STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

WASTE DISCHARGE REQUIREMENTS AND WATER RECYCLING REQUIREMENTS ORDER NO. R3-2018-0002

ISSUED TO

WOODLANDS MUTUAL WATER COMPANY
SAN LUIS OBISPO COUNTY

The California Regional Water Quality Control Board, Central Coast Region (hereafter also referred to as the Central Coast Water Board) finds that:

BACKGROUND

1. Woodlands Mutual Water Company (hereafter Woodlands or Discharger) is a mutual benefit corporation that owns, operates, and maintains sewer and water recycling facilities serving property owners on approximately 957 acres situated on the Nipomo Mesa of San Luis Obispo County—commonly known as the "Woodlands."

2. Woodlands owns, operates, and maintains the wastewater treatment plant, the wastewater collection system, and the recycled water distribution mains. The on-site golf courses and vineyard operations are managed separately and are users of reclaimed water generated at the Woodlands treatment facility.

3. There are two golf courses on the Woodlands development, an 18-hole regulations golf course, and a 12-hole executive challenge course, both owned by the Monarch Dunes Golf Club. A vineyard and surrounding landscaping buffer areas both use reclaimed water for irrigation. The vineyard is currently owned by Monarch Dunes LLC, and will soon be sold to a private owner. The landscape buffer areas are owned and maintained by the Monarch Dunes Master Association through their consulting manager, The Management Trust.

4. 100% of the reclaimed water generated at the Woodlands treatment facility will be used on the site by the golf courses, vineyard, and buffer areas.

5. In May 2017, Mr. Robert Miller filed an updated recycled water engineering report on behalf of Woodlands, in accordance with sections 13260 and 13522.5 of the California Water Code. The report updated information submitted in the original engineering report approved by the California Department of Public Health, now the State Water Resources Control Board's Division of Drinking Water, which the Central Coast Water Board relied upon to adopt Waste Discharge Requirements Order No. 00-139 for discharge and use of recycled water.

6. The Division of Drinking Water approved the 2017 engineering report on September 8, 2017.

7. The Discharger submitted a Report of Waste Discharge (ROWD) to the Central Coast Water Board on December 4, 2017, requesting that the Central Coast Water Board enroll the facility under the State Water Resources Control Board's General Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*.

8. The Central Coast Water Board issued a Notice of Applicability enrolling the Discharger in General Order WQ 2016-0068-DDW on January 17, 2018, for the use of recycled water related to vineyard and buffer area irrigation.

9. This Order supersedes and replaces the Discharger's enrollment in General Order WQ 2016-0068-DDW for vineyard and buffer area recycled water irrigation.

PURPOSE OF ORDER

10. The primary objectives of this Order are to: a) permit the discharge and reuse of treated domestic wastewater, b) update Order No. 00-139 to include changes to the wastewater treatment facility's treatment processes and to reflect new uses of recycled water at Woodlands, c) consolidate waste discharge requirements and water recycling requirements for the production, administration, and uses of recycled water at the Woodlands development site, d) ensure that Woodlands is responsible for all production and uses of recycled water at the project site, and e) update Woodlands' Monitoring and Reporting Program.

ADMINISTRATOR AUTHORITY

11. The Discharger is the Woodlands recycled water program administrator, who is responsible for ensuring that all recycled water use within the Woodlands development area complies with that program and with all applicable Title 22 requirements.

SITE DESCRIPTION

12. The Discharger owns, operates, and maintains a wastewater reclamation facility serving the entire Woodlands development. The facilities are shown on Attachments A and B of this Order. (Latitude 35N 2' 0"; Longitude 120 E 32' 0")

13. 100% of the municipal wastewater reclaimed at the Woodlands treatment facility is used within the confines of the Woodlands development for irrigation.

14. The Woodlands development is located on the Nipomo Mesa, bordering Highway 1, approximately 2/3 of a mile south of Willow Road. The 957-acre area as originally planned included 1,320 clustered residential units, a 500-unit resort, three golf courses, a community center, a business park, an elementary school, and recreational facilities. Wastewater treatment facilities are located in the southwest corner of the development's property.

