CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0105

WASTE DISCHARGE REQUIREMENTS
FOR
HOLIDAY FLOTELS INC. DBA PACKERS BAY MARINA
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. 94-227, adopted by the Regional Water Board on 5 August 1994, prescribed requirements for the discharge of domestic wastes from Packers Bay Marina to a subsurface holding tank. Holiday Flotels Inc. and the U.S. Department of Agriculture, Forest Service (hereafter Discharger) submitted a Report of Waste Discharge (ROWD), dated 30 April 2007, requesting revised Waste Discharge Requirements (WDRs) for Packers Bay Marina to include an on-site sewage treatment and disposal system.

2. The resort is operated by the Holiday Flotels Inc. under a special use permit from the U.S. Department of Agriculture, Forest Service, who administers the property (Assessor's Parcel No. 085-280-002) for the public.

3. The resort and marina are located in Section 29, T34N, R4W, MDB&M, as shown on Attachment A. Site topography is relatively steep (approximately 30 percent), sloping toward Shasta Lake, and surrounding land is undeveloped.

4. The facility consists of a marina service dock, floating fuel barge, 1,000-gallon sewage/solid waste barge, office, and minor boat repair shop. Land-based facilities include, a permanent residence, public sanitary facilities, maintenance building, parking area, and access road, as shown on Attachment B. Prior to September 2006, approximately 84,000 gallons of wastewater (toilet waste) from the marina was pumped to a holding tank annually (*2006 monitoring data*). The holding tank contents are periodically removed by a commercial hauler for off-site disposal. Wastewater flow rates are greatest during the months of May through October 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. Plans for an on-site sewage treatment and disposal system include the installation of two 2,000-gallon septic tanks and 724 linear feet of leach line. Leachfields will be constructed using Quick 4 High Capacity infiltrator chambers (Infiltrator Systems Inc.) in 10 separate trenches. The system is designed to treat approximately half of the currently generated black and gray water produced. The maximum loading rate is 1,872 gallons per day. Wastewater will be trucked from the marina's sewage/solid waste barge to the new disposal system, and to the existing 3,200 gallon holding tank when necessary. Periodically wastewater will be pumped out of the holding tank and transported to a septage receiving facility. The Redding Regional Septage Disposal Facility is the nearest facility capable of receiving the waste.

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 26 commercial houseboats. Currently all 26 commercial houseboats have been retrofitted with gray water holding tanks.

10. 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. Wastewater generated from houseboat cleaning is directly discharged to Shasta Lake.

11. Gasoline is stored in an aboveground tank that floats on a frame above Shasta Lake. The fuel is transferred to a dispenser 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.

12. 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

13. Packers Bay Marina lies within the Shasta Dam Hydrologic Unit (506), Shasta Lake Hydrologic Area (506.10) Calwater 2.1. Two soil classification trenches were dug to a depth of 108 inches to characterize soil within the selected disposal area. The underlying soil in the disposal area consists of silty clay with well-sorted gravel. The selected area appears to have been filled with a non-native fill material approximately 30 years ago. The average percolation rate of soil is 47.5 minutes per inch, with rates ranging from 12 to 60 minutes per inch (Source: VESTRA Resources Inc.). The maximum allowable application rate of sewage with a percolation rate of 47.5 minutes per inch is approximately 1 gallon per square foot per day, according to the *Manual of Septic Tank Practice*.

14. 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).

15. Each houseboat is equipped with potable and non-potable water supplies. The houseboat's potable water is received from on on-site water supply well at Packers Bay Marina. The non-potable water is pumped from Shasta Lake, directly beneath the houseboat.

CEQA AND OTHER CONSIDERATIONS

16. 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 deq.). However, the U.S. Forest Service completed an Environmental Assessment of all proposed on-site wastewater disposal projects, and issued a Decision Notice/Finding of No Significant Impact in 2006.

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

18. 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.

19. The Basin Plan designates the beneficial uses of underlying groundwater as municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

20. 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.

21. 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.

22. 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.

23. 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.

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

25. "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."

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

PROCEDURAL REQUIREMENTS

27. 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.

