CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2007-0022

MASTER WATER RECYCLING REQUIREMENTS
LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT
DISINFECTED TERTIARY RECYCLED WATER

San Bernardino County

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

1. Recycled Water Report

The Lake Arrowhead Community Services District (District) has filed an application with the Lahontan Water Board under California Water Code (Water Code) section 13522.5. Pursuant to Water Code section 13523.1, the District's application requests the Lahontan Water Board to issue Master Water Recycling Requirements to the District for Phase I of the District's recycled water plan. Phase I of the District's recycled water plan proposes supplying up to 1.0 million gallons per day (mgd) of disinfected, tertiary recycled water as defined in California Code of Regulations, title 22, section 60301.230 to the Lake Arrowhead Country Club Golf Course and potentially other unidentified users in the Lake Arrowhead area. The District submitted information on December 6, 2006 to complete the application. The documents that constitute the complete application under Water Code section 13522.5 are listed in Attachment H.

2. Facilities and Treatment Process

The District collects, treats and disposes of domestic wastewater generated in the Lake Arrowhead area, which is located in the San Bernardino Mountains (Attachments A & B). Boundaries of the District's sewer service area encompass an area of approximately 16 square miles.

The District owns and operates two wastewater treatment plants located at:

- Grass Valley Wastewater Treatment Facility (Grass Valley Facility)
  27000 Pilot Rock Road
  Lake Arrowhead, CA 92352

The Grass Valley Facility currently provides advanced secondary wastewater treatment for up to 2.5 mgd (dry weather, maximum average 72-hour flow). Treatment includes primary (aerated grit removal, primary clarifiers), secondary (trickling filters, secondary clarifiers), nitrogen removal (deep-bed sand filters), and disinfection (chlorination). Treated effluent is transported via a 9.4-mile outfall

pipeline system to the Hesperia Disposal Site where the District is authorized to use effluent for crop irrigation and also to infiltrate effluent through percolation ponds.

- Willow Creek Wastewater Treatment Facility (Willow Creek Facility)
  Forestry Road 2N31.1
  Lake Arrowhead, CA 92352

The Willow Creek Facility provides secondary treatment for up to 1.7 mgd (dry weather, maximum average 24-hour flow). Treatment includes primary (aerated grit chambers, primary clarifiers), secondary (activated sludge, secondary clarifiers), and disinfection (chlorination). Secondary treated effluent is either disinfected and discharged to the Willow Creek branch of the outfall pipeline system, or transported via an intertie pipeline to the Grass Valley Facility where it receives additional treatment (nitrogen removal) and is disinfected prior to discharge to the Grass Valley branch of the outfall pipeline system.

3. Current Board Orders

Board Order No. R6V-2002-0008 adopted on February 13, 2002, includes effluent limits, receiving water limitations for ground water, provisions, and monitoring requirements for the District's existing wastewater collection, treatment, and disposal facilities (Grass Valley Facility, Willow Creek Facility, Hesperia Disposal Site).

4. Reason for Action

The District is proposing to supply up to 1.0 mgd of Title 22-quality, disinfected, tertiary recycled water (hereinafter, recycled water) to the Lake Arrowhead Country Club Golf Course, the Lake Arrowhead Grass Valley Park Association, and potentially other unidentified users within the District's sanitation boundary. The District also plans implementing Phase II of its recycled water plan in the future, which would expand the supply of recycled water for the Lake Arrowhead area beyond the Phase I capacity of 1.0 mgd.

This Order includes master water recycling requirements for Phase I only. The master water recycling requirements require the District to regulate the users of the recycled water to ensure compliance with water recycling requirements contained in State of California laws and regulations.

5. Source of Recycled Water

The District will produce recycled water at the Grass Valley Facility. The District is proposing to expand capacity to 3.75 mgd (dry weather, maximum average 72-hour flow) and upgrade its Grass Valley Facility to include the following new facilities:

• Primary clarifier	• Trickling filter
• Secondary clarifier	• Denitrification filter
• Membrane filtration system	• Ultraviolet light disinfection system
• Recycled water storage basin (converted flow equalization pond)	• Recycled water pump station

A site map illustrating the upgraded Grass Valley Facility is included in Attachment C of this Order. The upgrades are scheduled to be operational in 2009 or 2010.

The tertiary treatment facilities (membrane filtration, ultraviolet light disinfection) will receive wastewater that has undergone advanced secondary treatment (primary, secondary, and denitrification). The resulting recycled water will be distributed to recycled water users. Advanced secondary treated wastewater flows in excess of recycled water demand will be routed to the outfall pipeline system. The existing chlorination facilities will continue to be maintained to disinfect effluent sent to the Hesperia Disposal Site, and to provide a backup recycled water disinfection system. A flow diagram of the District's treatment facilities that incorporates Phase I treatment facilities is included in Attachment D of this Order.

6. Producer, Distributor and Users

Under this Order, the District is the producer and the distributor of recycled water. The District has identified the Lake Arrowhead Country Club Golf Course and the Lake Arrowhead Grass Valley Park Association as potential users. Other users under Phase I may include government agencies and private parties.

7. Recycled Water Distribution System

Delivery of recycled water from the Grass Valley Facility to the Lake Arrowhead Country Club Golf Course will be through a single 15,000-foot pipeline. The pipeline will be located through roadways and easements through residential areas. The pipeline will be 14 inches in diameter to accommodate up to 2,500 gallons per minute.

8. Permit Area

This Order authorizes use of recycled water at sites located within the District's sanitation boundary, which coincides with the Lake Arrowhead watershed boundary (Permit Area). The Permit Area includes the communities of Lake Arrowhead, Cedar Glen, Blue Jay, Twin Peaks, Deer Lodge Park, Rim Forest, Crest Park, and Sky Forest. The Permit Area is illustrated in Attachment B of this Order.

9. Authorized Recycled Water Uses

This Order authorizes recycled water use for construction dust control and soil compaction, and for landscape irrigation at parks, golf courses, schools, cemeteries, and greenbelts.

10. Authorized Recycled Water Use Sites

The sites authorized for use of recycled water under this Order (Authorized Recycled Water Use Sites) are those:

a. Located within the Permit Area described in Finding No. 8, above; and
b. Where the use is limited to those described in Finding No. 9, above.

11. Topography

The Permit Area includes the Lake Arrowhead, Grass Valley, Hooks Creek, Little Bear Creek, and Willow Creek hydrologic subunits, all of which are located in the San Bernardino Mountains in the Transverse Ranges province of Southern California. The five hydrologic subunits encompass an area of approximately 16 square miles. Land surface elevations in the area range from approximately 5,100 to more than 6,000 feet above mean sea level. The elevation of Lake Arrowhead is approximately 5,100 feet above mean sea level.

12. Geology and Hydrogeology

The Lake Arrowhead Country Club Golf Course and other future sites where recycled water will be used are located in the tectonically active San Bernardino Mountains. This area is underlain almost entirely by Mesozoic-aged granitic bedrock. Although no large-scale faulting exists in the immediate Grass Valley area, there are numerous fracture systems related to local and regional faults. The major trend of photolineaments (acquired through remote sensing) in the area is 300° to 340° (approximately NW to NNW). A secondary system trends 010° to 030° (approximately NNE to NE). A very thin alluvial deposit derived from the weathering and erosion of the surrounding mountains overlies the granitic bedrock in the area south of Grass Valley Lake in the lowest elevations of the valley. Drilling records show that the alluvium consists primarily of sand and occasional boulders with a thickness that generally does not exceed 30 feet. Between the shallow alluvium and competent granitic bedrock is a zone of weathered granite. Clay infilling of fractures, as noted on driller's logs for the District's production wells, is likely a result of weathering of feldspars in the granite. The thickness of this weathered zone ranges from approximately 40 to 180 feet.

Ground water in the Lake Arrowhead area occurs primarily in the secondary porosity features of the fractured granitic bedrock. Although, the depth of the bedrock aquifer extends to at least 500 feet below ground surface, in parts of Grass Valley, the lateral and vertical extent of the aquifer is unknown. The aquifers are semi-confined to confined, and some of the recently drilled wells in Grass Valley are flowing artesian. The amount of ground water storage capacity on fractured bedrock systems are difficult to quantify due to the heterogeneous nature of the fractures. The thin unconsolidated alluvial deposits around the lake and in the bottom of the valley area are not viable ground water resources due to their shallow depth and limited lateral extent.

