

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6T- 2006-0020
WDID NO. 6A180506011

WASTE DISCHARGE REQUIREMENTS
FOR

SPALDING COMMUNITY SERVICES DISTRICT
SEWAGE EVAPORATION PONDS

_____Lassen County_____

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Discharger

For the purposes of this Order, Spalding Community Services District (CSD) is referred to as the "Discharger."

2. Facility

For the purposes of this Order, the Discharger's sewage evaporation ponds are referred to as the "Facility." The Facility has not yet been constructed. Domestic sewage from approximately 800 septic tanks will be collected and disposed of at the Facility.

3. History of Previous Regulation by the Water Board

This is a new item before the Water Board. However, pertinent history for this Order includes the following. The Water Quality Control Plan for the North Lahontan Basin was amended in September 14, 1984 and the Water Board adopted the following waste discharge prohibition:

"The discharge of waste from the Spalding Tract or Stones-Bengard subdivision with other than zero discharge of nutrients to any surface water or ground waters in the Eagle Lake Basin is prohibited after September 14, 1989."

In May of 1991 the Water Board issued over 600 Cease and Desist Orders to individual property owners for violating the above-cited prohibitions.

The Discharger has been in various planning stages for a collection and disposal system for the community since before the issuance of the Cease and Desist

Orders. The construction and operation of the disposal system will eliminate subsurface discharges of domestic wastewater in the area served by this Facility, and thereby eliminate discharges of nutrients to comply with the prohibition.

4. Reason for Action

The Discharger proposes to construct and operate a community sewage collection, treatment and disposal system that will collect the sewage liquids from individual septic tanks serving a mixture of homes and commercial businesses in the Spalding Tract development. The Discharger submitted a complete report of waste discharge on December 27, 2005 and revised the report on April 4, 2006. This Order specifies applicable requirements for the construction and operation of the proposed Facility.

5. Facility Location

The Facility is to be sited approximately two and one-half miles north of the Spalding Tract, Sections 24 and 25 of T33N, R4W, MDB&M, as shown on Attachment "A."

6. Description of Facility and Discharge

The Facility will be the disposal location for the sewage from both the residential and commercial development in the Spalding Tract subdivision at Eagle Lake. Each residential or commercial connection will maintain and operate an individual septic tank that will provide partially-treated wastewater to the collection system. The individual septic tanks are not under the ownership or control of the Discharger and are not regulated under the provisions of this Order. The Discharger will ensure that each septic tank connected to the sewage collection system has a filter installed to prevent solids above a certain size from entering the collection system. Most of the connections will operate by gravity. Sewage from over 50 sites will be pumped into the gravity main collection system using individually-owned pumping systems, as required by the Discharger.

The collection system will convey the sewage to three evaporation ponds that are located approximately two miles north of the Spalding Tract. Pond 1 will be 9.2 acres, and Ponds 2 and 3 will be 5.5 acres each, as shown in Attachment "B." All ponds will be constructed to a minimum depth of seven feet (five feet of storage) and will have a 60-mil high-density polyethylene liner. All of the ponds will both store and evaporate liquids. Total storage with two feet of freeboard is estimated to be between 32 and 33 million gallons. The net pan evaporation rate is approximately 41 inches per year.

The disposal system is designed for an annual average daily flow rate of 37,500 gallons per day, which translates to 13.7 million gallons annually. The design flow rates are based on assumed rates for occupancy (year-round/seasonal),

wastewater generation, and growth (to build out). Of the estimated 1000 connections at build out approximately 590 are currently developed.

A past survey indicated current occupancy patterns are approximately:

1 of 4 homes - permanent, year-round;

2 of 4 homes - greater than six months a year; and

1 of 4 homes - less than six months a year.

These patterns may change following the construction of the Facility.

7. Sludge Treatment and Disposal

The Discharger maintains that each septic tank owner will be responsible for the storage and proper disposal of the accumulated solids in their respective septic tank. Because filters will be required for each septic tank, solid accumulation at the Facility is anticipated to be minimal, mainly solids and salts precipitated by evaporation. The estimated solids build up from evaporation only in the ponds over a thirty-year period is less than one-half inch.

8. Authorized Disposal Site

The authorized disposal site for the discharge of partially treated sewage from the individual septic systems is at Ponds 1, 2, and 3. No other discharge location is authorized.

9. Site Geology

The Eagle Lake region has outcrops of basalt, older lake deposits and recent lake deposits. A composite soil sample collected at the proposed site for the evaporation ponds was characterized as clayey sand.

10. Site Hydrology

The Facility will be located at an elevation of 5135 feet above mean sea level. Water Board Resolution No. 82-6 defines the high water line of Eagle Lake to be 5117.5 feet. There are no surface waters at the proposed location of the Facility.

11. Site Hydrogeology

Depth to ground water at the proposed disposal location is estimated to be 15 feet below grade (5120 feet mean sea level). Ground water in the area is generally good in quality. No water samples have been collected to date in the groundwater beneath the Facility. This Order requires that ground water monitoring wells be constructed and sampled twice, at a minimum, prior to discharging to the evaporation ponds. For the purposes of this Order the pre-discharge sample results will be considered representative of background and/or pre-project water quality unless the Discharger collects additional samples to

characterize natural variability prior to discharging and provides the results to the Water Board. After the discharge to the Facility begins, ground water monitoring shall be conducted quarterly.

12. Basin Plan

The Water Board adopted the *Water Quality Control Plan for the Lahontan Region* (Basin Plan), which became effective in 1995. This Order implements the requirements of the Basin Plan.

13. Receiving Water

The potential receiving water for the discharge is the Eagle Lake Valley Basin (Department of Water Resources Basin No. 6-96). The beneficial uses for the ground waters in the Eagle Lake Valley Basin, as specified and defined in the Basin Plan, are:

- a. Municipal and Domestic Supply (MUN)
- b. Agricultural (AGR)
- c. Fresh Water Replenishment (FRSH)

14. California Environmental Quality Act Compliance

The Discharger, acting as the California Environmental Quality Act (CEQA, Public Resources Code section 21000, et seq.) Lead Agency, prepared a Draft Environmental Impact Report (EIR) for the *Spalding Community Services District Wastewater Collection and Treatment Facilities* (Project) and circulated the Draft EIR for a public review and comment. The Final EIR for the Project was completed and certified by the Discharger on May 2, 2000.

When an EIR has been prepared for a project, a Responsible Agency shall not approve the project as proposed, pursuant to California Code of Regulations, title 14, section 15096, subdivision(g)(2), if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. The Water Board, acting as a CEQA Responsible Agency, has evaluated the Final EIR for significant and potentially significant impacts to water quality, and the adequacy of proposed mitigation measures to lessen or avoid any such effects on water quality.

