

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0104

WASTE DISCHARGE REQUIREMENTS
FOR
SHASTA LAKE RESORTS LIMITED PARTNERSHIP
DBA JONES VALLEY RESORT
AND
U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
SHASTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region (hereafter Regional Water Board), finds that:

1. Waste Discharge Requirements (WDRs) Order No. 5-001-229, adopted by the Regional Water Board on 7 September 2001, prescribed requirements for the discharge of wastes from Jones Valley Resort to an on-site sewage treatment and disposal system. Shasta Lake Resorts Limited Partnership and the U.S. Department of Agriculture, Forest Service (hereafter Discharger) submitted a Report of Waste Discharge (ROWD), dated 8 September 2006, requesting revised Waste Discharge Requirements (WDRs) for Jones Valley Resort to include an enlarged on-site sewage treatment and disposal system.
2. The resort is operated by the Shasta Lake Resorts Limited Partnership under a special use permit from the U.S. Department of Agriculture, Forest Service, who administers the property (Assessor's Parcel No. 099-057-041) for the public.
3. The resort and marina are in Section 8, T33N, R4W, MDB&M, as shown on Attachment A, which is made part of this Order. Site topography is relatively steep (25 to 30 percent), sloping toward Shasta Lake, and surrounding land is undeveloped. During times of receding lake levels, the marina may relocate within Sections 4, 5, or 8, T33N, R3W, MDB&M, because the cove is relatively shallow.
4. The facility consists of a marina, office, private residence (mobile home), and shop, as shown on Attachment B, which is made part of this Order. Prior to September 2006, approximately 270,000 gallons of wastewater (toilet waste) from the marina was pumped to a septic tank and leachfield disposal system annually. However, annual wastewater flow rates have been reported up to 315,000 gallons (*2006 monitoring data*). Wastewater flow rates are greatest during the months of May through September and near zero between November and January.
5. In 2000, a survey of Shasta Lake marinas found that a variety of deodorizing chemicals are used in commercial houseboat sewage holding tanks with chemical constituents that may include but are not limited to, ammonium nitrate, calcium nitrate, n-alkyl dimethyl benzyl ammonium chloride, n-alkyl dimethyl benzyl ethyl ammonium chloride, formaldehyde, alkoxylated linear primary alcohol, gluteraldehyde, methanol, and

ethoxylated nonylphenol. The deodorizing chemicals used in sewage holding tanks of private houseboats, cabin cruisers, and small portable toilets are unknown.

6. On 6 September 2001, the Regional Water Board adopted Resolution No. 05-01-211 authorizing the Executive Officer to enter into a memorandum of understanding (MOU) with the U.S. Department of Agriculture, Forest Service (Forest Service), to eliminate gray water discharges from houseboats to Shasta Lake after 6 September 2006. In January 2004, the Executive Officer and Forest Supervisor signed MOU No. 04-MU-11051458-004. Capturing gray water is expected to contribute two to three times the volume of wastewater to the on-site disposal system.
7. An enlarged on-site sewage treatment and disposal system was constructed in 2006 to accommodate the increased waste flow rates. The expanded system includes, two 3,000-gallon, two 1,500-gallon, and two 5,000-gallon septic tanks with a total capacity of 19,000-gallons. The system is designed to treat and dispose up to 10,400 gallons of wastewater per day. A two-inch force main carries the effluent to the disposal field. At the disposal field, effluent enters a splitter box where flow is diverted to two zones of leach lines (1,700 total liner feet of leachline). Leachfields are constructed using equalizer chambers, manufactured by Infiltrator Systems Inc. The chambers are 24-inches in width, and 13.5 inches in height. A minimum of 12 inches of soil covers the chambers.
8. Gray water is defined in MOU No. 04-MU-1151458-004 as water generated from showers, kitchen sinks, bathroom sinks, wet bars, dishwashers, and washing machines.
9. The Discharger operates 31 commercial houseboats. Several of the commercial houseboats are equipped with hot tubs. The hot tub wastewater is removed through the marina's sewage pump-out system and disposed in the septic tank leachfield system.
10. The Discharger treats the hot tub water with Baquaspa™ Shock and Baquaspa™ Sanitizer. According to the Material Safety Data Sheets, Baquaspa™ Shock contains 7.5% hydrogen peroxide and Baquaspa™ Sanitizer contains 20% poly hexamethylene biguanide hydrochloride, blue dye, and perfume. Baquaspa Shock and Sanitizer are toxic to fish.
11. An undetermined quantity of domestic wastewater from the office/residence and shop discharges to a separate 2,000-gallon septic tank and leachfield system.
12. Wastes may also be discharged to Shasta Lake as a result of marina operations such as the refueling of vessels, storage of fuel, storage of chemicals, and maintenance of the facilities (including cleaning, washing, and refurbishing of rental houseboats). During the cleaning process, the Discharger uses water and a dilute solution of cleaning agent. The wastewater from the houseboat cleaning is directly discharged to Shasta Lake.