13. Ground Water Quality

The District has recently completed five new ground water production wells (No. 1, 2, 3, 4, 5) for irrigation and drinking water purposes on Lake Arrowhead Country Club property in Grass Valley. An example of the ground water quality within a portion of the Permit Area is provided in Tables No. 1 and 2. The wells from which the ground water samples were taken are screened in the productive fractured aquifer.

Table No. 1[1] – Ground Water Sampling Results
Composite Sample from Well Nos. 1 and 5
Sampling Date – March 7, 2006

Parameter (units)	DHS Maximum Contaminant Level (MCL)	Results
Nitrate as Nitrogen (mg/L)	10	1.80
Total Kjeldahl Nitrogen (mg/L)	Not established	0.10
Total Nitrogen (mg/L)	Not established	1.90
Total Dissolved Solids (mg/L)	500-1,500	240
Hexavalent Chromium (mg/L)	Not established	0.0042
Zinc (mg/L)	5	0.061
Dichloroacetic Acid (mg/L)	Not established	1.05
Total Coliform/E. Coli	0 per 100 mL of water	Absent

Absent: not detected

[1] March 2006. Surface and Ground Water Sampling Grass Valley. Lake Arrowhead Community District.

Table No. 2[2] – Ground Water Sampling Results
Individual Ground Water Wells

Wells Name (all concentrations in mg/L unless otherwise noted)	Well 1	Well 2	Well 3	Well 4	Well 5
Gross Alpha (pCi/L)	140	35.1	49.1	19.3	14
Uranium (pci/L)	140	82.8	N/A	16	N/A
Radium 226 & 229 (pCi/L)	ND	0.352	N/A	ND	N/A
Toluene µg/L	0.6	N/A	2.6	2.5	N/A
Fe (µg/L)	N/A	400	4,000	730	N/A
Al (µg/L)	N/A	N/A	1,700	1,700	N/A
Mn (µg/L)	N/A	N/A	N/A	59	N/A
Total Coliform/ E. Coli	Absent	Absent	N/A	Absent	Absent
Heterotrophic Plate Counts (Colonies/mL)	2	434	N/A	8	17
Total Dissolved Solids (mg/L)	160	N/A	130	140	N/A

Absent: not detected

14. Receiving Waters

The receiving waters are the ground waters located within the Alto subarea of the Upper Mojave River Valley ground water basin, and the surface waters of the Upper Mojave Hydrologic Area.

15. Lahontan Basin Plan

The Water Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which became effective on March 31, 1995. This Order implements the Basin Plan as amended.

16. Beneficial Uses – Ground Water

The beneficial uses of the ground waters of the Upper Mojave River Valley ground water basin, as set forth and defined in the Basin Plan, are:

a. Municipal and Domestic Supply (MUN);
b. Agricultural Supply (AGR);
c. Industrial Service Supply (IND); and
d. Freshwater Replenishment (FRSH).
e. Aquaculture (AQUA)

[2] September 27, 2005. Supplemental Engineering Report for Consideration of the Permit Amendment Application from the Lake Arrowhead Community Services District. Department of Health Services, State of California.

17. Beneficial Uses – Surface Waters

The beneficial uses of the surface waters of the Upper Mojave Hydrologic Area, as set forth and defined in the Basin Plan, are:

a. Municipal and Domestic Supply (MUN);
b. Agricultural Supply (AGR);
c. Freshwater Replenishment (FRSH);
d. Ground Water Recharge (GWR);
e. Navigation (NAV);
f. Hydropower Generation (POW);
g. Water Contact Recreation (REC-1);
h. Non-Contact Recreation (REC-2);
i. Commercial and Sportfishing (COMM);
j. Warm Freshwater Habitat (WARM);
k. Cold Freshwater Habitat (COLD);
l. Wildlife Habitat (WILD);
m. Rare, Threatened, or Endangered Species (RARE);
n. Water Quality Enhancement (WQE); and
o. Flood Peak Attenuation/Flood Water Storage (FLD)

18. Basin Plan Prohibitions

To protect beneficial uses and achieve water quality objectives for the waters of the Mojave Hydrologic Unit, which includes the Upper Mojave Hydrologic Area, the Basin Plan specifies the following discharge prohibitions.

"1. The discharge of waste to surface water in the Mojave Hydrologic Unit that is tributary to the West Fork Mojave River or Deep Creek, above elevation 3,200 feet (approximate elevation of Mojave Forks Dam), is prohibited. This prohibition does not apply to stormwater discharges unless such discharges create a condition of pollution or nuisance. (Figure 4.1-23)"

"2. The discharge of waste to land or water within the following areas is prohibited (Figure 4.1-23):

i. The Silverwood Lake watershed
ii. The Deep Creek watershed above elevation 3,200 feet
iii. The Grass Valley Creek watershed above elevation 3,200 feet

This prohibition does not apply to stormwater discharges unless such discharges create a condition of pollution or nuisance."

"4. The discharge of wastes of sewage-bearing origin to surface waters in the Mojave Hydrologic Unit upstream of the Lower Narrows at Victorville is prohibited. (Figure 4.1-24)"

The Permit Area as defined in Finding No. 8 above, is located within the areas subject to the three above-referenced discharge prohibitions. The discharge of recycled water is therefore subject to the above-referenced discharge prohibitions.

19. Basin Plan Prohibition Exemption

The Basin Plan specifies the following exemption criteria for each of the three discharge prohibitions identified in Finding No. 18 above.

> "An exemption to this prohibition may be granted by the Regional Board whenever the Regional Board finds that the discharge of waste will not, individually or collectively, directly or indirectly, result in exceeding the water quality objectives or unreasonably affect the waters for its beneficial uses."

The Water Board finds the use of recycled water as authorized by this Order will not individually or collectively, directly or indirectly, result in exceeding the water quality objectives specified by the Basin Plan or unreasonably affect the waters for its beneficial uses, as defined by the Basin Plan. This finding is based upon the high quality of the recycled water, and compliance with the requirements set forth by this Order. This Order includes a provision that grants an exemption to the above-referenced prohibitions.

20. State Water Board Water Reclamation Policy

State Water Board Resolution No. 77-1, ("Policy with Respect to Water Reclamation in California"), includes policy statements directing the State Water Board and regional boards to encourage and recommend funding for water recycling and its use in water-short areas of the State. This Order supports implementation of applicable elements of State Water Board Resolution No. 77-1.

21. Incidental Runoff of Recycled Water

The State Legislature established the California Recycled Water Task Force (Task Force) in 2001 to evaluate the current framework of State and local rules, regulations, ordinances and permits to identify opportunities for and obstacles to the same use of recycled water in California. In June 2003, the Task Force completed its review and issued its final report, titled "Water Recycling 2030, Recommendations of California's Recycled Water Task Force." Recommendation 4.2.1 of the report states that the State Water Board should convene a committee to review the legal requirements of Federal and State statutes and regulations that relate to the regulation of incidental runoff of recycled water to determine the regulatory and enforcement options that are available to the regional boards. Following a stakeholder process and internal review, on February 24, 2004, the State Water Board's Executive Director issued a memorandum providing guidance on regulation of incidental runoff of recycled water. The memorandum states, in part:

"Recycled water use facilities should be designed and operated to avoid runoff to waters of the State. The regional boards should work with recycled water users to help them achieve this goal. Nonetheless, incidental runoff is likely to occur at many facilities. Consequently, regional boards should include the following language in water recycling requirements.

'The incidental discharge of recycled water to waters of the State is not a violation of these requirements if the incidental discharge does not unreasonably affect the beneficial uses of the water, and does not result in exceeding an applicable water quality objective in the receiving water.'"

This Order includes a prohibition against recycled water discharges to surface waters, unless the discharge is of an incidental nature, as defined in the February 24, 2004 memorandum[3].