As a result of this evaluation, the Water Board finds that changes or alterations have occurred in the Project description and proposed mitigation measures that deviate in some respects from the specific alternatives evaluated by the Lead Agency. Potentially significant water quality impacts and mitigation measures due to the changes are avoided or reduced to insignificant levels by actions proposed by the Discharger to implement feasible impact avoidance, minimization and mitigation measures, as verified by monitoring and reporting requirements of this Water Board Order. Attachment D provides detailed CEQA

discussion and findings supporting the Water Board's action to approve the project and to issue waste discharge requirements for the Facility based on the Final EIR and/or other information in the record. This Responsible Agency statement is supported by substantial evidence in the record. The Water Board will file a CEQA Notice of Determination with the State Clearinghouse following adoption of waste discharge requirements.

15. Notification of Interested Parties

The Water Board has notified the Discharger and interested parties of its intent to issue waste discharge requirements for the proposed discharge.

16. Consideration of Public Comments

The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13263, the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Flow Limitation

The total flow of wastewater to the authorized disposal site between October 1 and September 30 of consecutive years shall not exceed 13.7 million gallons.

B. Receiving Water Limitations

The discharge of waste shall not cause the presence of the following substances or conditions in the ground waters of the Eagle Lake Valley Basin:

1. Any perceptible color, odor, taste or foaming.
2. Coliform organisms attributable to human wastes.
3. Toxic substances in concentrations that individually, collectively, or cumulatively cause detrimental physiological responses in human, plants, animals, or aquatic life.
4. Identifiable chlorinated hydrocarbons, organophosphates, carbamates, and other pesticide and herbicide groups, in summations, in excess of the lowest detectable levels.

5. Concentrations of chemical constituents in excess of the maximum contaminant levels or secondary maximum contaminant levels based upon drinking water standards specified by the more restrictive of the California Code of Regulations, title 22, Division 4, Chapter 15, or 40 Code of Federal Regulations part 141.

C. General Requirements and Prohibitions

1. The discharge of waste from the Spalding Tract subdivision with other than a zero-discharge of nutrients to any surface waters or ground waters in the Eagle Lake basin is prohibited.
2. The discharge of wastewater except to the authorized disposal site is prohibited.
3. The discharge, bypass, or diversion of raw or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters is prohibited.
4. The integrity of any pond liners shall be maintained throughout the life of the ponds and shall not be diminished as the result of any maintenance or cleaning operation.
5. In the event of an odor or nuisance problem, corrective measures shall be implemented immediately to eliminate the problem.
6. Fencing shall be placed and maintained on the perimeter of the evaporation ponds to prevent public access.
7. The discharge shall not cause a pollution as defined in Water Code section 13050 , or a threatened pollution.
8. Neither the treatment nor the discharge of waste shall cause a nuisance as defined in Water Code section 13050.
9. The use of evaporation ponds to store a hazardous waste, as defined in the California Code of Regulations, title 26, is prohibited. This includes any waste concentrated to hazardous waste levels by the evaporation of liquids in the ponds.
10. The vertical distance between the liquid surface elevation and lowest point in an evaporation pond dike or invert of an overflow structure shall not be less than two (2) feet.
11. If the total flow to the Facility between October 1 and September 30 of consecutive years exceeds 80% of the designed capacity (13.7 million gallons), the Discharger shall file a revised report of waste discharge

signed by a registered California Civil Engineer documenting available capacity relative to anticipated flow increases due to potential new development of parcels in the Spalding Tract or other causes.

12. The Discharger operating under this permit shall be subject to an annual fee pursuant to the California Code of Regulations, title 23, section 2200 et seq. as amended.

II. PROVISIONS

A. Special Provisions for Pond Construction

1. A *Construction Quality Assurance Plan* (CQA plan) was submitted to the Water Board with the report of waste discharge. The CQA plan includes specifications for sub-grade preparation, inspection frequency for liner construction, testing frequency for both destructive testing and non-destructive liner testing, and qualifications for the CQA Officer and the CQA inspector. The evaporation ponds shall be constructed in accordance with construction specifications and the CQA plan.
2. No discharge to the Facility is authorized until the Discharger, through the CQA officer, certifies that the Facility is constructed in accordance with the CQA plan, the certification is accepted in writing by the Water Board Executive Officer and two ground water monitoring sampling events have been conducted with the results submitted to the Water Board.

B. Cease and Desist Orders for Spalding Tract Subdivision

The Water Board will consider rescinding existing Cease and Desist Orders on the Spalding Tract property owners after the Facility is operational, and the Discharger confirms that properties with septic systems are connected to the collection and disposal system in accordance with the Discharger's requirements.

C. Standard Provisions

The Discharger shall comply with the "Standard Provisions for Waste Discharge Requirements" dated September 1, 1994, in Attachment "C," which is made part of this Order.

D. Monitoring and Reporting


1. Pursuant to Water Code section 13267, subdivision(b), the Discharger shall comply with Monitoring and Reporting Program No. R6T-2006-(Proposed) as specified by the Water Board Executive Officer.

2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting" dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

E. Operator Certification

The Facility shall be supervised by personnel possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to *Classification of Wastewater Treatment Plants and Operator Certification*, California Code of Regulations, title 23, section 3670, et seq.