13. Gasoline is stored in an aboveground tank that floats on a frame above Shasta Lake. The fuel is transferred to several dispensers on the marina dock. Small quantities of other petroleum products are stored at various locations throughout the facility in aboveground tanks having secondary containment. The Discharger monitors the aboveground tanks in accordance with their Spill Prevention Control and Countermeasure Plan.
14. Storm water from the facility discharges to Shasta Lake and is regulated under the General NPDES Permit for Storm Water Discharges Associated with Industrial Activities.

DESCRIPTION OF SITE

15. Jones Valley Resort lies within the Shasta Dam Hydrologic Unit (506), Shasta Lake Hydrologic Area (506.10) Calwater 2.1. The underlying soil in the disposal area consists of reddish brown, gravelly clay loam to a depth of 20 to 40 inches, and is underlain by highly weathered fractured sandstone, siltstone, and mudstone. The average percolation rate of native soils is 5.7 minutes per inch (Source: Pace Civil Inc.).
16. The average annual rainfall is approximately 60 inches and the average annual evaporation rate is approximately 70 inches (Shasta Dam Station, U.S Bureau of Reclamation).
17. Drinking water for the resort is collected from an on-site well approximately 700 feet from the marina leachfield and 1,100 feet from the residential leachfield. The well was constructed in October 2006 and is drilled to a total depth of 265 feet. Shasta County Department of Resource Management regulates drinking water for Shasta Lake Resort and Jones Valley Marina.
18. Each houseboat is equipped with potable and non-potable water supplies. The houseboat's potable water is received from Jones Valley Resort's domestic water supply. The non-potable water is pumped from Shasta Lake, directly beneath the houseboat.

CEQA AND OTHER CONSIDERATIONS

19. The action to revise waste discharge requirements for ongoing operations of the existing Facility is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.).
20. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*, (Basin Plan) designates beneficial uses, establishes water quality objectives and contains implementation plans and policies adopted by the State

Water Resources Control Board. Pursuant to California Water Code Section 13263(a), waste discharge requirements must implement the Basin Plan.

21. Surface water drainage is to Shasta Lake, a tributary of the Sacramento River. The Basin Plan designates the beneficial uses of Shasta Lake as municipal and domestic supply; agricultural supply; industrial supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; spawning reproduction and/or early development; wildlife habitat; and navigation.
22. The Basin Plan designates the beneficial uses of underlying groundwater as municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
23. The Basin Plan establishes numerical and narrative water quality objectives for surface water and groundwater within the basin. Water quality objectives are the limits or levels of water quality constituents established for reasonable protection of beneficial uses of water or the prevention of nuisances.
24. State Water Resources Control Board Resolution No. 68-16 Statement of Policy with Respect to Maintaining High Quality of Waters of the State (a.k.a. Antidegradation Policy), requires the Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in Regional Water Board policies. This Order requires effluent and groundwater monitoring to assure continued protection of beneficial uses of waters of the state.
25. Existing groundwater monitoring data for the Facility is inadequate for determining compliance with Resolution 68-19. Therefore, in order to determine compliance with Resolution 68-19, regular groundwater monitoring must be conducted to establish downgradient groundwater concentrations for selected constituents.
26. The local economy is sustained substantially by recreational activities on Shasta Lake, therefore continued operation of the marina is important to the economic vitality of the region. Prior to implementation of the MOU No. 04-MU-1151458-004, gray water was directly discharged to surface waters (Shasta Lake). Removing the direct discharge of waste to surface waters and discharging the waste to a disposal field will result in additional treatment, which otherwise would not have occurred, thus providing greater protection to waters of the state and benefiting the people of California.