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

29. 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 Holiday Flotels Inc. 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:

B. 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. R5-2007-0105, 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 maintain the on-site wastewater treatment/disposal system to ensure suitable treatment and operation. Maintenance may include but is not limited

to, cleaning the filter in the first septic tank and the biotube vault in the second septic tank once a year.

5. 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.

6. 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*.

7. 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*.

8. 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.

9. 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.

10. 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. Holiday Flotels Inc. 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 Holiday Flotels Inc. Limited Partnership are ineffective or would be futile.

11. A copy of this Order and its attachments shall be maintained at Packers Bay Marina and the U.S. Department of Agriculture, Forest Service local office for reference by key operating personnel.

12. 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

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0105

FOR
HOLIDAY FLOTELS INC. DBA PACKERS BAY MARINA
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 Packers Bay Marina. 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 houseboat pumpouts and floating sanitary facilities into a 1,000 gallon holding tank on a specially constructed barge. When the holding tank approaches capacity, the barge is moved to shore and the contents pumped into a portable truck-mounted sewage tank, which also received wastewater from land-based facilities. The portable tank is transported to a 3,200 gallons underground concrete holding tank where it is emptied. Up to 1,872 gallons of wastewater may also be pumped to an on-site wastewater treatment/disposal system.

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 and marina 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 to the leachfield on a daily basis and report the results monthly.

LEACHFIELD MONITORING

The Discharger shall inspect the leachfield 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 marina 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

_____

KB: sae
8 August 2007

INFORMATION SHEET

ORDER NO. R5-2007-0105
HOLIDAY FLOTELS INC.
DBA PACKERS BAY MARINA AND
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE
SHASTA COUNTY

Holiday Flotels Inc. dba Packers Bay Marina operates under a Special Use Permit from the U.S. Department of Agriculture, Forest Service. Existing marina facilities include rental of 26 commercial houseboats; a service dock with floating fuel barge, sewage/solid waste barge, store, office/floating sanitary facilities, and minor boat repair shop. Existing land-based facilities include on permanent residence, public sanitary facilities, maintenance building, parking area, and access road. No private land ownership is associated with the Packers Bay Marina operations.