15. Phases 2A and 2B of the Woodlands development plan have evolved from originally including a third golf course irrigated with reclaimed water to a 113.5-acre vineyard with surrounding buffer areas, also irrigated with reclaimed water.

16. Due to the implementation of ultra-low-flow fixtures and water-conservation efforts, daily flows into the wastewater treatment facility are approximately 18% of planned loading. Consequently, 0.20 million gallons per day (mgd) of domestic wastewater is now anticipated to be treated at the facility when buildout is complete.

17. **Wastewater Treatment** – The wastewater treatment facilities consist of an advanced integrated pond system followed by a Pall Corporation membrane tertiary treatment system and a sodium hypochlorite disinfection system that ensures compliance with Title 22 disinfected tertiary requirements. Emergency and wet weather disposal capacity is provided in lined ponds (water landscape features) throughout the golf course grounds, in an irrigation lake adjacent to the vineyards, and in an emergency percolation pond.

18. An expansion of the wastewater treatment facilities is currently underway and will include a fourth treatment pond and a second Pall membrane tertiary treatment system that will operate in parallel with the first Pall filter system.

19. **Geology** – Soil conditions in the vicinity of the proposed disposal and reclamation are characterized by gently rolling sand dune deposits, Paso Robles formation deposits, and a number of deep, non-water-bearing formations.

20. **Groundwater** – Depth to groundwater in the vicinity of the treatment/disposal area varies from 170 to 250 feet below ground surface across the site. Subsurface flow gradients generally lead to the southwest; however; a local groundwater depression appears to show a local reversal of this direction below the site.

21. The discharge is in the vicinity of the Lower Nipomo Mesa groundwater sub-basin, for which the *Water Quality Control Plan for the Central Coastal Basin* (Basin Plan) specifies the following groundwater quality objectives:

Constituent	Ground Water Quality Objective
Total Dissolved Solids	710 mg/L
Sodium	90 mg/L
Chloride	95 mg/L
Sulfate	250 mg/L
Boron	0.15 mg/L
Nitrogen (as N)	5.7 mg/L

22. Average existing groundwater constituent concentrations in the vicinity of the discharge are as follows:

Constituent	Concentration
Total Dissolved Solids	555 mg/L
Sodium	64 mg/L
Chloride	77 mg/L
Sulfate	107 mg/L

Constituent	Concentration
Boron	< 0.1 mg/L
Nitrate (as N)	29 mg/L

23. **Surface Water** – The nearest surface water is an unnamed tributary of Oso Flaco Creek that flows west toward Little Oso Flaco Lake.

24. **Basin Plan** – The Basin Plan was updated and approved by the Central Coast Water Board most recently in September 2017. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of state waters.

25. Present and anticipated beneficial uses of groundwater in the vicinity of the discharge include:
    - Domestic,
    - Municipal,
    - Agricultural, and
    - Industrial Supply.

26. Title 22, Chapter 3 of the California Code of Regulations specifies the State Water Resources Control Board Division of Drinking Water's criteria for use of reclaimed water.

27. San Luis Obispo County was the lead agency for California Environmental Quality Act (**CEQA**) review of this project. On December 15, 1998, San Luis Obispo County certified a final Environmental Impact Report (EIR) for this project.

28. CEQA requires a responsible agency to make certain findings regarding that portion of the project being approved by the responsible agency. Regarding the portion of the project that a responsible agency approves, it must mitigate or avoid any significant environmental effect that is within its powers. (CEQA Guidelines sec. 15096 (g).) The Central Coast Water Board's powers are limited to protection of water quality and abatement of nuisance associated with waste discharge.

29. The EIR identified potential cumulative environmental effects associated with this project. However, conditions of approval specified by the County include requirements to implement mitigation measures and a monitoring program to prevent water quality impacts from the golf course. This Order implements the County's requirements to protect water quality.

30. **Recycled Water Policy –** The State Water Resources Control Board adopted a Recycled Water Policy in 2009, and amended the policy in 2013. This Order implements the Recycled Water Policy. Monitoring and Reporting Program No. R3-2018-0002 and the Woodlands groundwater monitoring program (submitted with the updated recycled water engineering report) are consistent with requirements set forth in the Recycled Water Policy.

