

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. R7-2006-0057

**WASTE DISCHARGE REQUIREMENTS
FOR
SUNWEST DEVELOPMENT, LLC
DESERT KNOLL
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL SYSTEMS
CITY OF TWENTYNINE PALMS
DISPOSAL SYSTEMS
City of Twentynine Palms – San Bernardino County**

The California Regional Water Quality Control Board, Colorado River Basin Region finds that:

1. Sunwest Development, LLC (hereinafter referred to as Discharger), 29371 Modjeska Canyon Road, Silverado, CA 92676, submitted a Report of Waste Discharge (ROWD) dated March 23, 2006, to discharge treated domestic wastes via a subsurface irrigation system of street parkways within the proposed Desert Knoll subdivision in the City of Twentynine Palms. An Engineering Report dated January 2006, and a Revised Engineering Report dated March 23, 2006, was also submitted in support of the ROWD.
2. The Discharger proposes to develop the Desert Knoll subdivision, which will consist of 177 single-family homes located west of Utah Trail and north of Two Mile Road, in the City of Twentynine Palms, San Bernardino County. The development (Tentative Tract 17168) will cover 87.7 acres in the SW $\frac{1}{4}$, of the SE $\frac{1}{4}$ of Section 21, T1N, R9E, San Bernardino Baseline and Meridian (SBB&M), as shown in Attachment A, attached hereto and made part of this Order by reference.

Wastewater System

3. The Discharger proposes to build a wastewater collection, treatment, and disposal system to service the subdivision. The subdivision will generate up to 49,560 gallons per day (gpd) of domestic wastewater.
4. The wastewater treatment facility (WWTF) will consist of an activated sludge package treatment plant with a rated capacity of 50,000 gpd. The facility will include metering instrumentation, screening, grit removal, a flow equalization basin, two (2) extended aeration tanks, two (2) secondary clarifiers, one (1) aerobic sludge digester, and one (1) chlorine contact tank for disinfection. The plant may be operated in nitrification/denitrification mode. Effluent from the WWTF will be disposed of using a Geoflow subsurface drip irrigation system, to irrigate street parkways on public property. Seepage pits will be available for backup disposal.
5. The proposed subsurface disposal areas are located in parkways on "B", "G" and "H" Streets as shown in Attachment B. The parkways are six (6) foot wide landscaped areas with trees and shrubs (Xeriscape). The total street length irrigated with treated effluent is approximately 12,000 feet, and total area of irrigated landscape approximately 150,000 square feet. The City of Twentynine Palms, Department of Community Development, will designate the amount and type of landscaping. Six (6) backup seepage pits are proposed for use when parts of the subsurface irrigation system are inoperative due to maintenance

or repair. Solids and sludge will be removed from the treatment train by a licensed septage hauler, and disposed of pursuant to state regulation.

6. The Discharger received a letter dated June 2, 2006 from the California Department of Health Services regarding use of the Geoflow subsurface irrigation system for this project. The letter states: "...that this system is subsurface disposal of wastewater discharge with incidental irrigation, and not a recycled water use requiring approval from the Department."
7. The subdivision is expected to start construction in the latter half of 2006, and achieve full occupancy by December 31, 2008. The wastewater collection, treatment, and disposal system is expected to be operational by September 2006. The subdivision project consists of eight (8) phases with the final phase scheduled for completion by October 2008. The WWTF and seepage pits will be located southwest of the intersection of Samarkand Drive and H Street on lot 89.

