

# INFORMATIONAL

## CALENDAR ITEM

**93**

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06/28/10

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PRC 8079.9

C. Connor

### **LESSEE:**

City of Los Angeles, Department of Water and Power  
c/o William Van Wagoner  
111 North Hope Street, Room 1460  
Los Angeles, CA 90012

### **AREA, LAND TYPE, AND LOCATION:**

Sovereign lands in Owens Lake, Inyo County.

### **BACKGROUND:**

At the February 1, 2010, Commission meeting, staff provided an informational calendar item to the Commission regarding the status of the moat and row dust control design. The calendar item and presentation also provided information on the solar demonstration project and the master planning process.

This item is to provide an update on the status of projects involving sovereign lands located in Owens Lake, including dust control measures, the solar demonstration project, groundwater monitoring wells, and the master planning process.

### **STATUS OF DUST CONTROL MEASURES**

On June 14, 1999, the Commission authorized the issuance of Lease No. PRC 8079.9 to the city of Los Angeles Department of Water and Power (City) for a period of 20 years, for the Owens Lake South Sand Sheet Air Quality and Sand Fence Effectiveness Monitoring System. Since that time, the Commission has authorized eight amendments to the lease for the construction, operation, and maintenance of additional dust control components, including shallow flooding and managed vegetation. The lease will expire on April 30, 2019.

On December 17, 2009, the Commission considered an application by the City for a lease amendment to construct a moat and row dust control design on seven emissive sites, also known as "cells", in Phase VII of the Owens Lake Dust Control Project. The Commission did not approve or reject the entire moat and

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row project; it did, however, authorize the City to construct sand fences on one of the cells, Cell T1A-1, as well as ancillary features to enable enhancement of existing vegetation. This authorization was made so that the City could meet a compliance deadline of January 1, 2010, set by the Great Basin Unified Air Pollution Control District (District).

The moat and row application was heard again at the April 6, 2010 Commission meeting. This time, however, the moat and row design for the six remaining Phase VII emissive sites had been revised to have wider and shallower moats in order to lessen wildlife impacts. The Commission denied the revised moat and row design because it was still considered inconsistent with the Public Trust needs, resources, and values of Owens Lake and was not in the best interest of the State.

On May 18, 2010, the City submitted an application for a lease amendment to authorize implementation of a new dust control design known as tillage. This application is Item C33 on the consent agenda of today's Commission meeting. Tillage is a process whereby the surface of the soil is roughened or made uneven to make it more resistant to wind erosion. The roughness reduces wind velocity along the surface and provides furrows to catch windblown soil particles. Benefits of tillage include (a) relatively quick implementation with immediate effectiveness; (b) no infrastructure is required; (c) has a low profile that does not obstruct views; and (d) does not use water. Tillage also does not have the same long-term adverse impacts to Public Trust values as did the moat and row proposal.

Tillage is intended to be a temporary method of dust control until a long-term solution is developed and presented to the Commission for consideration. At present, there are three Best Available Control Measures (BACM) approved by the District; these are gravel cover, shallow flooding, and managed vegetation. Large-scale implementation of gravel cover was found infeasible by the District in its Final Subsequent Environmental Impact Report for the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (2008 SIP FSEIR), due in part to its apparent inconsistency with the Public Trust. Shallow flooding and managed vegetation require water that the City believes is unavailable. As a result, City staff is working to find new, water efficient dust control measures. Some of these are: using brine instead of fresh water for shallow flooding; a variation of gravel cover utilizing rocks and boulders of differing sizes to give a more natural appearance; "seeps and springs", which involves planting and nourishing native vegetation around existing natural seeps and springs to not only reduce dust but also create habitat; and solar arrays used in conjunction with earthen berms and gravel cover. None of these have yet been approved or implemented.