22. Discharges of Recycled Water from Surface Impoundments

The State Board's Executive Director's February 24, 2004 memorandum also addresses permitting and enforcement regarding recycled water discharges from surface impoundments (ponds) to waters of the State. The memorandum states, in part:

"Recycled water ponds should be designed and operated not to spill during the dry months. Spills should be prohibited during these times. Generally, wet weather regulatory strategies that do not require individual NPDES Permits fall within the following categories:

1. The recycled water pond is designed not to spill during wet months. Under this circumstance, spills that occur under extreme weather conditions or emergencies should not be considered for enforcement.
2. Recycled water ponds can be drained and refilled with potable water or flushed with potable water prior to the onset of the wet season. Flushing will not displace all of the recycled water but the water quality threat is minimal.
3. Recycled water ponds designed to spill recycled water during the wet season can be regulated under Phase I municipal storm water permits or under a general storm water permit. These permits require reduction of pollutants to the maximum extent practicable. The permit also incorporates receiving water limitations requiring the implementation of an iterative process for addressing any exceeding of water quality objectives."

[3] "Incidental runoff" is defined within the February 24, 2004 memorandum as "...small amounts of runoff from intended recycle water use areas, over-spray from sprinklers that drifts out of the intended use area, and overflow from ponds that contain recycled water during storms." This definition is limited to recycled water that has received tertiary filtration for pathogen removal as specified under Title 22.

This Order allows recycled water discharges from impoundments provided that such discharges comply with the above-referenced requirements specified in the February 24, 2004 memorandum.

23. Regulation of Recycled Water

a. California Code of Regulations, Title 22, State Department of Health Services

The State Department of Health Services established criteria for using recycled water. These criteria are codified in California Code of Regulations, title 22, chapter 3, Water Recycling Criteria, and include such requirements as Sources of Recycled Water, Uses of Recycled Water, and Use Area Requirements. The State Department of Health Services adopted revised Water Recycling Criteria that became effective on March 20, 2001. Applicable criteria are prescribed in this Order.

b. Engineering Reports

As required under California Code of Regulations, title 22, section 60323, the District has submitted its Title 22 Basis of Design and Engineering Report dated August 2006, for production of recycled water at its Grass Valley Facility. On December 6, 2006, the District submitted a stamped and signed copy of the Addendum to the District's Title 22 Basis of Design and Engineering Report. The District submitted the engineering report and its addendum to the Lahontan Water Board and State Department of Health Services. The engineering report describes how the District will operate the treatment facilities and reclamation system to comply with all applicable rules and regulations, including title 22 and this Order. The engineering report meets the requirements stipulated in title 22.

c. Regulation

Water Code section 13523, subdivision (a) states that:

"Each regional board, after consulting with, and receiving the recommendations of, the State Department of Health Services and any party who has requested in writing to be consulted, with the consent of the proposed permittee, and after any necessary hearing, may, in lieu of issuing waste discharge requirements pursuant to Section 13263 or water reclamation requirements pursuant to Section 13523 for a user of reclaimed water, issue a master reclamation permit to a supplier or distributor, or both, of reclaimed water.

This Order includes water recycling requirements. It requires the District to:

i. Comply with Uniform Statewide Reclamation Criteria (California Code of Regulations, title 22, sections 60301 through 60355) established pursuant to Water Code section 13521;
ii. Establish and enforce *Requirements for Recycled Water Users* (Attachment F), which govern the design and construction of facilities located at use sites and the use of recycled water at those sites;
iii. Conduct periodic inspections of recycled water use sites to monitor compliance by users with the Uniform Statewide Reclamation Criteria, the *Requirements for Recycled Water Users;* and the requirements of this Order; and
iv. Submit quarterly reports that include the results of the District's compliance monitoring and the information required by Water Code section 13521.

Provisions No. II.A and II.B of this Order require the District demonstrates there will be compliance with recycled water use requirements before supplying recycled water to a user, including recycled water use requirements contained in this Order and in all applicable laws and regulations.

24. Environmental Analysis

The District completed an environmental analysis for the project. The Total Dissolved Solids (TDS) in the recycled water will average approximately 300 mg/L. The average TDS concentration of water provided through water supply wells is 168 mg/L. The TDS concentration in Lake Arrowhead was calculated between 50 and 85 mg/L. The recycled water may percolate to ground water when applied for reuse at the Lake Arrowhead Country Club Golf Course or at other sites. Due to the difference in TDS concentration of 132 mg/L between recycled water and ground water, the project has the potential to degrade ground water for TDS, although such degradation is expected to be minor. The TDS concentration in the ground water of the Lake Arrowhead area could potentially increase to 208 mg/L following the use of recycled water.

The recycled water project may also result in percolation of nitrate-nitrogen to ground water in concentrations above the estimated background concentration of 2 mg/L in the receiving water. The District is required to ensure that best management practices (BMPs) are implemented to prevent changes in ground water quality that would unreasonably affect the beneficial uses of the receiving water. Such BMPs will need to integrate other contributions of nitrogen, such as fertilizers, in addition to that of recycled water application. BMPs designed to protect surface and ground water quality and to prevent human contact from unauthorized exposure are stipulated in Attachment F of this Order, sections I.D.6 through I.D.9.

25. Maintenance of High Quality Waters in California

State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California") states,

"1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

2. Any activity which produces or may produce a waste ...and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

This Order is consistent with Resolution No. 68-16 for the following reasons.

a. State Water Board through Resolution No. 77-1 has identified the beneficial use of recycled water for the people of the State, and directs regional boards to encourage the use of recycled water in water-short areas of the State. The Lake Arrowhead area is located in a water-short area of the State. The people of the State will benefit from the use of recycled water in the Lake Arrowhead area, where recycled water will supplement and/or replace existing water supplies (e.g., surface waters, ground waters).

b. This Order prohibits the use of recycled water that causes a pollution or nuisance.

c. This Order requires the District to establish and administer (1) *Requirements for Recycled Water Users*, and (2) a *Compliance Inspection and Enforcement Program*, as accepted by the Water Board's Executive Officer. The requirements and compliance program are the mechanisms for ensuring that appropriate waste treatment and control measures are identified, implemented, and maintained in a manner that protects existing high quality waters and prevents unreasonable effects to beneficial uses of waters of the State.

d. The use of recycled water as authorized by this Order will not result in water quality less than that prescribed in applicable policies.

26. California Environmental Quality Act Compliance (CEQA)

Tom Dodson & Associates prepared for the District an initial environmental study[4] in October 2004 focused on construction and operation of Phase I of the proposed recycled water project. The District adopted a negative declaration on January 11, 2005 for Phase I of the project.

The Water Board, acting as a CEQA Responsible Agency in compliance with California Code of Regulations, title 14, section 15096, evaluated the impacts to water quality addressed in the initial environmental study and associated negative declaration for Phase I of the District's recycled water project. As a result of the analysis, the Water Board finds the mitigation measures in the final negative declaration, combined with compliance with the requirements specified by this Order, to be adequate to reduce water quality impacts to less than significant levels.

27. Notification of Interested Parties

The Lahontan Water Board has notified the District and interested persons of its intent to prescribe master water recycling requirements.

28. Consideration of Public Comments

The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the use of recycled water.

IT IS HEREBY ORDERED that the District must comply with the following:

I. WATER RECYCLING SPECIFICATIONS

A. Effluent Limitations

Recycled water production at the Grass Valley Facility shall not exceed 1.0 mgd (maximum average 24-hour flow) and 1.3 mgd (maximum instantaneous flow).

B. Regulation and Enforcement

1. Pursuant to Water Code section 13523.1, subdivision (b)(2), the District must comply with the Uniform Statewide Reclamation Criteria, which are contained in California Code of Regulations, title 22, sections 60301 through 60355 and are established pursuant to Water Code section 13521.

[4] October 2004. Initial Study for the Recycled Water Program Improvements, Prepared for Lake Arrowhead Community Services District, Tom Dodson & Associates.

2. Pursuant to Water Code section 13523.1, subdivision (b)(3), the District must establish *Requirements for Recycled Water Users* governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the Uniform Statewide Reclamation Criteria. Attachment F of this Order identifies what constitutes acceptable *Requirements for Recycled Water Users*.

3. The District must establish a *Compliance Inspection and Enforcement Program* describing its programs for conducting periodic inspections required under Water Code section 13523.1, subdivision (b)(5) and its enforcement program to address user violations of the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*.

