

TM 5223 Rpl<sup>3</sup> Shadow Run Ranch  
Groundwater Supply Letter  
December 2013

Groundwater is currently used for potable water needs and irrigation on the Shadow Run site. Groundwater is used to meet the water needs of an on-site manager's residence and caretaker's residence. The County of San Diego's Groundwater Ordinance estimates typical residential water use at 0.50 acre feet per year (AFY). Annual water use for on-site residences is therefore estimated at approximately 1.0 AFY of water.

The site supports approximately 154 acres of agriculture at the present time, most of which is irrigated. Estimated per acre water use for citrus and avocado is approximately 3.5 to 4.0 AFY. Total annual use is estimated at 616 AFY. This water is supplied from wells currently operated on-site. The existing project, therefore, is projected to use approximately 617 AFY of water.

The project proposes 44 residential lots, a 39.12 acre agricultural lot, and the retention of approximately 1.0 to 1.5 acres of grove on each individual lot. While continuation of agriculture on individual private lots cannot be guaranteed, retention of 1.5 acres of grove per lot is assumed to obtain a conservative water use analysis. In addition, some agriculture located in future biological open space will be taken out of production.

Residential water use will therefore be approximately 22.0 AFY. Agricultural water use is estimated at 105.1 AFY. Total water use on the site will be 424.4 AFY. The project will result in a net reduction of 44 AFY, a reduction of approximately 28 percent.

The project proposes to annex into the Yuima Municipal Water District (YMWD) for potable water service. Two adjacent offsite parcels owned by the applicant (APN 111-080-16 and -17) totalling 10.46 acres will also be annexed.

YMWD has reviewed the annexation and its Board approved a Negative Declaration for the annexation on September 28, 2009. YMWD next will obtain approval of annexation from LAFCO. The annexation process will require an approved environmental document from the County of San Diego before it is finalized. A synopsis of the annexation process is included as Attachment A of this letter.

The proposed potable water system is shown on Figure 1, "Water Circulation and Well Locations." YMWD water will be supplied from a point on the south side of SR 76 adjacent to Adams Drive and will enter the site via Haas Grove Lane. The water distribution system will follow proposed streets to each lot. Approximately 22.0 AF of water will be imported.

The project proposes annexation for the purpose of using YMWD water for potable uses only. Water for irrigation in the agricultural open space lot and residential lots will be provided by the

applicant. The existing infrastructure on the site will be modified to provide a separate non-potable water supply system to the agricultural open space lot and individual lots.

The applicant will continue to own and maintain the reservoir and wells or a homeowners association will assume ownership and operation of the system. Water will be pumped to the existing reservoir where it will be distributed via gravity feed. Some wells are located in areas designated for biological open space protection. Access to these wells for maintenance purposes will be maintained to ensure continued access to irrigation water for on-site agriculture.

The project design will encourage conservation by reserving potable water for residential use only. Overall water use will also decline by approximately 28 percent as a result of the conversion of some agricultural land to residential uses and open space. The following table summarized current and proposed water use data:

<b>Shadow Run Water Use Data</b> (Acre-feet per Year (AFY))		
<b>Type of Water</b>	<b>Current Water Use</b>	<b>Source of Water Use</b>
Potable	1.0	2 residences
Non-potable	616	154 acres citrus and avocado @ approx 4.0 AFY
Total	617	
<b>Proposed Water Use</b>		
Potable	22.0	44 residences
Non-potable	420	105.1 acres @ approx 4.0 AFY
Total	442	

**Attachment A**  
**Annexation Process**

## **Summary Of San Diego County Water Authority's Annexation Procedure**

Annexation to the Metropolitan Water District (Metropolitan), San Diego County Water Authority (Water Authority) and corresponding member agency is required prior to delivery of imported water to territory currently outside these agencies' boundaries. The Water Authority's member agency originates the annexation request and works with the Water Authority, Metropolitan and San Diego Local Agency Formation Commission (LAFCO) to satisfy all the annexation requirements. In February 2006, the Water Authority Board of Directors adopted formal annexation policies. The annexation procedure is summarized below:

1. Formal annexation request made to the Water Authority's member agency by the property owner/developer.
2. Member agency contacts the Water Authority to coordinate annexation submittals.
3. Member agency governing body adopts a resolution conditionally approving annexation and requesting approval from Metropolitan and the Water Authority.
4. Member agency submits the following to the Water Authority for review:
  - a. Annexation request, consistent with Metropolitan's Administrative Code Section 3100 (b)
  - b. Water Authority's \$3,000 processing fee
5. Water Authority forwards the materials associated with the annexation request to Metropolitan.
6. Metropolitan board adopts a resolution granting conditional approval and giving notice of intention to impose water standby charges.
7. The **Water Authority board** adopts resolution requesting Metropolitan to set formal terms and conditions for the proposed annexation.
8. Member agency submits the following to the Water Authority for review then Water Authority forwards to Metropolitan:
  - a. Any changes to the annexation documents submitted previously
  - b. Documents complying with the California Environmental Quality Act (CEQA)
9. Metropolitan board adopts a resolution approving the annexation along with setting terms and conditions and adopts a resolution to levy standby charge.
10. The **Water Authority board** adopts a resolution approving the annexation and grants formal terms and conditions.

