

**LATE REVISIONS  
CITY OF GALT  
WASTEWATER TREATMENT PLANT AND RECLAMATION FACILITY  
SACRAMENTO COUNTY  
NPDES Permit Renewal (NPDES NO. CA0077682), Adoption of Waste Discharge  
Requirements and adoption of Time Schedule Order  
Regional Water Quality Control Board, Central Valley Region  
Board Meeting – 10/11 December 2015  
ITEM #9**

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**A) LATE REVISIONS TO THE WASTE DISCHARGE REQUIREMENTS**

**1) Limitations and Discharge Requirements, Section III. Discharge Prohibitions – remove Discharge Prohibition III.F as shown in strikeout format:**

~~F. The discharge of storm water runoff containing waste pollutants from the recycling of undisinfecting secondary domestic wastewater to off-site land or surface water drainage courses is prohibited.~~

**2) Limitations and Discharge Requirements, Section IV.C.4. Land Application Area Specifications – modify table as shown in underline/strikeout format:**

4. Land discharge of effluent shall comply with the following setback requirements:

Setback Definition <sup>1</sup>	Minimum Irrigation Setback (feet)
<del>Edge of land application area to property boundary</del>	<del>25</del>
<del>Edge of land application area to a public road right of way</del>	<del>30</del>
<del>Edge of land application area to an irrigation well</del>	<del>400</del>
Edge of land application area to a domestic well	150
<del>Edge of land application area to a manmade or natural surface water drainage course<sup>2</sup></del>	<del>50</del>
Edge of land application area to residence	100
Edge of land application area using spray irrigation to public park, playground, school yard, or similar place of potential public exposure	100

<sup>1</sup> As defined by the wetted area produced during irrigation.

~~<sup>2</sup> Excluding ditches used exclusively for tailwater return.~~

**3) Limitations and Discharge Requirements, Section IV.C. Land Application Area Specifications – Add new item 10 as shown underlined below:**

10. The Discharger shall make best efforts to allow re-use areas to dry out after the last application of recycled water prior to forecasted rainfall events that have the potential to generate runoff from the re-use areas. By 1 July 2016, the Discharger shall submit best management practices for Executive Officer approval that will

describe the measures that the Discharger will take to ensure compliance with this specification.

**4) Limitations and Discharge Requirements, Section VI.C.4. – Remove Section VI.C.4.b Storm Water Runoff of Land Application Area, shown in strikeout format:**

~~a. **Storm Water Runoff of Land Application Area.** This Order includes Discharge Prohibition III.F that prohibits the discharge of storm water runoff containing waste pollutants from the recycling of undisinfectd secondary domestic wastewater to off-site land or surface water drainage courses. Because undisinfectd secondary effluent is applied to the Land Application Area, this prohibits any discharge of storm water from the Land Application Area due to concerns of pathogens. Winter season storm water is currently collected at the earthen ditches and conveyed to the reservoirs or is discharged to surface water. In order to comply with Discharge Prohibition III.F it will be necessary for the Discharger to construct additional storage facilities that will enable the Facility to contain the appropriate volume of water that a large winter storm is capable of producing. The Discharger has requested to first conduct a pathogen risk study to determine if there may be best management practices that could be implemented to ensure the discharge of storm water run-off from the Land Application Area does not contain waste pollutants.~~

~~This Order allows the Discharger until **1 January 2025** to comply with Discharge Prohibition III.F. The Discharger shall comply with the following:~~

- ~~i. **Interim Discharge Specification.** To minimize impacts to surface water there shall be a minimum of 30-days since the last application of wastewater and/or biosolids on the Land Application Area prior to the discharge of storm water runoff from the Land Application Area to off-site land or surface water drainage courses.~~
- ~~ii. **Pathogen Risk Study.** The Discharger shall conduct a Pathogen Risk Study to 1) characterize the potential human health risks associated with potential exposure to pathogens in storm water runoff from pasture land irrigated with “undisinfectd secondary” effluent, and 2) define and evaluate appropriate control strategies (best management practices) for minimizing, to the extent practicable, pathogenic organisms from migrating off the Land Application Area site with storm water runoff. The Pathogen Risk Study can either be an individual study or group study with other dischargers and interested parties. The Pathogen Risk Study must comply with the following schedule:~~

