



**CITY OF CLOVIS**  
**PUBLIC UTILITIES DEPARTMENT**  
**155 N. SUNNYSIDE AVENUE**  
**CLOVIS, CA 93611**

May 9, 2016

Sent via email to:

[centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov)

[Elizabeth.Martinez@waterboards.ca.gov](mailto:Elizabeth.Martinez@waterboards.ca.gov)

Ms. Elizabeth Martinez, Water Resource Control Engineer  
Central Valley Regional Water Quality Control Board  
1685 E. Street  
Fresno, CA 93706

**RE: City of Clovis Landfill – Tentative Waste Discharge Requirements**

City staff has reviewed the Notice of Public Hearing and Tentative Waste Discharge Requirements for the City of Clovis Municipal Solid Waste Landfill and have the following comments:

1. WDR No. 5, Page 2 – Omit/change last sentence: “Side-Slopes lined with a single layer of 80-mil HDPE geomembrane.”

City Comment: The side-slopes of the liner within Stage I are also 60-mil double-sided textured HDPE geomembrane.

2. WDR No. 5, Page 3 – Omit/change fist sentence: “A new performance demonstration is required for this expansion.”

City Comment: Future expansion areas will be lined in the same or similar manner as Stage I with a composite liner composed of a HDPE liner and a low permeability layer that meets the performance criteria of the state and federal regulations (See Finding 53).

3. WDR No. 14, Page 5 – Make the following revision to the second to last sentence in the first paragraph: “Therefore, leachate and landfill gas condensate from composite lined units with an LCRS may be returned to ~~the unit from where they came~~ **any lined unit**.”

4. WDR No. 48, Page 10 – Omit last sentence: “A new liner performance demonstration...”

City Staff Comment: Replace with “Future expansion areas will be lined in the same or similar manner as Stage I with a composite liner composed of a HDPE liner and a low permeability layer that meets the performance criteria of the state and federal regulations (See Finding 53).”

5. WDR No. 53, Page 11 – Correction to last sentence: “prepared subgrade overlain by an ~~8-mil~~ **60-mil** thick HDPE geomembrane.”
6. WDR No. 86 B2, Page 18 – Grammatical error on 3<sup>rd</sup> line “... has ~~demonstrates~~ **demonstrated** it meets...”
7. WDR No. 86 D1, Page 19 – Add the following to the first sentence: “Prior to submitting Construction Plans for expansion of Stage II and III (future units), a Liner Performance Demonstration must be prepared and submitted for review and approval **should the design deviate from that of the Stage 1 Liner design.**”

In addition to the abovementioned comments, please find the attached comments from the City’s consultant, BSK Associates.

Please call me at (559) 324-2648 if you have any questions.



Scott Redelfs, PE  
Assistant Public Utilities Director

Attachments



550 West Locust Avenue  
Fresno CA 93650  
P 559.497.2880  
F 559.497.2886  
www.bskassociates.com

**TRANSMITTED VIA EMAIL**

scottr@cityofclovis.com

May 6, 2016

BSK Project Number E03-222-01F

Mr. Scott Redelfs  
Assistant Public Utilities Director  
City of Clovis Department of Public Utilities  
155 North Sunnyside Avenue  
Clovis, CA 93611

**Subject:           Comments  
                      Tentative Waste Discharge Requirements  
                      City of Clovis Landfill  
                      Clovis, California**

Dear Mr. Redelfs,

Per your request, BSK Associates has reviewed the Tentative Waste Discharge Requirements for the City of Clovis Landfill dated April 7, 2016. For your convenience, we have presented our comments in attached table which lists the original text along with the proposed modified text. The requested deletions to the text are presented in bold and strikethrough and the requested additions to the text are bolded, italicized, and underlined.

Please call Sarah Stephenson at (559) 497-2880 if you have any questions regarding this matter.

