitions will be provided upon request.

If you have any questions or comments regarding this matter, please contact Eric J. Taxer, Water Resource Control Engineer, at (530) 542-5434, or Scott Ferguson, Senior Engineer, at (530) 542-5432.

Robert S. Dodds

ROBERT S. DODDS
ASSISTANT EXECUTIVE OFFICER

Enclosures: Complaint No. R6T-2005-0029
Waiver of Hearing Form

Cc(w/ACL Complaint):
Regional Board Members
David Coupe, Office of Chief Counsel, State Water Resources Control Board
Steven Blum, Office of Chief Counsel, State Water Resources Control Board
Mark Bradley, Office of Statewide Initiatives, State Water Resources Control Board
Oscar Balaguer, State Water Resources Control Board, Division of Water Quality
Mary Hays, California State Lands Commission
Tom Cavanaugh, US Army Corps of Engineers, Sacramento District
Richard Gebhart, U.S. Army Corps of Engineers (Reno)
Vada Camacho, California Department of Fish and Game
Alan Breuch, Placer County Planning Department
Brian Jones, Placer County Environmental Health Department
Vickie M. Sandoval, Placer County Department of Health and Human Services
Lindsay Cunningham, Placer County Department of Health and Human Services
Dick Simmons, Emergency Services Coordinator, Placer County Office of Emergency Services
Dennis M. Zabaglo, Tahoe Regional Planning Agency
Brian Judge, Tahoe Regional Planning Agency
Joanne Marchetta, Agency Counsel, Tahoe Regional Planning Agency
Leah Kaufman, Leah Kaufman Planning & Consulting Services
Mark D. Hudak, Carr McClellan Ingersoll Thompson & Horn

Drew Briner, Briner Law Offices
Steven R. Rogers, General Manager, North Tahoe Public Utility District
Ken Greenberg, U.S. Environmental Protection Agency, Region IX/Wetlands Regulatory Office (WTR-8)
Leo Drozdoff, Administrator, Nevada Division of Environmental Protection
Jane Freeman, US EPA, c/o TRPA

EJT/didT:/Enforcement Orders/ACL / Davis-Coffeng, ACL Cover Letter
[File Under: 401/Davis & Coffeng Multiple Use Pier/WDID No. 6A310408003]

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

In the matter of C. Geoffrey and Christine Davis, Hans and Margaret Coffeng, and Pacific Built, Inc.: Violation of Waste Discharge Prohibitions prescribed in the *Water Quality Control Plan for the Lahontan Region*, for the Unauthorized Discharge of Untreated Domestic Wastewater to Lake Tahoe, at 7770 and 7780 North Lake Boulevard, Kings Beach, Placer County Assessor's Parcel Numbers 117-180-017 and –018 WDID No. 6A310408003	) **COMPLAINT NO. R6T-2005-0029 FOR ADMINISTRATIVE CIVIL LIABILITY**

C. GEOFFREY AND CHRISTINE DAVIS, HANS AND MARGARET COFFENG, AND PACIFIC BUILT, INC.

YOU ARE HEREBY GIVEN NOTICE THAT:

1. You are charged with violating provisions of law for which the Regional Board may impose administrative civil liability pursuant to Section 13350 of the California Water Code (Water Code).

2. Unless waived, a hearing on this matter will be held before the Regional Board within 90 days following the issuance of this Complaint. You, or your representatives, will have an opportunity to address and contest the allegations in this Complaint and the imposition of civil liability by the Regional Board. An agenda showing the approximate time set for the hearing will be mailed to you not less than ten days before the hearing date.

3. At the hearing, the Regional Board will consider whether to affirm, reject, or modify (either increase or decrease) the proposed civil liability, or whether to refer the matter to the Attorney General for recovery of judicial civil liability.

