Jane Dee Hull
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Jacqueline E. Schafer
Director

OCT 12 2001

Applicant: **Arizona State Land Department**
Attn: Michael Anable, Commissioner
1616 West Adams Street
Phoenix, Arizona 85007

Agent: Entranco
Attn: Ms. Barbara Wilson
7740 North 16th Street
Suite 200
Phoenix, Arizona 85020

Subject: **CWA 401 Water Quality Certification for: Paradise Ridge**, (Sections 15, 22, 27, 33 and 34, T4N, R4E), Phoenix, Maricopa County, Arizona, U.S. Army Corps of Engineers Public Notice/Application No. 1999-16129-RWF

Dear Mr. Anable:

The Arizona Department of Environmental Quality (ADEQ), Water Quality Division, has reviewed information submitted for water quality certification pursuant to Section 401 of the Clean Water Act (CWA) for Paradise Ridge, a mixed use master planned residential community. Section A of this document describes the activities to be certified. The references listed in Section B were used as the basis for certification. Section C lists the Approval Conditions.

ADEQ's review has determined that when the applicant adheres to the Conditions in Section C.1 through C.10, the certified activities should comply with State surface water quality standards. Subject to these conditions, this letter certifies that the activities in the Paradise Ridge development should not have a negative impact to the chemical, physical or biological integrity of jurisdictional waters of the U.S. (WUS).

A. DESCRIPTION OF ACTIVITIES TO BE CERTIFIED

1. The proposed Paradise Ridge master planned community is a 2,131 acre mixed use development located in Phoenix. The Pima Freeway (Loop 101) divides the project into north and south parcels (Figure 3. Proposed Project).

   Upgradient and east-northeast of the proposed Paradise Ridge development, ephemeral washes arise in the McDowell Mountains and generally flow in a southwest direction across Paradise Valley.

2. Construction of the Paradise Ridge master planned community will result in the impact of 33.4 acres of waters of the U.S. (WUS). Impact to jurisdictional waters

will result from the construction of single and multi-family housing, commercial developments, two golf courses, two resort hotels, an elementary school site, flood control facilities, trails, roadways and utilities.

3. Fill material will consist of native on-site soils, rock, concrete and other construction materials.

4. The applicant is proposing to mitigate the 33.4 acres of impacts to WUS resulting from the project by enhancing the vegetation along 55.9 acres of over-bank areas adjacent to the 15.5 acres of preserved washes, and re-vegetate 85.2 acres of reconstructed washes.

B. BASIS FOR CONDITIONAL STATE 401 WATER QUALITY CERTIFICATION

1. State of Arizona Water Quality Standards for Surface Waters, Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Section 108, Narrative Water Quality Standards, Section 109 Numeric Water Quality Standards, Appendix A. Designated Uses include: **Aquatic and Wildlife, ephemeral (A&We) and Partial Body Contact (PBC)** (A.A.C. R18-11-104, Appendix B).

2. ADEQ Water Quality Division Form 404-015, CWA 401 Certification Application signed April 26, 2001, and received by ADEQ on April 26, 2001 from Mr. Michael Anable, Commissioner Arizona State Land Department. Additional documents submitted with the application include the following:

   a. Applicant's Response to ADEQ Policy for Protecting Water Quality During Facility Construction.
   b. Maps and design drawings.
   c. Paradise Ridge, Prepared by Entranco Biological Resources Group, April 2001.

3. U.S. Army Corps of Engineers Public Notice/Application No. 1999-16129-RWF Comment period August 13, 2001 through September 12, 2001, and received by ADEQ on August 15, 2001.

C. CONDITIONS FOR STATE 401 WATER QUALITY CERTIFICATION

This State Water Quality Certification is issued by the ADEQ under the authority of Section 401(a) of the federal CWA (33 U.S.C. §1251 et seq.). The conditions listed

below are in addition to conditions in CWA 404 Permit No. 1999-16129-RWF issued by the U.S. Army Corps of Engineers (ACOE). These conditions are enforceable by the U.S. Environmental Protection Agency and ACOE. Civil penalties up to a maximum of $25,000 per day of violation may be levied if these certification conditions are violated. Criminal penalties may also be levied if a person knowingly violates any provision of the federal Clean Water Act. The following conditions are in addition to any special conditions developed by the ACOE for 404 Permit No. 1999-16129-RWF.