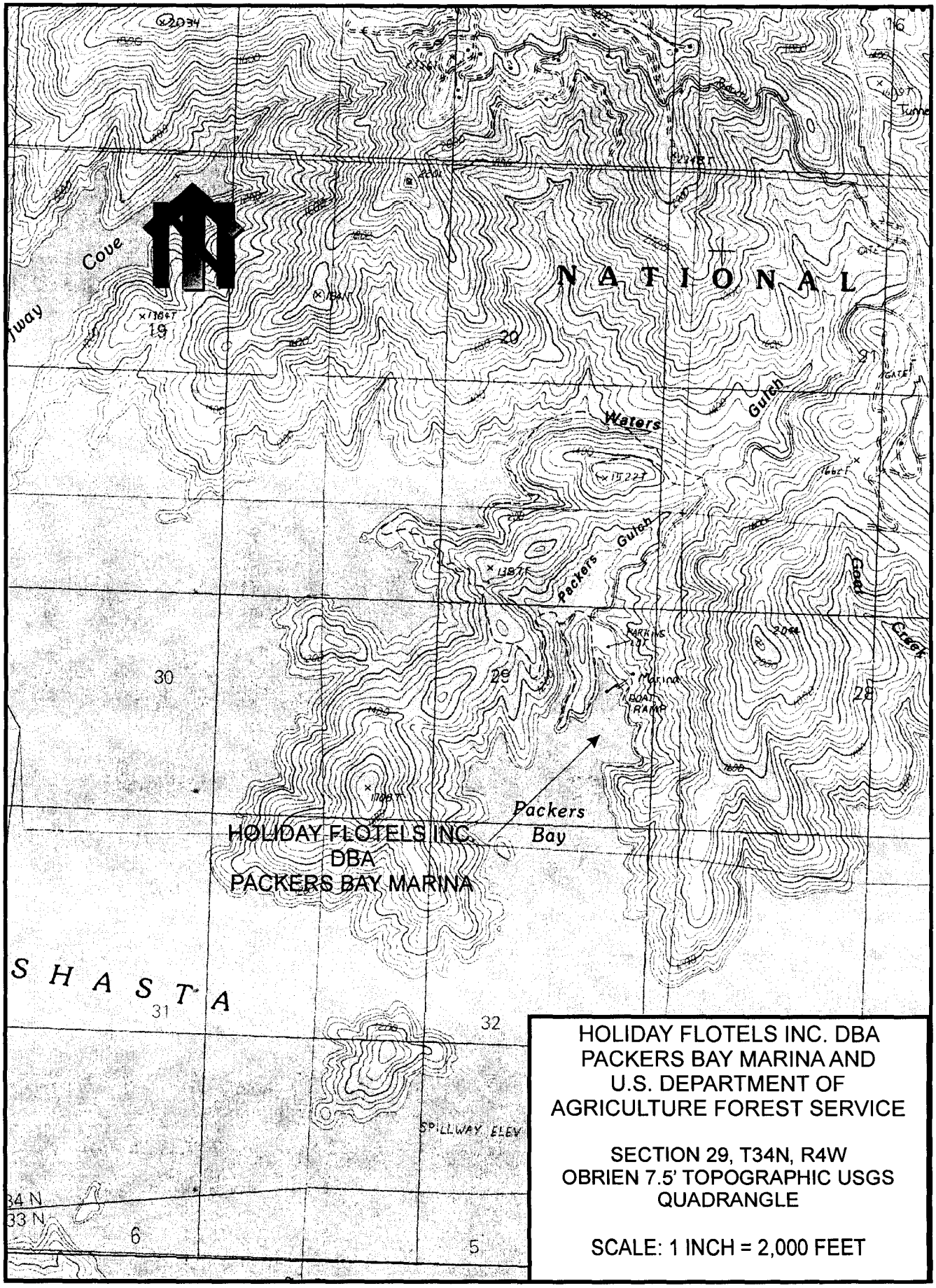
Packers Bay Marina generates a variable quantity of domestic sewage, from houseboat pumpouts and sanitary facilities, during the months of May through October. The wastewater is pumped to a 1,000-gallon containment barge, until it can be moved to shore and transferred to a 1,000-gallon transfer truck. Up to 1,872 gallons of wastewater may be pumped to the on-site treatment/disposal system per day. Any additional wastewater is transported to a 3,200-gallon holding tank, which is emptied periodically and transported to a septage receiving facility, such as the Redding Regional Septage Disposal Facility, operated by Shasta County.

Other wastes may be discharged to Shasta Lake as a result of marina operations such as the refueling of vessels, storage of fuel and chemicals, and maintenance of the facilities including cleaning, washing, and refurbishing of rental houseboats. Fuel is stored in a 3,400-gallon tank encompassed by a secondary steel flotation tank. Several monitoring ports were installed to allow access to each floatation chamber and the bottom of the tank. Two land-based above ground storage tanks are utilized to deliver fuel to portable generators, which supply electrical power to the marina and maintenance building.

Boat repair occurs within the designated boat yard and maintenance area. Storm water discharges from these areas are regulated under a separate general NPDES permit.