Hydrogeologic Conditions

8. The site is relatively flat with a slight downward slope to the north. Elevations range from 1,925 feet above mean sea level in the southwest to 1,820 feet above mean sea level in the northeast. The site is not within a designated FEMA 100-year flood plain, but is in a seismically active region of the Mojave Desert, about 0.9 miles from the Mesquite Lake fault.
9. Average annual precipitation for the area is four (4) to six (6) inches.
10. A geotechnical investigation was conducted at the site in July 2005. Data was collected from eight (8) test pits excavated from seven (7) to fifteen (15) feet below ground surface (bgs), and from twenty-four (24) percolation tests. The following findings and recommendations were provided in a geotechnical engineering report prepared by Landmark Consultants Inc. dated August 2005, and titled "Geotechnical Report APN 621-231-010 & 011 Twentynine Palms, California":
 - a. Soils in the area of the proposed seepage pits consist of sands and gravelly silty sands, from the ground surface to about fifteen (15) feet bgs.
 - b. Percolation tests varied from 1.38 to 5.00 minutes per inch. Based on these data, the recommended absorption area is 1.00 square foot per gallon of wastewater per day for leachline design.
 - c. Groundwater was not encountered during the geotechnical investigation. However, depth to groundwater is estimated to range from 64 feet bgs northeast of the project site, to 115 feet bgs southwest of the project site.
11. The Twentynine Palms Water District provides domestic water services to the City of Twentynine Palms. Data indicate high quality groundwater occurs approximately 80 feet bgs. Water quality analyses from the District's 2005 Consumer's Confidence Report are provided below:

<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u> ¹	<u>Range of Concentration</u> ¹
Arsenic	µg/L ²	8.64	2.0 to 29
Fluoride	mg/L ³	1.54	0.5 to 3.0 ⁴
Nitrate (as Nitrate)	mg/L	10.74	0 to 26
Total Chromium	µg/L	7.83	0 to 24
Total Dissolved Solids ⁵	mg/L	157.5	100 to 330
Specific Conductance ⁵	µmhos/cm ⁶	276	190 to 560
Chloride ⁵	mg/L	11.4	3.5 to 21
Sulfate ⁵	mg/L	16.9	3.5 to 68

¹ Based on analyses of samples collected from twelve (12) wells from January 1 – December 31, 2005, unless otherwise noted.

² Micrograms per liter

³ Milligrams per liter

⁴ The level of fluoride in District Well 3B in 2003 was reportedly 3.1 mg/L. The well was removed from service until February 2004 when fluoride levels fell below 3.0 mg/L.

⁵ Results sampled in 2003

⁶ Micromhos per centimeter

12. The District has twelve (12) groundwater supply wells screened in four (4) unconfined aquifers, as shown below:

<u>Well Name</u>	<u>Location</u>	<u>Aquifer</u>
Well 3B	Sec. 31, T1N, R9E	Fortynine Palms Canyon
Well 4	Sec. 31, T1N, R9E	Fortynine Palms Canyon
Well 13	Sec. 36, T1N, R8E	Fortynine Palms Canyon
Well 14	Sec. 36, T1N, R8E	Fortynine Palms Canyon
Well 6	Sec. 33, T1N, R8E	Indian Cove
Well 7	Sec. 33, T1N, R8E	Indian Cove
Well 9	Sec. 33, T1N, R8E	Indian Cove
Well 10	Sec. 30, T1N, R8E	Indian Cove
Well 11	Sec. 30, T1N, R8E	Indian Cove
Well 12	Sec. 33, T1N, R8E	Indian Cove
Well 16	Sec. 32, T1N, R9E	Eastern
Well TP-1	Sec. 21, T1N, R9E	Mesquite Springs

13. The supply well closest to the proposed discharge, Well TP-1, is approximately 3,000 feet downgradient of the seepage pits, and approximately 2,000 feet downgradient of the subsurface irrigation area. Groundwater at this location is influenced by local faults (Pinto Mountain, Mesquite, and others), generally flowing to the northeast.

Basin Plan, Beneficial Uses, and Regulatory Considerations

14. The Water Quality Control Plan (Basin Plan) for the Colorado River Basin Regional Water Quality Control Board, as amended to date, designates the beneficial uses of ground and surface waters in the Region.

15. The proposed discharge is within the Dale Hydrologic Unit. The beneficial uses of groundwater in the Dale Hydrologic Unit designated in the Basin Plan are:
 - a. Municipal supply (MUN),
 - b. Agricultural supply (AGR), and
 - c. Industrial supply (IND).

16. Waste Discharge Requirements implement narrative and numeric water quality objectives for ground and surface waters established by the Basin Plan. The numeric objectives for groundwater designated for municipal and domestic supply are the maximum contaminant levels (MCLs), and bacteriological limits specified in Section 64435 et seq. of Title 22, California Code of Regulations (CCR). The narrative objectives are:

Groundwater. ...shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses as a result of human activity.....

Discharges of water softener regeneration brines... to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground water usable for domestic and municipal purposes are prohibited (Basin Plan, page 3-9).