<b>Task</b>	<b>Compliance Date</b>
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Submit Work Plan	1 July 2017
Begin Study	1 October 2017
Complete Study	1 October 2019
Submit Study Reports	1 April 2020

iii. **Implementation.** The Discharger shall comply with the following schedule to implement best management practices identified in the Pathogen Risk Study to comply with Discharge Prohibition III.F.

<u>Task</u>	<u>Compliance Date</u>
Submit Work Plan	1 October 2020
Complete Construction	1 October 2024
Progress Reports	1 October, annually beginning 1 October 2021
Final Compliance	1 January 2025

**5) Attachment F, Section IV.E.2. Land Application Area Specifications– modify rational for Land Application Area setback requirements, as shown in underline/strikeout format:**

- The Land Application Specifications include Title 22 requirements consistent with the application of undisinfected secondary treated wastewater to ensure protection of public health, such as signage requirements, marking of reclaimed water equipment, pumps, piping, valves, and outlets to differentiate them from potable facilities, and setback requirements. The setback requirements in this Order are included in accordance with Title 22 ~~or based on engineering judgment to protect public health, assure nuisance conditions are not created, and to protect surface waters.~~

The following setback requirements are included in this Order:

<b>Setback Definition<sup>1</sup></b>	<b>Minimum Irrigation Setback (feet)</b>	<b>Rationale for Setback Requirement</b>
Edge of land application area to property boundary	25	These setback requirements are necessary to protect public health and assure nuisance conditions are not created.
Edge of land application area to a public road right of way	30	
Edge of land application area to an irrigation well	400	
Edge of land application area to a domestic well	150	Title 22, CCR § 60310(b)
Edge of land application area to a manmade or natural surface water drainage course <sup>2</sup>	50	Setback requirement necessary to protect surface waters.
Edge of land application area to residence	100	Title 22, CCR § 60310(f)
Edge of land application area using spray	100	Title 22, CCR § 60310(f)

Setback Definition <sup>1</sup>	Minimum Irrigation Setback (feet)	Rationale for Setback Requirement
irrigation to public park, playground, school yard, or similar place of potential public exposure		

<sup>1</sup> As defined by the wetted area produced during irrigation.

<sup>2</sup> ~~Excluding ditches used exclusively for tailwater return.~~

**6) Attachment F, Section VII.A.3 – remove Section VII.A.3.b Storm Water Runoff of Land Application Area, as shown in strikeout format:**

~~b. **Storm Water Runoff of Land Application Area.** This Order includes Discharge Prohibition III.F that prohibits the indirect discharge of storm water runoff containing waste pollutants from the land application area to off-site land or surface water drainage courses. Because undisinfected secondary effluent is applied to the land application area, this prohibits any discharge of storm water from the land application area. Winter season storm water is currently collected at the earthen ditches and conveyed to the reservoirs or is discharged to surface water. In order to comply with Discharge Prohibition III.F it will be necessary for the Discharger to construct additional storage facilities that will enable the Facility to contain the appropriate volume of water that a large winter storm is capable of producing.~~

~~The Discharger has requested to first conduct a pathogen risk study to determine if there may be best management practices that could be implemented to ensure the indirect discharge of storm water run-off from the land application area does not contain waste pollutants. This Order allows the Discharger until **1 January 2025** to comply with Discharge Prohibition III.F. The Discharger shall conduct a pathogen risk study and implement best management practices to ensure compliance with Discharge Prohibition III.F. In the interim, this Order requires a discharge specification to minimize impacts to surface water from storm water run-off from the land application area as follows:~~