27. California Water Code Section 13267 states, in part, that:

“In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the qualities of the waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The Regional Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

28. The Monitoring and Reporting Program required by this Order is necessary to assure compliance with these waste discharge requirements.

PROCEDURAL REQUIREMENTS

19. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe revised waste discharge requirements for the discharges of waste to land, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

20. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the revision of Waste Discharge Requirements.

21. Any person adversely affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review the action in accordance with Sections 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Board Office of Chief Council, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date the action was taken. Copies of the law and regulations applicable to the filing of a petition are available on the Internet at http://www.swrcb.ca.gov/water_laws/index.html and will be provided upon request.

IT IS HEREBY ORDERED, pursuant to Sections 13263 and 13267 of the California Water Code, that Order No. 94-018 is rescinded, and that Shasta Lake Resorts Limited Partnership and the U.S. Department of Agriculture, Forest Service, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of 'hazardous waste' at this Facility is prohibited. For the purpose of this Order, the terms, 'hazardous waste' and 'designated waste' are defined in Title 27, California Code of Regulations (CCR).
2. The discharge of wastewater from hot tub treatment or use to surface waters or surface water drainage courses is prohibited.
3. The by-pass or overflow of untreated or partially treated wastewater from the sewage disposal system is prohibited.
4. The discharge of gray water from houseboats to surface waters is prohibited.
5. The discharge of solid or liquid waste or pollutants, to groundwater, surface water, or surface water drainage courses is prohibited.

B. Discharge Specifications

1. Neither the treatment nor the discharge of waste shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.
2. The domestic wastewater discharge from the marina to the leachfield shall not exceed 10,400 gallons per day.
3. The discharge shall not cause degradation of any water supply.
4. The discharge shall remain within the designated disposal area at all times.
5. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
6. Objectionable odors originating at this facility shall be investigated, and controlled. Failing treatment system components shall be repaired.
7. Solid waste shall be properly contained to prevent waste or leachate from entering surface waters.
8. Deodorizing chemicals and chemicals used for houseboat and facility maintenance shall be stored in containers designed to prevent discharges to groundwater, surface water, or surface water drainage courses.

C. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program No. R5-2007-0104, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.
2. The Discharger shall submit **by 1 September 2007** a work plan to install a groundwater detection monitoring network in accordance with Title 27, CCR.
3. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (Standard Provisions)," dated 1 March 1991, which are part of this Order.
4. The Discharger shall dispose of sludges and other solids removed from waste disposal systems in a manner that is consistent with Title 27, of the CCR and approved by the Executive Officer.
5. The Discharger shall comply with the standards contained in CCR, Title 23, Division 3, Chapter 20, Sections 2815 through 2829, *Standards for the Removal of Sewage from Vessels*.
6. The Discharger shall comply with the standards contained in the CCR Chapter 6.67, Health and Safety Code, Sections 25270-25270.13, *Aboveground Storage of Petroleum*.
7. The Discharger shall report to the Regional Water Board any material change or proposed change in character, location, or volume of the discharge or chemical or cleaning agents used.
8. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Regional Water Board.
9. The U.S. Department of Agriculture, Forest Service, as administrator of the property at which the discharge occurs, is ultimately responsible for ensuring compliance with these requirements. Shasta Lake Resorts Limited Partnership retains primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against the U.S. Department of Agriculture, Forest Service only in the event that enforcement actions against Shasta Lake Resorts Limited Partnership are ineffective or would be futile.

10. A copy of this Order and its attachments shall be maintained at Jones Valley Resort and the U.S. Department of Agriculture, Forest Service local office for reference by key operating personnel.
11. The Regional Water Board will review this Order periodically and revise requirements when necessary.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 2 August 2007.