31. **Antidegradation –** State Water Resources Control Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters of California* (hereafter the Antidegradation Policy), requires that disposal of waste into waters of

the state be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state. The quality of some waters of the state is higher than that established by adopted policies, and that higher quality water shall be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires the following:

a. Maintenance of existing high quality waters of the state unless limited degradation is consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in state policies.

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

32. Golf course, vineyard, and buffer area landscaping irrigated with recycled water in accordance with the Recycled Water Policy benefits the people of the State of California. Limited degradation of groundwater by some waste constituents associated with reclaimed wastewater, after effective source control, treatment, and control measures are implemented, and is consistent with the maximum benefit to the people of the state.

33. Although shallow groundwater in the Woodlands project area is not considered to be high quality due to nitrate pollution, Woodlands water reclamation system uses best practicable treatment or control to meet Title 22 recycled water quality standards, and downgradient groundwater monitoring shows nitrate concentrations are improved when compared to wells upgradient of the reclaimed water use areas.

34. Discharge of waste is a privilege, not a right, and authorization to discharge is conditional upon the discharge's compliance with provisions of Division 7 of the California Water Code and any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should mitigate any potential adverse changes in water quality due to discharge.

35. On March 22, 2018, the Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to issue revised waste discharge requirements for the discharge and has provided them with a copy of the proposed Order and an opportunity to submit written views and comments.

36. After considering all comments pertaining to this discharge during a public hearing on June 28, 2018, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED, pursuant to authority in Section 13263 of the California Water Code, that Woodlands Mutual Water Company, its agents, successors, and assigns, may discharge and reclaim waste at Woodlands Facilities, providing compliance is maintained with the following:

(**Note**: Other prohibitions and conditions, definitions, and the method of determining compliance are contained in the attached Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated December 2013.)

A. PROHIBITIONS

1. A minimum of two feet of freeboard shall be maintained in the treatment ponds and emergency storage basin at all times. Six inches of freeboard shall be maintained in the irrigation lakes unless the facility is specifically engineered and approved by the Executive Officer for a different freeboard.

2. Discharge to areas other than the landscape, golf course, vineyard, and buffer irrigation areas; to the irrigation lakes; or to the emergency percolation pond shown in Attachment B is prohibited. Use of the emergency percolation pond is limited to short-term, wet-weather, or emergency disposal.

3. Discharge of any wastes including overflow, bypass, overspray, and runoff from transport, treatment, or disposal systems to adjacent drainageways or adjacent properties is prohibited.

4. Bypass of the treatment facility and discharge of untreated or partially treated wastes directly to the disposal or reclamation areas is prohibited.

B. DISCHARGE SPECIFICATIONS

(For all discharges from the treatment facility)

1. Daily flow averaged over each month shall not exceed 200,000 gallons.

2. The maximum daily flow shall not exceed 240,000 gallons

3. All reclaimed water systems shall be installed in a manner consistent with the provisions of Title 17 and Title 22 of the California Code of Regulations and the Uniform Plumbing Code regarding dual-plumbed systems, cross-connection prevention, and protection of public health.

4. Reclaimed water discharged to reclamation areas for irrigation shall at all times be adequately treated and disinfected, and shall not exceed the following limitations:

Parameter	Units	Mean	Maximum
BOD_5	mg/L	10	30
Suspended Solids	mg/L	10	30
Settleable Solids	mL/L	0.1	0.3
Turbidity	NTU	2*	5*
Total Dissolved Solids	mg/L	710**	
pH	units	Within the range of 6.5 – 8.4	

*Shall not exceed a daily average of 2 NTU or 5 NTU for more than 5% of the time over a 24- hour period.
**Rolling 6-month average, in each reclaimed water storage unit.

5. Wastewater treatment and recycled water storage facilities shall be managed to exclude the public and posted to warn the public of the presence of reclaimed wastewater.

6. Discharge of wastewater shall not occur within 100 feet of any well used for domestic purposes.

C. RECLAMATION SPECIFICATIONS
(For reclaimed water, in addition to Discharge Specifications listed above)

1. The median number of coliform organisms in reclaimed water shall not exceed 2.2 MPN per 100 mL, as determined from the bacteriological results of the last seven days for which analyses have been completed. The number of coliform organisms shall not exceed 23 MPN per 100 mL in any single sample in a 30-day period or 240 MPN/100mL in any sample.