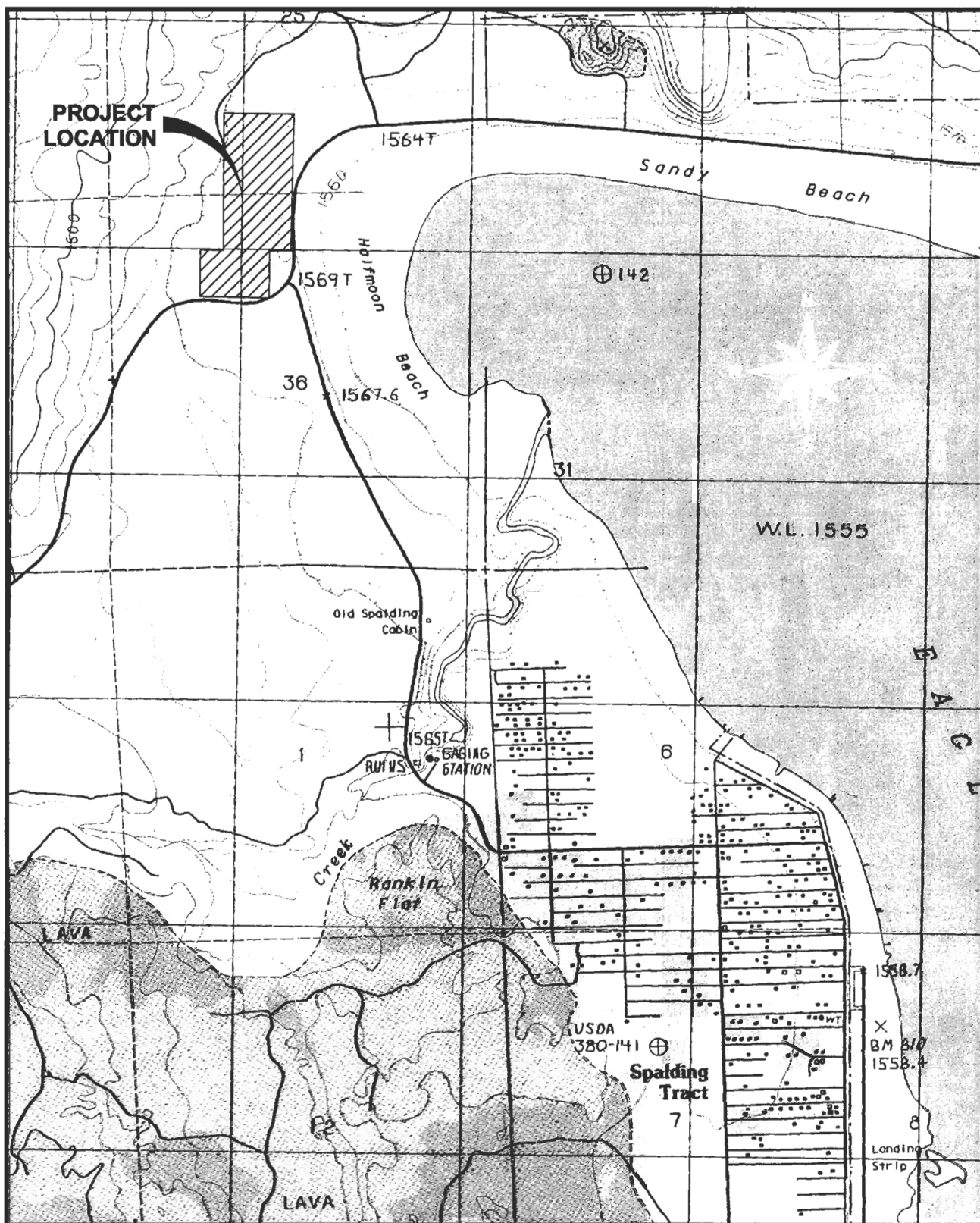
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on May 11, 2006.



HAROLD J. SINGER
EXECUTIVE OFFICER

- Attachments:
- A. Location Map
 - B. Facility Map
 - C. Standard Provisions for Waste Discharge Requirements
 - D. Lahontan Water Board CEQA Findings

ATTACHMENT A



LOCATION MAP

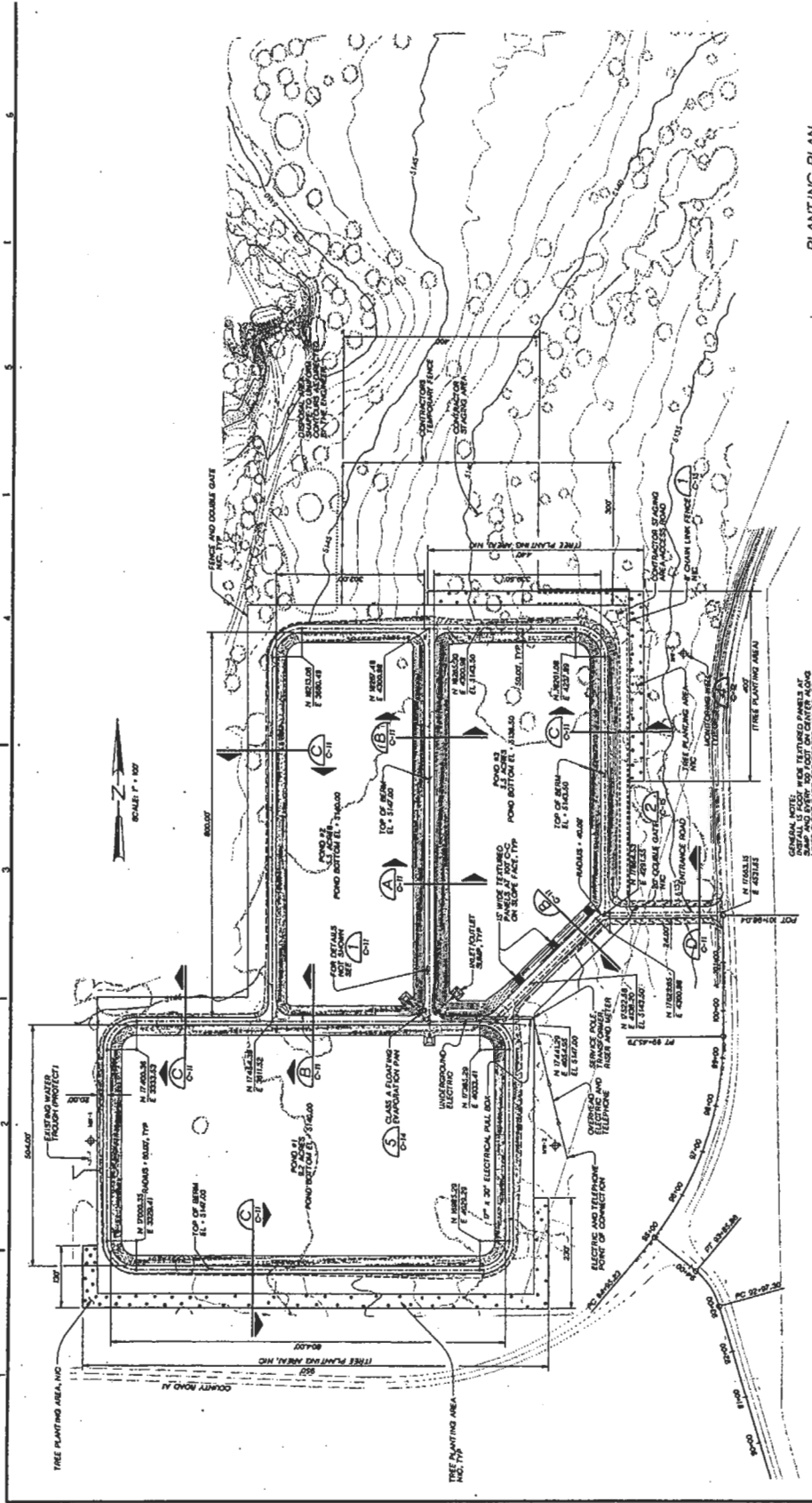
MAP ADAPTED FROM USGS 7.5-MINUTE TOPOGRAPHIC QUAD, SPALDING TRACT, CA

SCALE: 1"=2000'

DATE: 1/10/2002

PROJECT:
SPALDING TRACT SEWER

ATTACHMENT B



PLANTING PLAN

3" JAVANAH NEESE POTYDORA PINE
 10' SPACING
 PLACE 1" REDWOOD BARK TO 3" DIAMETER AROUND TREE STEM.