4. Pursuant to Water Code section 13523.1, subdivisions (b)(3) and (b)(5), the District must conduct periodic inspections of the facilities of recycled water users to monitor compliance by the users with the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*. During the inspections, the District must also monitor compliance with Water Recycling Specifications No. I.C.1 through I.C.18 of this Order.

5. Pursuant to Water Code section 13523.1, subdivision (b)(3), the District must enforce the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*.

6. The District is responsible for processing individual users' applications, inspecting recycled water use facilities, and ensuring users' compliance with this these master water recycling requirements. For new users, the use of recycled water shall only commence after the California Department of Health Services (CDHS) grants final approval for such use. The District must provide the Lahontan Water Board with a copy of the CDHS approval letter within 30 days of the approval notice.

7. The District must not supply recycled water to parties who distribute, store or use recycled water in a manner that is in violation of the Uniform Statewide Reclamation Criteria, *Requirements for Recycled Water Users*, and these master water recycling requirements.

C. <u>General Requirements and Prohibitions</u>

1. The discharge of recycled water to surface water is prohibited. However, the incidental discharge of recycled water to waters of the State is not a violation of this Order if the incidental discharge does not unreasonably affect the beneficial uses of the receiving water, and does not result in exceeding an applicable water quality objective in the receiving water.

2. The discharge of recycled water from impoundment areas (e.g., ponds) to surface waters is not a violation of this Order if the irrigation system is operated in accordance with one of the operational strategies described in Finding No. 22, above.

3. Bypass or overflow of untreated or partially treated recycled water from the wastewater treatment facility, any intermediate unit processes, or the recycled water distribution system, to the point of use is prohibited.

4. The use of recycled water must not cause a pollution as defined in Water Code section 13050, or a threatened pollution.

5. Neither the treatment of wastewater nor the use of recycled water can cause a nuisance as defined in Water Code section 13050.

6. The use of recycled water under this Order must be limited to the Authorized Recycled Water Use Sites defined in Finding No. 10 of this Order.

7. The uses of recycled water authorized under this Order are limited to those described in Finding No. 9 of this Order.

8. The source of recycled water must be limited to that described in Finding No. 5 of this Order.

9. Recycled water used to irrigate landscape areas must be applied at a rate and amount that does not exceed the irrigation and nitrogen needs of the vegetation.

10. Recycled water must be applied at a rate and amount that does not cause ponding or runoff that is other than "incidental" in nature.

11. Pipelines must be maintained so as to prevent leakage.

12. The discharge of recycled water, which causes violation of any narrative water quality objective (WQO) contained in the Basin Plan, is prohibited.

13. The discharge of recycled water, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.

14. Where any numeric or narrative WQO contained in the Basin Plan is already being violated, the discharge of recycled water, which causes further degradation or pollution, is prohibited.

15. All facilities used to transport and store recycled water must be adequately protected against overflow, structural damage, or a significant reduction in efficiency resulting from a 100-year, 24-hour storm or flood.

II. PROVISIONS

A. Before supplying recycled water under this Order, the District must:

1. Complete and submit a report to both offices of the Lahontan Water Board containing its proposed *Requirements for Recycled Water Users,* and its *Compliance Inspection and Enforcement Program* required under Water Recycling Specifications No. I.B.2 and I.B.3, above, and obtain acceptance of the report from the Lahontan Water Board Executive Officer. For the report to be accepted it must include the elements listed in Attachment F and comply with the Uniform Reclamation Criteria.

2. Have received, reviewed, and approved a completed *Report of Proposed Recycled Water Use*, which contains information demonstrating the user will comply with the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*. Copies of all approved *Reports of Proposed Recycled Water Use* and approval letters shall be maintained on file by the District.

B. The use of recycled water as authorized by this Order is hereby exempt from the Basin Plan prohibitions identified in Finding No. 18 above.

C. Pursuant to California Code of Regulations, title 22, section 60316, subdivision (b), the District must notify the Lahontan Water Board, State Department of Health Services and County of San Bernardino Department of Health Services of any incidence of backflow from a recycled water system into the potable water system within 24 hours of discovery of the incident.

D. Pursuant to Water Code section 13267, subdivision (b), the District must comply with Monitoring and Reporting Program R6V-2007-(PROPOSED) as specified by the Executive Officer.

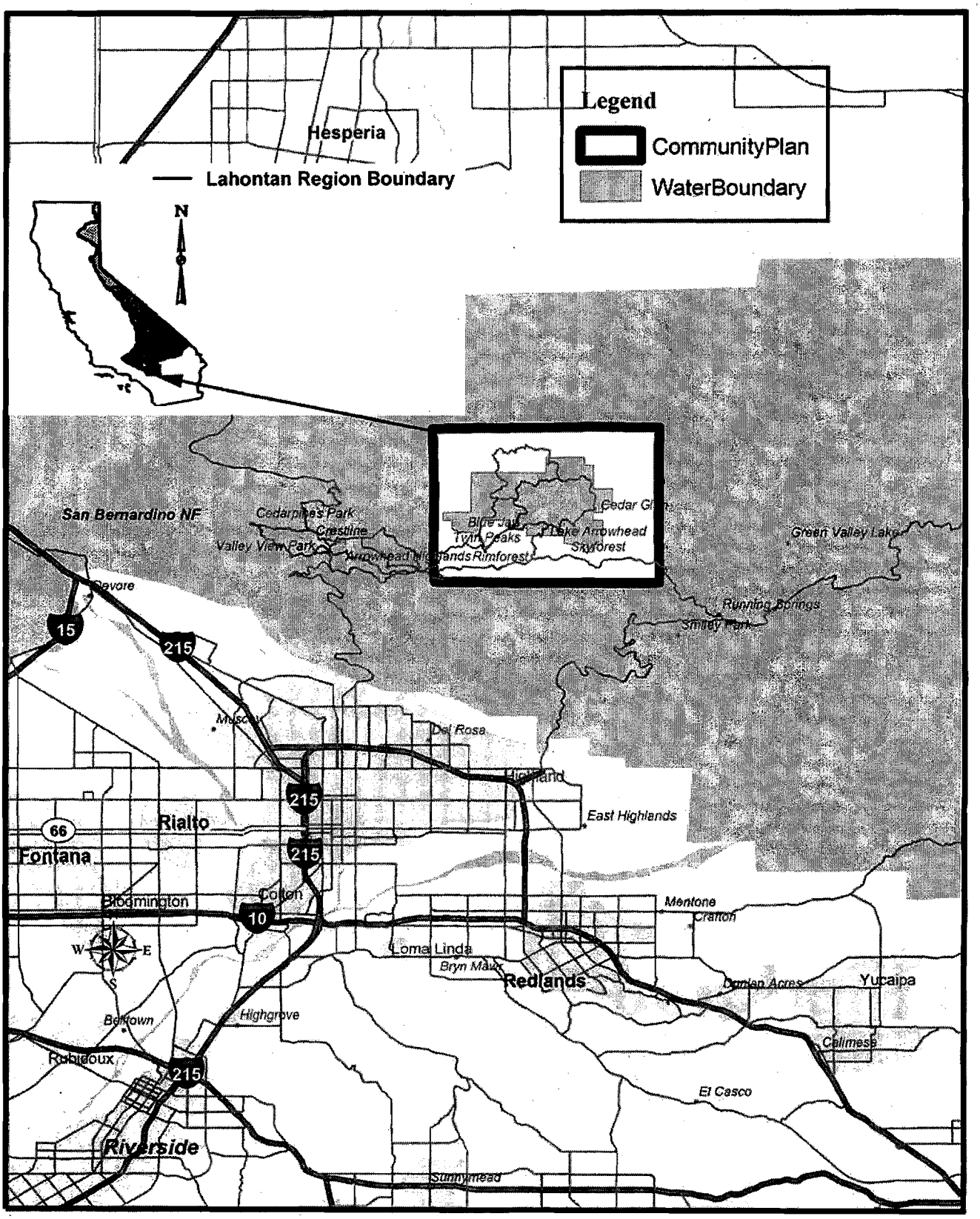
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 13, 2007.