ALLEGATIONS

4. Dischargers

Hans and Margaret Coffeng are the legal owners of Placer County Assessor's Parcel Number 117-180-017. C. Geoffrey and Christine Davis are the legal owners of Placer County Assessor's Parcel Number 117-180-018. Pacific Built, Inc., is a contractor hired by Hans and Margaret Coffeng, and C. Geoffrey and Christine Davis to construct a multiple use pier. Hans and Margaret Coffeng, C. Geoffrey and Christine Davis, and Pacific Built, Inc., are hereinafter referred to as the Dischargers.

5. Project

The Dischargers are constructing or have completed construction of a single multiple-use pier

along the shared property line between the two parcels owned by the Coffeng and Davis families. The pier is located in Kings Beach, on the north shore of Lake Tahoe.

6. Facts

On July 19, 2005, Pacific Built Inc., punctured a 14-inch sewer force main while driving a pile for a pier support. The puncture occurred between 1:45 p.m. and 2:00 p.m. The North Tahoe Public Utility District (NTPUD) owns the sewer force main. The affected force main section is pressurized from a down gradient pump station (the Secline Avenue pump station). It is estimated that a minimum of 120,000 gallons of untreated wastewater was released from the punctured force main, which is located below the high-water rim of Lake Tahoe. The discharge volume is calculated from information collected on the size of the puncture opening, the affects of the puncture size and shape on the discharge velocity, the pump cycling at the Secline Avenue pump station, the hydrostatic pressure at the point of puncture, and the volume of the force main. The "Discharge Volume Calculations and Assumptions" are attached to this Complaint.

The affected force main section (and, therefore, the point of discharge) is buried at an elevation below the high water rim of Lake Tahoe. The force main puncture resulted in a discharge of untreated domestic wastewater below the high water rim of Lake Tahoe. All areas below the high water rim are waters of the United States and are waters of the State.

A portion of the discharge was recovered and returned to the sewage collection system, and the remaining amount flowed directly into the surface waters of Lake Tahoe.

The NTPUD was able to stop the flow of wastewater directly to the surface waters of Lake Tahoe approximately five hours after the discharge began. The discharge was fully controlled (i.e., flow from the puncture was entirely contained at the site and returned to the sewage collection system) by 6:45 pm. At 10:14 pm, the valve up gradient from the puncture was closed, but the wastewater that remained in the pipe continued to discharge from the puncture (and was contained on site and pumped back into the sewage collection system) until the pipe was drained. The pipeline was completely repaired at 12:40 a.m. on July 20, 2005.

Some amount of the discharge percolated through the beach sand and entered Lake Tahoe through the groundwater. However, this volume is considered to be insignificant when compared to the discharge volumes and the volumes pumped back into the sewage collection system.

Five North Lake Tahoe beaches were closed to the public as a result of the discharge of untreated domestic wastewater. The affected beaches were Kings Beach State Recreation Area, Coon Street Boat Launch, North Tahoe Beach Center, Secline Beach, and the public beach at the end of Deer Street. Additionally, all private beaches between the public beaches were closed. Four public beaches (Kings Beach State Recreation Area, Coon Street Boat Launch, Secline Beach, and the public beach at the end of Deer Street) were re-opened on July 29, 2005, ten days after the contamination by the discharge. The North Tahoe Beach Center was reopened on August 4, 2005, after being closed for sixteen days.

7. Violations

The Dischargers violated the following prohibitions specified in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan), adopted pursuant to Water Code Section 13243.

A. "The discharge of treated or untreated domestic sewage, garbage or other solid wastes, or any other deleterious material to the surface waters of the Lake Tahoe Basin is prohibited."

B. "The discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand, and other organic and earthen materials to lands below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited."

The Dischargers violated the prohibitions cited above when 120,000 gallons of untreated domestic wastewater was discharged to lands below the highwater rim of Lake Tahoe on July 19, 2005. The Regional Board did not authorize the discharge of the untreated domestic wastewater to lands below the highwater rim of Lake Tahoe.