17. The discharge authorized in this Board Order, and treatment and storage facilities associated with the discharge of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the solid waste requirements of Title 27, California Code of Regulations (CCR), Section 20005 et seq. (hereinafter, Title 27). This exemption is based on section 20090(a) of Title 27, which states in relevant part that discharges of sewage or treated effluent are exempt so long such discharges meet the following preconditions:
 - a. Wastes consist primarily of domestic sewage and treated effluent;
 - b. Wastes are regulated by waste discharge requirements issued or waived;
 - c. Waste discharge requirements are consistent with applicable water quality objectives; and
 - d. Treatment and disposal facilities described herein are associated with a municipal wastewater treatment plant.

Groundwater Degradation

18. State Water Resources Control Board (State Board) Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State"; hereafter Resolution No. 68-16) requires regional boards, when regulating the discharge of waste, to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., violate water quality objectives). Moreover, the discharge is required to meet waste discharge requirements that result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or

nuisance will not occur, and the highest water quality consistent with maximum benefit to the people will be maintained.

19. Some degradation of groundwater from the discharge to the subsurface irrigation system and seepage pits is consistent with Resolution No. 68-16, provided that this degradation:
 - a. Is confined to a reasonable area;
 - b. Is minimized by means of full implementation, regular maintenance, and optimal operation of BPTC measures;
 - c. Is limited to waste constituents typically encountered in domestic wastewater; and
 - d. Does not result in water quality less than that prescribed in the applicable basin plan, including violation of any water quality objective.

20. The discharge of wastewater from the WWTF, as permitted herein, reflects best practicable treatment and control. The controls assure the discharge does not create a condition of pollution or nuisance, and that the highest water quality defined by the physical and chemical nature of the local groundwater will be maintained, which is consistent with the anti-degradation provisions of Resolution No. 68-16. The WWTF incorporates:
 - a. Technology for secondary treated domestic wastewater;
 - b. Sludge handling facilities;
 - c. An operation and maintenance manual;
 - d. Staffing to assure proper operation and maintenance; and
 - e. A standby emergency power generator of sufficient size to operate the treatment plant and ancillary equipment during commercial power loss.

21. Constituents in domestic WWTF effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and dissolved salts (TDS). The proposed WWTF provides substantial removal of soluble organic matter, solids, and nitrogen. While secondary treatment reduces fecal coliform densities by 90 to 99%, the remaining organisms in effluent are still 10^5 to 10^6 MPN/100 ml (United States Environmental Protection Agency, Design Manual, Municipal Wastewater Disinfection; October 1986). Given depth to groundwater and soil types beneath the seepage pits, effluent disinfection is not needed to prevent pathogen-indicator bacteria from reaching groundwater at densities exceeding those prescribed in Title 22, CCR. However, the WWTF, seepage pits, and soils beneath the disposal area are not likely to prevent groundwater degradation by TDS. Therefore, degradation to groundwater, if any, should be limited to the area underlying the disposal areas and to salinity constituents.

22. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Considering current water conservation practices, the TDS increase allowed for this subdivision is 200 mg/L, provided wastes are exclusively domestic and without water softener discharges. An average limitation of 350 mg/L for TDS in effluent, which is more stringent than the TDS lower limit prescribed by Title 22, CCR, limits salt degradation to a reasonable amount (200 mg/L over the average TDS of municipal water supply), and reasonably protects present, and anticipated, uses of groundwater beneath the seepage pits.

23. Groundwater limits equal to water quality objectives for indicator waste constituents are appropriate, as well as a more restrictive limit for TDS in groundwater than that prescribed by Title 22, CCR. The proposed residential development provides necessary housing and contributes to economic development in the area. This factor and the associated increase in TDS are consistent with maximum benefit to the people of the State. Accordingly, the discharge as authorized is consistent with the anti-degradation provisions of Resolution 68-16.