1. General Conditions

a. This Certification is only for the activities described in Section A of this Certification for 33.4 acres of impact to WUS within the Paradise Ridge development and is valid for the same period as the ACOE 404 permit. If project construction has not been started by the time specified in the ACOE 404 permit, the applicant shall notify as follows:

Arizona Department of Environmental Quality
Water Quality Division
Federal Permits and Program Development Unit
Attention: Surface Water Quality 401 Certification
3033 North Central Avenue, Phoenix, Arizona 85012
ADEQ File No. 4724, ACOE PN#1999-16129-RWF

ADEQ will have the option of extending, modifying or denying this Certification.

b. The Arizona State Land Department shall provide a copy of these State 401 Water Quality Certification Conditions to all appropriate contractors and subcontractors. The applicant shall also post a copy of these conditions in a water resistant location at the construction site where it may be seen by the workers.

c. This Certification is void if the construction is not consistent with the activities described in Section A of this Certification.

d. The Arizona State Land Department is responsible for the construction and maintenance of the project and any adverse cumulative impacts that it may cause.

2. Necessary Permits

The Arizona State Land Department is responsible for obtaining all other permits, certifications and licenses that may be required by federal, state or local authorities. Activities which may require other approvals include: construction activities disturbing greater than five acres of land [NPDES Stormwater Permit], use of reclaimed wastewater for dust control or irrigation [Reclaimed Water Permit], or dewatering of construction sites to a surface waterbody [NPDES Process Wastewater Permit].

3. Erosion Protection Measures

a. Erosion control and/or bank protection features (e.g., silt fences, straw bales, rip-rap, or mulching) shall be used, where appropriate, to minimize channel or bank erosion and soil loss. These features shall be maintained, as necessary, during pre-construction and construction periods. Denuded areas shall be revegetated as soon as possible with native plants and seed.

b. All pipe outlets and box culverts shall have end sections or headwalls that dissipate the water's energy to control erosion.

c. If construction operations are likely to create an erosion problem, operations shall cease until the problem is resolved or until reasonable control measures have been undertaken.

d. Earthen fill placed in locations subject to scour shall contain not more than ten percent (10%) of particles finer than 0.25 mm diameter (passing a No. 60 sieve, on a dry weight basis).

e. Upon completion of construction, the work area shall restore or maintain the stability of upstream and downstream segments of washes with respect to erosion and sedimentation.

4. Contaminated Soils and Materials

a. The Arizona State Land Department is responsible for ensuring construction material and/or fill, placed within the ordinary high water mark (OHWM), is free from substances that can cause or contribute to pollution of a surface water.

b. Debris (such as soil, silt, sand, rubbish, cement, asphalt, oil or petroleum products, organic materials, tires or batteries) derived from construction activities shall not be deposited at any site where it may be washed into WUS and shall be properly disposed of after completion of the work.

c. If water, other than reclaimed wastewater, is used for dust suppression, it shall not contain contaminants that could violate Surface Water Quality Standards.

5. Chemicals and Materials Handling

a. The Arizona State Land Department shall use designated areas for chemical and petroleum storage, solid waste containment, and equipment washing. These designated areas shall be located entirely outside of jurisdictional waters.

b. The Arizona State Land Department shall have a spill containment plan and an equipment maintenance plan available on site at all times.

6. Runoff

Runoff and seepage from roadways, embankments, golf courses and other alterations of the natural environment shall not cause a violation of Water Quality Standards.

7. Conditions Related to Flow Events

a. Work shall be performed during low water conditions when the area is naturally dewatered. When there is water flow within the construction area, construction activity shall cease and construction equipment relocated outside the OHWM of the watercourse.

b. Building pads which have been created by converting wash areas to dry land shall <u>not</u> be located within jurisdictional waters after completion of construction except as allowed by the 404 Permit. To the extent that pads are located in washes, provisions will be made to convey stormwater around the pads.

