

North San Joaquin Water Conservation District

Water Right Permit 10477 (Application 12842)

WASTE AND UNREASONABLE USE PLAN - CONDITION 11

Updated July 13, 2015 - Approved by the NSJWCD Board of Directors: _____

Condition 11 of North San Joaquin Water Conservation District's permit requires the District to update its waste and unreasonable use plan by September 26, 2015:

Within 180 days from the date of issuance of this amended permit, the District must provide the Division an update of the District's September 2008 plan to avoid the waste or unreasonable use of water under Permit 10477 including identifying any current and proposed conservation measures. If the Deputy Director determines that all or a portion of the plan is not acceptable, then the District must submit any modifications to the plan required by the Deputy Director within 60 days of being notified that the plan is not acceptable. Upon approval of the plan by the Deputy Director, the District shall implement the plan. The District shall provide updates of implementation of the plan upon request by the Division.

Conservation through Drip Irrigation

Prior to 1987, the District was providing over 10,000 AFA when water was available. The 1987-92 drought brought 0% supply for five years, and forced most surface water users to convert to drip irrigation with well water. Following the drought, and after all but 800 acres had been converted from surface flood irrigation to well-drip, the District has been providing only about 3,000 AFA.

However, it is still the District's mission to use its entire permitted surface supply beneficially. To this end, the District formed the Tracy Lake Improvement District in 2011. This improvement district is presently constructing facilities to use between 3,000 and 5,000 af of water in years that water is available. The water will be used for drip irrigation of vineyards (which are otherwise irrigated with groundwater) and for groundwater recharge through percolation in a natural pond.

The District is also actively working with landowners along its existing South Distribution System on plans to rehabilitate that system to ensure efficient operation and delivery of water. There is considerable interest along the South System in surface water and most irrigated acreage utilized pressurized drip or micro-sprinkler technology.

Tailwater Recovery System

There are no tailwater losses associated with deliveries for the Tracy Lake project as the system is closed and river diversions are regulated to match demand from the drip irrigation system.

The District's South distribution system currently ends in Pixley Creek, which conveys water to users and to Woodbridge Irrigation District (WID). At present, WID uses any NSJWCD "end loss" water which may be present in Pixley Creek. The District is currently studying how it can capture and utilize flows at the end of its system in the district, such as through regulating reservoirs at Micke Grove Regional Board, which are then used for irrigation of the park.

Improved Delivery Facilities

The District has just completed a comprehensive study of its existing South System pump station and distribution system to identify opportunities to improve efficiency in operations. The identified improvements include updated electrical components, conversion to variable speed electric pumps, and pipeline replacement or sliplining to eliminate leaks. These improvements will be made as soon as funding is secured. The District has already secured \$1.75 million to begin these improvements and will be pursuing available grant funds as well as landowner assessment options to complete the project.

Monitor Water Usage

It is the District's priority to deliver all available water for irrigation or groundwater recharge. District landowners have expressed a strong interest in hooking into the District's distribution system to take surface water, when it is available. As landowners hook-in, deliveries to pressurized irrigation systems will increase. These pressurized systems have little to no waste and enable good water use accounting.

Water not used directly for irrigation will be used for recharge. The District has submitted Underground Storage Supplements (USS) that will monitor the amount of water recharged into the basin and later extracted by well owners within and around the recharge areas. Water recharged to the basin will not be lost to "unusable sinks," but instead monitored to ensure beneficial use.

Finally, the District will meter all surface water diverted from the Mokelumne River, apart from its diversions from the diversion point at Woodbridge Irrigation Company Dam, which are discussed below. The District will also monitor quantities delivered for irrigation and recharge and will provide an annual accounting to the SWRCB showing amounts used for irrigation (in lieu recharge) and for direct recharge.

The City of Lodi will monitor diversions from the District's point of diversion at Woodbridge Irrigation Company Dam. The City of Lodi will use water diverted from this point to reduce its reliance on groundwater and enable the City to maximize use of its treatment plant when surface water is available from District and not from other sources.

The District adopted a new water rate structure in 2015 and has contracted with Woodbridge Irrigation District to administer water deliveries and billing when water is available for delivery. This system will involve specific accounting of deliveries of water to customers. The District will then reconcile diversions from the river with all deliveries and groundwater recharged accounts to account for all water diverted.

ACCEPTED AND APPROVED:

Barbara Evoy, Deputy Director
DIVISION OF WATER RIGHTS