Storm Water

24. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA; 40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities discharging storm water associated with industrial activity to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Technology and Best Available Technology Economically Achievable to reduce or eliminate industrial storm water pollution.
25. The State Water Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the General Permit.
26. Pursuant to California Water Code Section 13263(g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

CEQA and Public Participation

27. In accordance with the California Environmental Quality Act (CEQA) (Cal. Pub. Resources Code § 21000 et seq.), the City of Twentynine Palms Community Development Department, acting as the lead agency, filed a Notice of Intent to Adopt a Negative Declaration. Following approval of the proposed Negative Declaration and the proposed subdivision project, the City of Twentynine Palms filed a Notice of Determination, dated August 7, 2005, for the project, including the associated sewage infrastructure and discharge. The Regional Board has considered the Negative Declaration and potential impacts to water quality. Compliance with these waste discharge requirements should prevent any adverse water quality impacts and nuisance.
28. The Board notified the Discharger and all known interested agencies and persons of its intent to draft waste discharge requirements for this discharge, and has provided them an opportunity for a public meeting and to submit comments.
29. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the Discharger shall comply with the following:

A. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as 'hazardous,' as defined in Section 2521(a) of Title 23, CCR, Section 2510 et seq., or 'designated,' as defined in CWC Section 13173, is prohibited.
3. Bypass or overflow of untreated or partially treated waste is prohibited, except as allowed in Provision E.12.
4. Discharge of waste from the sanitary sewer system at any point upstream of the treatment plant is prohibited.
5. Discharge of water softener regeneration brine or similar mineralized wastes into the collection, treatment, or disposal systems described in Finding Nos. 3, 4, and 5 above, is prohibited.
6. Discharge of wastewater from the WWTF, other than into the subsurface disposal system or the seepage pits described in Finding Nos. 4 and 5 above, is prohibited.
7. Surfacing or overflow of effluent from the subsurface disposal system or the seepage pits is prohibited.

B. Discharge Specifications

1. The 30-day monthly average daily discharge flow shall not exceed 49,560 gpd. The flow limit shall be applied to the flow entering the WWTF.
2. Effluent from the WWTF shall not have a pH below 6.0 or above 9.0.
3. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Section 13050(l) and 13050(m) of Division 7 of the California Water Code.
4. Public contact with wastewater or the seepage pits shall be prohibited or controlled through fences, signs, or other acceptable alternatives.
5. The discharge shall not cause degradation of any water supply.
6. All treatment, storage, and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

7. WWTF effluent shall not exceed the following limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum
BOD ₅ ¹	mg/L	30	45	65
Total Suspended Solids	mg/L	30	45	65
Settleable Solids	ml/L	0.5	--	1.0
Nitrogen (as Total Nitrogen)	mg/L	10	15	20
TDS	mg/L	350	--	--

¹ Five-day biochemical oxygen demand at 20 °C.

8. A 50-foot buffer zone shall be maintained between the seepage pits and adjacent property boundaries.

C. Sludge Disposal

- Screenings, biosolids, grease and oil, and other solids removed from liquid wastes shall be disposed of in a manner consistent with Title 27, and as approved by the Executive Officer.
- Any change in the use or disposal of biosolids shall be reported to the Regional Board Executive Officer and U.S. Environmental Protection Agency Regional Administrator, Region IX, at least 90 days in advance of the change.
- The use and disposal of sludge shall comply with Federal and State laws and regulations, including permitting requirements and technical standards in Title 40, Part 503 of the Code of Federal Regulations (CFR). If the State and Regional Boards are delegated authority to implement regulations in 40 CFR Part 503, this Order may be updated to incorporate time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR Part 503 whether or not part of this Order.

D. Groundwater Limitations

- Waste discharges from the seepage pits shall not cause groundwater to:
 - Contain the following constituents in concentrations greater than listed:

Constituent	Units	Limitation
Ammonia (as NH ₄)	mg/l	1.5
Boron	mg/L	0.7
Chloride	mg/L	106
Iron	mg/L	0.3
Manganese	mg/L	0.05
Sodium	mg/L	69
Total Coliform Organisms	MPN/100 mL	<2.2
Total Dissolved Solids	mg/L	350
Total Nitrogen	mg/L	10

Constituent	Units	Limitation
Nitrite (as N)	mg/L	1
Nitrate (as N)	mg/L	10
Total Trihalomethanes	mg/L	0.080

- b. Exhibit a pH less than 6.5 or greater than 8.5, and
- c. Impart to groundwater taste, odor, toxicity, or color that creates nuisance or impairs beneficial use.

E. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program (MRP) No. R7-2006-0057, and future revisions thereto, as specified by the Regional Board Executive Officer.
2. Given the prescribed monitoring frequency of MRP No. R7-2006-0057, when data is available for only one (1) sample for a particular reporting period, the data for sample shall be used to determine compliance with Discharge Specifications requiring monthly and/or weekly averages.
3. Prior to modifying the location of the discharge, or the quality or quantity of wastewater treated or discharged, the Discharger shall report all pertinent information in writing to the Regional Board Executive Officer, and obtain revised requirements before implementing modification(s).
4. Prior to changing ownership or management of this operation, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board Executive Officer.
5. The Discharger shall ensure all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
6. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
7. Standby power generating facilities shall be available to operate the plant during a commercial power failure.
8. The Discharger shall comply with all conditions of this Board Order. Noncompliance with this Board Order is a violation of the Porter-Cologne Water Quality Control Act (Cal. Water Code § 13000 et seq.), and is grounds for enforcement action.
9. **At least 30 days prior to beginning WWTF operations and waste discharge**, the Discharger shall submit an engineering report pursuant to Section 13267 of the California Water Code. The report shall be prepared by a registered civil engineer experienced in the design of domestic wastewater treatment and disposal facilities, and provide:

- a. A description of the as-built WWTF and disposal system;
- b. A description of the type and location of flow metering instruments installed to comply with the effluent flow limit and MRP No. R7-2006-0057;
- c. A description of the subsurface disposal system, including: the number, size, and construction specifications of each seepage pit; the area covered by the seepage pits, and available standby area for seepage pit replacement;
- d. A map to scale (1inch = 200 feet, or less) showing the location of the WWTF, disposal area, and property boundaries, and
- e. The Operation and Maintenance (O&M) Plan for the WWTF and subsurface disposal area.

The O&M Plan shall:

- i. Instruct field personnel to manage daily discharge operations to comply with the terms and conditions of this Order, and to make field adjustments to prevent nuisance conditions (e.g., surfacing water).
 - ii. Include a nuisance condition, troubleshooting flowchart for the WWTF and disposal area, and notification requirements in case of an emergency.
 - iii. Include an Inspection and Maintenance Plan describing the procedures and schedule for inspecting and testing the sewage collection system, and necessary maintenance.
 - iv. Provide instructions to determine when to remove grease/scum/sludge from the WWTF, and proper procedures for disposal of removed solids.
10. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control, installed or used by the Discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspection results and maintenance performed shall be kept and made available to the Regional Board Executive Officer upon demand.
11. The Discharger shall report any noncompliance that may endanger human health or the environment. The Discharger shall immediately report orally to the Regional Board Executive Officer and the Office of Emergency Services information of the noncompliance as soon as: (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures. During non-business hours, the Discharger shall leave a message on the Regional Board office voice recorder. A written report shall be provided within five (5) business days of the time the Discharger is aware of the incident. The written report shall contain a description of the noncompliance and the cause, the period of noncompliance, the anticipated time to achieve full compliance, and steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The Discharger shall report all intentional or unintentional spills occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.

12. By-pass (i.e., the intentional diversion of waste streams from any portion of a treatment facility, except diversions designed to meet variable effluent limits) is prohibited. The Board may take enforcement action against the Discharger for by-pass unless:
 - a. (1) By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means, substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production.

(2) There were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment was not installed to prevent a by-pass that would otherwise occur during routine periods of equipment downtime, or preventive maintenance.
 - b. (1) By-pass is required for essential maintenance to assure efficient operation.
(2) Neither effluent nor receiving water limitations are exceeded.
(3) The Discharger notifies the Board ten (10) days in advance of the by-pass.


The Discharger shall submit notice of an unanticipated by-pass as required in paragraph E.11 above.

13. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents required by law, to:
 - a. Enter the premises regulated by this Board Order, or the place where records are kept under the conditions of this Board Order.
 - b. Have access to and copy, at reasonable times, any records kept under the conditions of this Board Order.
 - c. Inspect at reasonable times: facilities, all equipment (monitoring and control equipment, etc.), and practices or operations regulated or required under this Board Order.
 - d. Sample or monitor at reasonable times, to assure compliance with this Board Order or as otherwise authorized by the California Water Code, any substance or parameter at this location.
14. The Discharger shall comply with the following:
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. The Discharger shall retain records of all monitoring information, including: all calibration and maintenance records; original strip chart recordings for continuous monitoring instrumentation; copies of all reports required by this Board Order, and data used to complete the Board Order application, for a period of at least five (5) years from the date of the sample, measurement, report or application.