GENERAL NOTE:
 INITIAL 1/2 FOOT WIDE ELEVATED PANELS AT
 LOWER SLOPE FACE FOR TYPICAL ALL PONDS.

| | | | |
|----------------|----------|--------------------------------------|--|
| SHEET | | SPALDING TRACT SEWER SYSTEM | |
| NO. | DATE | EVAPORATION POND LAYOUT | |
| 1 | 10/10/00 | SPALDING COMMUNITY SERVICES DISTRICT | |
| BY: JACOB | | 500-907 MADROOPY WAY | |
| DATE: 10/10/00 | | SUNNVILLE, CALIFORNIA 95133 | |

ATTACHMENT C

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

STANDARD PROVISIONS FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.
- e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or

refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

- f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

ATTACHMENT D - WATER BOARD CEQA FINDINGS

The Discharger, acting as California Environmental Quality Act (CEQA, Public Resources Code Section 21000, et seq.) Lead Agency, certified a final Environmental Impact Report (EIR) for the Spalding Community Services District Wastewater Collection and Treatment Facilities (Project) on May 2, 2000.

The Final EIR provides a detailed record concerning project effects. The Final EIR includes alternatives analyzed, legal, economic and technical considerations, operational descriptions, and other information crucial to understanding the Project proposal, and sets forth the basis for including or excluding mitigation measures for various identified impacts.

When an EIR has been prepared for a project, a Responsible Agency shall not approve the project as proposed, pursuant to California Code of Regulations, title 14, section 15096(g)(2), subdivision(g)(2) if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. The Water Board, acting as a CEQA Responsible Agency, has evaluated the significant and potentially significant impacts to water quality identified in the Final EIR in order to comply with California Code of Regulations, title 14, section 15096 subdivision(g)(2). As a result of this evaluation, the Water Board finds that changes or alterations have occurred in the Project description and proposed mitigation measures that deviate in some respects from the specific alternatives evaluated by the Lead Agency to avoid or substantially lessen the significant environmental effect(s) as identified in the Final EIR. As discussed below, potentially significant water quality impacts and mitigation measures due to the changes are avoided or reduced to insignificant levels by actions proposed by the Discharger to implement feasible impact avoidance, minimization and mitigation measures. Since these changes to the Project were not specifically analyzed in the Final EIR, an analysis is provided here with regard to water quality.

A detailed summary of findings concerning the significant and potentially significant impacts to water quality is reproduced below from the Final EIR, which provides "Impact Statements and Mitigation Measures" required by the Lead Agency (Discharger). The Final EIR comments on whether feasible mitigation measures were identified and required, and the residual level of impact considering any feasible mitigation measures required for alternative treatment sites. In each case, the Final EIR text is quoted, followed by Findings of the Water Board concerning the adequacy of mitigation measures, and the level of residual impact after considering proposed changes in the Project description and mitigation measures. (Note that the Final EIR uses the acronym "RWQCB" to refer to the Water Board.)

D 1. *FINAL EIR TEXT FOR SECTION 4.6.2 (italics) AND WATER BOARD ANALYSIS*

4.6.2 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A hydrologic, flooding, and water quality impact of the proposed project would be considered significant if it met any of the following criteria, adapted from Appendix G of the CEQA Guidelines:

- *Violate any water quality standards or waste discharge requirements.*
- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site.*
- *Otherwise substantially degrade water quality.*
- *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.*

In addition, any project component that would not meet the zero discharge criteria or water quality objectives of the Basin Plan Amendments (Resolution 84-10) would be considered significant.

IMPACT STATEMENTS AND MITIGATION MEASURES

Impact Treatment Sites: SP-1 Site SP-6 Site SP-13 Site
Collection and Treatment Systems: Alternative 1 Alternative 2

- 4.6.1 Construction of the treatment ponds and conveyance system would require extensive grading, trenching, and earthwork which would expose fine textured soils to wind and water erosion which could potentially result in siltation and water quality degradation of Eagle Lake and nearby tributaries. Similarly, construction activities and equipment could potentially involve the use of chemical and toxic compounds that can adversely impact water quality and aquatic life. This would be a significant impact.**

At any of the potential treatment sites (SP-1, SP-6 or SP-13), construction of the treatment ponds and ancillary structures (i.e., access roads, landscaping) would require that an area of approximately 60 acres be cleared of vegetation, debris, and topsoil. Excavations to approximately two feet below the ground surface would be required for construction of the treatment ponds, resulting in the moving of approximately 40,000 cubic yards of soil. Excavated soil would remain on-site and be used for the construction of the ponds and earthen berms. The severity of potential surface water impacts is dependent on several factors including soil erosion potential and construction practices, timing, magnitude, and proximity to drainage ways.

Trenching and excavation associated with the placement of pipelines, lift stations, and vacuum pump stations would not occur within any waterways except over Pine Creek for placement of the force main to either SP-1 or SP-13 treatment and disposal sites. Trenching would likely occur in minor drainage channels for surface runoff. Soils would be exposed that could result in erosion and siltation of Eagle Lake through Pine Creek or other drainages. Each of the construction activities noted above would result in increased exposure of fine-textured soils to water erosion. As a result, there is potential for the transport of soils to Eagle Lake, and subsequent degradation of water quality and habitat during the proposed construction period.

In addition, construction activities and equipment typically use many chemicals and compounds that can adversely affect water quality and be potentially hazardous to aquatic life. These chemicals and compounds usually include gasoline, oil, grease, solvents, lubricants, and other petroleum products. Storm water could potentially transport these materials to Eagle Lake if they are not properly handled and stored.

Mitigation Measures

4.6.1a Implement Mitigation Measures 4.4.1a-4.4.1d of Section 4.4 (Geology, Soils, and Seismicity).