Harold J. Singer

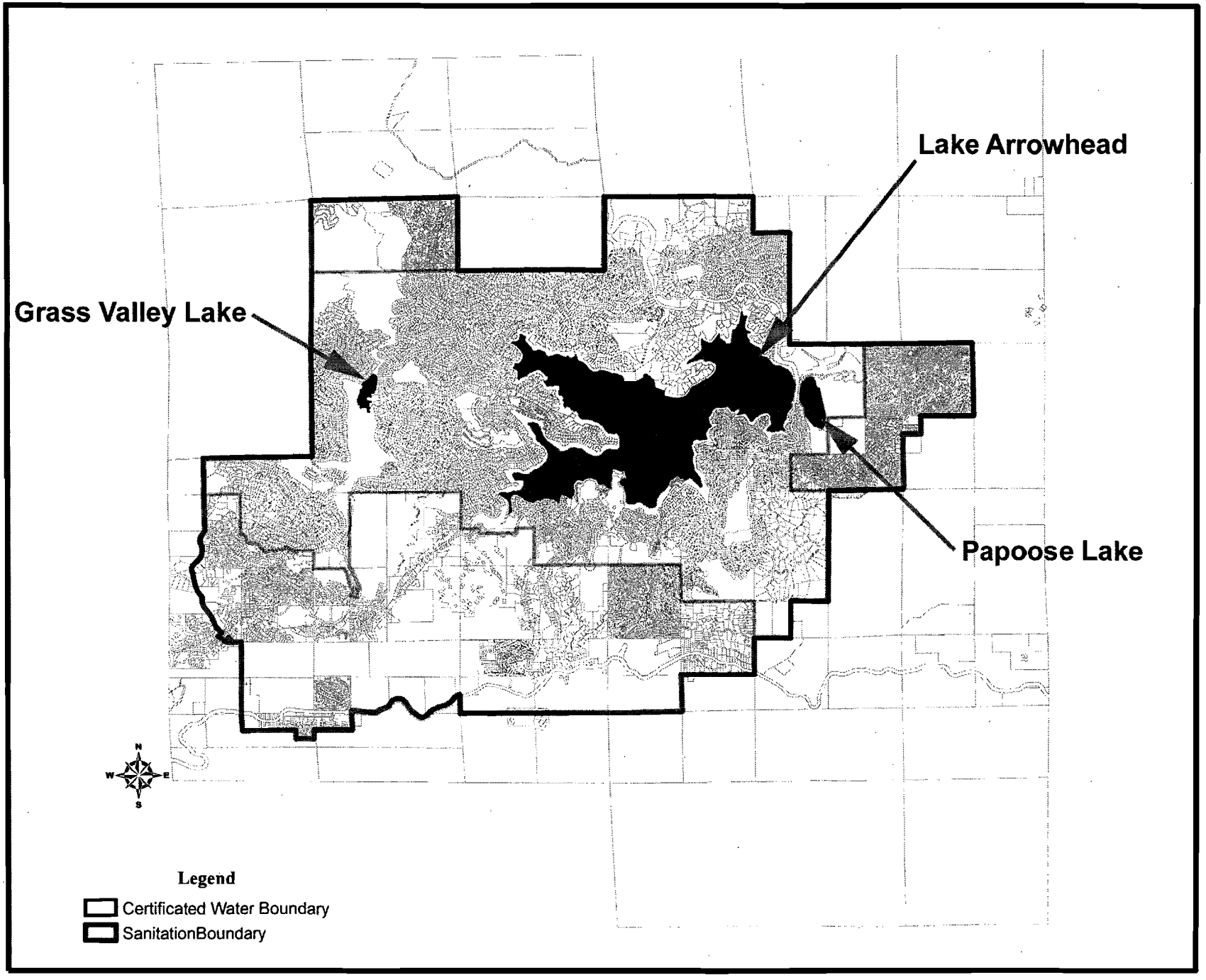
HAROLD J. SINGER
EXECUTIVE OFFICER

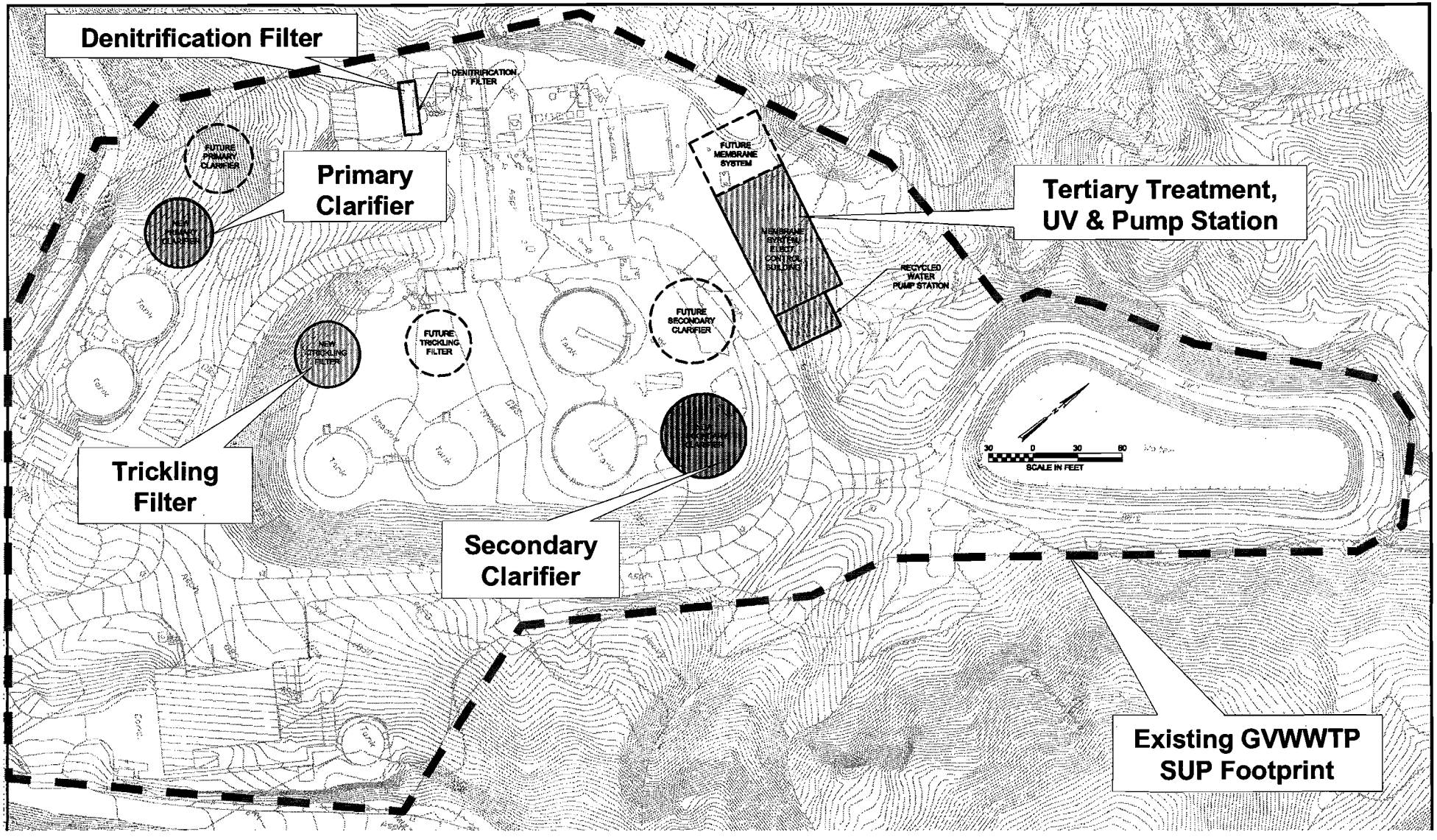
Attachments:
A. Location Map
B. Permit Area
C. Phase I Projected Wastewater Grass Valley Treatment Plant Site Plan
D. Grass Valley Treatment Plant Phase I Proposed Process Flow Diagram
E. WDR Bibliographic References
F. Requirements For Recycled Water Users
G. Standard Provisions for Waste Discharge Requirements
H. Master Water Recycling Application Materials (List Only)
I. Monitoring and Reporting Program