~~*To minimize impacts to surface water there shall be a minimum of 30 days since the last application of wastewater and/or biosolids on the land application area prior to the discharge of storm water runoff from the land application area to off-site land or surface water drainage courses.*~~

**7) Typographical errors and corrections:**

Below are typographical errors and corrections shown in underline/strikeout format:

**a. Limitations and Discharge Requirements, Section IV.A.3.d. Land Discharge Specifications, Biosolids:**

- d. Biosolids shall not be applied in amounts exceeding the ~~adjusted~~-cumulative loading rate (CR) for each metal as given in Table 6 below:

**b. Attachment F, Section II.A, Description of Wastewater and Biosolids Treatment or Controls, 7<sup>th</sup> paragraph:**

A portion of the Discharger's effluent is used to irrigate the land application area, which consists of approximately 164 acres of agricultural fields located adjacent to the main Facility site. The Discharger's land application area is split into two fields: Field A and Field B. Field A is approximately ~~422~~ 114 acres and Field B is approximately 50 acres. Field A is further divided into ~~44~~ 13 different zones, ranging in size from 6.7 acres to 24.6 acres.

**c. Attachment F, Section II.B.2, Discharge Point:**

2. Undisinfected secondary treated wastewater, and at times tertiary treated wastewater, is used to irrigate the land application area, which consists of approximately ~~472~~ 164 acres of City-owned agricultural fields located adjacent to the main Facility.

**d. Attachment F, Section III.C.2, Land Application:**

2. **Land Application.** During the agricultural season, the Discharger reuses treated municipal wastewater to irrigate approximately ~~472~~ 164 acres of Discharger-owned agricultural fields. The reuse of treated wastewater on the agricultural fields is exempt from Title 27 pursuant to Section 20090(h).

## B) LATE REVISIONS TO THE NPDES PERMIT

### 1) **Limitations and Discharge Requirements, Section VI.C.6.b.i. Permitted Discharge Increase (4.5 MGD).** Correct the typographical error as shown in underline/strikeout format below.

- i. **Facility Improvements.** The Discharger shall have completed construction and startup of the Facility improvements, as identified in section ~~II.E.4~~ II.A of the Fact Sheet in this Order.

## C) LATE REVISIONS TO THE RESPONSE TO COMMENTS DOCUMENT

### 1) **Modify response to Discharger WDR Comment No. as shown in underline/strikeout format below:**

**Discharger WDR Comment No. 1. Remove Discharge Prohibition or Provide Additional Time to Comply with Reuse Area Storm water Runoff Containment Requirements and Include a Provision for an Optional Group Pathogen Study. Limitations and Discharge Requirements, Section VI.C.3.d.viii.**

The Discharger land applies “Undisinfected Secondary” recycled water and biosolids to agricultural fields surrounding the Facility (the “Reuse Area”) in accordance with California Code of Regulation Title 22 requirements. Section VI.C.3.d.viii of the Limitations and Discharge Requirements portion of the tentative WDR’s contains requirements prohibiting the discharge of storm water runoff from the Discharger’s Reuse Area to off-site land or surface water drainage courses. Compliance with the prohibition on storm water runoff discharge is required by 1 December 2020, and interim storm water runoff discharge requirements are prescribed in Section VI.C.3.d.ix of the tentative WDR’s. The Discharger is concerned that the requirement for year-round storm water runoff containment is not based on any actual scientific data or established regulation. The Discharger has commented further that if the prohibition remains additional time is needed to evaluate and implement a preferred compliance strategy for the containment of storm water runoff. Specifically, the Discharger has recently proposed a potential group study to evaluate the potential pathogen risks associated with potential human exposure to storm water runoff from agricultural areas where “Undisinfected Secondary” recycled water is applied for crop irrigation to both the CVCWA and other potentially impacted parties. Based on the feedback received, it appears that there is significant support for such an effort. Therefore, the Discharger has requested that the proposed WDR’s allow an additional five years (1 January 2025) for compliance with the storm water runoff prohibition, in order to provide the Discharger sufficient time to organize and conduct a Pathogen Risk Study along with other Central Valley dischargers and CVCWA.