2. The free chlorine residual in reclaimed water shall equal or exceed 0.5 mg/L, but be no greater than 5 mg/L, as measured immediately after the chlorine contact chamber. Chlorine contact time shall exceed 90 minutes, and chlorine contact time multiplied by the residual (CT) shall equal at least 450mg-min/L.

3. Alternative disinfection systems must be approved by the State Water Resources Control Board's Division of Drinking Water.

4. Delivery of reclaimed water shall cease and all wastewater shall be contained within the effluent holding pond if a) disinfection of wastewater ceases at any time, or b) reclamation specifications are violated or threaten to be violated.

5. Irrigation with reclaimed water shall occur at a time and in a manner to prevent or minimize public contact with reclaimed water and to allow irrigated areas maximum opportunity to dry before use by the public. Drinking fountains shall be protected from direct or windblown spray of reclaimed water.

6. All reclamation areas shall be posted to warn the public that reclaimed water is being stored or used.

7. All property owners, residents, and personnel involved in producing, transporting, or using reclaimed water shall be informed of possible hazards associated with contact or use of reclaimed water.

8. Reclaimed water valves, outlets, etc., shall be marked to differentiate reclaimed water facilities from potable water facilities. Proper backflow and cross-connection protection for domestic water services and irrigation wells shall be provided.

9. Reclaimed water valves, outlets, quick couplers, and sprinklers shall be of a type, or secured in a manner, that permits operation only by authorized personnel. Use or installation of hose bibs on the reclaimed water system shall not be permitted.

10. Reclaimed water shall be applied at a rate and volume not to exceed vegetative demand and soil moisture holding conditions. Special precautions must be taken to prevent clogging of spray nozzles, over watering and ponding, and to minimize runoff. Pipelines shall be maintained to prevent leaks.

11. Reclaimed water shall not be used for irrigation during periods of extended rainfall and/or runoff.

12. Reclaimed water systems shall be inspected on at least a weekly basis to ensure proper operation, absence of leaks, and absence of illegal connections.

D. GROUNDWATER LIMITATIONS

1. The discharge shall not cause a significant increase of mineral constituent concentrations in underlying ground waters.

2. The discharge shall not cause concentrations of chemicals and radionuclides in groundwater to exceed limits set forth in Title 22, Chapter 15, Articles 4, 5, and 5.5 of the California Code of Regulations.

E. TDS STUDY

Within 1 year of the effective date of this Order, the Discharger shall submit a study analyzing the steps that will be taken to reduce Total Dissolved Solids (TDS) in the water delivered to all reclaimed water users to the maximum extent possible. Salt reduction measures shall focus on all potential salt contributors to the collection system including water softeners, water supply, commercial, industrial, and residential dischargers. The TDS study shall also address the concentration of salts in the wastewater treatment process as a result of chemical additions.

F. PROVISIONS

1. The Discharger shall comply with Monitoring and Reporting Program No. R3-2018-0002, as specified by the Executive Officer.

2. The Discharger shall comply with all items of the attached Standard Provisions and Reporting Requirements for Waste Discharge Requirements dated December 2013, and included as part of this Order.

3. The wastewater treatment and reclamation facilities shall be operated by qualified (State-certified) personnel according to the requirements specified in Section 13627 of the California Water Code.

4. The Discharger shall annually (January) review, and if necessary update, the engineering report on the production, distribution, and use of reclaimed water in conformance with Title 22. Revisions to the engineering report shall be subject to review and approval of the Division of Drinking Water and of the Executive Officer.

5. In accordance with Monitoring and Reporting Program No. R3-2018-0002, within one year of the adoption of this Order (June 29, 2019), the Discharger shall complete the

installation and development of the groundwater monitoring well network by installing wells MW5, MW6, MW7, and MW8 as described in the groundwater monitoring program approved by the Executive Officer in 2004.

6. The new monitoring wells shall be located as shown in the July 2017 Semiannual Groundwater Monitoring Report, Figure 1.