8. Construction Related Activities

   a. Construction materials, including concrete, asphalt, and piping, shall consist of materials that do not leach pollutants into surface waters. Activities shall be conducted and monitored to ensure that pollution from concrete formation and equipment washing does not drain into the washes.

   b. At bridged roadway crossings, only concrete pilings, concrete supporting walls, galvanized steel culverts, or aluminum shall be used in jurisdictional waters.

   c. After construction, the work area and all disturbed areas along the bank and streambed shall be restored to an environmentally acceptable condition. All construction residues, equipment and non-native materials shall be removed from and properly disposed of outside the OHWM.

   d. Rip-rap shall be washed outside of the OHWM of jurisdictional waters prior to placement to remove fines which may cause or contribute to a violation of the turbidity and/or narrative standards.

9. Conditions for Golf Courses and other Recreational Facilities

   a. The Arizona State Land Department is encouraged to develop and implement Best Management Practices, such as those found in "Environmental Principles of Golf Course Design", for the design, maintenance and operation of golf courses and other recreational facilities.

   b. The design of golf course irrigation, drainage and retention systems should provide for efficient use of water as well as the protection of water quality. Drainage and stormwater retention systems should be incorporated into the design as features of the course to help provide for both the short and long-term irrigation needs of turf and non-turf areas.

   c. Vegetated buffers should be established and maintained adjacent to ephemeral watercourses to reduce pollutant loads. Native vegetation shall be utilized to the fullest extent possible, given a reasonable likelihood of success.

d. For facilities utilizing potable water, Central Arizona Project water or groundwater for irrigation, direct runoff of irrigation water and overflows from runoff detention and/or retention areas into washes shall be limited to the extent practicable and shall not cause downstream erosion or flooding.

e. For facilities utilizing reclaimed wastewater for irrigation, direct runoff of reclaimed wastewater and overflow from effluent storage impoundments into WUS are prohibited without the proper permits including but not limited to Arizona's Reuse of Reclaimed Wastewater Permit or a federal NPDES permit.

Stormwater detention/retention basins shall be designed pursuant to the Paradise Ridge Hydrology and Master Drainage Report, April 2001, prepared for the Arizona State Land Department. These structures should as a minimum retain the "first flush" consisting of runoff from the contributing watershed from the ½-inch rainfall event.

f. Golf course greens, berms, bunkers, fairways, cart and crossing paths, located within jurisdictional waters shall be designed to allow normal storm flows to pass unimpeded. There shall be no significant change to the hydraulic conditions of the upstream or downstream waters as a result of these constructed features.

g. Turfed areas (e.g., golf courses) shall be located outside of jurisdictional waters, to the maximum extent practicable.

h. Chemicals and fertilizers, especially when used for maintenance of golf course turf and landscape vegetation within jurisdictional waters, shall not cause or contribute to a violation of State Water Quality Standards.

i. Fertilizer, herbicide and insecticide chemicals used for maintenance of turfed areas and landscape vegetation shall be selected based on minimum environmental impacts (i.e., low residence times, low leachability, and maximum feasible biodegradability). The process of selection of chemicals cannot be based solely on cost. Application rates printed on the product labels shall be strictly followed. Excess chemicals shall not be applied on recently treated areas and must either be stored (as directed) for later use or transported to another site for immediate use.

10. Standard Issues

Any discharge occurring as a result of activities certified for the construction of the Paradise Ridge development shall not cause a violation of Surface Water Quality Standards. Applicability of this condition is as defined in A.A.C. R18-11-102.

ADEQ CWA 401 Water Quality Certification of these activities to operate under the terms of the ACOE Individual CWA 404 Permit does not affect or modify in any way the obligations or liability of any person for any damages, injury, or loss, resulting from an impacted area discharge. The Department may modify or withdraw its determination if the information relied upon is inaccurate or not implemented as proposed. If, in the future, the Department determines that the terms and conditions of the Certification have been violated, or discharges from the activities have caused or contributed to a violation to the surface water quality standards, the Director may revoke the Certification. This Certification is not intended to waive any other federal, state or local laws.

Thank you for your cooperation and efforts to protect our finite and precious water resources.

