

EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

Section of Final Draft	Description of and reason for change	Specifics of Change (Strikeout indicates recommended deletions and underline indicates recommended additions to permit language)
ORDER		
Section IV.A.1.a, Table 4	After the draft Order was released for public comment, monthly monitoring data from April and May 2012 revealed concentrations of dichlorobromomethane (DCBM) at concentrations that exceeded the effluent limitations in Order No. R1-2006-0049, therefore DCBM effluent limitations must be retained.	Added DCBM effluent limitations as follows: Units: <u>ug/L</u> ; AMEL: <u>0.56</u> ; MDEL: <u>1.1</u>
Section IV.A.1.c	To correct an error in the placement of the word “and”.	<p>Disinfection. Disinfected effluent discharged at Discharge Point 001, with compliance measured at Monitoring Location EFF-001A, shall not contain coliform bacteria in excess of the following concentrations:</p> <ul style="list-style-type: none"> i. The median concentration shall not exceed an MPN of 2.2 per 100 mL, using the bacteriological results of the last 7 days for which analyses have been completed¹; <u>and</u> ii. The number of coliform bacteria shall not exceed an MPN of 23 per 100 mL in more than one sample in any 30-day period. and

EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

		iii. No single sample shall exceed an MPN of 240 total coliform bacteria per 100 mL.
Section V.C.2.a.i	Minor modification requested by USEPA	Whole Effluent Toxicity. In addition to a <u>numeric</u> limitation for whole effluent acute toxicity, the MRP of this Order requires routine monitoring for whole effluent chronic toxicity to determine compliance with the Basin Plan’s narrative water quality objective for toxicity.
Section VII.K	Added new language to explain how compliance with Prohibition III.H (mean daily dry weather flow) is determined	<u>Mean Daily Dry Weather Flow. Compliance with the mean daily dry weather flow prohibition in section III.H of this Order will be determined by evaluating all flow data collected in a calendar year. The lowest 30 day period of flow must be 3.01 mgd or less.</u>

MONITORING AND REPORTING PROGRAM

Section I, Table E-1	To add DCBM to Table E-1 in light of the finding of reasonable potential for DCBM (See explanation in first entry in this table)	Table E-1. Test Methods and MLs for Priority Pollutants						
		CTR#	Constituent	Types of Analytical Methods				Stabilized Platform Graphite Furnace Atomic Absorption
				MLs (µg/L)				
		Colorimetric	Gas Chromatography (GC)	Gas Chromatography/ Mass Spectroscopy (GCMS)	Inductively Coupled Plasma/ Mass Spectroscopy (ICPMS)			
<u>27</u>	<u>Dichlorobromomethane</u>	---	<u>0.5</u>	<u>2</u>	---	---		

EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

<p>Section IV.C, Table E-6</p>	<p>Changed monitoring frequency for DCBM and three other chlorination by-products (chlorodibromomethane, chloroform, and bromoform) from annual to monthly in light of the determination of reasonable potential for DCBM</p>	<p>Table E-6. Effluent Monitoring – Monitoring Location EFF-001B</p> <table border="1" data-bbox="682 310 1959 659"> <thead> <tr> <th>Parameter</th> <th>Units</th> <th>Sample Type</th> <th>Minimum Sampling Frequency</th> <th>Required Analytical Test Method</th> </tr> </thead> <tbody> <tr> <td>Chloroform</td> <td>µg/L</td> <td>Grab</td> <td>AnnuallyMonthly</td> <td>Standard Methods EPA Method 624</td> </tr> <tr> <td>Dichlorobromomethane</td> <td>µg/L</td> <td>Grab</td> <td>AnnuallyMonthly</td> <td>Standard Methods EPA Method 624</td> </tr> <tr> <td>Dibromochloromethane</td> <td>µg/L</td> <td>Grab</td> <td>AnnuallyMonthly</td> <td>Standard Methods EPA Method 624</td> </tr> <tr> <td>Bromoform</td> <td>µg/L</td> <td>Grab</td> <td>AnnuallyMonthly</td> <td>Standard Methods EPA Method 624</td> </tr> </tbody> </table>	Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method	Chloroform	µg/L	Grab	Annually Monthly	Standard Methods EPA Method 624	Dichlorobromomethane	µg/L	Grab	Annually Monthly	Standard Methods EPA Method 624	Dibromochloromethane	µg/L	Grab	Annually Monthly	Standard Methods EPA Method 624	Bromoform	µg/L	Grab	Annually Monthly	Standard Methods EPA Method 624
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<p>Section V.B.1.f</p>	<p>This section is no longer applicable in light of the finding of reasonable potential for DCBM. Monitoring frequency is being retained at monthly.</p>	<p>f. Effluent monitoring frequencies have been reduced from monthly to annually for several trihalomethanes (THMs, including chlorodibromomethane, dichlorobromomethane, chloroform, and bromoform) due to the fact that monitoring data collected during the term of the previous permit demonstrated no reasonable potential to cause or contribute to an exceedance of water quality objectives for these trihalomethanes. Annual monitoring has been retained in order to verify that the Permittee's chlorine use (the primary source of THMs in disinfected municipal effluent) continues to be managed in a manner that keeps THMs at levels that do not result in reasonable potential.</p>																									
<p>Section V.B.2</p>	<p>To correct an error in the standard language regarding sample types to be used for chronic toxicity testing</p>	<p>Sample Type. Effluent samples from Monitoring Location EFF-001B shall be 24-hour composite samples. For toxicity tests requiring renewals, grab samples collected on consecutive days are required. For 96-hour static renewal or 96-hour static non-renewal testing, the effluent samples shall be 24-hour composite samples and shall be representative of the volume and quality of the discharge. Effluent samples shall be collected at Monitoring Location EFF-001. When tests are conducted off-site, a minimum of three samples shall be collected, in accordance with USEPA test methods. Any receiving water used for control or dilution water shall be a grab sample obtained from Monitoring Location RSW-001, as</p>																									

EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

identified in Table E-2 of this MRP.

FACT SHEET

Section II.B.4	Revised text regarding the Permittee’s proposed reclamation system to be up-to-date	<p>Revise 6th sentence of the section as follows:</p> <p><u>The Permittee is currently developing recently completed a reclamation master plan feasibility study and is moving forward with environmental review and preliminary design of a reclamation system.</u></p>
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Section II.C.1, Table F-2	To correct the date in the heading and to add DCBM to Table F-2 in light of the finding of reasonable potential for DCBM (See explanation in first entry in this table). Nitrate was also inadvertently left out of this table.	<p align="center">Table F-2. Historic Effluent Limitations and Monitoring Data – Discharge Point 001</p> <table border="1"> <thead> <tr> <th rowspan="2">Parameter (units)</th> <th colspan="3">Effluent Limitations</th> <th colspan="4">Monitoring Data (From November 2006 – To March May 2012)</th> </tr> <tr> <th>Average Monthly³</th> <th>Average Weekly³</th> <th>Maximum Daily³</th> <th>Highest Average Monthly Result</th> <th>Highest Average Weekly Result</th> <th>Highest Daily Result</th> <th>No. of Violations</th> </tr> </thead> <tbody> <tr> <td><u>DCBM</u></td> <td align="center"><u>0.56</u></td> <td align="center">---</td> <td align="center"><u>1.1</u></td> <td align="center"><u>2.3</u></td> <td align="center">---</td> <td align="center"><u>2.3</u></td> <td><u>Final MDEL – 2</u> <u>Final AMEL - 2</u></td> </tr> <tr> <td><u>Nitrate</u></td> <td align="center"><u>10</u></td> <td align="center">---</td> <td align="center">=</td> <td align="center"><u>10.3</u></td> <td align="center">---</td> <td align="center"><u>13</u></td> <td><u>0 (Note 10.3 mg/L not a violation due to the limit being stated as 10 rather tan 10.0)</u></td> </tr> </tbody> </table>	Parameter (units)	Effluent Limitations			Monitoring Data (From November 2006 – To March May 2012)				Average Monthly ³	Average Weekly ³	Maximum Daily ³	Highest Average Monthly Result	Highest Average Weekly Result	Highest Daily Result	No. of Violations	<u>DCBM</u>	<u>0.56</u>	---	<u>1.1</u>	<u>2.3</u>	---	<u>2.3</u>	<u>Final MDEL – 2</u> <u>Final AMEL - 2</u>	<u>Nitrate</u>	<u>10</u>	---	=	<u>10.3</u>	---	<u>13</u>	<u>0 (Note 10.3 mg/L not a violation due to the limit being stated as 10 rather tan 10.0)</u>
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EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

