## ARIZONA DEPARTMENT OF WATER RESOURCES

## Office of Assured and Adequate Water Supply

3550 North Central Avenue,2<sup>nd</sup> floor, Phoenix, Arizona 85012 Telephone 602 771-8599 Fax 602 771-8689



December 12, 2008

Janet Napolitano Governor

Herbert R. Guenther Director

Via Electronic Mail

Ms. Cindy Ferrin Arizona Department of Real Estate 2910 N. 44th Street Phoenix, Arizona 85018

Water Report 53-700544.0000

**Subdivision Name:** Arroyos Preserve **Owner:** Landway Development Corp., an Arizona corporation; Michael R. Larson and Denise Larson, Trustees of the Michael and Denise Larson Family Trust dtd 1/25/94; and Daniel R. Berkey and Bernice Berkey

Number of lots: 129 County: La Paz

Township 3 North, Range 19 West, Section 19

Water provided by: Arroyos Domestic Water

Improvement District
Water Type: Groundwater
Current water depth: 477

Estimated 100-year depth: 855

Current decline rate: 3.6 Basin: La Posa Plains

Dear Ms. Ferrin:

Pursuant to A.R.S. § 45-108, the Department of Water Resources has reviewed the available information pertaining to the water supply for the above-referenced subdivision. This letter constitutes the Department's report on the subdivisions water supply as required by A.R.S. § 45-108(A).

Adequacy of the 100-year water supply was reviewed by the Department with regard to physical, legal and continuous availability, water quality, and financial capability. Information available to the Department indicates that the applicant has satisfied the adequate water supply requirements as set forth in A.A.C. R12-15-701 *et seq.* Therefore, the Department of Water Resources finds the water supply to be adequate to meet the subdivision's projected needs. Any material change to the subdivision plat or its water supply plans may invalidate this decision. See A.A.C. R12-15-708.

This letter is being forwarded to your office as required by A.R.S. § 45-108. This law requires the developer to hold the recordation of the subdivision's plat until receipt of the Department's report on the subdivision's water supply. By copy of this report, the La Paz County Recorder is being officially notified of the developer's compliance with the law. Because of the possibility that a future court proceeding could result in a legal determination that water withdrawn from wells in this area is surface water, the Department recommends that your office include the following statement in all promotional material and contracts for sale of lots in the subdivision:

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"Pursuant to A.R.S. § 45-108 and A.A.C. R12-15-701 et seq., the Department has determined that the water supply for the Arroyos Preserve subdivision is <u>adequate</u>, *i.e.* that the water supply is physically, continuously and legally available to satisfy the subdivision's annual estimated water demand, that the water supply is of suitable water quality, and that the applicant has demonstrated the financial

the legal availability of the water withdrawn from wells in this area may be the subject of court action in the future as part of a determination of surface water rights. Whether future court action will have an effect on the legal availability of the water supply for the proposed subdivision cannot be determined at this time.

capability to construct adequate delivery, storage and treatment works. However,

If you have any questions, please contact Rosemary Lopez at (602) 771-8625.

Sincerely,

Sandra Fabritz-Whitney

Assistant Director

Water Management Division

cc: La Paz County Planning and Zoning

La Paz County Recorder

Steve Wene, Moyes Sellers & Sims

Rosemary Lopez, Office of Assured and Adequate Water Supply

## CHUCK M. DICKENS CONSULTING HYDROGEOLOGIST

LICENSED GEOLOGIST ARIZONA 14510 CALIFORNIA 3647



12330 E. SNYDER ROAD TUCSON, ARIZONA 85749 PHONE / FAX: 520-749-4124 PHONE: 520-731-6111

October 4, 2007

Mr. James Kunisch 2015 Freda Lane Cardiff by the Sea, California 92007

Re: Arroyo Preserve Subdivision Project; La Paz County, Arizona. *Project Water Supply System* 

Dear Mr. Kunisch:

Pursuant to your request, this letter has been prepared to provide a summary of the water supply source (groundwater) and water system components (wellfield) for the proposed Arroyo Preserve Subdivision project. As you know, an extensive hydrologic study was completed for the project to support an application to the Arizona Department of Water Resources (ADWR) for an approved *Water Adequacy Report*. Information presented in this letter was excerpted from the comprehensive project hydrology report.

At full-build out (129 residential units) the average water demand for the project has been estimated to approach 30,000 gallons per day (gpd). The peak day demand has been estimated to probably approach a maximum of about 60,000 gpd (twice the average demand).

Two supply wells completed in the regional basin fill aquifer system will eventually provide the water supply to the proposed subdivision. The first of the two supply wells has been constructed, test pumped, and sampled. The first well was completed to a depth of 700 feet with a depth to water of 477 feet. The regional aquifer system was penetrated at a depth of about 520 feet. The regional aquifer occurs beneath a thick sequence of clayey sediments. The well was test pumped for a period of 48 hours at a pumping rate of 54 gpm. Total water level decline during the pumping test was only 14.5 feet. Test data confirmed that the well and aquifer system will readily support the required water demand of the project.

In the future, both project supply wells will be completed with 10 horsepower three phase electric submersible pump / motor units that will produce upwards of 50 gpm each. Each well would be capable of producing over 70,000 gpd, which is in excess of the peak day demand estimate of about 60,000 gpd.

Groundwater samples were collected from the first completed supply well and submitted to a state certified lab for analyses of the ADEQ required new source approval list of chemical constituents. The lab report confirmed that the groundwater produced from the well will meet all primary drinking water standards. No mandatory water treatment will be required to meet primary drinking water standards.

If you have any questions or wish further discussion of the proposed project supply well system or aquifer / groundwater conditions please contact me.

Respectfully submitted,

Chuck M. Dickens



## CHUCK M. DICKENS CONSULTING HYDROGEOLOGIST

LICENSED GEOLOGIST ARIZONA 14510 CALIFORNIA 3647



October 4, 2007

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Mr. James Kunisch 2015 Freda Lane Cardiff by the Sea, California 92007

Re: Arroyo Preserve – Hydrology Report

Dear Jim:

Enclosed are three copies of the hydrology report prepared to support your eventual application to ADWR for a "Water Adequacy Report" for the Arroyo Preserve subdivision project. This report includes all of the hydrology information and analyses typically required by the ADWR. You will eventually need to provide your engineer a copy of the report for information that the ADEQ will request related to permitting of the project water system. The other two reports you should retain in your files in the event other entities require a copy.

I will contact Steve Wene ( the attorney ) and determine how many copies of the report he will need. The ADWR will require two copies of the report once the Water Adequacy Report application is submitted. Steve Wene will complete the ADWR application and submit the supporting documents to ADWR. His submittal to ADWR will include information concerning the Domestic Water Improvement District ( DWID ) that will be formed to legally serve water to the development.

If you have any questions or wish further discussion of the hydrology report please contact me.

Respectfully submitted,

Chuck M. Dickens