PROPOSED CIVIL LIABILITY

8. Civil Liability – California Water Code

For the discharge of wastes to surface waters that violated Basin Plan prohibitions, the Regional Board may impose civil liability pursuant to Water Code Section 13350(e)(2). Water Code Section 13350(e)(2) states, "The civil liability on a per gallon basis may not exceed ten dollars ($10) for each gallon of waste discharged."

In this matter, the maximum civil liability under Section 13350(e)(2) is $1,200,000 for the discharge of 120,000 gallons of untreated domestic wastewater to lands below the highwater rim of Lake Tahoe on July 19, 2005.

9. Factors Affecting the Amount of Civil Liability

Water Code section 13327 requires the Regional Board to consider enumerated factors when it decides the amount of civil liability for a discharge covered by section 13350. The Assistant Executive Officer of the Regional Board considered those factors in recommending the amount of the administrative civil liability:

a. The nature, circumstances, extent, and gravity of the violations;

Lake Tahoe has been designated an Outstanding National Resource Water. The Lake's clarity has been reduced due to nutrient and fine sediment discharges. As a result, Lake Tahoe is listed on the Federal Clean Water Act Section 303(d) list as impaired due to excessive sediment and nutrients. The spill discharged approximately 120,000 gallons of untreated domestic wastewater containing nutrients and bacteria to lands below the highwater rim of Lake Tahoe.

The Tahoe Truckee Sanitation Agency is the regional wastewater treatment facility that, in part, receives untreated wastewater from the Kings Beach area. Influent sampling conducted by the Tahoe Truckee Sanitation Agency indicates that the typical raw sewage contained approximately 40 milligrams per liter (mg/L) of total nitrogen and approximately 6.6 mg/L of total phosphorus. The amount of wastewater that was not recovered contained approximately 8.5 kilograms (19 pounds) of total nitrogen, and approximately 1.4 kilograms (3.1 pounds) of total phosphorus.

Water samples collected from beach areas surrounding the spill site had fecal coliform concentrations of up to 35,000 colony forming units per 100 milliliters (cfu/100ml). The Regional Board's water quality objective for coliform bacteria within the Lake Tahoe Basin is a 30-day log-normalized average of 20 cfu/100 ml. This objective is established to protect the designated beneficial use of public water-contact recreation. Persistent violation of the water quality objective resulted in the 10-day closure of four public beaches and the 16-day closure of a fifth public beach. The beach closures had a significant impact on the people and businesses in the area.

The NTPUD expended efforts to repair the damaged force main, to isolate and/or eliminate flows discharging from the broken force main, to clean up areas contaminated from the untreated domestic wastewater, and to monitor water quality. NTPUD is still incurring expenses at the time of issuing this complaint, and to date has expended approximately $248,000. Placer County provided emergency response oversight and environmental health management for the discharge of untreated domestic wastewater. Placer County agencies have expended a minimum of $74,000. Many businesses suffered economic loss due to reduced tourism, a direct result of the discharge of untreated domestic wastewater. The North Tahoe Business Association and the Placer County Economic Development Department surveyed area businesses to determine the extent of the economic loss. Local businesses reported a loss of $80,000 as a result of the discharge of untreated domestic wastewater. Total agency and business impact is, at a minimum, $354,000. In addition, many individuals were prevented from enjoying the affected beaches.

b. Whether discharge is susceptible to cleanup or abatement;

It is estimated that a minimum of 120,000 gallons of untreated domestic wastewater was discharged from the punctured force main during this incident. Of this amount, it is estimated that 56,000 gallons was not susceptible to cleanup.

c. The degree of toxicity of the discharge;

There were no analyses performed to determine the degree of toxicity of the discharge. Untreated domestic wastewater contains pathogens that can cause sickness and (rarely) death in humans that ingest or are otherwise exposed to such materials. Bacteriological contamination exceeded standards set for drinking water and water-contact recreation.

