



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Henry R. Darwin
Director

September 16, 2013

401 cert reading file: rs313:035

Applicant: U.S. Corps of Engineers - Sacramento Division - Regulatory
Patricia L. McQueary
USACE St. George Regulatory Office
196 E. Tabernacle Street; Room 30
St. George, Utah 84770-3474

COPY

Property Owner: National Park Service

Subject: CWA 401 Water Quality Certification for the proposed
**Regional General Permit 6 - Categorically Excluded Activities - Glen Canyon
and Lake Mead National Recreation Areas Project**
Impacting the Colorado River and its surface tributaries in the subject areas
Coconino and Mojave Counties County, Arizona.

U.S. Army Corps of Engineers (Los Angeles District) File No.: **SPK-2004-50130**
ADEQ LTF No.: **na**

Dear Ms. McQueary:

The Arizona Department of Environmental Quality (ADEQ) has reviewed the U.S. Army Corps of Engineers (CoE) public notice (8/27/13) for the subject Regional General Permit No. 6 (RGP).

Except when a proposed activity will impact a portion of the Colorado River listed under CWA § 303[d], ADEQ wishes to have the 401 Water Quality Conditions, listed below, applied to all projects (on non-tribal areas within Arizona) approved by the CoE under RGP 6. For projects impacting segments of the Colorado River listed as impaired, the applicant must apply to ADEQ for an individual 401 permit. ADEQ maintains a list of impaired waters at:
<http://www.azdeq.gov/environ/water/assessment/assess.html>

For the purposes of this certification:

- Waters of the U.S./WUS refers to the stream channel below the Ordinary High Water Marks (OHWM) of that channel.
- Temporary means not longer than the scheduled length of the project covered under the RGP project.
- Native material/fill is defined as pollutant-free soil, sand, gravel, etc. that makes up the streambed or adjacent banks in the immediate area of the permitted work.
- Emergency vehicles and emergency responders are not restricted by the conditions in this certification.

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General Conditions and Expiration

This certification is valid for five years or the same period as the original (2013) RGP 6, whichever is shorter, and may be reopened at any time due to a change (i.e., lowered or more stringent) in a water quality standard for a parameter likely to result from project activities. ADEQ may add or modify conditions in this certification to ensure that the applicant's activities comply with the most recent standard. Any extensions or other modifications of the RGP will also require ADEQ review and may require modification of the 401 Certification.

ADEQ 401 Certification contact information:

Arizona Department of Environmental Quality
Surface Water Section / 401 Certifications / mailstop 5415A-1
1110 West Washington Street
Phoenix, Arizona 85007

Robert Scalamera, Hydrologist/Project Manager
email: rs3@azdeq.gov
Voice: (602) 771-4502

Specific Conditions

- 1) Any discharge occurring as a result of activities certified for the subject project shall not cause an exceedence of WQS. Applicability of this condition is as defined in A.A.C. R18-11-102.
- 2) This certification does not authorize the discharge of wastewater, process residues or other waste to any WUS.
- 3) Runoff and seepage from activities certified herein shall not cause an exceedence of Arizona WQS for any WUS.
- 4) Work shall be conducted and monitored to ensure that pollution from the activities certified herein does not cause an exceedence of Arizona WQS in any WUS.
- 5) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the 404 permit or elsewhere in this certification, activities herein certified shall be performed during periods of low flow (baseflow or less) in any WUS, or no flow in the case of ephemeral and intermittent WUS. No work shall be done, nor shall any equipment or vehicles enter any WUS while flow is present, unless all conditions in this certification are met.
- 6) The effectiveness of all pollution control measures, including those preventing erosion and sedimentation, shall be reevaluated after each flow event and repaired/modified as needed.
- 7) Applicant must minimize clearing, grubbing, scraping or otherwise limit exposure of erodible surface to the minimum necessary for each construction phase or location.
- 8) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, if activities certified herein are likely to cause or contribute to an exceedence of water quality standard, or create an

impediment to the passage of fish or other aquatic life - operations shall cease until the problem is resolved or until control measures have been undertaken.