Attachment A: Location Map of the Lake Arrowhead Community Services District



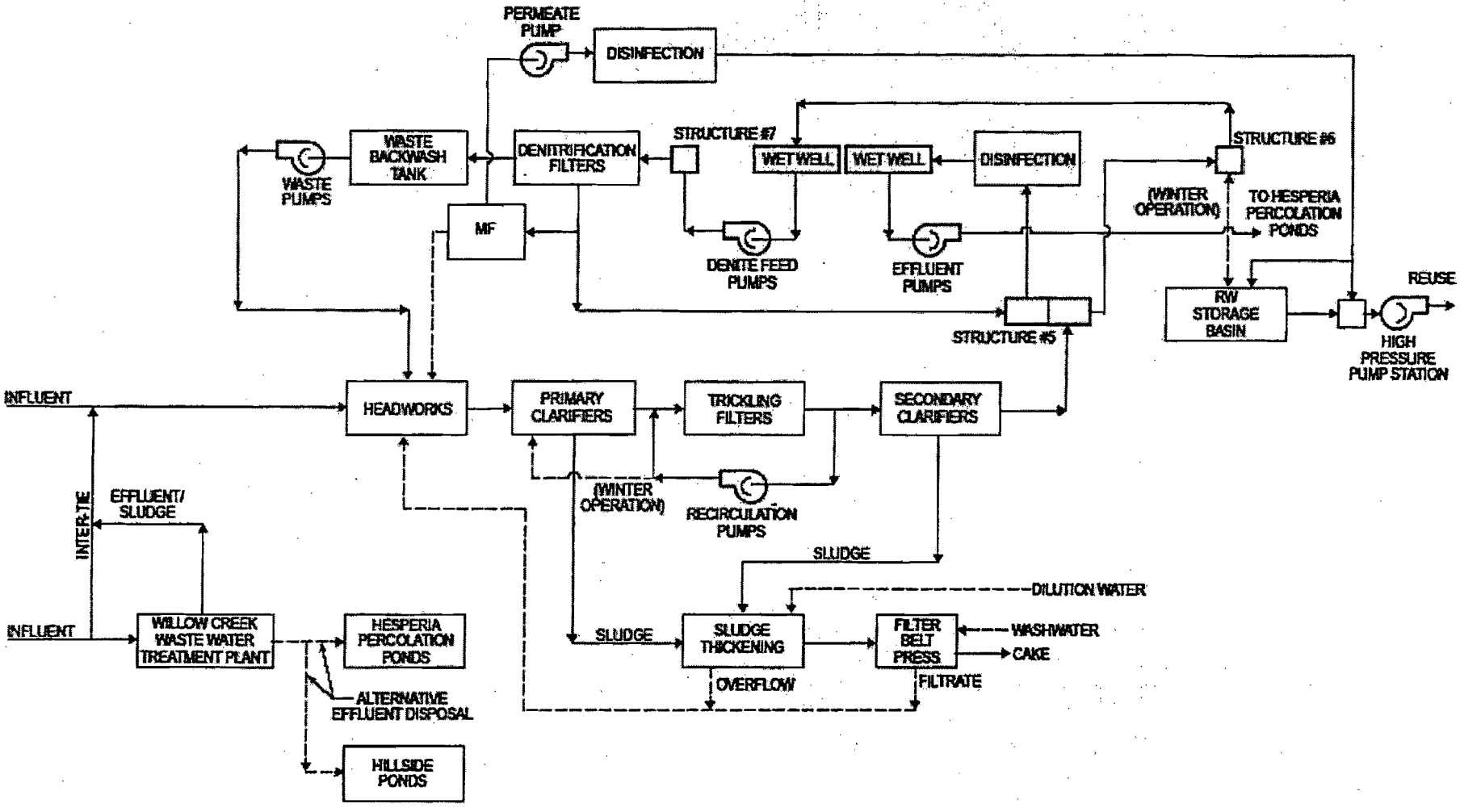
Attachment B: Lake Arrowhead Community Service District Sanitation and Water Services Boundary





Attachment C: Phase I Projected Wastewater Grass Valley Treatment Plant Site Plan

Appendix D: Grass Valley Treatment Plant Phase I Proposed Flow Diagram



ATTACHMENT E

MASTER WATER RECYCLING REQUIREMENTS BIBILIOGRAPHIC REFERENCES

1. Lake Arrowhead Community Services District (LACSD), 2002 Annual Operations Report.

2. LACSD, 2003 Annual Operations Report.

3. LACSD, Initial Study for the Recycled Water Program Improvements, Tom Dodson & Associates, October 2004.

4. LACSD, 2004 Annual Operations Report.

5. LACSD, 2005 Annual Operations Report.

6. Tetra Tech, June 2005. Engineering Report for Recycled Water Use by Lake Arrowhead Country Club. Prepared for LACSD.

7. LACSD, June 9, 2005 Letter to DHS regarding June 2005 Tetra Tech Engineering Report.

8. DHS, July 19, 2005 Letter to LACSD regarding June 2005 Tetra Tech Engineering Report.

9. LACSD, August 12, 2005 Letter to Lahontan Regional Water Quality Control Board (LRWQCB), Report of Waste Discharge Form 200 application for the District's Recycled Water Master Permit.

10. LACSD, October 21, 2005 Letter to LRWQCB responding to September 20, 2005 request for additional information from LRWQCB.

11. CH2MHill, August 2006. LACSD, Final Basis of Design and Engineering Report, Grass Valley Wastewater Treatment Plant Recycled Water System Phase 1 Project,

12. LACSD, August 18, 2006 Letter to LRWQCB containing remaining additional requested information from LRWQCB.

13. LACSD, September 15, 2006 Letter to DHS regarding June 2005 Tetra Tech Engineering Report.

14. CH2MHill, November 2006. LACSD, Recycled Water System Phase 1 Project Basis of Design Report Addendum #1.

15. LACSD, December 6, 2006 Letter to LRWQCB responding to October 18, 2006 request for additional information from LRWQCB.

ATTACHMENT F

I. Requirements for Recycled Water Users

A. Board Order No. R6V-2007-(PROP) requires the Lake Arrowhead Community Services District (District) to establish and enforce *Requirements for Recycled Water Users.* The *Requirements for Recycled Water Users* must include but not be limited to a description of the:

1. Process the Users must follow to obtain District authorization to use recycled water, including the agencies involved in the process, documents that must be completed (design plans, User Agreements, etc.), the routing of documents to the parties, agencies that must approve documents, agencies responsible for construction inspections, etc.

2. Requirements for the operational phase, including the designation of the Site Supervisor, and requirements for personnel training, operation and maintenance, type and frequency of cross-connection tests, etc.

B. The *Requirements for Recycled Water Users* must comply with the following laws and regulations:

1. Applicable portions of the Water Code, including Water Code section 13523.1;

2. Applicable portions of the Health and Safety Code;

3. California Code of Regulations, title 22, division 4, chapter 3, Uniform Statewide Reclamation Criteria; and

4. California Code of Regulations, title 17, division 1, chapter 5, group 4, article 1 & 2.

C. The *Requirements for Recycled Water Users* must be consistent with the following documents:

1. The document titled: *Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water,* State Department of Health Services;

2. Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting To Recycled Water* or alternate measures that are acceptable to the State Department of Health Services.

3. Relevant user manuals such as the Los Angeles County Recycled Water Advisory Committee's, 2005, *Recycled Water User Manual* (Manual).

D. At a minimum, the District's *Requirements for Recycled Water Users* must include the following requirements:

1. Before use of recycled water can begin at a proposed Authorized Recycled Water Use Site (Site), a User must file an application with the District and a User Agreement must be completed. The User Agreement must include the District's terms and conditions for the use of recycled water by a User. The application must include:

   a. A detailed description of the proposed recycled water use Site, including:

      i. A map showing the specific boundaries of the proposed Site;
      ii. The person or persons responsible for operation and maintenance of the Site (O&M Staff), including the person designated as the Site Supervisor as defined in Requirement No. I.D.3 of this attachment;
      iii. Evidence that the O&M Staff and Site Supervisor have received sufficient training to comply with Requirement No. I.D.4 of this attachment; and
      iv. The specific use to be made of the recycled water at each Site.

   b. Design plans and a description of BMPs that show that the quality of waters of the State will be protected and there will be compliance with Requirement No. I.D.6 of this attachment.

   c. Plans and specifications describing the following:

      i. Proposed piping systems to be used;
      ii. Pipe locations for both recycled and potable systems;
      iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public; and
      iv. The methods and devices to be used to prevent backflow of recycled water into the public water system.

   d. Recycled Water System Operations Manual, and

   e. Emergency Cross-Connection Response Plan

2. The Site Supervisor must immediately initiate corrective action to eliminate violation of any applicable law or regulation, or the District's *Requirements for Recycled Water Users*.