**Response.** Central Valley Water Board staff concur that Discharge Prohibition III.F is not needed to comply with regulations for recycled water use. Discharge Prohibition III.F was intended to address the potential for storm water to mobilize residual pollutants from the reuse areas. However, the State Water Resources Control Board’s Division of Drinking Water has commented that simply allowing the reuse areas time to dry following the last application of recycled water should be sufficient to address these concerns. In combination with Land Application Area Specification C.5, which states

that "...Discharge of treated wastewater, including runoff, spray or droplets from the irrigation system, shall not occur outside the boundaries of the land application area..." the proposed Land Application Area Specification C.10 (below) will sufficiently address potential impacts due to discharges from the reuse areas.

10. The Discharger shall make best efforts to allow re-use areas to dry out after the last application of recycled water prior to forecasted rainfall events that have the potential to generate runoff from the re-use areas. By 1 July 2016, the Discharger shall submit best management practices for Executive Officer approval that will describe the measures that the Discharger will take to ensure compliance with this specification.

~~with the Discharger's request for additional time to comply with the storm water runoff prohibition prescribed in Section VI.C.3.d.viii of the tentative WDR's. Furthermore, staff concurs with the request to include a Pathogen Risk Study requirement in the proposed WDRs. A schedule to comply with the storm water runoff prohibition has been added in Section VI.C.3.b of the proposed WDR's. The Pathogen Risk Study and the Discharger's requested implementation schedule have been incorporated into the schedule for compliance.~~

Section VI.C.3.b (Other Special Provisions)

~~**Storm Water Runoff of Land Application Area.** This Order includes Discharge Prohibition III.F that prohibits the discharge of storm water runoff containing waste pollutants from the recycling of undisinfecting secondary domestic wastewater to off-site land or surface water drainage courses. Because undisinfecting secondary effluent is applied to the Land Application Area, this prohibits any discharge of storm water from the Land Application Area due to concerns of pathogens. Winter season storm water is currently collected at the earthen ditches and conveyed to the reservoirs or is discharged to surface water. In order to comply with Discharge Prohibition III.F it will be necessary for the Discharger to construct additional storage facilities that will enable the Facility to contain the appropriate volume of water that a large winter storm is capable of producing. The Discharger has requested to first conduct a pathogen risk study to determine if there may be best management practices that could be implemented to ensure the discharge of storm water run-off from the Land Application Area does not contain waste pollutants.~~

~~This Order allows the Discharger until **1 January 2025** to comply with Discharge Prohibition III.F. The Discharger shall comply with the following:  
**Interim Discharge Specification.** To minimize impacts to surface water there shall be a minimum of 30 days since the last application of wastewater and/or biosolids on the Land Application Area prior to the discharge of storm water runoff from the Land Application Area to off-site land or surface water drainage courses.~~

~~**Pathogen Risk Study.** The Discharger shall conduct a Pathogen Risk Study to 1) characterize the potential human health risks associated with potential exposure to pathogens in stormwater runoff from pasture land irrigated with "undisinfecting secondary" effluent, and 2) define and evaluate appropriate control strategies (best management practices) for minimizing, to the extent practicable, pathogenic organisms from migrating off the Land Application Area site with stormwater runoff. The Pathogen Risk Study can either be an individual study or group study with other dischargers and interested parties. The Pathogen Risk Study must comply with the following schedule:~~

<u>Task</u>	<u>Compliance Date</u>
<u>Submit Work Plan</u>	<u>1 July 2017</u>
<u>Begin Study</u>	<u>1 October 2017</u>
<u>Complete Study</u>	<u>1 October 2019</u>
<u>Submit Study Reports</u>	<u>1 April 2020</u>

~~**Implementation.** The Discharger shall comply with the following schedule to implement best management practices identified in the Pathogen Risk Study to comply with Discharge Prohibition III.F.~~