(original signed by)
PAMELA C. CREEDON, Executive Officer

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0104

FOR
SHASTA LAKE RESORTS LIMITED PARTNERSHIP
DBA JONES VALLEY RESORT
AND
U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
SHASTA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the sewage and/or gray water collection and disposal system, surface water, groundwater, houseboat maintenance area, and above ground petroleum storage area at Jones Valley Resort. The Discharger shall submit monthly monitoring reports to the Regional Water Board by the end of the month following the reporting period in which samples were collected and/or observations made.

SEWAGE COLLECTION SYSTEM MONITORING

Wastewater from the marina and houseboats is pumped from the docks to a series of septic tanks on-shore with a total capacity of 19,000 gallons. A two-inch force main carries the effluent to a disposal field where a splitter box diverts the flow to two zones of leach fields.

The Discharger shall inject an approved tracer dye, on a quarterly basis, into the sewage collection system on the marina and report whether dye was observed. If dye is observed, the release shall be reported to the Regional Water Board within 24 hours, and corrective action measures shall be implemented immediately.

SEPTIC TANK AND HOLDING TANK MONITORING

Septic tank maintenance inspections shall be performed at least annually. Information concerning inspections and maintenance activities (including, but not limited to, pumping, replacement, and repairs) shall be reported in the corresponding monthly monitoring report.

The contents from the holding tank, marina septic tank, and residential septic tank shall be periodically removed. The last date of service of each septic tank and holding tank and the quantity of sewage removed shall also be reported.

In addition, the Discharger shall record the quantity of sewage pumped from the marina to the holding tank and from the holding tank to the leachfield on a daily basis and report the results monthly.

LEACHFIELD MONITORING

The Discharger shall inspect the leachfields and report the presence or absence of saturated soils or standing liquid each month.

A grab sample of the septic tank effluent shall be collected semiannually prior to discharging to the marina leachfield and analyzed for the following:

Table 1 Summary of leachfield monitoring

PARAMETER	UNITS	FREQUENCY
Kjeldahl-Nitrogen	mg/L	Semiannual
Nitrate-Nitrogen	mg/L	Semiannual
Fecal Coliform	MPN/100 mL	Semiannual
Formaldehyde	µg/L	Semiannual
Biological Oxygen Demand	mg/L	Semiannual
Total Suspended Solids	mg/L	Semiannual

*Semiannual samples shall be collected in March and August each year

GROUNDWATER MONITORING

The Discharger shall install a groundwater water monitoring network, which consists of at least two downgradient monitoring wells and one background well. Groundwater monitoring wells shall be sampled for the parameters and corresponding frequency listed in Table 2.

Table 2 Summary of groundwater monitoring

PARAMETER	UNITS	FREQUENCY
Nitrate-Nitrogen	mg/L	Quarterly
Kjeldahl Nitrogen	mg/L	Quarterly
Total Coliform	MPN/100 mL	Quarterly
Fecal Coliform	MPN/100 mL	Quarterly
Formaldehyde	µg/L	Quarterly
Total Organic Carbon	mg/L	Quarterly
Total Dissolved Solids	mg/L	Quarterly
Electrical Conductivity	µmhos/cm	Quarterly
Dissolved Oxygen	mg/L	Quarterly

SURFACE WATER MONITORING

Surface water samples shall be collected around the marina each month from May through September, in the general areas depicted in Attachment B, and analyzed for total and fecal

coliform (Standard Method 9221 or 9222). Samples shall be collected, even if the dock configuration changes.

If any fecal coliform analysis exceeds 400/100 mL, or if the geometric mean of fecal coliform analyses taken within any 30 day period exceeds 200/100 mL, the Discharger shall immediately report the results, dye test the sewage collection system, and re-analyze all receiving water stations. Sampling shall continue daily until compliance is achieved.