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Another idea that has been discussed is the use of tillage in conjunction with shallow flooding (either brine or water). This concept involves transferring water from one shallow flood area to another and then tilling the moist soil of the drained shallow flood area. The moist, tilled soil should break the wind and be more resistant to erosion for a longer period of time. When the soil becomes totally dried out, the tilled area could then be flooded by transferring the water from the adjoining area. That drained area would then be tilled. Thus, there would be an alternating process of flooding and tilling.

Staff of the Commission will continue to work with City staff, as well as staff of the District and staff of the Department of Fish and Game (DFG) to develop effective dust control measures that do not adversely impact the Public Trust needs, resources, and values of Owens Lake.

### **STATUS OF SOLAR DEMONSTRATION PROJECT:**

On January 26, 2010, the City submitted to Commission staff a two-page, four-exhibit "Progress Report on Owens Dry Lake Solar Demonstration and Information Collection Study (Solar Study)." The Solar Study noted that the City approached the District about the concept of using solar panels to mitigate dust in July 2009 and that consequently, in August 2009, the District established criteria for dust mitigation through the use of solar arrays. The report stated that the City conducted wind tunnel tests of potential solar photovoltaic configurations, including various array configurations, tilts, and spacing with different fencing and gravel placement. As a result of these studies, the City initially proposed to use an 80-acre portion of proposed Moat and Row Cell T1A-4 at Owens Lake to install and test solar panel configurations and hardware to determine their ability to achieve dust control, evaluate the performance of the hardware, and to determine the economic feasibility of potential large-scale implementation.

The Solar Study provided a preliminary schedule for the demonstration project that called for a completed CEQA document (Mitigated Negative Declaration) and lease approval from the Commission by August 2010, site preparation commencing in October 2010, installation of solar equipment in January 2011, and commercial operation commencing in July 2011.

On February 24, 2010, the City submitted a lease application to the Commission for the "Owens Dry Lake Solar Demonstration and Information Collection Study (Solar Study)." A meeting was held on June 2 to update Commission staff on the progress of and changes to the solar demonstration project. In the meeting, City staff confirmed that they were no longer considering locating the demonstration project on 80 acres in Cell T1A-4, but were instead evaluating two separate 20-

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acre sites, one in Cell T37-1, and another in Area 1 of Phase VIII. The change in sites was necessitated by poor soil conditions in Cell T1A-4, which would significantly increase the cost of the foundation for the solar arrays. The two alternate sites will require additional geotechnical study for load bearing of the soil.

In the June 2 meeting, City staff also discussed the District's dust mitigation requirements for solar as a BACM (complete sheltering of 99 percent or more of the area within the solar panel array area), the types of solar technologies being considered by the City, the solar array designs that were wind tunnel tested and the results, the challenges faced with meeting the District's BACM threshold, and the economics of the solar demonstration project.

City staff informed Commission staff that their next step will be to submit an application for a geotechnical permit to study soil conditions in the two newly proposed areas. Once this investigation is concluded, the City plans to revise their application to address the new locations and provide a detailed project description, which would include the type of solar array technologies that would be used. City staff believes that even with these new intermediate steps that they could have the solar demonstration project constructed and operating by October 1, 2011.

### **STATUS OF GROUNDWATER MONITORING WELLS:**

On July 29, 2009, the City submitted an application for a lease to conduct geological sampling, rotary drilling samples, and to construct, operate, maintain and monitor seven clusters of monitoring wells. The proposed work is part of the Owens Lake Groundwater Evaluation Project. The purpose of this project is to evaluate the groundwater supply under Owens Lake to determine if it can be used for dust control measures on the dry lakebed. The proposal called for drilling of up to 30 groundwater monitoring wells in clusters of three at various locations on the lakebed. However, on January 28, 2010, the City withdrew their application in order to conduct additional analysis of existing seismic data prior to conducting any geological sampling and well drilling.

