

SRWA/MID 2020 Watershed Sanitary Survey - DDW Report Comments and Responses

#	PDF Page	Comment (July 20, 2020)	Category	Response to DDW (September 4, 2020)
1	19	The report mentions that, "two dairies and one cattle feedlot operate within the watershed. The runoff control from these facilities is 'good'." Please elaborate on what 'good' means here and in what context.	Cattle facility operations, drainage.	The WSS will be edited to replace the word "good" with "regulated." In addition, the following text will be added to the WSS report, immediately following the sentence in question, " <i>The Central Valley Waterboard (Region 5) regulates bovine feedlots through General Waste Discharge Requirements . The order prohibits discharge from production areas to surface waters. </i> " (Source: https://www.waterboards.ca.gov/centralvalley/water_issues/confined_animal_facilities/program_regs_requirements/dairy/)
2	40	The report mentions that, "lower Dominici Creek and Salter Gulch are piped under the MID Canal and flow directly to the Lower Tuolumne River." Do the pipes extend all the way to the Tuolumne River? Are there any dairies along the way where lower Dominici Creek and Salter Gulch are not piped?	Cattle facility operations, drainage.	The following text will be added to the WSS report, following the statement that the lower Dominici Creek and Salter Gulch are piped under the MID Canal and flow directly to the Lower Tuolumne River. " <i>The Lower Dominici Creek culvert under the MID canal is approximately 220 ft long. The pipe terminates into open, vegetated channel that meanders approximately 2,400 ft before discharging into the Tuolumne River. The Salter Gulch culvert under the canal is approx 250 ft long and discharges into an open vegetated channel that meanders approximately 8,000 ft prior to discharge into the Tuolumne River. There are no dairies located in proximity of either creek. </i> "
3	40	The report mentions that, "water from the MID Canal system enters the Lower Tuolumne River through surface drainage or through groundwater percolation." Please elaborate on the surface drainage and the groundwater percolation here. Does the surface drainage occur thru man-made conveyance system or it is the natural topography of the land that carries water towards the Tuolumne River? Also, the groundwater percolation occurs in dedicated area or is it the natural percolation that occurs on the land?	MID canal drainage	The WSS text in question will be edited as follows, " <i>water from the MID Canal system enters the Lower Tuolumne River primarily through surface drainage. </i> " The following text will also be added, " <i>In the vicinity of Waterford, the MID system includes structures to allow the return of flows back into the Tuolumne River. These structures are the Waterford Lower Main (WLM) and Lateral-1 Santa Fe in Empire. Over the last 10 years, the WLM has a mean average spill of 1,642 acre-feet per year, with a high of 3,550 acre-feet in 2011 and a low of 168 acre-feet in 2015. These flows all occurred during the irrigation season. The spill occurs directly to the river from the canal through a steep flume adjacent South Reinway Park. Lateral-1 in Santa Fe has a similar volume of return flowing to the river immediately upstream of the Santa Fe Bridge.</i> <i>Other than that which occurs within the Modesto Reservoir, there is no groundwater percolation infrastructure under MID's ownership in the watershed. </i> " (Source: Email communication with John Mauterer, MID Irrigation Department. 8/28/20.)