4.6.1b Prior to construction, the SCSD [Spalding Community Services District] shall prepare for the RWQCB and Lassen County Planning Department's review, a SWPPP [storm water pollution prevention plan] mandated under the necessary General Construction Activity NPDES [National Pollutant Discharge Elimination System] Permit. The plan would outline methods for controlling erosion through storm water pollution control measures as well as hazardous materials spill prevention and contingency plans. The plan would contain, at a minimum, the following control measures in addition to those measures outlined in Mitigation Measure 4.5.1c of the RWQCB's North Lahontan Basin Project Guidelines for Erosion Control.

- ***Native vegetation shall be retained where possible. Grading and excavation activities shall be limited to the immediate area required for construction.***
- ***Stockpiled topsoil shall be placed in disturbed areas outside of natural drainages. Stockpile areas shall be designated on project grading plans.***
- ***No construction equipment or vehicles shall disturb natural drainages without temporary or permanent culverts in place. Construction equipment and vehicle staging areas shall be placed on disturbed areas and shall be identified on project grading plans.***
- ***If construction activities are conducted during the winter or spring months, storm runoff shall be regulated by temporary on-site detention basins.***
- ***Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.***
- ***Energy dissipaters shall be employed where drainage outlets discharge into areas of erodible soils or natural drainages. Temporary dissipaters may be used for temporary storm runoff outlets during the construction phase.***
- ***A spill prevention and countermeasure plan shall be developed which identifies proper storage, collection, containment, clean-up, and disposal measures for pollutants used on-site. Fueling zones shall be indicated on grading plans and shall be situated at least 100 feet from natural drainages.***

Significance After Mitigation

Less than significant.

Water Board Analysis and Findings for section 4.6.1

The Water Board concurs with the impact assessment above, and finds that proposed changes in the project will reduce the overall area of soil disturbance and associated potentially significant effects on water quality, due to a reduction in the surface area of the evaporation ponds now proposed at the Facility. The project description in the EIR certified by the Discharger included up to 34.8 acres of evaporation ponds constructed to contain water at a depth of 2.6 feet or less. The evaporation ponds as proposed in the report of waste discharge total 20.2 acres with a depth of water up to 5.0 feet. The described impacts are associated with impacts to water quality within the jurisdiction of the Water Board, to the extent that storm water discharges containing erosion products and other construction wastes may be discharged to surface waters. The Water

Board finds the proposed mitigation measures are adequate and will ensure the Discharger obtains the cited NPDES Permit and implements the SWPPP such that these potential impacts will be reduced to insignificant levels.

D 2. FINAL EIR TEXT FOR SECTION 4.6.2 (italics) AND WATER BOARD ANALYSIS

Impact Treatment Sites: SP-1 Site SP-6 Site SP-13 Site
Collection and Treatment Systems: Alternative 1 Alternative 2

4.6.2 Location of the proposed treatment ponds adjacent to Eagle Lake could potentially result in mixing of wastewater effluent with Eagle Lake surface waters during a high lake level event. This would be a less than significant impact.

It was determined by DWR [California Department of Water Resources], based on historic Eagle Lake water level data, that the maximum high water elevation, given the current status of the Bly Tunnel plug, would reside at the 5,117.5-foot elevation. The RWQCB formally concurred with DWR through adoption of Resolution 82-6 on May 13, 1982. The treatment pond complex, potentially located at either SP-1, SP-6 or SP-13, would be located entirely above the 5,120-foot msl contour at all of the potential locations. SP-6 is the site closest to Eagle Lake and has the greatest potential of discharging effluent to the lake. Although the SP-6 site has not been formally surveyed, original maps surveying the Spalding Tract show a sizeable portion of the SP-6 (over 75 percent) above the 5,130-foot contour, with a small portion of the southwest corner of SP-6 above the 5,145-foot contour. SP-1 and SP-13 are at higher elevations and area also separated from Eagle Lake by Eagle Lake Road (SP-13) and Spalding Road (SP-1) which are both elevated roads that provide significant barriers between the site locations and the lake.

Whichever treatment site is selected, it will require leveling in order to maintain a level perimeter berm around the treatment ponds. Treatment pond berms are designed to be approximately two to three feet above surrounding grade. At the SP-6 site, the berms could potentially be higher in the northeast portion of the site in order to maintain a level perimeter berm where the SP-6 site loses elevation as the parcel slopes towards Eagle Lake. It can therefore be assumed, in the most conservative case, that the lowest possible elevation for the treatment pond berms would reside at the 5,122-foot contour at the SP-6 site (including two-foot high berm). This would likely be higher in elevation considering the 15-foot elevation difference between the southwest corner relative to the northeast corner of the SP-6 site. Given this worst-cast lowest berm elevation at the SP-6 site (5,122 feet), it would be required for Eagle Lake to rise an additional 4.5 feet above the predicted maximum high water elevation. This is an unlikely scenario given the current status of the Bly Tunnel and its control of lake level. Therefore, the potential impact is considered less than significant.

Mitigation Measures

Since no impact was identified, no mitigation measures are required. However, since it is policy goal of the Lassen County Eagle Lake Area Plan and Lassen County General Plan to permanently seal the Bly Tunnel and allow Eagle Lake to return to its natural state of surface water level fluctuation, and given the designation of Eagle Lake as a unique natural resource, the following mitigation measure is recommended, but not required.

- 4.6.2 The SCSD should consider, if it is feasibly possible to do so given the area constraints of the treatment pond complex at SP-6, constructing treatment pond berms to an elevation greater than the highest recorded Eagle Lake elevation level, 5,125.2 feet msl at a date prior to permanent sealing of the Bly Tunnel.**

Significance After Mitigation

Less than significant.

Water Board Analysis and Findings for section 4.6.2

The Water Board does not concur that “mixing of wastewater effluent with Eagle Lake surface waters during a high lake level event would be a less than significant impact,” as this would violate applicable waste discharge prohibitions. However, the conclusions regarding the likelihood of such an impact given the historic, current and projected surface elevations of Eagle Lake are sound. As stated in the report of waste discharge for the Facility, the selected location for the ponds is approximately 2000 feet west of Eagle Lake with pond bottom elevations ranging from 5136 feet above mean sea level (msl) to 5140 feet above msl, and thus the pond bottoms will be, at least, 18.5 feet above the projected maximum surface elevation of Eagle Lake (5117.5 feet above MSL). The Water Board has no reasonable basis to conclude that significant effects will occur from mixing of wastewater effluent with Eagle Lake surface waters due to reasonably foreseeable high lake levels, and no mitigation is required.