City staff and Commission staff met in Sacramento on June 2, 2010 to discuss the status of the groundwater evaluation project. The specific goals of the project are to collect descriptive and geophysical logs, collect soil samples, monitor water levels, and collect water quality samples. With this information, the City can develop a conceptual hydro-geologic model of the basin and study the potential impacts of the removal of the groundwater on surrounding wells, seeps, springs, and vegetation. The project has been revised and would involve fewer wells on sovereign land: eight new wells and one existing well that was drilled by the District with Commission approval in the early 1990s. As previously

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proposed, the wells would be drilled in clusters of three; thus there would be three clusters on sovereign land. The wells in each cluster would have four-inch diameter boreholes and would be drilled to different depths, with none being greater than 1,500 feet. All well drilling and associated site work would be done after Snowy Plover breeding season, which ends in mid-August. City staff stated that they anticipate re-submitting a revised lease application in the next few months.

### **STATUS OF MASTER PLANNING PROCESS:**

A condition of the Eighth Amendment to the lease, approved by the Commission at its December 2009 meeting, was that the City must provide 1:1 mitigation for impacts to biological resources and agreement with a long-term conservation plan or a Master Plan approved by the DFG and the Commission. On January 25, 2010, City staff informed Commission staff that a facilitator had been hired by the City to assist in the development of a Master Plan. The facilitator is Ms. Gina Bartlett with The Center for Collaborative Policy at California State University, Sacramento. Ms. Bartlett has since identified the stakeholders in the process, interviewed many of the key players, and formed a hierarchy of groups representing the stakeholders and their interests. The stakeholder structure consists of a Planning Committee, an Agency Forum, a Coordinating Committee, a Stakeholder Forum, and working groups. The Planning Committee is the stakeholder group that will work to develop a consensus-based plan and take it to their respective agencies and organizations for potential adoption.

To date, there have been four Planning Committee meetings, one in March, one in April, one in May, and most recently on June 9. The April meeting was a guided site visit to the lakebed. Committee members were able to view the various dust control measures on the lake and experience the wind-driven dust clouds.

Topics that were discussed at the earlier Planning Committee meetings included recognizing the interests of the various stakeholders, identifying the uses on or influenced by the lake (dust control, wildlife habitat, mining), and creation of a charter to guide the Master Plan process. The most recent meeting was more focused, with topics such as exploring water efficient dust control measures and solar projects on the lakebed. Future Planning Committee meetings will address defining the project area, identifying the vision for the lakebed, drafting objectives, and recognizing stakeholder interests and concerns within that framework. The next Planning Committee meeting is scheduled for June 30.

In addition to the Planning Committee meetings, an Agency Forum meeting was held in Sacramento on June 16. Present at the meeting were representatives from various governmental bodies, including the City, Inyo County, the District,

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the DFG, California Department of Water Resources, the State Water Resources Control Board, and the Commission. The purpose of this meeting was to identify the various agencies that may be involved in the Master Plan process, what their roles would be, what their concerns are, what their internal processes are, any potential policies or practices that could impact or constrain the Master Plan, and to consider the type or legal framework of the Master Plan. There was also discussion about the sequencing of the CEQA process relative to the Master Plan process.

The Master Plan process is scheduled to be completed by the end of this year with the CEQA review completed sometime in 2011. The Master Plan and CEQA document could then be considered for approval by the various agencies, including the Commission.

### **NEXT STEPS:**

Commission staff will continue to work with City, District, and DFG staff to develop effective dust control measures that meet the needs of the other parties while not adversely impacting the Public Trust needs, resources, and values of Owens Lake.

The City plans to apply for a geotechnical permit to study soil conditions in two new areas proposed for the solar demonstration project. Once the geotechnical investigation is concluded, the City plans to revise their application to address the new locations and provide a detailed project description, which will include the type of solar array technologies that would be used.

City staff indicated that they plan to re-submit a revised lease application for groundwater monitoring wells within the next few months. The revised application would involve nine wells clustered at three locations on sovereign land.

Commission staff continues to participate in the Planning Committee and Agency Forum meetings of the Owen Lake Master Planning process. The planning process is scheduled to be completed by the end of this year with the CEQA review completed in 2011.