Sincerely,

Authorized ADEQ Signature: Michele Robertson 10-12-01

Michele Robertson, R.G. Date
Water Permits Section Manager
Water Quality Division

Enclosure: Figure 3, Proposed Project (1 page)

cc: U.S. Army Corps of Engineers, Regulatory Branch, Attn: Ron Fowler, (1999-16128-RWF), 3636 North Central Avenue, Suite 760, Phoenix, Arizona 85012
Arizona State Land Department, Attn: V. Ottozawa-Catupron, Drainage & Engineering Section, 1616 West Adams Street, Phoenix, Arizona 85007
EcoPlan Associates, Inc., Attn: George A. Ruffner, PhD, 701 West Southern Avenue, Suite 203, Mesa, Arizona 85210
Mr. Tim Vendlinski, Manager, Wetlands Regulatory Office, USEPA (WTR-8)

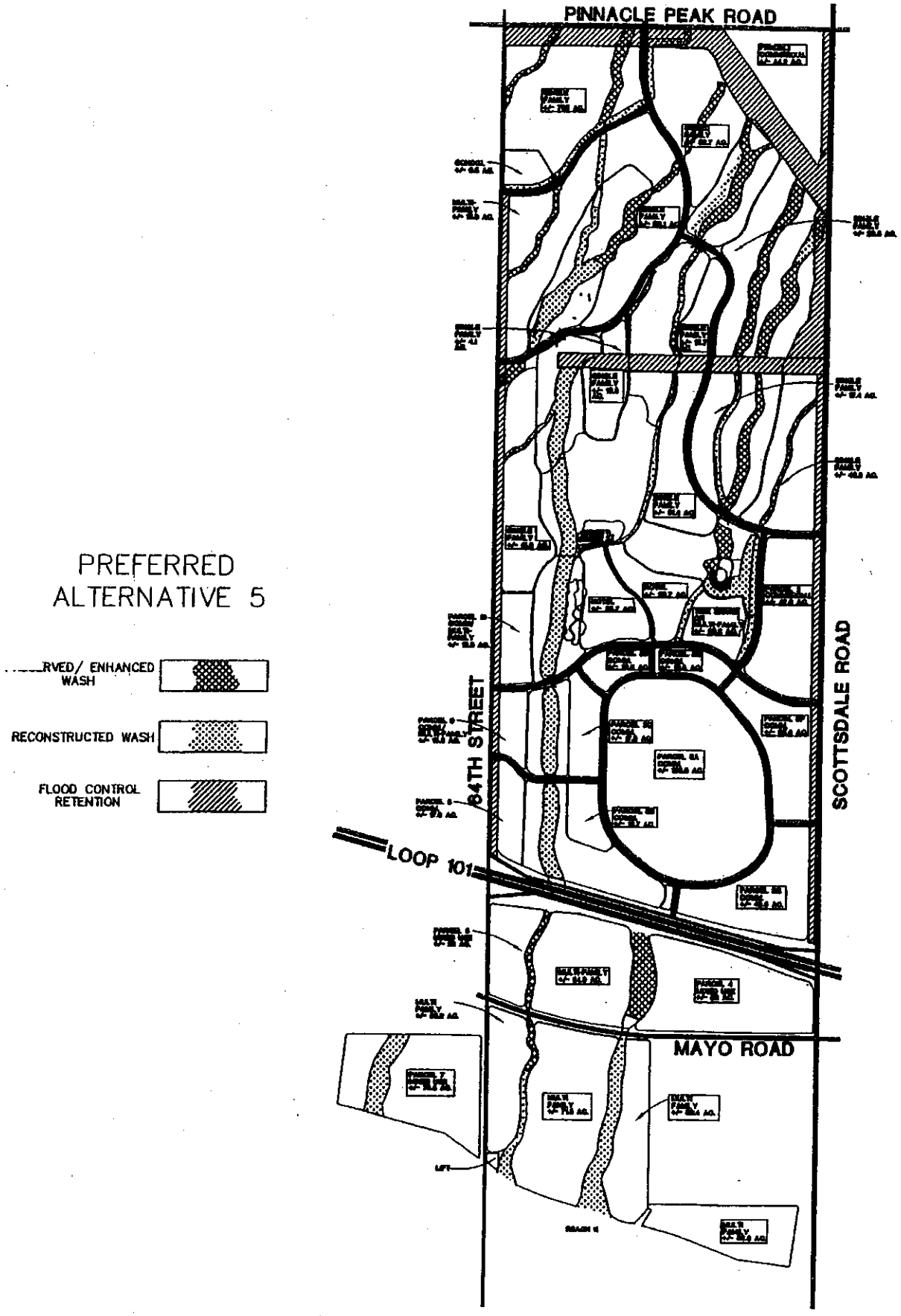

Figure 3. Proposed Project