- c. Records of monitoring information shall include:
 1. Date, exact place, and time of sampling or measurements.
 2. Individual(s) who performed the sampling or measurements.
 3. Date(s) analyses were performed.
 4. Individual(s) who performed the analyses.
 5. Analytical techniques or methods used.
 6. Analytical results.
15. Unless otherwise approved by the Regional Board Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.
16. The Discharger is responsible for complying with all conditions of the waste discharge requirements, and the monitoring and reporting program for the facility. Violations may result in enforcement action including: Regional Board orders or court orders; corrective action; civil monetary liability, or modification or revocation of waste discharge requirements by the Regional Board.
17. The Discharger shall provide adequate notice to the Regional Board Executive Officer for the following:
 - a. The introduction of pollutants into any treatment facility described in the Findings of this Board Order from an indirect Discharger that would be subject to Section 301 or 306 of the Clean Water Act, if pollutants were discharged directly.
 - b. Any substantial change in the volume or character of pollutants introduced into any treatment facility described in the Findings of this Board Order, by an existing or new source.
 - c. Any planned, physical alteration or addition to the facilities described in this Board Order, or in the use of the sludge, or a disposal practice, where such alterations, additions, or changes may justify Board Order conditions different from or absent in the existing Board Order, including notification of additional disposal sites not reported in the Board Order application process, or not reported pursuant to an approved land application plan.
18. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled self-monitoring report or earlier if requested by the Regional Board Executive Officer, or if required by an applicable standard for sludge use and disposal.
19. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render parts of the discharge facility inoperable.
20. The Discharger shall apply for coverage under the NPDES General Permit for storm water discharges from construction activities for the site.

21. The Discharger shall maintain a permanent log of all solids hauled from the treatment facility for use or disposal elsewhere, and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and destination in accordance with the Monitoring and Reporting Program of this Board Order.
22. This Board Order does not convey property rights of any sort, or any exclusive privileges; nor does it authorize injury to private property, invasion of personal rights, or infringement of federal, state, or local laws and regulations.
23. This Board Order may be modified, rescinded, or reissued for cause. The filing of a request by the Discharger to modify, or rescind or reissue a Board Order does not stay any Board Order condition. Likewise, notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include: changes in land application plans, sludge use, or disposal practices; or promulgation of new regulations by the State or Regional Boards, including revisions to the Basin Plan.

I, Robert Perdue, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 20, 2006.

Ordered by: 
Robert Perdue
Executive Officer

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM NO. R7-2006-0057
FOR
SUNWEST DEVELOPMENT, INC.
DESERT KNOLL
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL SYSTEMS
City of Twentynine Palms – San Bernardino County

Location of Wastewater Treatment Facility (WWTF) and Discharge:
SW¼, of the SE¼ of Section 21, T1N, R9E, SBB&M

MONITORING

1. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Regional Board Executive Officer, a laboratory certified by the State Department of Health Services shall conduct all analyses in accordance with the latest edition of the “Guidelines Establishing Test Procedures for Analysis of Pollutants” (40CFR Part 136), promulgated by the USEPA.
2. Samples shall be collected at the location specified in the Permit and in this Program. If no location is specified, sampling shall be conducted at the most representative sampling point available.
3. If the facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Regional Board indicating that there has been no activity during the required reporting period.