4	45	The report mentions that, "several residences in the City of Waterford are within 100 feet of the River." Does the City of Waterford sewer system serves these residences? Or if these homes have their own private sewer systems?	Wastewater discharge (Waterford)	The WSS text will be updated to include the following additional sentence for clarification. " <i>These residences are included in the area served by the City of Waterford sewer system and WWTP. </i> "
5	45	The report mentions that, "the unincorporated communities of Hickman and La Grange lie within the study area." Please mention what kind of sewer systems these unincorporated communities have.	Wastewater discharge	The WSS text will be updated to include the following additional sentence for clarification. " <i>Although Hickman is supplied with drinking water service by the City of Waterford, both Hickman and LaGrange have septic, rather than sewer connections. </i> " (http://www.stancounty.com/planning/bp/sewer-and-water.shtm)

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6	52	<p>The report mentions that, "grazing animals which have access to creeks: Grazing occurs primarily on private lands. Several hundred acres of grazing land adjacent to Peaslee Creek had been converted to orchards."</p> <p>List the names of all creeks here and do these creeks flow into Tuolumne River and how many miles away are these from the SRWA intake?</p> <p>Also, since it is mentioned in the report that animals have access to the creeks, can we assume that there is no fence to prevent the animals from entering the creeks?</p>	Grazing livestock access	<p>This comment references statements within the 2008 TID Watershed Sanitary Survey. Based on the field survey conducted for this current WSS, the creeks in the area noted by TID are all more than 15 miles upstream of the SRWA plant intake. Due to the significant amount of private property along the River and corresponding limitations for physical access, this WSS included a detailed review by drone video of the River and its adjacent properties for a full 7 miles upstream from the SRWA intake. Further upstream, physical on-site surveys were conducted, wherever access was possible. The extent of private property in the area did limit access in person as well as by drone video. Because of the significant distance between the creeks in question and the SRWA intake, an exhaustive assessment of each creek was not performed as part of the scope of this study.</p>
7	52	<p>The report mentions that, "two dairy operations and one feedlot are located in the watershed."</p> <p>What are the names of these dairy operations and how far are they located from the Tuolumne River? Also, is surface drainage from these dairies or any associated grazing land possible to the Tuolumne River or any creeks that flow into the Tuolumne River?</p>	Cattle facility operations, drainage.	<p>As noted in Comment 1 above, the drainage of confined facilities are regulated by the WDR and surface water discharges are prohibited. The following text will be added to the WSS report, following the sentence in question, "<i>The closest dairy is Sawyer Dairy, located at Roberts Ferry Bridge, approximately 14 miles upstream from the SRWA Intake. These facilities are regulated by the WDR and surface water discharges are prohibited. No indication or reports of surface discharge were identified for the study period.</i>"</p>
8	69	<p>What is the capacity of the City of Waterford wastewater treatment plant?</p> <p>From the report, it appears that no treated wastewater is discharged into the Tuolumne River, is this correct? If treated wastewater is discharged into the Tuolumne River, what is the amount?</p>	Wastewater discharge (Waterford)	<p>No wastewater is discharged into the Tuolumne River. The WSS text will be updated to include the following additional sentences for clarification. "<i>The City of Waterford WWTP capacity is 1 mgd. Expansions planned within the 2006 Master Plan have not been implemented. No treated wastewater is discharged into the River. Wastewater discharge is via the existing four percolation ponds.</i>" (Source: Personal communication with Stephanie Mendes, Chief Operator, City of Waterford. 8/27/20.)</p>
9	70	<p>The report mentions that, "WDR requires the City (of Waterford) to conduct monthly testing of the pipe crossing the Tuolumne River for leakage and annual pressure testing, however the monitoring report only included description of visual inspection."</p> <p>No other details were provided in the watershed sanitary survey report about this pipe. It appears to the Division that this pipe carries raw sewage to the City of Waterford's wastewater treatment plant, which is located upstream of the SRWA intake. Please provide information about the size of this pipe, its location, and whether sewage flow in it is via gravity or forced?</p> <p>The report mentioned that the City of Waterford has been required by the Regional Board to pressure test this pipe annually. Please confirm to the Division if the City has been conducting the testing annually as required, and if the records are being kept.</p>	Wastewater discharge (Waterford)	<p>The WSS text will be updated with the revised sentences for clarification. "<i>The WDR requires the City (of Waterford) to conduct monthly testing of the 8-inch gravity pipe crossing the Tuolumne River for leakage and annual pressure testing. This pipe connects the WWTP aeration basins on the North side of the River to the percolation basins on the South side. The pipe is pressure tested quarterly. Test results are included in the monthly reports that are submitted to the Central Valley Regional Water Quality Control Board.</i>" (Source: Personal communication with Stephanie Mendes, Chief Operator, City of Waterford. 8/27/20.)</p>