- 9) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, erosion control, sediment control and/or bank protection measures shall be installed before construction and pre-operation activities, and shall be maintained during construction and post-construction periods to minimize channel or bank erosion, soil loss and sedimentation. Control measures shall not be constructed of uncemented or unconfined imported soil, or other materials easily transported by flow.
- 10) For portions of the project utilizing potable water or groundwater for irrigation or dust control, direct runoff of such water shall be limited to the extent practicable and shall not cause downstream erosion or flooding.
- 11) The applicant is responsible for ensuring construction material and/or fill (other than native fill or that necessary to support revegetation) placed in any WUS, shall not include materials that can cause or contribute to pollution of the WUS. Examples of prohibited fill include pollutant-contaminated soil and materials defined as pollutants or hazardous in Arizona Revised Statutes (A.R.S.) § 49-201. Fill used to support vegetation rooting or growth shall be protected from erosion.
- 12) Any washing of fill material must occur outside of any WUS prior to placement and the rinseate from such washing shall be settled, filtered or otherwise treated to prevent migration of pollutants (including sediment) or from causing erosion to any WUS. Other than replacement of native fill or material used to support vegetation rooting or growth, fill placed in locations subject to scour must resist washout whether such resistance is derived via particle size limits, presence of a binder, vegetation, or other armoring.
- 13) Acceptable construction materials that will or may contact water in any WUS are: untreated logs and lumber; natural stone (crushed or not), crushed clean concrete (recycled concrete); native fill; precast, sprayed or cast-in-place concrete (including soil cement and unmodified grouts); steel (including galvanized); plastic and aluminum. Use of other materials may be allowed, but require written approval from ADEQ.
- 14) Any dredged material or waste material is to be placed and retained in areas outside any WUS. Runoff from this material/area is to be settled, filtered or otherwise treated to prevent migration of pollutants (including sediment) to any WUS.
- 15) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, upon completion of construction the applicant shall ensure no adverse change, due to the subject project, has occurred in the stability with respect to stream hydraulics, erosion and sedimentation, of any WUS including upstream and downstream from the project. If such change has occurred, the applicant shall take steps to restore the pre-project stability of any impacted segments.
- 16) Except where the activities certified herein are intended to permanently alter any WUS, all disturbed areas shall be restored and (re)vegetated as indicated in the application (form 4345) documents if approved by the CoE (including offsite/*in lieu* mitigation). Denuded

areas shall be revegetated as soon as physically practicable. Vegetation shall be maintained on unarmored banks and slopes to stabilize soil and prevent erosion.

- 17) If retention/detention basins are included in or added to the project, applicant will complete the grading necessary to direct runoff towards retention/detention basins no later than immediately following initial land clearing or rough grading.

Retention/detention basins shall be sized to accept storm runoff and capture sediment prior to it entering any WUS. Detention basins will provide detention through the use of controlled outflow spillways and shall cause no significant change to the hydraulic conditions of the upstream or downstream WUS outside of the project boundaries.

The basins shall be maintained; e.g., have sediment removed, as required to maintain their function.

- 18) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, when flow is present in any WUS within the project area, the applicant and any contractor will not alter the flow by any means except to prevent erosion or pollution of any WUS.
- 19) Silt laden or turbid water resulting from activities certified herein shall be settled, filtered or otherwise treated to ensure no violation of Arizona WQS in any WUS.
- 20) When flow in any WUS in the work area is sufficient to erode, carry or deposit material, activities certified herein shall cease until:
- the flow decreases below the point where sediment movement ceases, or
 - control measures have been undertaken; e.g., equipment and materials easily transported by flow are protected with non-erodible barriers or moved outside the flow area.
- 21) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, the applicant will erect any barriers, covers, shields and other protective devices as necessary to prevent any construction materials, equipment or contaminants/pollutants from falling, being thrown or otherwise entering any WUS.
- 22) The applicant must designate area(s) for equipment staging and storage located entirely outside of any WUS. In addition, the applicant must designate areas, located entirely outside of any WUS, for fuel, oil and other petroleum product storage and for solid waste containment. All precautions shall be taken to avoid the release of wastes, fuel or other pollutants to any WUS.

Any equipment maintenance, washing or fueling that cannot be done offsite will be performed in the designated area with the following exception: equipment too large or unwieldy to be readily moved; e.g., large cranes, may be fueled and serviced in the WUS (but outside of standing or flowing water) as long as material specifically manufactured and sold as spill containment is in place during fueling/servicing. All equipment shall be inspected for leaks, all leaks shall be repaired and all repaired equipment will be cleaned to remove any fuel or other fluid residue prior to use within (including crossing) any WUS.

