

ITEM: 19

SUBJECT: Workshop on Revised Waste Discharge Requirements for the Grassland Bypass Project

BOARD ACTION: *Hearing to Receive Public Comments on Draft Waste Discharge Requirements; No Board Action Will be Taken*

BACKGROUND: On 29 May 2014, Central Valley Water Board staff made draft waste discharge requirements for the Grassland Bypass Project (the Draft Order) available for public comment. Board staff plan on revising the Draft Order based on the comments received, and will recirculate a revised version of the Draft Order in the near future. The version of the Draft Order that was circulated for public comment is included in this agenda package, along with its attachments.

The Draft Order regulates the discharge of agricultural subsurface drainage and stormwater from the Grassland Drainage Area, located in Fresno and Merced counties, to tributaries of the San Joaquin River. Without adequate drainage, excess irrigation causes the shallow groundwater table to rise, waterlogging and evaporconcentrating salts and trace elements in the crop root zone. To maintain the water table below the crop root zone, tile drainage systems underlie over 33,000 acres in the Grassland Drainage Area. Tile lines generally consist of regularly-spaced perforated pipes that are installed below the land surface and that allow groundwater to gravity drain to sumps located at the lower ends of the fields. The subsurface drainage is then pumped from the sumps into surface drains. The subsurface drainage in this area is high in salts, selenium, and boron.

In the 1980's, scientists discovered bird deformities associated with selenium in the Kesterson Reservoir. At that time, the Kesterson Reservoir was the terminus of the San Luis Drain, which received subsurface drainage from the Westlands Water District (located south of the Grassland Drainage Area). Federal and State agencies became concerned that subsurface drainage from the Grasslands Drainage Area would similarly impact managed wetlands. Therefore, in 1996, subsurface drainage and surface runoff from the Grassland Drainage Area was routed away from sensitive wetlands and through a portion of the San Luis Drain, which was connected to Mud Slough (north), a tributary of the San Joaquin River. Waste discharge requirements for this discharge were first issued in 1998 by the Central Valley Water Board. This action protected tens of thousands of acres of wetlands and tens of miles of wetland supply canals from being impacted by selenium-laden subsurface drainage from the Grassland Drainage Area.

Having routed the subsurface drainage flows away from sensitive wildlife areas, the next challenge was to bring surface waters into compliance with selenium water quality objectives. In order to achieve compliance, growers in the Grassland Drainage Area have implemented selenium load reduction measures, including enhanced irrigation management, the installation of tailwater return systems, and the reuse of subsurface drain water. This has resulted in an approximately 80% decrease of selenium loading from the Grassland Drainage Area from 1997 to 2012 (based on average of selenium annual loads from 2008 to 2012 and the load in 1997).

However, although the selenium objectives for Salt Slough and the San Joaquin River downstream of the confluence of the Merced River are now being met, Mud Slough (north) and the San Joaquin River upstream of the Merced River

are not yet meeting objectives. After a 2010 deadline in the Basin Plan was extended by a Basin Plan Amendment, the Basin Plan now requires compliance with all selenium objectives by December 2019.

The Draft Order, which will be issued to the San Luis & Delta-Mendota Water Authority and the U.S. Bureau of Reclamation (the Dischargers), is designed to bring the discharges into compliance with Basin Plan's 5 µg/L selenium limit (measured as a 4-day average) in Mud Slough (north) and in the San Joaquin River before the Merced River confluence by 2019. The Dischargers believe the additional time will allow them to obtain the funding to develop the technology necessary to reduce selenium loads and meet water quality objectives set in the Basin Plan.

One of the primary controversies involves reduced monitoring; the Draft Order concentrates monitoring in the two areas that have not met water quality objectives, and reduces the monitoring requirements in other areas. For example, year-round monitoring of wetland areas have been dropped since subsurface drainage from the Grassland Drainage Area no longer is transported to wetland supply channels, except during major storm events. During these events, the combined flow of stormwater, surface runoff, and subsurface drain water may overwhelm the San Luis Drain, necessitating diversion into the wetland supply channels. Stormwater monitoring requirements are triggered at that point.

In addition, the Bureau of Reclamation and the San Luis & Delta-Mendota Water Authority updated a 1996 Use Agreement in 2009 to allow for the continued use of the San Luis Drain for the period of 1 January 2010 through 31 December 2019, and the new Use Agreement includes additional monitoring that augments the monitoring that is included in the Draft Order. This additional monitoring includes monitoring of selenium in wetland channels and selenium concentrations in bird eggs, fish tissue, and plant tissue.

The Draft Order also includes additional requirements that are found in other Irrigated Lands Regulatory Program Orders (e.g., requirements to develop management plans in response to exceedances). The Draft Order does not address discharge to groundwater, since the Dischargers (the Bureau of Reclamation and Water Authority) are responsible solely for the surface water discharge from the San Luis Drain to the downstream receiving waters. Staff intends to develop a General Order that would regulate groundwater impacts from agricultural activities in the Grassland Drainage Area. This General Order would be similar to the other third-party group ILRP Orders previously adopted by the Board.

Additional comments include requests that salinity limits be included in the WDRs, that the WDRs require measurable annually reductions with independent science review, and that the WDRs mandate the continuation of monitoring of wetland channels. Several commenters also ask that the Board institute a prohibition that is currently in the Basin Plan that authorizes the Board to prohibit discharges if selenium water quality objectives are not met. Lastly, several commenters ask the Board to incorporate multiple mitigation measures mentioned in the Record of Decision, the 2009 Use Agreement, and the U.S. Fish & Wildlife Biological Opinion.

RECOMMENDATION There is no staff recommendation for this workshop item. The board may provide direction to staff based on the staff presentation and comments received from the public.

Mgmt. Review __JK____
Legal Review __PEP__
August 7/8, 2014
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670