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10	97	<p>The report mentions that, "during 2019 field survey it was clear that cattle have _contact with the Tuolumne River or tributaries, but no updates have been received on operations or runoff from the Sawyer Dairy."</p> <p>Please elaborate which survey is being referred to here? Please provide the details about the area where the cattle were seen? From the above statement, it appears that the cattle graze in an area adjacent to the Tuolumne River and they have direct access to the Tuolumne River water. It appears there is no fence to prevent the cattle from reaching the rivershore.</p>	Grazing livestock access	<p>This statement was based on the physical survey where grazing cattle were observed in tributary drainage areas that are located more than 15 miles upstream from the SRWA Intake. The areas of the Lower Tuolumne River that were accessible from a public access point or the Drone Survey appeared to be fenced, limiting direct contact to the river. The referenced text in the WSS will be revised and clarified as follows:</p> <p><i>"No updates have been received during this study period on operations or runoff from the Sawyer Dairy. Compliance is monitored though the reporting requirements associated with their WDR permit.</i></p> <p><i>During 2019 field survey, it was clear that, in areas greater than 15 miles upstream of the SRWA intake, cattle have the potential for contact with the Tuolumne River or tributaries."</i></p>
11	97	<p>Inform the Division how far upstream the SRWA intake, the cattle were seen near the water. How many cattle were there? Also, it was not very clear from the report if these cattle are part of a huge dairy operation or owned by a private rancher.</p>	Grazing livestock access	<p>During the survey effort, a single cow was identified in the Tuolumne River approximately 18 miles upstream of the SRWA intake. A small group of less than 20 cattle from a private ranch were observed near one of the upstream tributaries to Tuolumne River. No indications of cattle access or impacts from confined facilities were observed. The following text will be added to the WSS, <i>"Any access appears to be via private ranching, not from confined cattle facilities."</i></p>
12	97	<p>Since grazing on the watershed is one of the most significant source water sanitary hazards, the Division believes that the watershed sanitary survey report did not properly address it for the Lower Tuolumne River Watershed. More information must be provided regarding the extent of cattle grazing and the hazard it presents to the source water, particularly in the part of the Tuolumne River (and nearby creeks) closer to the SRWA's water treatment plant intake.</p>	Grazing livestock access	<p>The suggested text additions noted above provide clarity as to the extent and proximity of cattle grazing (> 15 miles away). The potential impacts to source water quality are noted generally in Section 3.6.2. Upon commissioning the SRWA plant, source water quality will be monitored at the intake so that changes can be identified and addressed.</p>
13	97	<p>Cattle have been identified as major carriers of cryptosporidium in surface water supplies. Therefore, the Division is concerned about the cattle having access to the Tuolumne River as mentioned in the report. The SRWA may have to work with the responsible parties to erect fence to prevent cattle grazing in the Lower Tuolumne River Watershed and from attaining access to the Tuolumne River if that is the case.</p>	Grazing livestock access	<p>SRWA appreciates the Divisions concerns regarding cattle and water quality. Through the responses provided above, it is our intent to clarify the extent and potential impact of cattle grazing in the watershed. SRWA may reference the baseline conditions in this WSS for comparison with possible future changes in their source water quality and future sanitary surveys to consider preventative actions, such as those mentioned, including direct communication with landowners regarding animal contact and potential impacts to downstream drinking water intakes.</p>
14	118	<p>Although details about fires in Don Pedro and Modesto watershed were provided in the report, there was no mention of fires in the Lower Tuolumne River Watershed. From this, can we assume there were no fires in the Lower Tuolumne River Watershed in recent years? The report must address the potential of fire in this region and its impact on the Lower Tuolumne River Watershed and on the water quality in the Tuolumne River.</p>	Watershed fire	<p>The WSS will be revised to correct a formatting error. On page 118, the "Lower Tuolumne River Watershed" text at the end of the second paragraph under "Modesto Reservoir Watershed" section should be separated out as its own subheading. The subsequent text describing the Lake Fire will then reside within the "Lower Tuolumne River Watershed" section.</p> <p>Revisions to the WSS will include the insertion of the following additional text following the discussion of the Lake Fire. <i>"The post-fire potential impacts to source water quality are described in the subsequent section. Following the commissioning of the SRWA WTP, SRWA may consider heightend monitoring of source water quality following significant future fires within the watershed."</i></p> <p>On page 121, to the end of Section 3.13.1, the following text will be added. <i>"TID implements Fire Zone Standards such as tree and brush clearing to minimize the probability of fire origination. These standards were updated to include changes adopted by the CPUC in 2017."</i></p>