KB: SAE

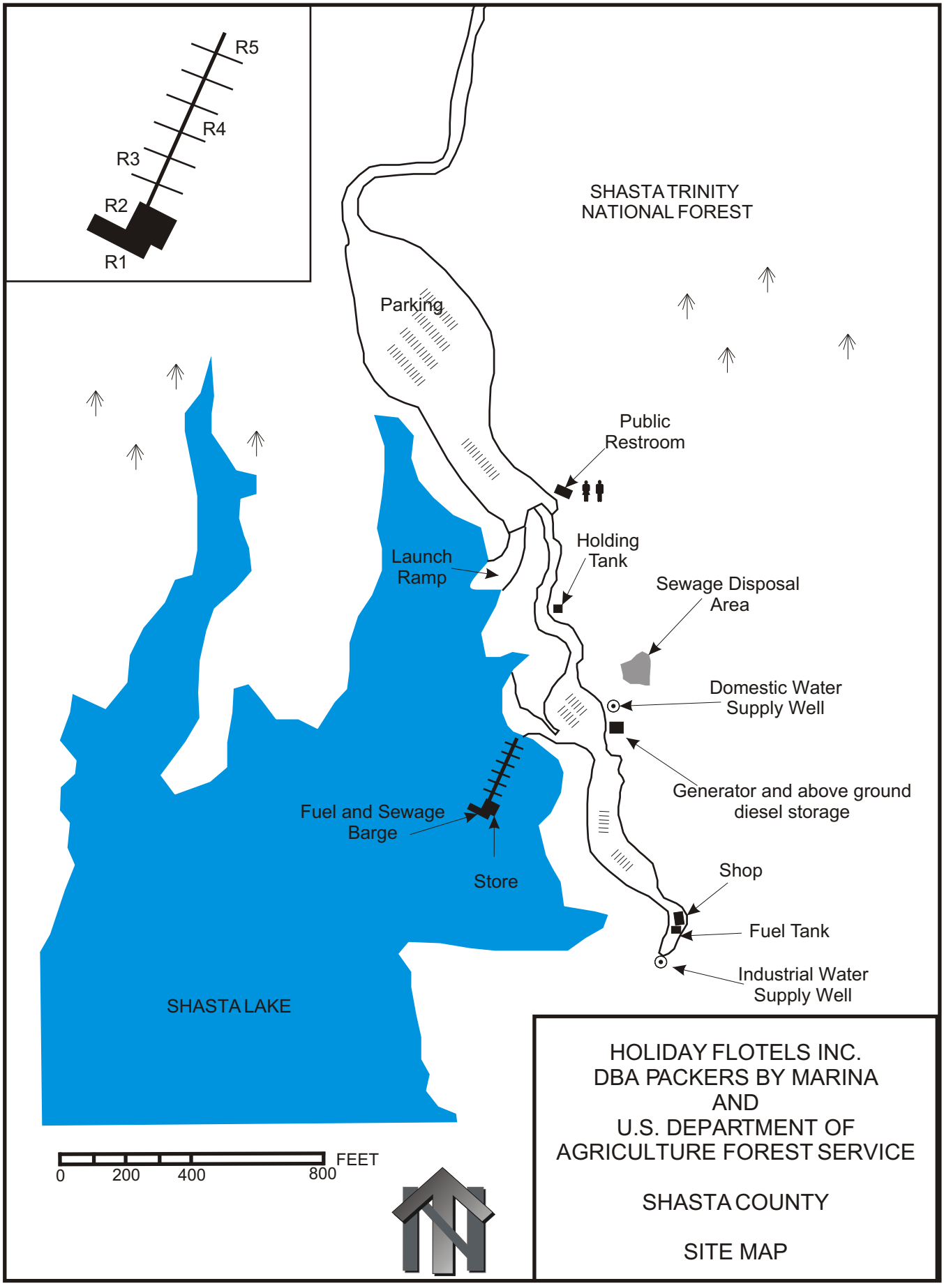
8 August 2007



HOLIDAY FLOTELS INC. DBA
PACKERS BAY MARINA AND
U.S. DEPARTMENT OF
AGRICULTURE FOREST SERVICE

SECTION 29, T34N, R4W
OBRIEN 7.5' TOPOGRAPHIC USGS
QUADRANGLE

SCALE: 1 INCH = 2,000 FEET


R5
R4
R3
R2
R1
SHASTA TRINITY
NATIONAL FOREST
Parking
Public
Restroom
Holding
Tank
Launch
Ramp
Sewage Disposal
Area
Domestic Water
Supply Well
Generator and above ground
diesel storage
Fuel and Sewage
Barge
Store
Shop
Fuel Tank
Industrial Water
Supply Well
SHASTA LAKE
0
200
400
800
FEET
HOLIDAY FLOTELS INC.
DBA PACKERS BY MARINA
AND
U.S. DEPARTMENT OF
AGRICULTURE FOREST SERVICE
SHASTA COUNTY
SITE MAP