d. Ability to pay;

The Dischargers have not provided financial data to the Regional Board to show an inability to pay the proposed liability.

e. The effect on the Discharger's ability to continue its business;

The Dischargers do not operate a business on the referenced properties. The properties are private residences.

f. Any voluntary clean up efforts undertaken by the violator;

The Dischargers' consultant, Pacific Built Inc., immediately contacted the NTPUD to report the puncture and resulting discharge of untreated domestic wastewater. Pacific Built employees provided assistance to the NTPUD to immediately evacuate the beach area and to construct sand berms to divert the discharge to existing pond areas. Additionally, Pacific Built employees offered immediate assistance to the NTPUD to excavate around the punctured force main and to install vactor pumps at the point of puncture (rather than at the containment ponds). NTPUD elected not to accept such assistance.

g. Prior history of violations;

The Dischargers have no recorded prior violations.

h. Degree of culpability;

C. Geoffrey and Christine Davis and Hans and Margaret Coffeng are the property owners of the noted properties (see allegation No. 4 of this complaint) and are also the permit holders for the pier project. They are, therefore, directly and ultimately responsible for all actions related to the pier project.

Pacific Built, Inc. is the contractor hired by the Davis' and the Coffeng's to construct the pier. Pacific Built, Inc., did not contact the Underground Service Alert of Northern California and State of Nevada (USA North) prior to commencing excavation activities in order to locate any underground utilities on the properties. Pacific Built, Inc., punctured the NTPUD sewer force main while driving a pile for a pier support. Pacific Built, Inc., is therefore directly responsible for the discharge of untreated wastewater because it failed to exercise a typical standard of care to locate underground utilities prior to commencing an excavation activity.

i. Economic savings resulting from the violation; and,

The Regional Board is unaware of any avoided costs associated with the discharge.

j. Other matters as justice may require.

Regional Board staff have spent time responding to the incident and preparing the

administrative civil liability. Estimated staff costs for incident response and complaint preparation are $17,300.

10. Amount of Civil Liability

The Assistant Executive Officer of the Regional Board considered the above factors and proposes that administrative civil liability be imposed by the Regional Board in the amount of **$700,000**, pursuant to Section 13350(e)(2) of the California Water Code.

WAIVER OF HEARING

You may waive the right to a hearing. Waiver of your right to a hearing constitutes acceptance of the assessment of civil liability in the amount set forth within the Complaint. If you wish to waive your right to a hearing, an authorized person must sign the waiver form below, and send it with a cashier's check or money order for the full amount of the civil liability assessment, made payable to the **California State Water Resources Control Board, Waste Discharge Permit Fund** and mailed, to the address below. Your signed waiver form and payment must be received no later than February 8, 2006. Please note that any waiver will not be effective until reasonable opportunity for public participation has been provided pursuant to federal National Pollutant Discharge Elimination System (NPDES) regulations (40 Code of Federal Regulation [CFR] Parts 122, 123, and 124). The Regional Board will notify interested persons of any proposed settlement for the recommended liability and will solicit comments on the settlement for a period of thirty (30) days.

California Regional Water Quality
Control Board – Lahontan Region
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

In accordance with 40 CFR Section 123.27(a), a 30-day public comment period will be required for a proposed settlement of administrative civil liability.