11. Member agency obtains LAFCO resolution approving annexation
12. Member agency forwards annexation payment to Metropolitan and Water Authority, based on current fees and charges:
  - a. Metropolitan 2005 annexation fee is \$3,460 per acre.
  - b. Water Authority 2006 annexation fee is \$2,929 per acre
13. Water Authority forwards the following to Metropolitan:
  - a. Water Authority resolution approving the annexation
  - b. LAFCO resolution approving annexation
14. LAFCO records certificate of completion.
15. Following annexation, Metropolitan's Administrative Code Section 3107 requires the Water Authority to provide an annual report for six years that documents compliance with the Metropolitan's Water Use Efficiency Guidelines.

during an earthquake and whether there could be any impact to proposed residential lots. There are proposed residential lots located downslope and less than 350 feet from the 41-acre feet of water in the reservoir, which could be potentially impacted if there was a significant amount of reservoir topping. The draft EIR states that establishment of downslope dikes or diversion structures below the reservoir could be constructed to help route flow away from proposed building areas in the event of strong seismic shaking; this should be included as a recommendation in this report.

### Draft EIR

9. Page 3-22, Section 3.3.3.1 Fault Ruptures. Further investigation will be required to investigate a suspected fault between the reservoir and the mountain front. The EIR should be updated to include the new investigative information when it becomes available. If a fault is observed adjacent to the reservoir, analysis of fault rupture directly beneath the reservoir must be conducted.
10. Page 3-23, Section 3.3.3.3 Seismically Induced Ground Settlement. The text states that appropriate mitigation is available, if necessary, to reduce any settlement impacts to a less than significant level. Please address what mitigation specifically is available to reduce settlement impacts to a less than significant level (the text states the specifics later in Section 3.3.6, Mitigation Measure 5).
11. Page 3-25, Mitigation Measures, Mitigation Measure 6. Under the County CEQA guidelines, the project must address the potential for inundation by seiche. There are proposed lots located less than 350 feet downslope from the 41 acre-feet of water in the reservoir which could be significantly impacted by reservoir topping. In Chapter 3.3.3 address the potential for inundation by seiche. If there are potentially significant impacts, discuss what mitigation measures will be necessary to reduce potential inundation to less than significant in Chapter 3.3.6.

### Groundwater Use

Jim Bennett, County Groundwater Geologist, has reviewed the Anticipated Groundwater Use Letter dated July 13, 2005. The letter does not adequately address three of the four comments in a letter I provided to URS Corporation on July 14, 2005. Please provide comments on the following:

1. Provide detailed information regarding the steps in the process for the proposed project to be annexed to the Yuima Municipal Water District.
2. Provide the annual quantity of water proposed to be imported from the Yuima Municipal Water District to support the proposed project. Also, provide how

much groundwater versus imported water will be used to support the proposed project.

3. Include what additional infrastructure will be necessary to provide water to the proposed residences (if possible, provide this information on a figure showing proposed pipelines and any other infrastructure necessary).

In addition please respond to the following:

4. The text states that the proposed project would cause the designated agricultural area at the site to decrease from about 80% to 35% of the project site area. The text does not state how much groundwater is currently being used at the site and how much future groundwater will be used at the site. Please provide the amount of water currently being used at the site (in acre-feet), and the future amount of groundwater (in acre-feet) that will be used to irrigate a reduced agricultural area.

Upon submittal of the revised letter, DPLU will determine what, if any, groundwater investigation will be required. If you have any questions regarding these comments, please contact Jim Bennett at 858-694-3820.

### **Traffic Analysis**

DPW Transportation Planning/Route Locations staff has reviewed the following documents regarding the proposed Shadow Run Ranch development:

- Draft Environmental Impact Report (DEIR) prepared by TRS Consultants dated August 2005
- Traffic Impact Analysis (TIA) prepared by Katz, Okitsu, & Associates dated July 2005
- Tentative Map Plot Plan prepared by Masson & Associates, Inc dated July 2005

The following are our comments:

### **DEIR**

1. The DEIR states (Pg.3-30) that Adams Drive is not classified as a Circulation Element road, but has a current roadway capacity of 16, 200 trips per day. The capacity assumption of Adams Drive is not consistent with the County's Public Road Standards which recommend design capacity of 4,500 trips per day for a non-Circulation Element road. The DEIR has identified an existing ADT for Adams Drive of 10,399 trips per day which seems extremely high. It appears