INFLUENT MONITORING

The wastewater influent to the treatment plant shall be monitored for the following:

Constituents	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow (Total Plant influent)	gpd ¹	Flow Measurement	Daily ²	Monthly
20°C BOD ₅ ³	mg/L ⁴	Grab	Monthly	Monthly
Suspended Solids	mg/L	Grab	Monthly	Monthly
¹ Gallons per day ² Reported for each day with average monthly flow calculated ³ 5-day biochemical oxygen demand at 20 °C ⁴ Milligrams per liter				

SECONDARY EFFLUENT MONITORING

A sampling station shall be established at the point of discharge of the secondary clarifier, and shall be located where representative samples of effluent can be obtained and evaluated accordingly:

Constituents	Units	Type of Sample	Sampling Frequency¹	Reporting Frequency
pH	pH units	Grab	Weekly	Monthly
20°C BOD ₅	mg/L	Grab	Weekly	Monthly
Suspended Solids	mg/L	Grab	Weekly	Monthly
Settleable Solids	ml/L	Grab	Weekly	Monthly
Nitrite (NO ₂ -N) as Nitrogen	mg/L	Grab	Weekly	Monthly
Nitrate (NO ₃ -N) as Nitrogen	mg/L	Grab	Weekly	Monthly
Total Nitrogen	mg/L	Grab	Weekly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Total Trihalomethanes ²	mg/L	Grab	Quarterly	Quarterly
VOCs ³	µg/L ⁴	Grab	Annually	Annually

¹ If analyses show noncompliance with the limitations prescribed by Discharge Specification No. B.7, the Discharger shall increase the sampling frequency for constituents in noncompliance to three (3) samples per week, and continue sampling at that minimum frequency until (a) samples are in compliance for two (2) consecutive months, or (b) the Executive Officer provides notification to resume the normal sampling schedule.
² Equals the sum of bromodichloromethane, dibromochloromethane, bromoform, and chloroform.
³ Volatile Organic Compounds testing is to be accomplished using the USEPA test methods 601 and 602, or 624
⁴ Micrograms per liter.

WATER SUPPLY TO THE COMMUNITY

Prior to beginning WWTF operations and discharge, the Discharger shall establish a sampling station where a representative sample of the domestic water supply for the subdivision may be obtained, and shall provide written notification to the Executive Officer of the proposed station. The sampling station is subject to the approval of the Executive Officer. If source water is obtained from more than one (1) well, electrical conductivity shall be reported as a weighted average, with supporting calculations included. Supply water shall be monitored for the following:

Constituents	Units	Sampling Frequency
TDS	mg/L	Monthly
pH	pH units	Monthly
Standard Minerals ¹	mg/L	Annually

¹ At a minimum, Standard Minerals shall include: Barium, Calcium, Magnesium, Nitrogen, Potassium, Sulfate, Total Alkalinity (including alkalinity series), and Hardness

REPORTING

1. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with waste discharge requirements. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).
2. Records of monitoring information shall include:
 - a. Date, exact place, and time of sampling or measurement(s).
 - b. Individual(s) who performed the sampling or measurement(s).
 - c. Date(s) analyses were performed.
 - d. Individual(s) who performed the analyses.
 - e. Analytical techniques or method used, and
 - f. Analytical results.
3. The results of any analysis taken, more frequently than required at the locations specified in this Monitoring and Reporting Program, shall be reported to the Regional Board.
4. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.
5. Each report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."
6. The Monitoring and Reporting Program and other information requested by the Regional Board shall be signed by a principal executive officer or ranking elected official.
7. A duly authorized representative of the Discharger may sign the documents provided:
 - a. Authorization is made in writing by the individual described above.
 - b. Authorization specifies the individual responsible for the overall operation of the disposal system, and
 - c. Written authorization is submitted to the Regional Board Executive Officer.
8. Reporting of any failure in the facility (wastewater treatment plant, or collection and disposal systems) shall be as described in Provision No. 11. Results of any analysis performed due to a failure of the facility shall be provided within ten (10) days of sample collection.

9. The Discharger shall attach a cover letter to the Self Monitoring Report that clearly identifies violations of WDRs, and corrective actions taken. An implementation time schedule shall be included for corrective actions proposed. Identified violations should include a description of the violation and the requirement violated.
10. Daily, weekly and monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15, and October 15, of each year. Annual monitoring reports shall be submitted to the Regional Board by January 15 of each year.
11. The Discharger shall submit monitoring reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring, Suite 100
Palm Desert, CA 92260