Ordered by: Robert S. Dodds Dated: December 14, 2005

ROBERT S. DODDS
ASSISTANT EXECUTIVE OFFICER

Attachment: Discharge Volume Calculations and Assumptions

California Regional Water Quality Control Board
Lahontan Region

ATTACHMENT TO
ADMINISTRATIVE CIVIL LIABILITY COMPLAINT
NO. R6T-2005-0029

DISCHARGE VOLUME CALCULATIONS AND

ASSUMPTIONS

FOR THE

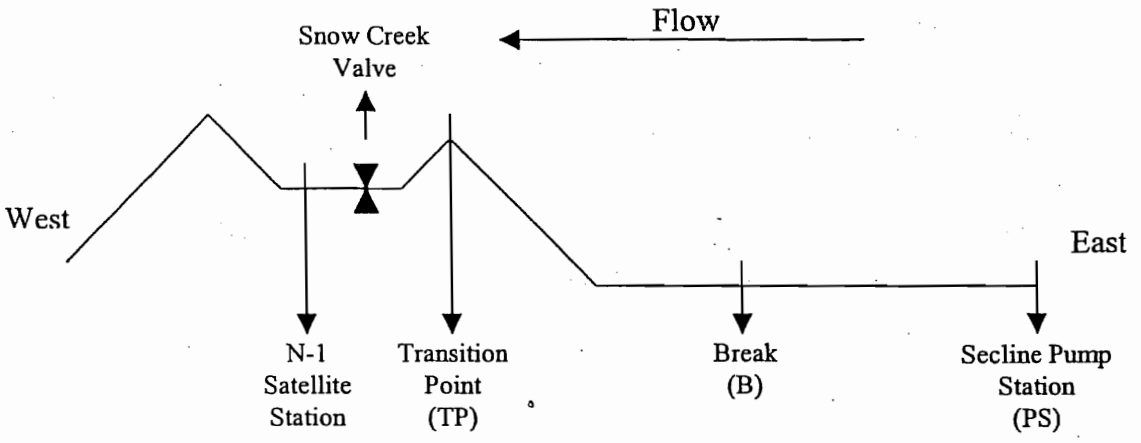
UNAUTHORIZED DISCHARGE OF UNTREATED DOMESTIC WASTEWATER TO LAKE TAHOE, LOCATED AT 7770 AND 7780 NORTH LAKE BOULEVARD, KINGS BEACH, PLACER COUNTY ASSESSOR'S PARCEL NUMBERS 117-180-017 AND -018

December 7, 2005

Eric J. Taxer, P.E.
Water Resource Control Engineer
Enforcement and Special Projects Unit

Reviewed by: Chuck Curtis, P.E.
Supervising Water Resource Control Engineer

Schematic:



The North Tahoe Public Utilities District (NTPUD) calculated the orifice area, A, of the break at 3.98 in^2, or 0.0276 ft^2

Timeline:

Dischargers recorded puncture at 1:45 pm.
NTPUD recorded puncture at 2:00 pm.
NTPUD recorded discharge containment at 6:45 pm.
NTPUD recorded final Secline pump event at 6:53 pm.
Snow Creek Valve turned off at 10:14 pm.

Theory Applied:

Bernoulli's Energy Equation is used to estimate the discharge volume:

$$\frac{P_1}{\gamma} + \frac{v_1^2}{2g} + z_1 + E_F = \frac{P_2}{\gamma} + \frac{v_2^2}{2g} + z_2 + E_A$$

Where:
P = pressure
v = velocity
z = head elevation
E_A = energy input (from a pump)
E_F = energy loss from friction

γ = specific weight of water (62.4 lb/ft^3)
g = gravity = 32.1 ft/s^2

Two discharge flow regimes are considered up until the point of discharge containment:

1. Dynamic condition (Secline Pump Station turned on); and
2. Static condition (Secline Pump Station turned off, pipe is kept full from N-1 Satellite Station).