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15	121	The report mentions that, "MID performed sampling in the watershed upstream of Don Pedro Reservoir following the 2013 Rim Fire." In the future if fire breaks out in the shared watershed, the two utilities (SRWA and MID) could work together to collect samples and monitor their source water quality.	Watershed fire	The revised WSS will include a new recommendation in Section 5.4 and in the Executive Summary recommendations, as follows: <i>"SRWA should coordinate with MID in future watershed water quality sampling efforts following forest fires in shared watershed areas."</i>
16	124	The report mentions that, "unauthorized activities that may be potential contaminant sources are: illegal dumping, illegal drug manufacture and disposal, and unsanctioned recreational activities (e.g., off-road vehicle use or illegal camping)." Unauthorized activities were discussed for Don Pedro and Modesto watershed part of the report, but there was no mention of their impacts on Lower Tuolumne River Watershed. A section must be added in the report to address the potential impacts of unauthorized activities on SRWA intake.	Unauthorized activities	The WSS will be revised to correct a formatting error. On page 124, the "Lower Tuolumne River Watershed" text at the end of the first paragraph under "Modesto Reservoir Watershed" section should be separated out as its own subheading. The subsequent text describing the Unauthorized Activities will then reside within the "Lower Tuolumne River Watershed" section. The revised WSS will include the following text, <i>"Based upon the Drone Survey that was completed between the SRWA Intake and the City of Waterford (approx 7 miles upstream) there are no indications of any of this type of activity in proximity of the River."</i>
17	124	The watershed sanitary survey report mentions that there are several points along the Tuolumne River and upstream of the SRWA raw water intake that are easily accessible to the public by vehicles and to the pedestrians. Those areas are susceptible to illegal activities such as dumping of vehicles, hazardous materials, and toxic solvents, etc.	Unauthorized activities	The revised WSS will add the following text, <i>"These areas are designated public access points which are maintained by the County and include trash cans and public restrooms."</i>
	124	The Division recommends that the vulnerable sections of the Tuolumne River near the SRWA intake be patrolled (once the SRWA plant is online) on a regular basis to identify the contaminating activities that need to be addressed in a timely manner.	Unauthorized activities	The revised WSS will include the following recommendation in Section 5.4, and in the Executive Summary recommendations as follows, <i>"SRWA should, upon commissioning of the new SRWA WTP, engage with local authorities who have regular interactions with the watershed and Tuolumne River to inform them of the new SRWA plant and source water quality objectives. The goal is to establish proactive communication around the identification of unauthorized activities that could impact water supply. Local authorities may include County law enforcement and Fish and Wildlife."</i>
18	124	In addition, warning signage shall be posted at strategic locations to alert and raise awareness of the potential impacts to this drinking water supply source from illegal dumping and other unpermitted activities. Other security and pertinent source water supply protection issues shall also be discussed with the responsible parties to protect the Tuolumne River from contamination.	Unauthorized activities	The revised WSS will include a recommendation in Section 5.4 and in the Executive Summary recommendations, as follows, <i>"SRWA should post signage at Fox Grove park, which is near the plant intake, to alert and raise awareness of the potential impacts to the drinking water supply source from illegal dumping and other unpermitted activities. SRWA should coordinate with the County and Fish and Wildlife to consider other high risk areas for potential additional signage."</i> SRWA will work with DDW to establish the appropriate messaging.
19	General	Please update the watershed sanitary survey report per Division's comments in this letter. Also, inform the Division of the SRWA's plan to comply with all the recommendations made and the issues raised in this letter.		The WSS will be revised per the Division's comments as noted above. The revised WSS will incorporate updated SRWA recommendations to comply with the recommendations from the Division's review.