STANDARD OBSERVATIONS

The moorage area shall be visually inspected, at least monthly, to determine if boats are discharging gray water while moored at the facility. If gray water discharges are occurring, the vessel identification number and moorage area shall be noted and reported to the Regional Water Board. Visual observations and inspection notes shall be included in the monthly monitoring report. A log shall be kept of the water conditions with attention given to the presence or absence of:

- Floating or suspended matter
- Oil sheen or slick
- Discoloration
- Scum or foam
- Aquatic life

REPORTING

The Discharger shall arrange monitoring data in tabular form so that the date, sample type, and analytical result for each sample area is readily discernible. The data shall be summarized in such a manner to illustrate clearly compliance with the waste discharge requirements. The results of any monitoring done more frequently than required in the MRP shall be reported to the Regional Water Board.

The Discharger shall implement the above monitoring program as of the date of this Order. The Discharger shall comply with the MRP until a revised MRP is issued by the Executive Officer.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

INFORMATION SHEET

ORDER NUMBER R5-2007-0104
SHASTA LAKE RESORTS LIMITED PARTNERSHIP
DBA JONES VALLEY RESORT AND
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE
SHASTA COUNTY

The U.S. Department of Agriculture, Forest Service (Forest Service) administers the Shasta Lake Recreation Area for the public. In November 1991, the Forest Service issued Jones Valley Resort a 20-year term special use permit for the purpose of operating and maintaining improvements on approximately 20 acres along Jones Valley Cove in the Pit River arm of Shasta Lake. Jones Valley Resort is generally open year round, however most visitation occurs from May through September.

The marina consists of covered and uncovered moorage for private vessels, a small maintenance shop/office building, store, storage areas, a floating public restroom, houseboats, small boat and personal water craft rentals, sewage pump-out stations, a floating petroleum storage tank, and five gasoline dispensers for fueling vessels. Drinking water for the resort is collected from groundwater supply wells.

There are currently 450 commercial houseboat special use permits issued for Shasta Lake. The Forest Service has allocated 31 permits to Jones Valley Resort. The Forest Service has also issued 648 special use permits to private houseboats. Private houseboats may be moored at any marina on Shasta Lake. Currently, no private houseboats are moored at Jones Valley Resort.

Houseboats are categorized by the Forest Service as Recreational Overnight Vessels (ROV). An ROV is defined as any watercraft that has dimensions of 56 feet by 15 feet and is designed for overnight occupancy on the water. The Whiskeytown-Shasta-Trinity National Recreation Area Management Guide states that any vessel meeting the definition of an ROV, used or stored on Shasta Lake more than 30 days per calendar year, must be authorized under special-use permit.