D.3 FINAL EIR TEXT FOR SECTION 4.6.3 (italics) AND WATER BOARD ANALYSIS

Impact Treatment Site: SP-1 Site SP-6 Site SP-13 Site
Collection and Treatment Systems: Alternative 1 Alternative 2

- 4.6.3 Treatment and disposal of Spalding Tract household wastewater in a complex of treatment ponds could potentially lead to the infiltration of wastewater to groundwaters, and subsequent contamination of Eagle Lake. This would be a less than significant impact.**

All treatment ponds, whether they be designed as evaporation ponds under Alternative 1 or constructed wetlands and evaporation ponds under Alternative 2, would be lined and protected from ultraviolet degradation by

a soil layer. Beneath the liner layer would exist a leak detection system consisting of filter fabric, a layer of gravel, and a system of PVC piping. The liner and leak detection system would operate similar to a leachate protection system commonly used at sanitary landfills. In addition to the leak detection system, ground water monitoring wells, including upgradient and downgradient wells, will be installed for regular sampling (quarterly sampling) and evaluation of shallow aquifer groundwater quality. Should a leak be detected by the leak detection system or from analytical results of groundwater monitoring, the ponds can be drained and removed from service one at a time for repair.

Where the groundwater table rises coincident to lake level rise, the pond liner system will prevent commingling of pond wastewater with groundwater. This scenario is unlikely due to the elevation of the potential treatment site locations. Therefore, the potential for wastewater infiltrating to and contaminating groundwater would be less than significant.

Mitigation Measures

4.6.3 *No mitigation is required.*

Water Board Analysis and Findings for section 4.6.3

The Water Board does not concur that “the infiltration of wastewater to groundwaters, and subsequent contamination of Eagle Lake” would be a less than significant impact, as this would violate applicable waste discharge prohibitions. As noted above, the Project description analyzed in the Final EIR included a leak detection system consisting of drainage sand and perforated piping underneath the liner to detect leakage. This alternative was evaluated in the report of waste discharge and determined to be infeasible by the Discharger based on technical and cost considerations. The leak detection system proposed in the report of waste discharge instead has two primary means to detect pond leakage: (1) daily water balance measurements and calculations (over an entire month) will be used to determine if there is any unexplained water loss and (2) three ground water monitoring wells installed around the Facility will be used to monitor changes in ground water quality that may be attributable to leakage from an evaporation pond.

The water balance measurements described above, and in the report of waste discharge, are deemed insufficiently sensitive and infeasible to detect other than grossly excessive leakage that would violate applicable waste discharge prohibitions. However, the proposed pond liner technology is capable of meeting the applicable requirements and prohibitions, essentially limiting leakage rates to very low rates of molecular diffusion, provided the liners are properly constructed and protected from damage by external elements such as animals, vandals, wind, or slope failure that could puncture the liner or damage seam seals between liner panels during and following construction. The selected liner material is resistant to damage by ultraviolet (UV) sunlight, and therefore a soil

cover to provide additional UV protection is not included in the final design or deemed necessary.

To mitigate potentially significant effects on water quality due to the potential for liner leakage, the Discharger's report of waste discharge has a construction quality assurance (CQA) plan to ensure that the Facility will be properly constructed. The Water Board will evaluate compliance with the CQA plan, and will require the Discharger to certify, through its CQA officer, that the ponds are constructed in accordance with the CQA plan. Under the provisions of this Water Board Order, prior to initiating the discharge of wastewater to the Facility the Discharger must demonstrate that the Facility was constructed in accordance with the CQA plan to the satisfaction of the Water Board Executive Officer. The Water Board finds this is a feasible, cost-effective means to control and prevent potentially significant effects on water quality from pond leakage, or infiltration of ground water into the ponds due to potential increases in the natural ground water levels.

As described in the Final EIR, the Discharger has proposed, and this Board Order requires, installation of ground water monitoring wells and ground water testing to monitor the quality and conditions of the ground water beneath the Facility prior to Facility operation, and quarterly after the Facility is placed into service. Inclusion of the monitoring wells is a means to determine if the liner is continuing to prevent significant effects on water quality over time due to impairment of the pond liners. Under the terms of this Board Order, if there is a detected increase in any monitored ground water constituent then the Discharger is required to determine the nature and cause of the increase. If the increase is due to the Facility (evaporation ponds) the Discharger is required to propose corrective measures to achieve compliance with requirements.

Potential impacts to water quality due to the infiltration of wastewater to ground waters, and subsequent contamination of Eagle Lake, are reduced to insignificant levels with inclusion of the above-cited mitigation and mitigation monitoring measures.

D 4. FINAL EIR TEXT FOR SECTION 4.6.4 (*italics*) AND WATER BOARD ANALYSIS

Impact Treatment Sites: SP-1 Site SP-6 Site SP-13 Site
Collection and Treatment Systems: Alternative 1 Alternative 2

4.6.4 Operation of the treatment pond complex could potentially result in co-mingling of wastewaters with Eagle Lake surface waters during a 100-year precipitation event if inflows to the ponds overtop the pond berms. This would be a less than significant impact.

Conceptual design criteria for the treatment pond complex used large 8.7-acre pond areas sized to protect against a 100-year precipitation event. Ponds were designed with an additional three feet of freeboard to accommodate a 100-year precipitation event. Ponds were designed for an average depth of 5.5 feet from the top of the berm, 2.5 feet of which would be occupied by wastewater (at its highest level) and three

additional feet of protective freeboard. Therefore, commingling of pond wastewaters with Eagle Lake surface waters as a consequence of berm overtopping is considered a less than significant impact.

Water Board Analysis and Findings for section 4.6.4

Wastewater overflows during a 100-year precipitation event are considered a potentially significant impact if there is a reasonable likelihood they may occur. As stated in the report of waste discharge for the Facility, the selected location for the ponds is approximately 2000 feet west of Eagle Lake with pond bottom elevations ranging from 5136 feet above mean sea level (msl) to 5140 feet above MSL, and thus the pond bottoms will be, at least, 18.5 feet above the projected maximum surface elevation of Eagle Lake (5117.5 feet above msl). Additionally, the report of waste discharge included an estimate of annual rainfall based on a 100-year return cycle and determined the 100-year precipitation total to be 31.6 inches. Based on descriptions of the Facility operation in the report of waste discharge, at least two feet of pond freeboard will be maintained at all times, after accounting for annual precipitation inputs, and will provide overflow protection from a 100-year rain cycle in any year. The Water Board thus has no reasonable basis to conclude that significant effects will occur from mixing of wastewater effluent with Eagle Lake surface waters due to reasonably foreseeable precipitation events, and no additional mitigation is required. Pursuant to Waste Discharge Requirements, the Discharger will report freeboard measurements and precipitation totals to the Water Board on a quarterly basis.