3. Each User must designate a Site Supervisor who is responsible for the recycled water system at each Site under the User's control. Specific responsibilities of the Site Supervisor include the proper installation, operation, and maintenance of the recycled water system; compliance with the District's *Requirements for Recycled Water Users*, prevention of potential hazards and preservation of the recycled water system in "as built" condition.

4. The O&M Staff and the Site Supervisor must be trained ensure the Site is operated and maintained in compliance with applicable laws and regulations, and the District's *Requirements for Recycled Water Users.*

5. Users must allow an authorized representative of any of the following agencies the right to enter and inspect the Site upon presentation of proper credentials: the District, Lahontan Water Board, State Department of Health Services, and County of San Bernardino Department of Public Health.

6. Sites using recycled water must be designed and operated using BMPs to ensure:

   a. Application of recycled water at agronomic rates so irrigation does not promote downward migration of pollutants, which could adversely impact the quality of groundwater;
   b. Adequate erosion control so that soil is not released into stormwater runoff and surface waters; and
   c. Fertilizer application does not adversely impact waters of the State.

   To demonstrate whether irrigation is at agronomic rates, the User must provide information to the District including a tabular comparison of the volume of water required for plant growth in the landscape area to the volume of recycled water (and supplemental water) applied to the area.

   To demonstrate whether fertilizer application is at agronomic rates, the User must provide information to the District including a tabular comparison of the amount of fertilizer needed for plant growth in the landscape area to the amount applied to the area. The Site Supervisor must only apply nitrogen fertilizer if levels of nitrogen in the recycled water are not sufficient for plant growth. If levels are not sufficient, the Site Supervisor must calculate how much fertilizer needs to be applied by subtracting the level in recycled water from the level needed for plant growth.

7. Sites using recycled water must be designed and operated using BMPs with the objectives of preventing recycled water spray, mist, or surface flow from either leaving the Site or reaching:

   a. Any surface waters located on or adjacent to the Site[1]
   b. Areas where the public has access (e.g., dwellings, designated outdoor eating areas, or food handling facilities.); or
   c. Drinking fountains.

8. BMPs used to achieve the objectives described in Requirement No. I.D.7 of this attachment, must include:

   a. Use of buffer zones;

[1] Except for runoff that is "incidental in nature.

b. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site; and
c. Use of devices that protect drinking water fountains against contact with recycled water spray, mist, or surface flow.

9. Sites must be designed and operated using BMPs with the objectives of preventing public contact with recycled Water. BMPs used to obtain these objectives must include: irrigation with recycled water during periods of minimal human use of the irrigated area and timing of irrigation to allow an adequate dry-out time before the irrigated area will be used by the public.

10. A copy of the *Requirements for Recycled Water Users*, design plans for the recycled water system and potable water system, and the Recycled Water System Operations Manual for the recycled water system be maintained at the use area. These documents must be available to operating personnel at all times.

11. The Site Supervisor must provide immediate verbal notification followed by written notification within 10 business days to the District, Lahontan Water Board, State Department of Health Services and County of San Bernardino Department of Public Health if any of the following events occur:

    a. There is a complaint (or other source of information) concerning recycled water use that may involve illness;
    b. An unauthorized discharge of more than 50,000 gallons of tertiary treated recycled water (or 1,000 gallons for any lesser quality recycled water); or
    c. Contamination of the potable water system due to a cross-connection.

12. The Site Supervisor must immediately invoke the Emergency Cross-Connection Response Plan in case of contamination of the potable water system due to a cross-connection.

13. Irrigation with disinfected tertiary recycled water must not take place within 50 feet of any domestic water supply well. (Cal Code Regs., title 22, section 60310, subd. (a).)

14. Impoundment of disinfected tertiary recycled water must not occur within 100 feet of any domestic water supply well. (Cal Code Regs., title 22, section 60310, subd. (b).)

15. A public water supply must not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of California Code of Regulations, title 17, section 7602, subdivision (a) and California Code of Regulations, title 17, section 7603, subdivision (a), and that such connection has been approved by the State Department of Health Services and/or its delegated local agency.

16. Any backflow prevention device installed to protect the public water system must be inspected and maintained in accordance with California Code of Regulations, title 17, section 7605 (Cal. Code Regs., title 22, section 60316, subd. (c).)

17. Except as allowed under California Code of Regulations, title 17, section 7604, no physical connection must be made or allowed to exist between any recycled water system and potable water system. (Cal. Code Regs., title 22, section 60310, subd. (h).)

18. The recycled water system must not include any hose bibs. Quick couplers that are different from those used on the potable water system may be used. (Cal Code of Regs., title 22, section 60310, subd. (i).)

19. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations must be colored purple or distinctively wrapped with purple tape in accordance with Health and Safety Code section 116815.

20. Sites must be designed and operated using BMPs to prevent: direct human consumption of recycled water, or use of recycled water for processing of food or drink intended for human consumption. There must be posting with conspicuous signs (in a size no less than 4 inches high by 8 inches wide) that include the following wording: "RECYCLED WATER - DO NOT DRINK" where recycled water could potentially be accessed for human consumption. Each sign must display an international symbol similar to that shown in Figure 60310-A of California Code of Regulations, title 22, section 60310, subdivision (g). The sign(s) must be of a size easily readable by the public. The prescribed wording should also be translated into Spanish and other appropriate languages and included in the required signs. (Cal Code Regs., title 22, section 60310, subd. (g).)

II. Compliance Inspection and Enforcement Program

A. Board Order No. R6V-2007-(PROP) requires the District to establish and implement a *Compliance Inspection and Enforcement Program.* The *Compliance Inspection and Enforcement Program* must include but not be limited to a description of the District's:

1. Plan for conducting routine compliance inspections of the Authorized Recycled Water Use Sites, including the name(s) of any parties that will assist the District in conducting the inspections.

2. Process for responding to violations, including ordering corrective action and initiating enforcement action.

B. At a minimum, the *Compliance Inspection and Enforcement Program* must be consistent with Water Code section 13523.1.

C. At a minimum, the District's *Compliance Inspection and Enforcement Program* must include the following requirements:

1. Inspections include review of the Site Supervisor's maintenance records and visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, surface waters, storage facilities, signs, labeling, tags, etc.;

2. A Site compliance inspection report must be prepared for each inspection. The inspection report must be signed and dated by both the Site Supervisor and the inspector. At a minimum, copies of the reports must be maintained on file by the Site Supervisor, District, and inspecting entity if different from the District;

3. The inspector must immediately notify the Site Supervisor of violation(s) identified during inspections and what corrective actions must be taken;

4. Describe enforcement actions that will be employed for Users that fail to immediately initiate corrective action to eliminate violation(s). Such enforcement actions may include, but not be limited to:

    a. Immediately stopping recycled water service to a use Site where a violation has been identified and the violation is believed to constitute a hazard to the public health or threat to water quality.
    b. Termination of service to a User who uses, transports, or stores such water in violation of the District's *Requirements for Recycled Water Users*.

ATTACHMENT G

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

   The District must 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 District must immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation must 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, must be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This must include, but not be limited to, all significant soil disturbances.

   c. The Owners/Discharger of property subject to WDRs must 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 must be reported to the Regional Board. Notification of applicable WDRs must be furnished in writing to the new owners and/or operators and a copy of such notification must be sent to the Regional Board.

d. If the District becomes aware that any information submitted to the Regional Board is incorrect, the District must 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 District becomes aware that its WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the District must 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 right 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 District must 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 District must 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 District 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 District, 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 District 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 must be kept and maintained by the District 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 must not be affected.