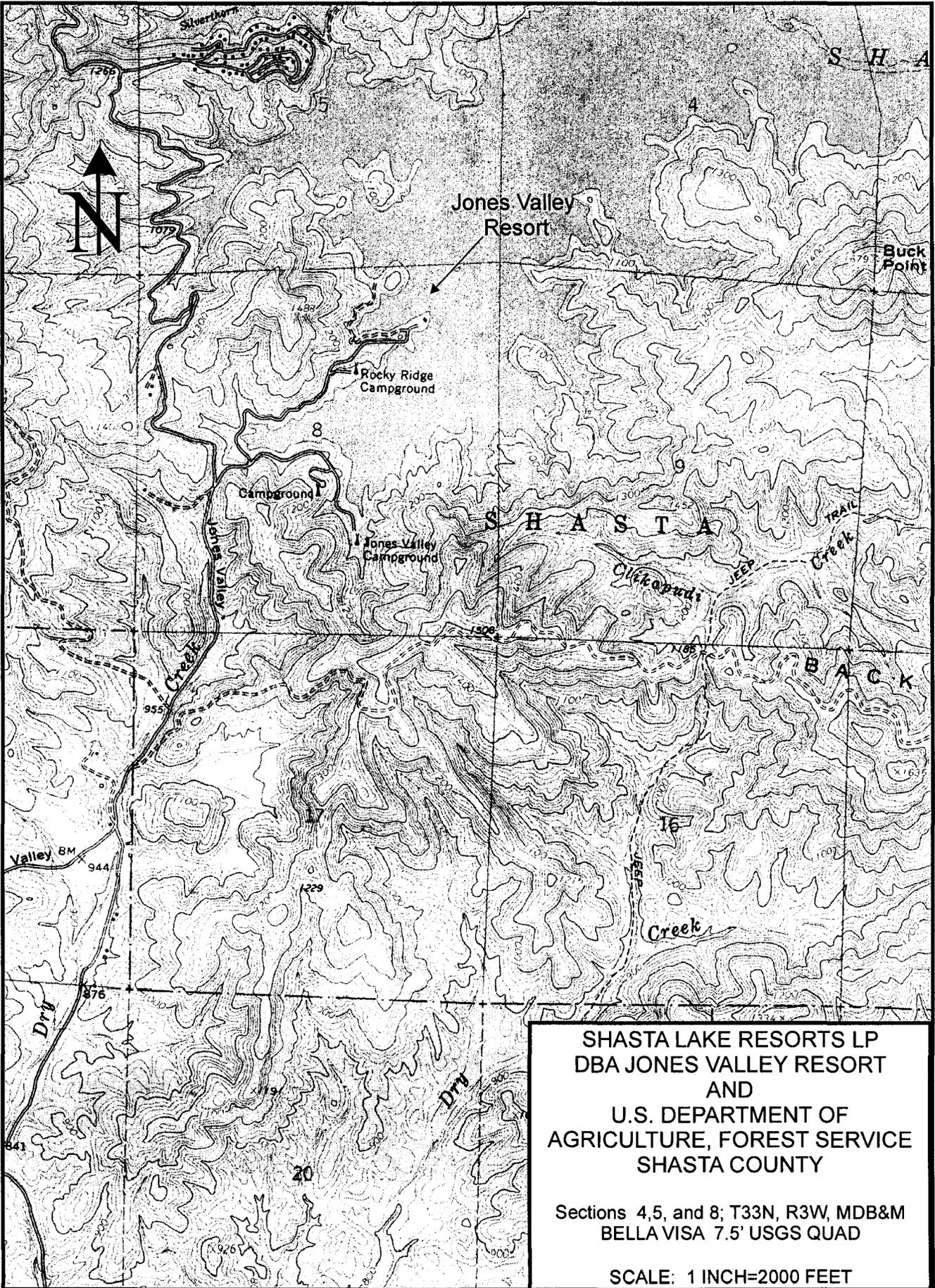
Sewage is removed from houseboat holding tanks at one of three pump-out stations and transferred to a holding tank on the marina. The wastewater is then pumped to a series of septic tanks with a total capacity of 19,000 gallons. Check valves are installed at various locations along the pipe to prevent backflow, and manual shut-off valves are installed between the pipe and hose connections. A two-inch force main carries the effluent to the disposal field. At the disposal field, effluent enters a splitter box where flow is diverted to two zones of leach lines. The wastewater collection and disposal system is designed to treat up to 10,400 gallons of wastewater per day.