For the Dynamic Head Condition:

v_b = velocity of discharge at pipe break
P_b = pressure at pipe break
= atmospheric
= 0
z_b = elevation of the pipe break = 6228 ft.

$$E_F = (0.6)\left(\frac{v_b^2}{2g}\right)$$

The King & Prater Hydraulics Handbook states a head loss for a sharp-edged pipe entrance condition. This is the closest condition to the shear break in the force main wall. The head loss is stated to be six-tenths of the velocity head.

v_s = velocity at Secline pump station = 0
P_s = pressure at Secline pump station
= atmospheric
= 0
z_s = elevation at the Secline Pump Station = 6228 ft.
E_A = pump energy added, as reported by NTPUD
= 30 lb/in^2

Dividing by specific weight of water to convert to feet of head,

$$= \left(30\frac{\text{lb}}{\text{in}^2}\right)\left(\frac{1}{62.4\,\text{lb/ft}^3}\right)\left(\frac{12\,\text{in}}{1\,\text{ft}}\right)^2$$

= 69.2 ft

Thus,

$$\frac{P_b}{\gamma}+\frac{v_b^2}{2g}+z_b+E_F=\frac{P_s}{\gamma}+\frac{v_s^2}{2g}+z_s+E_A$$

$$\frac{P_b}{\gamma}+\frac{v_b^2}{2g}+z_b+(0.6)\left(\frac{v_b^2}{2g}\right)=\frac{P_s}{\gamma}+\frac{v_s^2}{2g}+z_s+E_A$$

$$0+6228\text{ ft}+(1.6)\left(\frac{v_b^2}{2g}\right)=0+0+6228\text{ ft}+69.2\text{ ft}$$

$$v_b=\sqrt{\frac{(2)(g)(69.2\text{ ft})}{1.6}}$$

$$v_b=\sqrt{\frac{(2)(32.1\text{ ft/s}^2)(69.2\text{ ft})}{1.6}}$$

$$v_b=52.7\text{ ft/s}$$

The flow due to dynamic conditions, Q_D, is

$$Q_D=(v_b)(A)$$

$$Q_D=\left(52.7\frac{\text{ft}}{\text{s}}\right)(0.0276\text{ ft}^2)\left(\frac{1\text{ gallon}}{0.1337\text{ ft}^3}\right)$$

$$Q_D=10.9\frac{\text{gallons}}{\text{s}}\quad\text{or}\quad 10.9\text{ gps}$$

Per NTPUD, the Secline Main Sewer Pump Station log indicates a total pump time of 875 seconds. This is from time of puncture to time of containment. The volume, V_D, due to dynamic conditions is:

$$V_D=\left(10.9\frac{\text{gal}}{\text{s}}\right)(875\text{ s})$$

$$V_D=9{,}500\text{ gallons}$$

Static Head Condition:

It is assumed that the N-1 Satellite Station maintains a constant static head over the transition point. It is further assumed that there is no or negligible backflow from N-1 Satellite Station. Further assume negligible frictional loss.

v_b = velocity of discharge at pipe break
P_b = pressure at pipe break = atmospheric = 0

z_b = 6228 ft
v_t = velocity of flow at transition point = 0
P_t = pressure at transition point = atmospheric = 0
z_t = 6244 ft
E_A = 0 (static conditions)

Thus,

$$\frac{P_b}{\gamma}+\frac{v_b^2}{2g}+z_b+E_F=\frac{P_t}{\gamma}+\frac{v_t^2}{2g}+z_t+E_A$$

$$0+\frac{v_b^2}{2g}+6228\text{ ft}+(0.6)\left(\frac{v_b^2}{2g}\right)=0+0+6244\text{ ft}+0$$

$$(1.6)\left(\frac{v_b^2}{2g}\right)=16\text{ ft}$$

$$v_b=\sqrt{\frac{(2)(32.1\text{ ft/s}^2)(16\text{ ft})}{1.6}}$$

$$v_b=25.3\text{ ft/s}$$

The flow due to static conditions, Q_S, is:

$$Q_S=(v_b)(A)$$

$$Q_S=\left(25.3\frac{\text{ft}}{\text{s}}\right)(0.0276\text{ ft}^2)\left(\frac{1\text{ gallon}}{0.1337\text{ ft}^3}\right)$$

$$Q_S=5.23\text{ gps}$$

The total time from recorded puncture (2:00 pm) to discharge containment (6:45 pm) is 4h 45m, or 285 minutes. The duration of the force main under static pressure is 285 minutes less the 875 seconds total pump time at the Secline Station:

$$\text{Duration}=(285\text{ min})\left(\frac{60\text{ s}}{\text{min}}\right)-875\text{ sec}$$

$$=16{,}225\text{ sec}$$

The volume due to static conditions, V_S, is:

$$V_S=\left(5.23\frac{\text{gal}}{\text{s}}\right)(16{,}225\text{ s})$$

$$V_S=85{,}000\text{ gallons}$$

The total volume discharged prior to containment, V_{TOT}, is:

$$V_{TOT} = V_S + V_D$$
$$= 85{,}000 \text{ gal} + 9{,}500 \text{ gal}$$
$$= 95{,}000 \text{ gallons}$$

Upper Volume Boundary, Prior to Containment

1. The Discharger's chronology indicates that the puncture occurred at 1:45 pm (an additional 15 minutes under dynamic head conditions). The additional volume discharged under dynamic conditions, $V_{D,Adl}$, is:

$$V_{D,Adl} = (Q_D)(T)$$
$$= \left(10.9\frac{\text{gal}}{\text{s}}\right)(15 \text{ min})\left(60\frac{\text{s}}{\text{min}}\right)$$
$$= 9{,}800 \text{ gallons}$$

2. The control of discharge is agreed to have occurred at 6:45 pm. However, pump records for the Secline Pump Station indicate that the last pumping event occurred at 6:53 pm (8 minutes later). (The pump time associated with this last event is already factored into V_D.) The 8 additional minutes of potential discharge occurred under static conditions. The potential additional volume discharged under static conditions, $V_{S,Adl}$, is:

$$V_{S,Adl} = (Q_S)(T)$$
$$= \left(5.23\frac{\text{gal}}{\text{s}}\right)(8 \text{ min})\left(60\frac{\text{s}}{\text{min}}\right)$$
$$= 2{,}500 \text{ gallons}$$

Therefore, the upper boundary of the volume discharged prior to containment, $V_{TOT,UB}$, is:

$$V_{TOT,UB} = V_{TOT} + V_{D,Adl} + V_{S,Adl}$$
$$= 95{,}000 \text{ gal} + 9{,}800 \text{ gal} + 2{,}500 \text{ gal}$$
$$= 107{,}000 \text{ gallons}$$

Amount Released After Discharge Containment:

1. The Secline Pump Station did not pump after 6:53 pm, and this effect is already considered in the upper limit. The additional volume of 2,500 gallons ($V_{S,Adl}$) should therefore only be incorporated in calculating the total minimum discharge (see below—Total Minimum Volume calculation).

2. At 10:14 pm, the Snow Creek Valve was shut. Between 6:53 pm and 10:14 pm, any volume of sewage added to the ruptured section is due to the N-1 Pump Station. There are two pumps (a 100 gpm pump and a 300 gpm pump). NTPUD reported that the 100 gpm operated for a total of 24 minutes during this period. The maximum discharge associated with this pump, $V_{N-1,max}$, during post containment is:

$$V_{N-1,max} = \left(100\frac{\text{gal}}{\text{min}}\right)(24\ \text{min})$$
$$= 2400\ \text{gallons}$$

The transition to the National Station is higher than the transition to the Secline Station. At most, ½ of this maximum volume made it to the National Station. The minimum volume that discharged post containment would be perhaps ½ of the maximum volume, or:

$$V_{N-1,min} = 1200\ \text{gallons}$$

3. After 10:14 pm, the affected force main section drained in its entirety, from the Secline Pump Station to the transition point. NTPUD reports the pipe length to be 2590 feet, and the pipe area to be 1.07 ft^2. The pipe volume, V_{pipe}, is:

$$V_{pipe} = (2590\ \text{ft})(1.07\ \text{ft}^2)\left(\frac{\text{gal}}{0.1337\ \text{ft}^3}\right)$$
$$= 21{,}000\ \text{gallons}$$