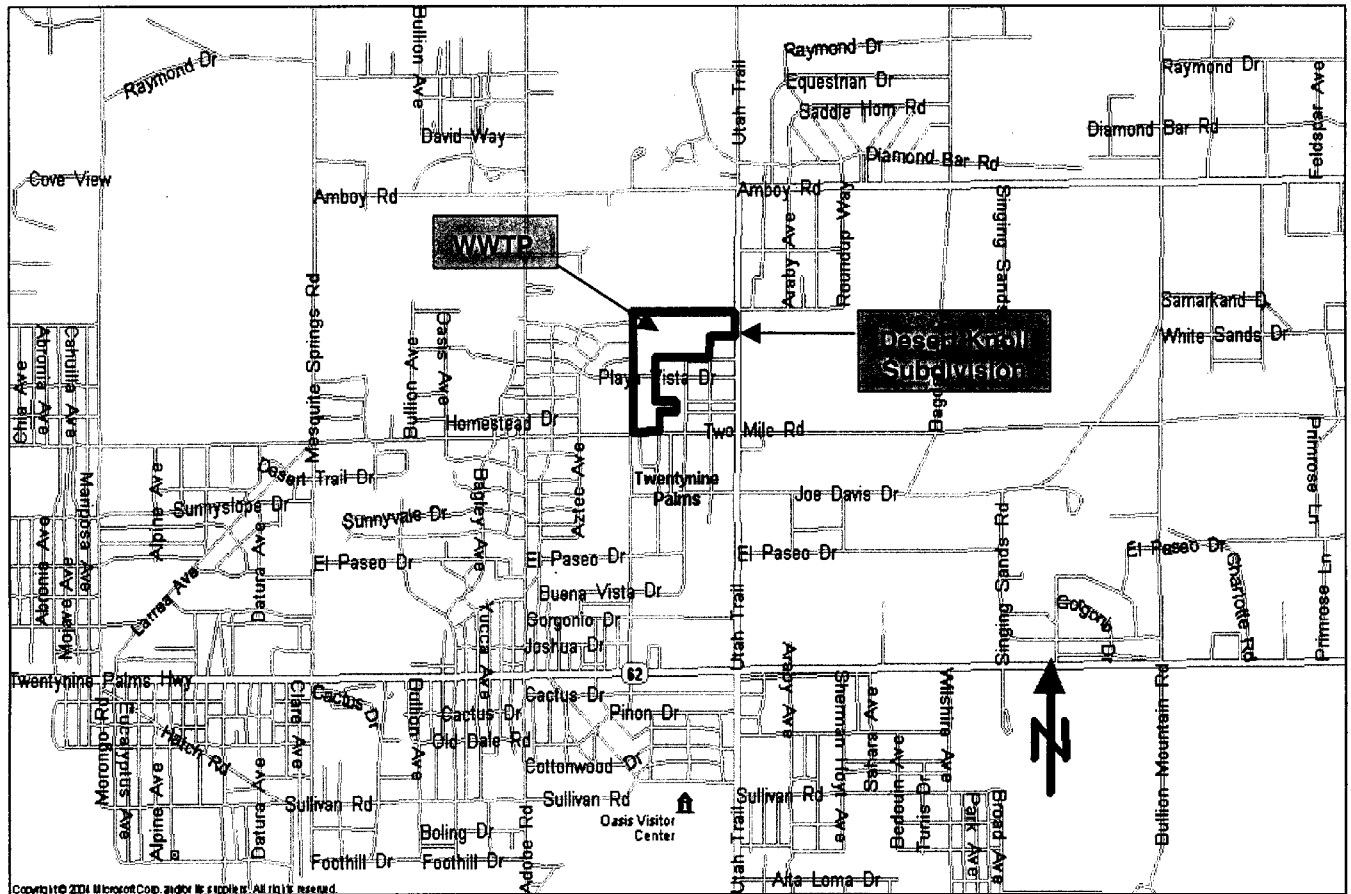
Ordered by:


Executive Officer

September 20, 2006

Date

California Regional Water Quality Control Board
Colorado River Basin Region



Attachment A

Site Map

Sunwest Development LLC
Desert Knoll
Wastewater Treatment, and Disposal Systems
Twentynine Palms – San Bernardino County

Facility Location 34.1583° N Latitude and 116.0389° W Longitude

Board Order No. R7-2006-0057

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California Regional Water Quality Control Board
Colorado River Basin Region



note: colored lines denote locations of treatment and disposal systems

Attachment B

Treatment and Disposal Systems Map