Respectfully submitted,  
**BSK Associates**

Sarah Stephenson, P.E.  
Project Manager

Amer A. Hussain, P.E.  
Principal Engineer



Finding & Page	Written in WDR	Requested Change or Comment
WDR No. 6 Page 3	On-Site facilities at the City of Clovis MSW Landfill include: an active landfill gas extraction system, a landfill gas flare, a water supply well, storm lined pond, and office.	On-Site facilities at the City of Clovis MSW Landfill include: an active landfill gas extraction system, a landfill gas flare, <del>a</del> <u>two</u> water supply <u>wells</u> , storm lined pond, <u>scale house</u> and office. In addition to the on-site facilities there are rock crushing and screening of materials operations.
WDR No. 17 Page 5	There are is one industrial supply well within one mile of the site.	There <del>are</del> is one industrial supply well within one mile of the site.
WDR No. 10 Page 4	The Discharger proposes to continue to discharge nonhazardous solid waste and dewatered sewage and water treatment sludge to lined Class III landfill units, with a leachate collection and removal system at the facility.	The material received from the surface water treatment plant is not considered a sludge but screenings that are fine grit material separated by means of a screen. Sludge is precipitated solid matter produced by sewage treatment processes.  Revise to state:  The Discharger proposes to continue to discharge nonhazardous solid waste and dewatered sewage <u>sludge</u> and water treatment <u>screenings</u> <del>sludge</del> to lined Class III landfill units, with a leachate collection and removal system at the facility.
WDR No. 24 Page 6	A storm water retention basin is located east of the landfill as shown on Attachment B.	A storm water retention basin is located <del>east</del> <u>west</u> of the landfill as shown on Attachment B.
WDR No. 30 Page 6	The direction of groundwater flow is generally toward the south beneath the western half of facility, and toward the southwest beneath the eastern half of the site.	The direction of groundwater flow is generally toward the south beneath the <del>western half of facility, and toward the southwest</del> <u>beneath the eastern half of the site.</u>

 WDR No. 32 Page 7	The direction of groundwater flow is generally toward the southeast beneath the western portion of the landfill, southerly beneath the central portion, and southwesterly beneath the eastern portion.	The direction of groundwater flow is generally toward the southeast beneath the <del>western portion of the landfill, southerly beneath the central portion, and southwesterly beneath the eastern portion.</del>
 WDR No. 34 Page 7	The existing groundwater monitoring network for the landfill units consists of background monitoring wells GWMW-23, GWMW-24 and GWMW-205.	The existing groundwater monitoring network for the landfill units consists of background monitoring wells <u>GWMW-02</u> , GWMW-23, GWMW-24 and GWMW-205.
 WDR No. 57 Page 12	The proposed waste containment system consists of, from the bottom:	The sentence is not clear if referring to future construction of Stages II and III or the completed construction of Stage I?
 WDR No. 58 Page 12	The proposed LCRS would consist of a geocomposite drainage media on the floor of the cell. The leachate collection and recovery system of the Stage I construction will flow to a double-lined internal sump at the low point of the cell. Eventually Stage III will be tied with Stage I. The entire flow from Stage I and Stage III will follow to the Stage I sump, where it will be pumped out on a regular basis for application to the working face of the landfill.	The sentence is not clear if the proposed LCRS is referring to the completed Stage I unit or the future Stage III unit. The sentence should be modified to say the following:  The <u>leachate collection and recovery system of the Stage I and the</u> proposed LCRS of the Stage III <del>would</del> consists of a geocomposite drainage media on the floor of the cell. The <del>leachate collection and recovery system</del> <u>LCRS</u> of the Stage I construction <del>will</del> <u>flows</u> to a double-lined internal sump at the low point of the cell. Eventually Stage III will be tied with Stage I. The entire flow from Stage I and Stage III will follow to the Stage I sump, where it will be pumped out on a regular basis for application to the working face of the landfill.
 WDR No. 62 Page 12	This Order approves the Discharger's proposed liner system for future modules of Stage I as describes in Finding 5 and requires that the Discharger submit designs plans and construction quality assurance (CQA) plans for each new module or modules for review and approval at least 90 days prior to construction.	The construction of Stage I is complete, no further modules of Stage I will be built.