4. The total minimum volume discharged, V_{MIN}, is:

$$V_{MIN} = V_{TOT} + V_{N-1,min} + V_{pipe} + V_{S,Adl}$$
$$= 95{,}000\ \text{gal} + 1200\ \text{gal} + 21{,}000\ \text{gal} + 2500\ \text{gal}$$
$$= 120{,}000\ \text{gallons}$$

5. The total maximum volume discharged, V_{MAX}, is:

$$V_{MAX} = V_{TOT,UB} + V_{N-1,max} + V_{pipe}$$
$$= 107{,}000\ \text{gal} + 2400\ \text{gal} + 21{,}000\ \text{gal}$$
$$= 130{,}000\ \text{gallons}$$

Volume Captured:

NTPUD reported 39,000 gallons collected from the area, up until 6:45 pm.

After 6:45 pm, NTPUD reported complete capture of all discharges from the puncture. (Infiltration is considered to be negligible given total discharge quantities.)

Volume Released to the Surface Waters of Lake Tahoe:

The discharge range is based on the lower and upper discharge volumes that occurred prior to NTPUD achieving full containment of the discharge, less the 39,000 gallon recovered quantity.

The minimum discharge is:

$$\begin{aligned} V_{Min\ Disch} &= V_{TOT} - 39{,}000 \\ &= 95{,}000 - 39{,}000 \\ &= 56{,}000 \text{ gallons} \end{aligned}$$

The maximum discharge is:

$$\begin{aligned} V_{Max\ Disch} &= V_{TOT,UB} - 39{,}000 \\ &= 107{,}000 - 39{,}000 \\ &= 68{,}000 \text{ gallons} \end{aligned}$$

California Regional Water Quality Control Board
Lahontan Region

Alan C. Lloyd, Ph.D.
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(530) 542-5400 • Fax (530) 544-2271
http://www.waterboards.ca.gov/lahontan

Arnold Schwarzenegger
Governor

WAIVER
OF RIGHT TO A PUBLIC HEARING

C. Geoffrey and Christine Davis
547 El Arroyo Road
Hillsborough, California 94010

Complaint No. R6T-2005-0029
For
Administrative Civil Liability
$700,000

Hans and Margaret Coffeng
310 15th Avenue
Santa Cruz, California 95062-4828

Thomas J. Ragan, President/RMO
Pacific Built, Inc.
P.O. Box 6694
Tahoe City, California 96145

By signing below, we agree that we waive our right to request a hearing before the California Regional Water Quality Control Board, Lahontan Region (Board) with regard to the violations alleged in the above referenced Complaint and to remit payment for the civil liability imposed. If you remit payment, please make the check payable to the "State Water Resources Control Board, Waste Discharge Permit Fund."

We understand that even though this waiver of a right to a hearing has been signed, that the Regional Board may hold a hearing to determine if it will accept the settlement. This hearing will be limited to a consideration of whether the settlement is in the public interest. The Board may accept or reject the settlement or it may reject the Administrative Civil Liability Complaint (Complaint). If the Board accepts the settlement or rejects the Complaint, no further hearing will be required. If the Board rejects the settlement, the Board will schedule a full factual hearing at a subsequent meeting. If the Board holds a hearing, it will be noticed and all parties will have the opportunity to present evidence to the Board.

Signature	Title	Date

Print your name

Signature	Title	Date

Print your name

Signature	Title	Date

Print your name

Signature	Title	Date

Print your name

Signature	Title	Date

Print your name

Send this signed form and settlement check to:
Robert S. Dodds, Assistant Executive Officer
California Regional Water Quality Control Board – Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

EJT/didT:/Enforcement Orders/ACL / Davis-Coffeng, ACL Waiver
[File Under: 401/Davis & Coffeng Multiple Use Pier/WDID No. 6A310408003]