<p>Section II.C.2, Table F-2</p>	<p>To correct the date in the heading and to provide clarity regarding Design ADWF</p>	<p style="text-align: center;">Table F-3. Historic Effluent Limitations and Monitoring Data – Discharge Point 002</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Parameter (units)</th> <th colspan="3" style="text-align: center;">Effluent Limitations</th> <th colspan="4" style="text-align: center;">Monitoring Data (From November 2006 – March May 2012)</th> </tr> <tr> <th style="text-align: center;">Average Monthly</th> <th style="text-align: center;">Average Weekly</th> <th style="text-align: center;">Maximum Daily</th> <th style="text-align: center;">Highest Average Monthly Result</th> <th style="text-align: center;">Highest Average Weekly Result</th> <th style="text-align: center;">Highest Daily Result</th> <th style="text-align: center;">No. of Violations</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Discharge Flow</td> <td colspan="3" style="text-align: center;">Design ADWF: 2.8 mgd (through 5/09) 3.01 mgd (beginning 6/09)</td> <td style="text-align: center;">2.40 mgd</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0</td> </tr> </tbody> </table>	Parameter (units)	Effluent Limitations			Monitoring Data (From November 2006 – March May 2012)				Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Result	Highest Average Weekly Result	Highest Daily Result	No. of Violations	Discharge Flow	Design ADWF: 2.8 mgd (through 5/09) 3.01 mgd (beginning 6/09)			2.40 mgd	---	---	0
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<p>Section IV.C.3.b</p>	<p>A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)</p>	<p>Reasonable Potential The RPA demonstrated reasonable potential for discharges from the Facility to cause or contribute to exceedances of applicable water quality criteria for copper, cyanide, <u>dichlorobromomethane</u>, 2,3,7,8-TCDD, and ammonia.</p>																							
<p>Section IV.C.3.b Table F-7</p>	<p>A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)</p>	<p>Table revised to include dichlorobromomethane as follows: CTR #: <u>27</u>; Priority Pollutants: <u>dichlorobromomethane</u>; Most Stringent WQO: <u>0.56</u>; MEC or Minimum DL: <u>2.3</u>; B or Minimum DL: <u><0.48</u>; RPA Results: <u>Yes</u></p>																							
<p>Section IV.C.3.b, Table F-7</p>	<p>Footnote 11 to Table F-7 changed to correct a typographical error.</p>	<p>Total Trihalomethanes means the sum of the trihalomethane compounds dichlorobromomethane, chloroform, dichlorobromomethane, <u>dibromochloromethane</u>, and bromoform (CCR, title 22, section 64401.92).</p>																							

EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

<p>Section IV.C.3.b, 7th paragraph</p>	<p>A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)</p>	<p><u>Dichlorobromomethane.</u> Order No. R1-2006-0049 established interim and final effluent limitations for dichlorobromomethane (DCBM) based on the results of a reasonable potential analysis conducted with data collected prior to the adoption of Order No. R1-2006-0049. During the term of Order No. R1-2006-0049, the Permittee modified its chlorine disinfection practices and since from <u>December 2006 through March 2012</u> has did <u>not had</u> have any detections of DCBM in its effluent. <u>However, DCBM was detected at 2.02 ug/L and 2.30 ug/L in April and May 2012, respectively.</u> Based on this information, the Regional Water Board finds that <u>there is</u> reasonable potential for DCBM has been eliminated, therefore, effluent limitations for DCBM have been removed.</p>																		
<p>Section IV.C.4, Step 5 and Table F-10</p>	<p>A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)</p>	<p>Step 5. When the most stringent water quality criterion/objective is a human health criterion/objective (as for <u>DCBM and 2,3,7,8-TCDD</u>), the AMEL is set equal to the ECA. From Table 2 of the SIP, when CV = 0.6 and n = 4, the MDEL multiplier at the 99th percentile occurrence probability equals 3.11, and the AMEL multiplier at the 95th percentile occurrence probability equals 1.55. The MDEL for protection of human health is calculated by multiplying the ECA by the ratio of the MDEL multiplier to the AMEL multiplier and the AMEL is equivalent to the ECA. Final WQBELs for <u>DCBM and 2,3,7,8-TCDD</u> are determined as follows.</p> <p style="text-align: center;">Table F-10. Determination Final WQBELs Based on Human Health Criteria</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Pollutant</th> <th style="text-align: center;">Units</th> <th style="text-align: center;">ECA</th> <th style="text-align: center;">MDEL/AMEL</th> <th style="text-align: center;">MDEL</th> <th style="text-align: center;">AMEL</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><u>Dichlorobromo methane</u></td> <td style="text-align: center;"><u>µg/L</u></td> <td style="text-align: center;"><u>0.56</u></td> <td style="text-align: center;"><u>2.01</u></td> <td style="text-align: center;"><u>1.12</u></td> <td style="text-align: center;"><u>0.56</u></td> </tr> <tr> <td style="text-align: center;">2,3,7,8-TCDD</td> <td style="text-align: center;">µg/L</td> <td style="text-align: center;">0.000000013</td> <td style="text-align: center;">2.01</td> <td style="text-align: center;">0.000000026</td> <td style="text-align: center;">0.000000013</td> </tr> </tbody> </table>	Pollutant	Units	ECA	MDEL/AMEL	MDEL	AMEL	<u>Dichlorobromo methane</u>	<u>µg/L</u>	<u>0.56</u>	<u>2.01</u>	<u>1.12</u>	<u>0.56</u>	2,3,7,8-TCDD	µg/L	0.000000013	2.01	0.000000026	0.000000013
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EOSR Attachment 4 – Staff Changes to Ukiah NPDES Permit – Order No. R1-2012-0068

Section IV.D.1, 2 nd paragraph	A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)	<p>Change paragraph to read as follows: In conducting the reasonable potential analysis, the MEC for DCBM was non-detect based on 17 samples collected between December 2006 and March 2012. For settleable solids there was one detected value one time at a level of 0.2 ml/L out of 314 samples analyzed. The single detection occurred on August 14, 2010, during a period of discharge to the percolation ponds, and the settleable solids effluent limitation is applicable for discharges to the Russian River only. The lack of reasonable potential for dichlorobromomethane and settleable solids constitutes new information, which permits the removal of effluent limitations consistent with CWA section 402(o)(2)(B). As a result of the RPA, effluent limitations for dichlorobromomethane and settleable solids are not included in the proposed Order and anti-backsliding requirements are satisfied.</p>																					
Section IV.D.4, Table F-12	A determination of reasonable potential was made after the draft Order was released for public review (See explanation in first entry in this table)	<p>Table F-12. Summary of Final Effluent Limitations – Discharge Point 001</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Units</th> <th colspan="5">Effluent Limitations</th> <th rowspan="2">Basis³</th> </tr> <tr> <th>Average Monthly</th> <th>Average Weekly</th> <th>Maximum Daily</th> <th>Instantaneous Minimum</th> <th>Instantaneous Maximum</th> </tr> </thead> <tbody> <tr> <td>DCBM</td> <td>µg/L</td> <td style="text-align: center;">0.56</td> <td style="text-align: center;">---</td> <td style="text-align: center;">1.1</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td style="text-align: center;">CTR</td> </tr> </tbody> </table>	Parameter	Units	Effluent Limitations					Basis ³	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	DCBM	µg/L	0.56	---	1.1	---	---	CTR
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ATTACHMENT F-1																							
CTR No. 27 in Table	To revise reasonable potential evaluation to show that there is reasonable potential for DCBM	Changed MEC column from <0.48 to <u>2.3</u> ug/L and Reasonable Potential column from No to <u>Yes</u>																					