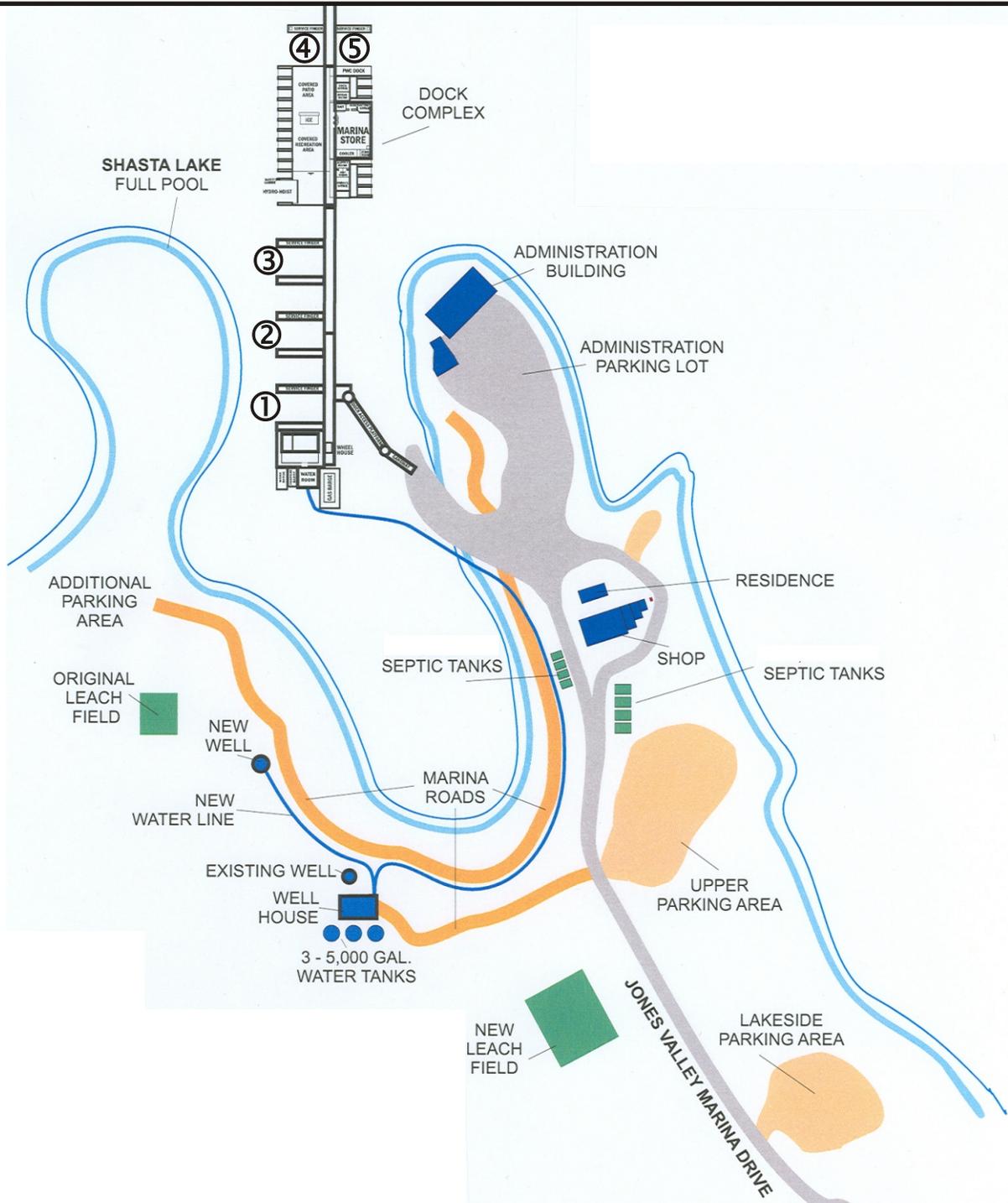
Wastewater from the public restroom is collected in a holding tank beneath the building. The tanks liquid level is determined by a float gauge. When capacity is reached, the float triggers an alarm and the effluent is pumped through the main sewage line to the leachfield.

On 6 September 2001, the Regional Water Board adopted a Resolution authorizing the Executive Officer to enter into a memorandum of understanding with the Forest Service to eliminate gray water discharges from houseboats to Shasta Lake after 6 September 2006. The wastewater collection and disposal system at Jones Valley Resort was expanded in 2006 to accommodate increased waste flow rates resulting from the capture of gray water.

Gasoline is stored in a 10,000-gallon double wall above ground petroleum storage tank (AST) that floats on a form above Shasta Lake. The fuel is transferred to five dispensers through galvanized piping and/or rubber hose within the dock and over-water. Secondary containment boxes are installed beneath the dispensers and each pipe connection. Shut-off valves are found along the pipe and hosing. Absorbent materials are available at various locations to prevent and/or clean-up petroleum releases. The Discharger monitors the AST, piping, and containment boxes in accordance with their Spill Prevention Control and Countermeasure Plan.

KB: sae
8 August 2007





SHASTALAKE RESORTS LP
 DBA JONES VALLEY MARINA
 AND
 U.S. DEPARTMENT OF
 AGRICULTURE, FOREST SERVICE
 SHASTA COUNTY

SITE MAP
 NOT TO SCALE
 LOCATIONS ARE APPROXIMATE

NOTES:
 ① SURFACE WATER
 SAMPLE LOCATION