7. This Order supersedes Order No. 00-139, which is hereby terminated, except for enforcement purposes.

John M. Robertson

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Date: 2018.07.16 09:31:50 -07'00'

John M. Robertson, Executive Officer

I, **John M. Robertson, Executive Officer,** do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region on June 28, 2018.

ECM# 272964
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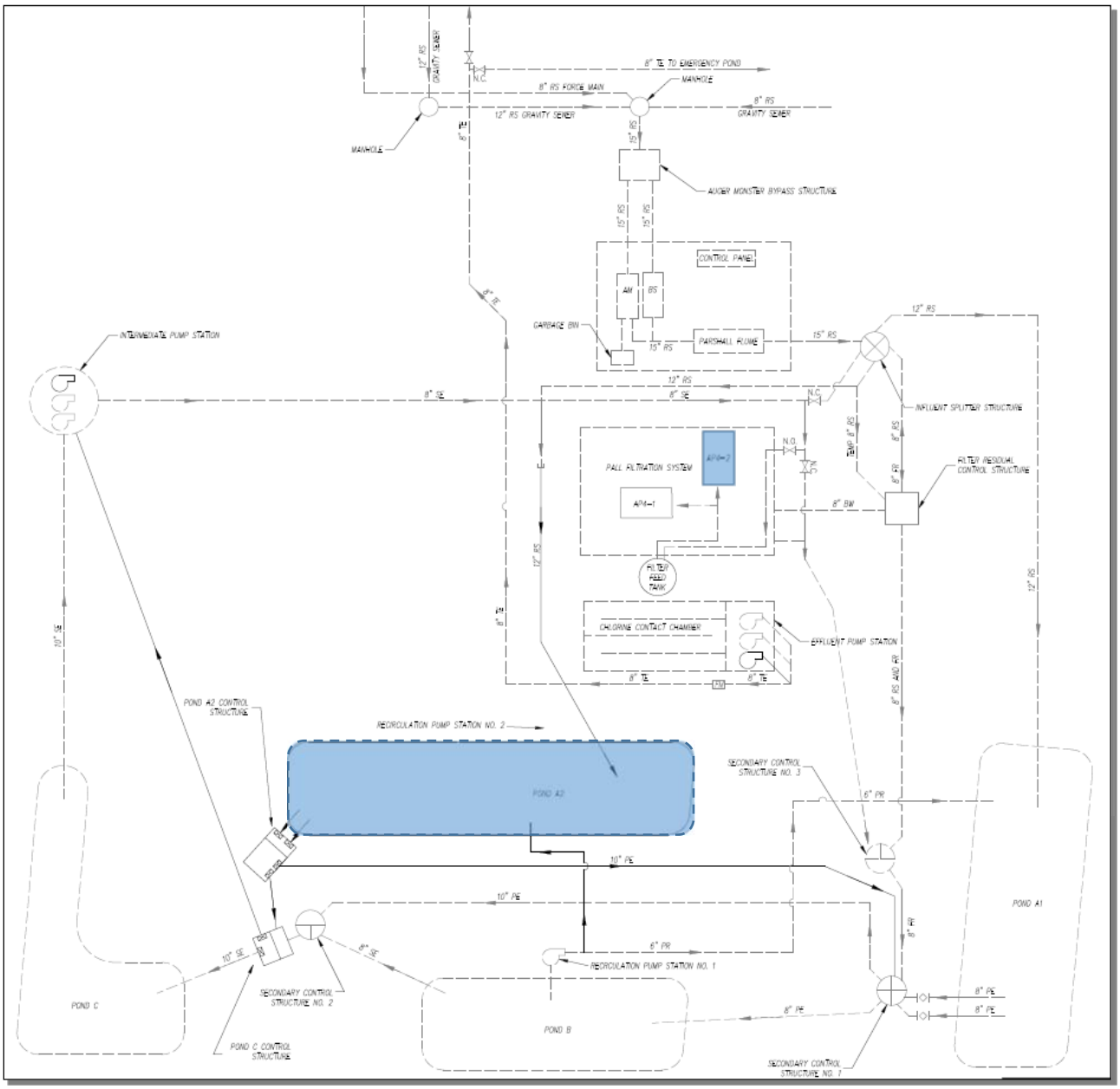
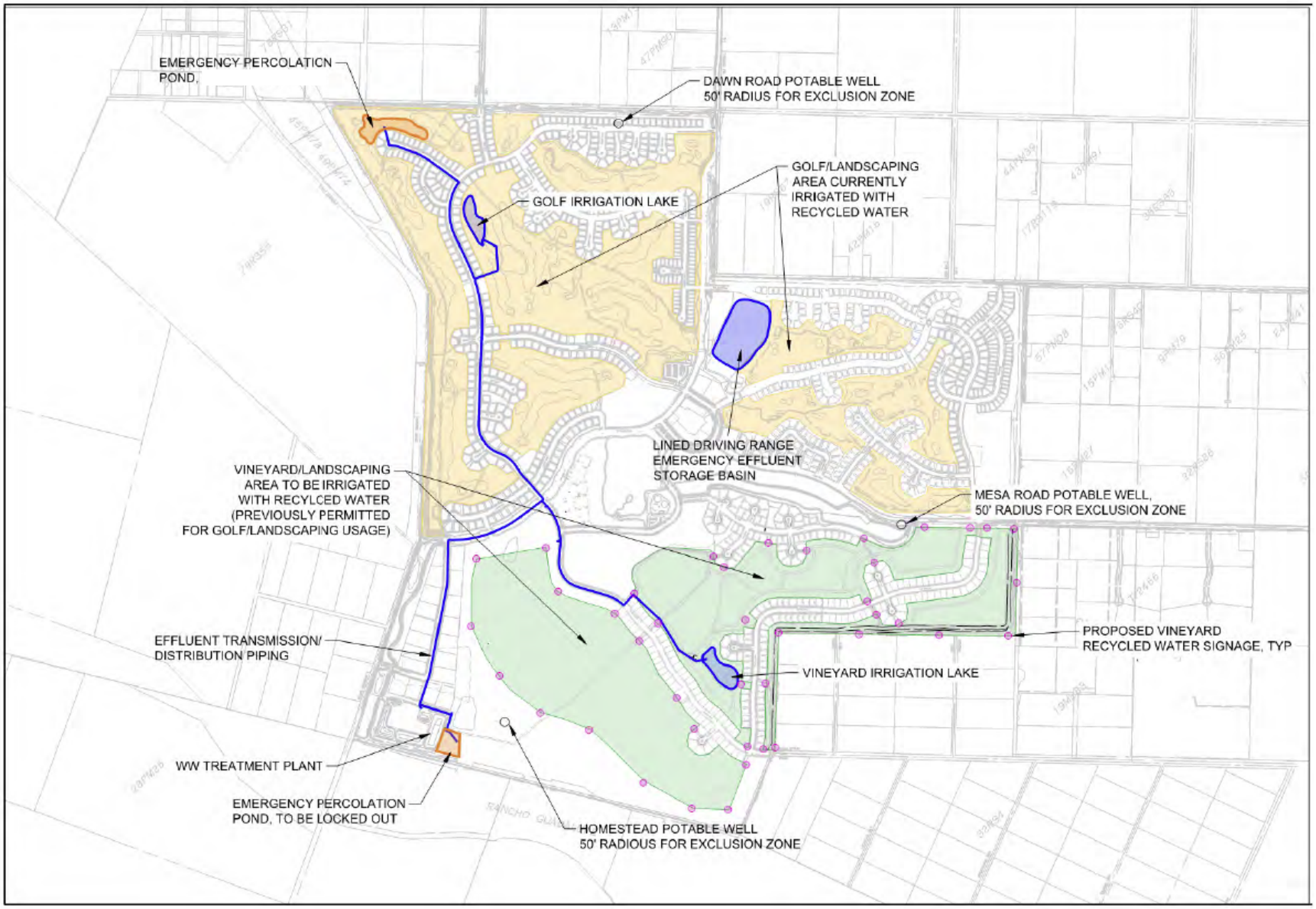
ATTACHMENT A



Treatment units schematic diagram

note: blue coloring denotes Phase 2 treatment unit additions

ATTACHMENT B