<u>Task</u>	<u>Compliance Date</u>
<u>Submit Work Plan</u>	<u>1 October 2020</u>
<u>Complete Construction</u>	<u>1 October 2024</u>
<u>Progress Reports</u>	<u>1 October, annually beginning</u> <u>1 October 2021</u>
<u>Final Compliance</u>	<u>1 January 2025</u>

2) **Modify response to CVCWA WDR Comment No. 3 as shown in underline/strikeout format below:**

**CVCWA WDR Comment No. 3. Land Discharge Specifications.**

The tentative WDR's explains that undisinfected secondary effluent from the Facility is applied to the Reuse Area where animal feed crops are grown. Accordingly, the tentative WDR's provide discharge specifications for the Reuse Area. CVCWA commented that some of the specifications are not based on the criteria in Title 22 of the California Code of Regulations (Title 22), are more stringent than those criteria, or do not provide the necessary qualifications. For example, CVCWA commented that:

- Provision IV.C.3.d provides setback requirements for the Reuse Area which are more stringent than those required in Title 22.
- The tentative WDR's require the Discharger to post perimeter signs at least every 500 feet along the property boundary where public access may occur and at each access road entrance to the property, which is not required in Title 22.

CVCWA has requested that Central Valley Water Board staff remove specifications that are not required by Title 22 from the proposed WDR's.

**Response.** Central Valley Water Board staff concurs regarding the spacing requirements for perimeter signs and have modified the proposed WDR's accordingly. With regard to the setback requirements, Title 22 of the California Code of Regulations prohibits the discharge of recycled water outside of regulated recycled water use areas, unless the discharge does not pose a public health threat and is authorized by the Board. (Cal. Code Regs., tit. 22, § 60310.) The recycled water discharged under the tentative WDRs is undisinfected secondary-treated wastewater, which can pose a public health threat if the public comes into direct contact with it. Therefore, the Board is including provisions in the proposed WDRs that prohibit the discharge of recycled water outside of the use areas.

The Title 22 regulations also include provisions designed to prevent recycled water spray, mist, or runoff from being ingested by the public or by neighbors. These provisions require dischargers to set aside buffer spaces ("setbacks") between recycled water use areas and sensitive receptors such as dwellings, designated outdoor eating



areas, food handling facilities, and drinking water fountains. These regulatory requirements have been incorporated into the proposed WDRs.

The WDRs that were circulated for public comment also included setbacks requirements that went beyond those mandated by the Title 22 regulations. These requirements were included in error. Incorporating setbacks are just one of several effective ways of preventing the off-site discharge of recycled water, and, in this case, the Discharger has chosen alternate means of preventing the discharge of recycled water outside of the use areas. For example, the Discharger uses flood irrigation and the fields are constructed with berms and a tailwater return system that ensures reclaimed water does not migrate outside the reuse area, thus protecting the irrigation wells, which means that the proposed setback that would have required 100 feet between the edge of land application area and any irrigation well is unnecessary. The setbacks that go beyond the setback requirements mandated by Title 22 have been eliminated from the tentative WDRs. However, although some setback requirements are more stringent than required by Title 22, the requirements are included in the proposed WDR's based on engineering judgment to protect public health, assure nuisance conditions are not created, and to protect surface water quality. The Fact Sheet of the proposed WDR's has been updated to provide the appropriate rationale for these requirements.

**3) Modify response to CVCWA WDR Comment No. 5 as shown in underline/strikeout format below:**

**Response.** Central Valley Water Board staff concurs with the comment to remove Discharge Prohibition III.F. with CVCWA's request for additional time to organize and complete a Pathogen Risk Study and to comply with the storm water runoff prohibition prescribed in Section VI.C.3.d.viii of the tentative WDR's. See Response to Discharger WDR Comment No. 1 for changes made to the proposed WDR's in underline/strikeout format.

Central Valley Water Board staff also agrees with CVCWA's comment regarding Prohibition III.C. See Response to Discharger WDR Comment No. 2, above.