WDR No. 71 Page 14	The Discharger submitted a December 2011, and revised November 2012 <i>Preliminary Closure and Postclosure Maintenance Plan</i> for closure and post-closure maintenance of Phase I and II, and Cells 1, 2, 4, 5, and Stage I.	The Discharger submitted a December 2011, and revised November 2012 <i>Preliminary Closure and Postclosure Maintenance Plan</i> for closure and post-closure maintenance of <u>Phases</u> I and II, and Cells 1, 2, 4, 5, and Stage I.																		
WDR No. 74 Page 14	The lump sum estimate is for the cost to close largest future area needing closure at any one time. .	The lump sum estimate is for the cost to close largest future area needing closure at any one time.—																		
MRP Section A.1 Page 2	Once approved Central Valley Water Board Staff, the Discharger shall comply with the approved document or any subsequent approved revisions thereto.	Once approved <u>by</u> Central Valley Water Board Staff, the Discharger shall comply with the approved document or any subsequent approved revisions thereto.																		
MRP Section A.1 Page 2	<u>Well</u> GMMW-1 GMMW-2 GMMW-4 GMMW-5 GMMW-6 GMMW-7	To keep with consistency of the well name nomenclature used in WDR finding No. 34, well names should include a zero before the number as follows:  <u>Well</u> GMMW- <u>01</u> GMMW- <u>02</u> GMMW- <u>04</u> GMMW- <u>05</u> GMMW- <u>06</u> GMMW- <u>07</u>																		
MRP Section A.2 Page 3	<table border="0"> <tr> <td><u>Mon Pt.</u></td> <td><u>Status</u></td> </tr> <tr> <td>Sump #1</td> <td>Vadose Zone</td> </tr> <tr> <td>Sump #2</td> <td>Vadose Zone</td> </tr> <tr> <td>Sump #4</td> <td>Vadose Zone</td> </tr> </table>	<u>Mon Pt.</u>	<u>Status</u>	Sump #1	Vadose Zone	Sump #2	Vadose Zone	Sump #4	Vadose Zone	Vadose zone monitoring point Phase II was left off the list of monitoring points.  <table border="0"> <tr> <td><u>Mon Pt.</u></td> <td><u>Status</u></td> </tr> <tr> <td><u>Phase II</u></td> <td><u>Vadose Zone</u></td> </tr> <tr> <td>Sump #1</td> <td>Vadose Zone</td> </tr> <tr> <td>Sump #2</td> <td>Vadose Zone</td> </tr> <tr> <td>Sump #4</td> <td>Vadose Zone</td> </tr> </table>	<u>Mon Pt.</u>	<u>Status</u>	<u>Phase II</u>	<u>Vadose Zone</u>	Sump #1	Vadose Zone	Sump #2	Vadose Zone	Sump #4	Vadose Zone
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MRP Section A22 Page 4	Pan lysimeters shall be inspected for the presence of liquid monthly.	The Current WDR requires the pan lysimeters to be inspected quarterly for the presence of liquid. The new proposed WDRs require them to be inspected monthly. Landfill operations have not changed since the issuing of the current WDR; therefore, increased pan lysimeter inspections are not necessary and should remain on a quarterly basis.																						
MRP Section A33 Page 4 & 5	<table border="0"> <thead> <tr> <th><u>Mon Pt.</u></th> <th><u>Unit Where Sump is Located</u></th> </tr> </thead> <tbody> <tr> <td>Sump #1</td> <td>Phase II</td> </tr> <tr> <td>Sump #2</td> <td>Phase II</td> </tr> <tr> <td>Sump #3</td> <td>Phase II</td> </tr> <tr> <td>Sump #4</td> <td>Phase II</td> </tr> </tbody> </table>	<u>Mon Pt.</u>	<u>Unit Where Sump is Located</u>	Sump #1	Phase II	Sump #2	Phase II	Sump #3	Phase II	Sump #4	Phase II	Locations of sump monitoring points are further clarified below: <table border="0"> <thead> <tr> <th><u>Mon Pt.</u></th> <th><u>Unit Where Sump is Located</u></th> </tr> </thead> <tbody> <tr> <td><u>Phase II</u></td> <td><u>Phase II</u></td> </tr> <tr> <td>Sump #1</td> <td><u>Cell 1</u></td> </tr> <tr> <td>Sump #2</td> <td><u>Cell 2</u></td> </tr> <tr> <td>Sump #3</td> <td><u>Cell 4</u></td> </tr> <tr> <td>Sump #4</td> <td><u>Stage 1</u></td> </tr> </tbody> </table>	<u>Mon Pt.</u>	<u>Unit Where Sump is Located</u>	<u>Phase II</u>	<u>Phase II</u>	Sump #1	<u>Cell 1</u>	Sump #2	<u>Cell 2</u>	Sump #3	<u>Cell 4</u>	Sump #4	<u>Stage 1</u>
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MRP Section A.4 Page 5	(The current surface water detection monitoring system meets the applicable requirements of Title 27.	(The current surface water detection monitoring system meets the applicable requirements of Title 27.																						
MRP Section A.5d Page 7	Results of Standard Observations shall be submitted in the semiannual monitoring reports required in Section B.1 of this MRP.	For ease of coordination, the City will continue to submit the results of Standard Observations separately to the RWQCB and will not include them with the semi-annual monitoring reports.																						
MRP Section B Page 8	Data shall also be submitted in a digital format, such as a computer disk.	Data will be submitted as a portable document format (pdf) via email.																						
MRP Section B.2a Page 10	All monitoring parameters shall be graphed to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years.	<del>All</del> The monitoring parameters <u>identified in the Sampling and Analysis Plan</u> shall be graphed to show historical trends at each monitoring point and background monitoring point, for all samples taken within at least the previous five calendar years.																						