- 23) The applicant shall have a spill containment plan onsite to ensure that pollutants are prevented from entering any WUS. Any pollutant generated by activities certified herein shall be properly disposed of in accordance with applicable regulations.

A spill response kit will be maintained in this (these) area(s) to mitigate any spills. The kit will include material specifically manufactured and sold as spill adsorbent/absorbent and spill containment. The applicant will ensure that whenever there is activity on the site, that there are personnel on site trained in the proper response to spills and the use of spill response equipment.

- 24) Except as specified in the form 4345 and supporting documents and allowed, specified or not prohibited in the RGP or elsewhere in this certification, permanent and temporary pipes and culverted crossings shall be adequately sized to handle expected flow and properly set with end section, splash pads, headwalls or other structures that dissipate water energy to control erosion.

All temporary structures constructed of imported materials and all permanent structures, including but not limited to, access roadways; culverted and unculverted crossings; staging areas; material stockpiles; berms, dikes and pads, shall be constructed so as to accommodate overtopping and must resist washout of the feature by streamflow.

Any temporary crossing, other than fords on native material, shall be constructed in such a manner so as to provide armoring of the stream channel. Materials used to provide this armoring shall not include anything easily transportable by flow. Examples of acceptable materials include steel plates, untreated wooden planks, pre-cast concrete planks or blocks; examples of unacceptable materials include clay, silt, sand and gravel finer than cobble (roughly fist-sized). The armoring must, via mass, anchoring systems or a combination of the two, resist washout.

Applicant will take measures necessary to prevent approaches to any WUS crossing from causing erosion or contributing sediment to any WUS.

No vehicles or equipment shall ford any unarmored WUS crossing when flow greater than baseflow is present.

Any ford shall be designed, and maintained as necessary, to carry the proposed traffic without causing erosion or sedimentation of the stream channel while dry or during a flow event equal to or less than the crossing's design event.

No unarmored ford shall be subject to heavy-truck or equipment traffic after a flow event greater than baseflow until the stream bed is dry enough to support the traffic without disturbing streambed material to a greater extent than in dry conditions. Light vehicles (less than 14,000 pounds gross weight) are not restricted by this condition.


- 25) Temporary structures constructed of imported materials are to be removed no later than upon completion of the permitted activity.
- 26) Temporary structures constructed of native materials, if they provide an obstacle to flow or can contribute to or cause sedimentation or erosion, are to be removed no later than upon completion of the permitted activity.

- 27) Upon completion of the activities certified herein (except as noted in condition 29 - concrete curing), areas within any WUS shall be promptly cleared of all forms, piling, construction residues, equipment, debris or other obstructions.
- 28) Washout of concrete handling equipment must not take place within any WUS and any washout runoff shall be prevented from entering any WUS.
- 29) If fully, partially or occasionally submerged structures are constructed of cast-in-place concrete instead of pre-cast concrete, applicant will take steps; e.g., sheet piling or temporary dams, to prevent contact between water (instream and runoff) and the concrete until it cures and until any curing agents have evaporated or otherwise cease to be available; i.e., are no longer a pollutant threat. Where possible, construction work will be during extreme low water conditions or at a time and season with the highest probability of ensuring work is done in "the dry".
- 30) Any permanent WUS crossings other than fords, shall not be equipped with gutters, drains, scuppers or other conveyances that allow untreated runoff (due to events equal to or lesser in magnitude than the design event for the crossing structure) to directly enter a WUS if such runoff can be directed to a local stormwater drainage, containment and/or treatment system.
- 31) Applicant will clear debris as needed from culverts, ditches, dips and other drainage structures in any WUS to prevent clogging or conditions that may lead to washout.

ADEQ CWA 401 Water Quality Certification of these activities to operate under the terms (including the conditions herein) of the applicable CoE CWA 404 RGP does not affect or modify in any way the obligations or liability of any person for any damages, injury, or loss, resulting from these activities. This Certification is not intended to waive any other federal, state or local laws.

If monitoring (by ADEQ or others) indicates that water quality is adversely affected by the activities certified herein, ADEQ will notify the U.S. Army Corps of Engineers (CoE) and request suspension of the project under the RGP.

Sincerely,


Linda Taunt, Deputy Director
Water Quality Division

electronic copies: USEPA, Wetlands Regulatory Office