



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

**DOCKET**

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Terry O'Brien, Deputy Director Siting, Transmission, Environmental Protection  
California Energy Commission  
Dockets Office, MS-4  
Docket No. 09-RENEW EO-01  
1516 Ninth Street  
Sacramento, CA 95814-5512

Subject: Best Management Practices and Guidance Manual: Desert Renewable Energy Projects,  
Renewable Energy Action Team Report, November 2010

Dear Mr. O'Brien,

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Best Management Practices and Guidance Manual: Desert Renewable Energy Projects, published in November 2010. We recognize that the comment period has expired; however, we would appreciate your consideration of the recommendations provided in this letter in advance of the public discussion and business meeting on December 15 2010.

EPA commends the Renewable Energy Action Team agencies for providing guidance for timely coordination to streamline the regulatory process while addressing complex environmental issues. The manual addresses many factors important to the siting and design of renewable energy facilities, and should serve as a valuable guide for evaluating upcoming projects, helping developers understand environmental review processes, and minimizing the environmental impacts of renewable energy development. We are concerned, however, about the draft manual's lack of guidance regarding avoidance and protection of ephemeral streams.

Intact low-order ephemeral streams perform a diversity of hydrologic, biogeochemical, and habitat support functions that directly affect the integrity and functional condition of higher order waters downstream. Ephemeral streams constitute a critical component of riverine systems throughout the United States, especially in the arid west where ephemeral systems are the primary characteristic of many watersheds. These systems provide important services, both to public health and the economy, upon which our region depends. Collectively, ephemeral and intermittent tributaries serve as the filtering headwaters for the primary sources of drinking water across much of our region, and their coarse beds allow water infiltration that recharges groundwater aquifers. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral aquatic systems also support diverse habitats for wildlife unique to the region, valuable both intrinsically and as a defining character of the region's natural heritage. Wildlife populations

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depend on the relatively moist channels as a network of corridors used for breeding, shelter, foraging, and dispersal.

Development of renewable energy projects on pristine desert habitat can result in potentially significant and irreversible impairment of aquatic ecosystems at the landscape scale. The aquatic ecosystems will be altered by permanently changed hydrological processes, a potential increase in the velocity and volume of stormwater flows, and the discharge of pollutants from nuisance flows from development into receiving waters. Development in and around these channels causes habitat fragmentation and eliminates much, if not all, of the habitat support functions provided by these waters.

To address this concern, we recommend the addition of the following guidance to the Soils, Drainage, Erosion, Stormwater and Flooding Guidance in Chapter 3 of the draft manual:

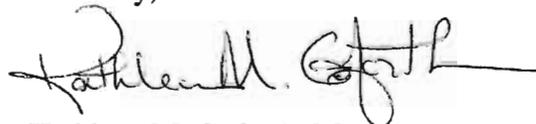
Natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions.

To avoid and minimize direct and indirect impacts to desert washes (such as erosion, migration of channels, and local scour):

- do not place support structures in washes or desert dry wash woodlands,
- utilize existing natural drainage channels on site and more natural features, such as earthen berms or channels, rather than concrete-lined channels,
- commit to the use of natural washes, in their present location and natural form and including adequate natural buffers, for flood control to the maximum extent practicable,
- reconfigure the project layout, roads, and drainage channels to avoid ephemeral washes, including desert dry wash woodlands, and
- minimize the number of road crossings over washes and design necessary crossings to provide adequate flow-through during storm events.

EPA appreciates the opportunity to provide input on the Best Management Practices and Guidance Manual. We are available to further discuss all recommendations provided. If you have any questions, please contact me at 415-972-3521 or have your staff contact Anne Ardillo or Tom Plenys, of my office, at 415-947-4257 or 415-972-3238, respectively.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen M. Goforth". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Kathleen M. Goforth, Manager  
Environmental Review Office

Cc: Roger Johnson, California Energy Commission, Manager  
Tom Pogacnik, United States Bureau of Land Management, Deputy State Director  
Kevin Hunting, California Department of Fish and Game, Chief Deputy Director  
Mike Fris, United States Fish and Wildlife Service, Assistant Regional Director