D.4 Water Board Analysis and Findings Concerning Potentially Significant Water Quality Effects Associated with Changes to the Project Certified in the Final EIR

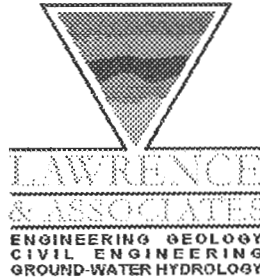
The Project, as certified in the Final EIR, included 34.8 acres of evaporation ponds constructed to contain water at a depth of 2.6 feet or less. The evaporation ponds as proposed in the report of waste discharge total 20.2 acres with a depth of water up to 5.0 feet, and two feet of freeboard. Concurrent with reducing the size of the proposed wastewater ponds, the Discharger proposed an evaporation enhancement system for Pond 1. The changes to the Project will increase the storage volume (per unit area) of the evaporation ponds and head loading on the liner (thus increasing the rate of any leakage due to liner impairment) while reducing overall surface area available for evaporation.

The report of waste discharge indicates total evaporation rates will remain similar to those evaluated in the Final EIR by enhancing the evaporation rate by spraying effluent above one of the evaporation ponds. The reductions in evaporative surface area and the proposed evaporation enhancement system were not analyzed in the Final EIR. If the wastewater is not eliminated from the ponds at the projected rates, there is potential for the ponds to become overloaded and spill partially-treated and concentrated wastewater to the environment. Because wastewater spills would violate waste discharge requirements and discharge prohibitions this would be considered a potentially significant effect.

Because the evaporation enhancement system involves spraying partially-treated undisinfected wastewater into the air, potentially significant effects on the environment that are not within the Water Board's authority or expertise may occur unless mitigation is incorporated. The system will have a reduced capacity from that in the EIR until the enhanced evaporation system has been reviewed and approved in an addendum to the EIR or separate document prepared by the Lead Agency to comply with the California Environmental Quality Act.

D.5 Potential Impacts Not Subject to Water Board Discretionary Approval

The Water Board has reviewed the Final EIR for those project activities which are within the agency's area of expertise, are required to be carried out or approved by the agency, or will be subject to the exercise of powers by the agency. The EIR identifies other potentially significant impacts and significant impacts that are not related to water quality. The Water Board is not responsible for implementing the mitigation measures identified in the EIR or additional mitigation measures other parties have deemed necessary.



005079.00

April 4, 2006

Mr. Jim Stoll
Stoll Engineering
800 Leisha Lane
Redding, CA 96001

Dear Mr. Stoll:

SUBJECT: REANALYSIS OF WASTEWATER EVAPORATION POND OPERATION AT SPALDING TRACT, LASSEN COUNTY, CALIFORNIA

INTRODUCTION

Per your request, Lawrence & Associates (L&A) reanalyzed operation of the proposed wastewater evaporation ponds for the Spalding Tract Waste Water Disposal System (Project). The reanalysis was performed to assess what rate of wastewater disposal could be accommodated by the ponds if evaporation enhancement was not used. Evaporation enhancement (through the use of spray nozzles) was proposed as part of the pond design in the Report of Waste Discharge (ROWD), prepared by Lawrence & Associates (2001).

It is our understanding, however, that the design with evaporation enhancement was not incorporated into all of the environmental review documents prepared for the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA). Because it was not included in the CEQA or NEPA documents, the Regional Water Quality Control Board (RWQCB) now states that they cannot include the evaporation enhancement features in the permit they are preparing for the Project (pers. comm., J. Stoll to B. Lampley, March 31, 2006).

Therefore, to expedite construction of the Project, you wish to eliminate evaporation enhancement from the pond design so that the RWQCB can proceed with the Project's permit. Concurrently, we understand that you will pursue amendments to the environmental documents that will allow inclusion of evaporation enhancement in the pond design. Once the environmental documents with the correct Project description are approved, the RWQCB permit can be revised.

Because the ponds' volume will not be able to accommodate the entire wastewater flow at build out without evaporation enhancement, the analysis presented herein estimates what wastewater flow the ponds will accommodate without enhancement.

BACKGROUND OF POND DESIGN

As described in Appendix F of the ROWD, three ponds are proposed. Pond 1 would fill first and then overflow into Pond 2; Pond 2 in turn would overflow into Pond 3. In the ROWD, an evaporation enhancement rate of 2.5 showed that the maximum pond depth required to contain the highest water level during a 100-year annual event, with a 24-hour, 100-year storm overlain, would be five feet. A freeboard of two feet then was added to the ponds for a total depth of seven feet for all three ponds, to account for the possibility of occurrences outside the parameters of the design.

The pond design presented in the ROWD was conservative in that it accounted for both annual and 24-hour, 100-year storms with two feet of freeboard remaining. Because the inclusion of evaporation enhancement does not match the description of the ponds presented in the environmental documents, however, it is proposed to initially eliminate that feature.

REANALYSIS OF POND HYDRAULIC CAPACITY

To reevaluate the ponds' hydraulic capacity without evaporation enhancement, the same model presented in the ROWD was used, with the evaporation enhancement factor changed to one (no enhancement). The wastewater volume then was proportionally decreased until Pond 3 no longer overflowed. **Figures A-5, A-6, and A-7** (the same figure numbers from the ROWD are used here) show the results of that calculation.