 MRP Section B.2c Page 11	All historical monitoring data for which there are detectable results, including data for the previous year, shall be submitted in tabular form in a digital file format such as a computer disk.	All historical data for which there are detectable results, including data for the previous year, shall be submitted in tabular form <u>as a portable document format (pdf) via email once per WDR renewal.</u>
 MRP Section C.6 Page 15	The following are monitoring locations at the point of compliance:	The sentence appears to be incomplete.
 MRP Table 1	Groundwater Detection Monitoring Program Field Parameters - Temperature °F 5-Year Constituents of Concern - Inorganic (dissolved) µg/L	The current WDR requires temperature to be submitted in degree Celsius (°C) and inorganics in milligrams per liter (mg/L). For consistency with historical data, units should continue to be the same as the current WDR.
 MRP Table II	Pan Lysimeters Field Parameters – Volume of liquid removed gallons – Sampling Frequency – monthly  5-Year Constituents of Concern - Inorganic (dissolved) µg/L	The Current WDR requires the pan lysimeters to be inspected quarterly for the presence of liquid. Landfill operations have not changed since the issuing of the current WDR; therefore, increased pan lysimeter inspections are not necessary and volume of liquid removed should be reported quarterly.  The current WDR requires inorganics in milligrams per liter (mg/L). For consistency with historical data, units should continue to be the same as the current WDR.
 MRP Table III	Leachate Monitoring Field Parameters – Electrical Conductivity – Sampling Frequency – Quarterly  Field Parameters – pH – Sampling Frequency – Quarterly  5-Year Constituents of Concern - Inorganic (dissolved) µg/L	The Current WDR requires the electrical conductivity and pH to be sampled annually. Landfill operations have not changed since the issuing of the current WDR; therefore, increased sampling frequency is not necessary.  The current WDR requires inorganics in milligrams per liter (mg/L). For consistency with historical data, units should continue to be the same as the current WDR.



MRP Table IV	Surface Water Detection Monitoring Program Field Parameters – Flow to Waster of U.S. (Yes or No)  5-Year Constituents of Concern - Inorganic (dissolved) µg/L	Please clarify the field parameter “Flow to Water of U.S.”.  The current WDR requires inorganics in milligrams per liter (mg/L). For consistency with historical data, units should continue to be the same as the current WDR.
MRP Table VI	5-Year COC & Approved USEPA Analytical Methods – Inorganics (dissolved)	The methods listed for the inorganics are outdated and current methods were approved in the most recent WDR and provided in the Monitoring Program Sampling and Water Quality Protection Standards Analysis Plan dated April 2016. Please update to reflect current methods.