12. Public Access

General public access must 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 must 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 H

MASTER WATER RECYCLING REQUIREMENTS APPLICATION DOCUMENTS

1. LRWQCB. December 2006. Report of Waste Discharge, Master Reclamation Permit, Lake Arrowhead Community Services District, San Bernardino County.
2. CH2MHILL. November 2006. Recycled Water System Phase I Project Basis of Design Report Addendum #1.
3. CH2MHILL. August 2006. Grass Valley Wastewater Treatment Plant Recycled Water System Phase I Project.
4. LACSD. August 2005. Letter to the LRWQCB accompanying Draft Form 200 Application.
5. LACSD. August 2005. Completed Draft Form 200 Application.
6. LACSD. July 2005. Letter to the District summarizing June 2005 meeting to discuss the proposed Master Recycling Water Permit.
7. LACSD. March 2005. CEQA Notice of Determination.
8. Tom Dodson & Associates. October 2004. Initial Study for the Recycled Water Program Improvements, Lake Arrowhead Community Services District.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. R6V-2007- 0022

MASTER WATER RECYCLING REQUIREMENTS
LAKE ARROWHEAD COMMUNITY SANITARY DISTRICT
DISINFECTED TERTIARY RECYCLED WATER

San Bernardino County

I. MONITORING

A. Flow

Each month, the total volume, in million gallons, and the average flow rate, in million gallons per day (mgd), must be recorded for recycled water provided by the Grass Valley Wastewater Treatment Plant Recycled Water System (Grass Valley Facility) to each Authorized Water Use site:

B. Application Rates for Fertilizers and Recycled Water

1. To demonstrate whether irrigation is at agronomic rates, include a tabular comparison of the:

   a. Volume of water required for plant growth in each landscape area;
   b. The volume of recycled water (and supplemental water) applied to each area; and
   c. The number of acres for each area.

2. To demonstrate whether nitrogen application is at agronomic rates, include a tabular comparison of the:

   a. Amount of nitrogen (N) needed for plant growth in each landscape area;
   b. Total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
   c. The number of acres for each area.

3. Report the volume of recycled water used for soil compaction/dust control at each site during the period.

C. Recycled Water

Samples of the recycled water following tertiary treatment and leaving the Grass Valley Facility for reuse by permitted users must be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type of Sample	Frequency[1]
Total Trihalomethane	µg/L	24-hour composite[2]	Quarterly
n-nitrosodimethylamine	µg/L	24-hour composite[2]	Quarterly
Total Dissolved Solids	mg/L	24-hour Composite[2]	Monthly
pH	mg/L	Grab	Weekly
Nitrate Nitrogen	mg/L as N	6-hour Composite[2]	Weekly
Kjeldhahl Nitrogen	mg/L as N	6-hour Composite[2]	Weekly
Ammonia Nitrogen	mg/L as N	6-hour Composite[2]	Weekly
Total Coliform	MPN/ 100mL	Grab	Daily

D. Supply Water Monitoring

For each semi-annual period (January – June; July – December), a report must be submitted to the Lahontan Water Board providing the results of State Department of Health Services-specified drinking water supply monitoring for District Wells No. 1, 2, 3, 4, and 5, located on the Lake Arrowhead Country Club Golf Course. Ground water elevations at the time of sampling must also be provided for each well. The reports must be included with the quarterly monitoring reports providing results from the second and fourth quarterly monitoring periods, as specified by Provision II.B of this Order.

E. Permitting

The following must be recorded each quarter:

1. A list of all Authorized Recycled Water Use Sites (sites), including the following information for each site: name of site, user name, type of use, site area (acres) and date the District approved use of recycled water at the site;

2. The total number of sites that received recycled water during the quarter must be recorded; and

[1] Samples must be collected at a time during the day when flowrate is at a maximum. At least one half of the samples that are collected on a weekly frequency must be collected on weekends.
[2] Samples must be collected at least every hour and composited in proportion of the flowrate.

3. A map of suitable scale showing the boundary of the Permit Area and the sites that received recycled water.

F. Compliance Inspections and Enforcement

1. A list of sites inspected by the District during the quarter must include the following information for each site:

   a. Date of inspection, name of site, user name and type of use;
   b. A description of any violations noted;
   c. The date compliance was achieved and the corrective action taken; and
   d. A description of enforcement action taken (if any), including any schedule for achieving compliance.

2. Signage informing the public that recycled water is currently being used for irrigation purposes at each irrigation recycled water use facility must be inspected monthly. Maintenance of this signage is required. The results of this inspection must be reported by the District in its quarterly report.

3. Best Management Practices (BMPs) in place to prevent contamination of potable water supplies (including ground water) must be inspected on a monthly basis. The results of this inspection and measures taken to maintain, retrofit these BMPs must be reported by the District in its quarterly report.

G. Operation and Maintenance

A brief summary of any operational problems and maintenance activities must be submitted to the Lahontan Water Board with each quarterly monitoring report. This summary must discuss:

1. Any modifications or additions to the recycled water treatment facilities, distribution and user systems;

2. All backflow prevention devices at each Authorized Recycled Water Use Sites testing results;

3. The recycled water distribution system must be inspected annually for cross connections with the potable water supply. The results of cross connections inspections at each Authorized Recycled Water Use Site.

4. The recycled water distribution system must be pressure tested for leaks or drops in pressure annually. The testing results of the District's recycled water distribution system must be reported.

5. Any non-routine maintenance conducted to the recycled water treatment facilities (microfiltration, denitrification sand filters, UV disinfection, recycled water storage pond), distribution and user systems;

6. Any major problems[3] occurring to the recycled water treatment facilities, distribution and user systems;

7. The calibration results of any recycled water flow measuring devices.

II. REPORTING

A. General Provisions

1. The District must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program (Attachment I).

2. Pursuant to General Provision No. 1d. of the General Provisions for Monitoring and Reporting, the District must submit to the Regional Board by **September 4, 2007** a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP must include a detailed description of procedures and techniques for:

   a. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
   b. Sample preservation and shipment;
   c. Analytical procedures;
   d. Chain of custody control; and
   e. Quality assurance/quality control (QA/QC).

B. Quarterly Reports

Beginning on **September 1, 2008**, quarterly monitoring reports including the preceding information must be submitted to the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) by the first day of the third month following each quarterly monitoring period. (Water. Code, § 13523.1, subd. (b)(4).)

Quarterly monitoring periods are defined as follows:

First Quarter	January 1 - March 31
Second Quarter	April 1 - June 30
Third Quarter	July 1 - September 30
Fourth Quarter	October 1 - December 31

[3] Results or requires system shutdown or bypass.

C. Annual Report

Beginning on **April 1, 2009** and continuing thereafter, the District must submit an annual report to the Lahontan Water Board with the following information:

1. Documentation of status of the District's compliance with the attached Master Water Recycling Requirements;

2. The compliance record and the corrective actions taken or planned, which are necessary to bring the District into full compliance with the Master Water Recycling Requirements; and

3. The District's time schedule for completing corrective actions needed to achieve compliance.

Ordered by: Harold J. Singer Dated: June 13, 2007

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: General Provisions for Monitoring and Reporting Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS

FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

a. All analyses must be performed in accordance with the current edition(s) of the following documents:

   i. Standard Methods for the Examination of Water and Wastewater

   ii. Methods for Chemical Analysis of Water and Wastes, EPA

b. All analyses must be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

c. Any modifications to the above methods to eliminate known interferences must be reported with the sample results. The methods used must also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

d. The District must establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis must be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP must be kept at the facility.

e. The District must calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or must insure that both activities will be conducted.

The calibration of any wastewater flow measuring device must be recorded and maintained in the permanent log book described in 2.b, below.

f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample must be proportional to the discharge flow rate at the time of sampling. The sampling period must equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the District must maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records must be retained for a minimum of three years. This period of retention must be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log must be maintained at the facility. All monitoring and reporting data must be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the District must submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and must submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results must be made available to the Regional Board upon request. Results must be retained for a minimum of three years. This period of retention must be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The District must provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities must be included in this summary.

d. Monitoring reports must be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

ii. In the case of a sole proprietorship, by the proprietor; or

iii. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the 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 under Section 13268 of the Water Code.