9.2 Acre Pond (800 feet x 500 feet), 7 Feet Deep, 3:1 Side Slopes

Spaulding Tract WWTP Ponds - #1

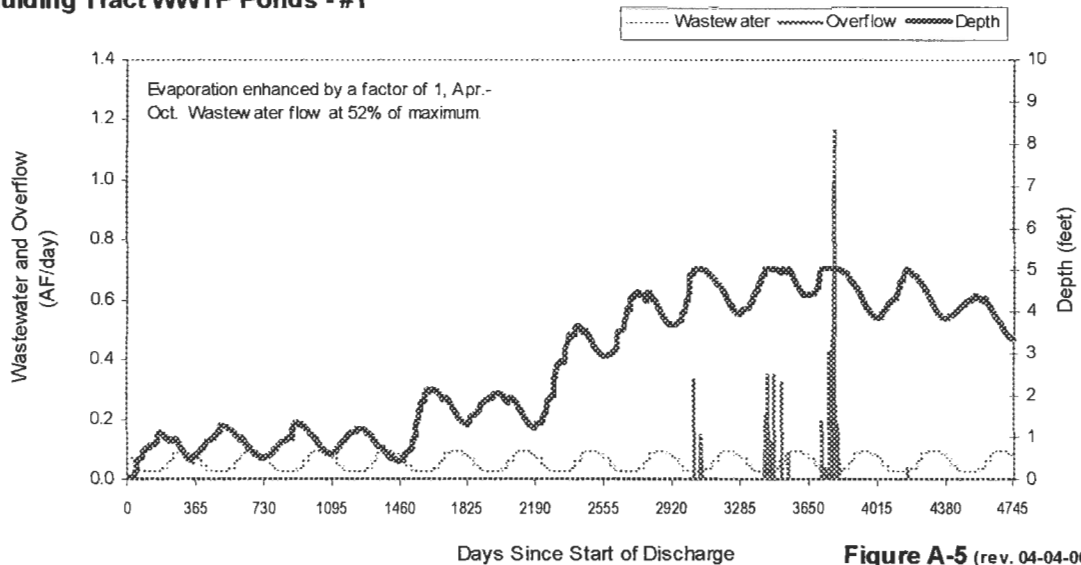
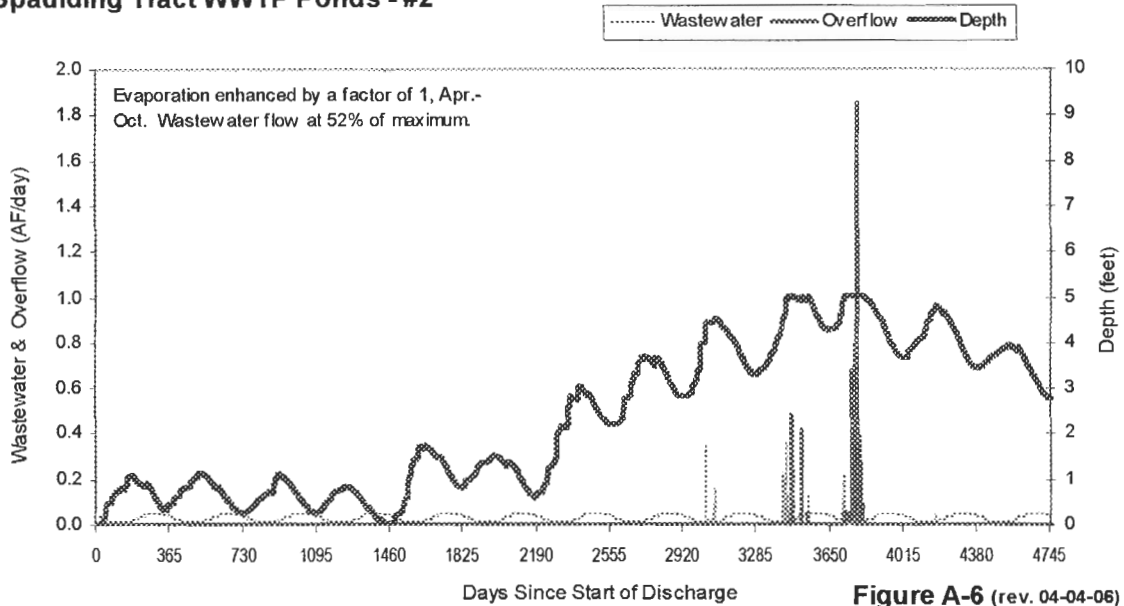
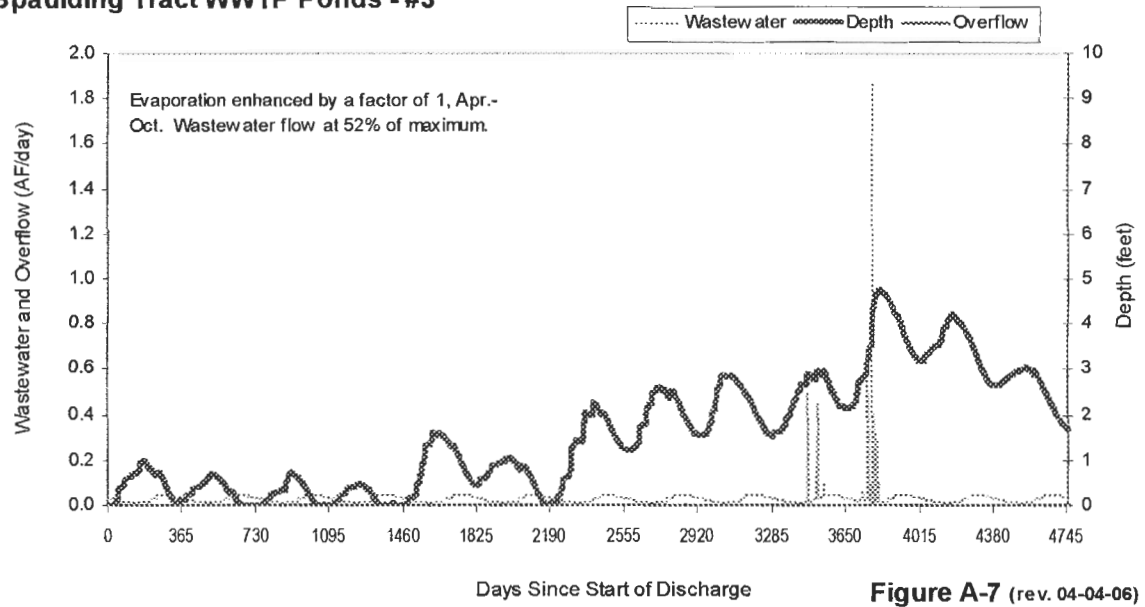


Figure A-5 (rev. 04-04-06)

5.5 Acre Pond (800 feet x 300 feet), 7 Feet Deep, 3:1 Side Slopes
Spaulding Tract WWTP Ponds - #2



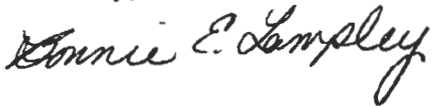
5.5 Acre Pond (800 feet x 300 feet), 7 Feet Deep, 3:1 Side Slopes
Spaulding Tract WWTP Ponds - #3



The updated modeling showed that about 52% of the maximum (build out) wastewater flow could be accommodated by the ponds as designed, but without evaporation enhancement. This equates to approximately 37,500 gallons per day of wastewater.

Please feel free to contact me at 530-244-9703 or at blampley@lwmc.com if you have questions about this analysis.

Sincerely,



Bonnie E. Lampley
Principal Hydrogeologist

Cc: Mr. Don Lampe, Lampe Engineering

