
UTAH DIVISION OF WATER QUALITY

IN THE MATTER OF Courthouse Wash Water Facility 1861 North Highway 191 Moab, UT 84532 UPDES PERMIT NO. UT0025828	PERMIT VARIANCE FOR TECHNOLOGY-BASED PHOSPHORUS EFFLUENT LIMITS
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BACKGROUND

1. Courthouse Wash Water Facility (CWF) in Moab, Utah (the “Facility”) provides wastewater services within Grand County.
2. The Facility operations are undertaken subject to UPDES Discharge Permit No. UT0025828 (“Permit”).
3. The Facility is required to achieve technology-based phosphorus effluent limits (“TBPEL”) on or before January 1, 2020, unless a variance is granted. See UAC R317-1-3.3.
4. The Facility submitted a variance request, dated June 26, 2015 to the Utah Division of Water Quality (“DWQ”), seeking a variance of the TBPEL (the “Variance Request.”). The Variance Request is based on the fact that the Facility contributes a small percent of the phosphorus loading in the Colorado River, which is not listed for impairment due to any nutrient load.
5. Utah law provides that DWQ may grant a variance for compliance with the TBPEL in the event that the operator demonstrates that the TBPEL or Phosphorus loading cap are clearly unnecessary to protect water downstream from the point of discharge. See UAC R317-1-3.3.C.1.c.
6. The Director of DWQ determined that the Facility met its burden to show that the TBPEL is clearly unnecessary within the meaning of the UAC R317-1-3.3 and granted a variance on July 25, 2018.
7. The Facility submitted a variance extension request, dated June 12, 2019 to the Utah Division of Water Quality (“DWQ”), seeking an extension variance of the TBPEL (the “Variance Extension Request.”). The Variance Extension Request is based on the fact that the

Facility continues to contribute a small percent of the phosphorus loading in the Colorado River, which is not listed for impairment due to any nutrient load.

8. The Director of DWQ has determined that the Facility has met its burden to show that the TBPEL is clearly unnecessary within the meaning of the UAC R317-1-3.3 and that a variance is appropriate, subject to the limitations and conditions provided herein.

AUTHORITY

9. The Director of DWQ has authority to grant a variance as to the implementation deadline for TBPEL pursuant to UAC R317-1-3.3 and the corresponding provisions of the Utah Water Quality Act.

10. The State of Utah administers the Utah Pollution Discharge Elimination System (UPDES) permit program under the Utah Water Quality Act.

CLEARLY UNNECESSARY - FINDINGS

11. The Variance Request (DWQ-2015-007639) includes the following submissions, among others:

- a. Request for a Variance to the Technology-Based Phosphorus Effluent Limit-Courthouse Wash Water Facility (formerly known as Canyonlands By Night), Moab (Dated June 26, 2015)
- b. Colorado River flow and loading at US 191 crossing of the Colorado River. Bowen Collins & Associates (September, 2016)
- c. DWQ Memo with calculated Phosphorus Loading for the Facility as currently operated (May 2018)
- d. Approval of Variance from Technology-based Phosphorus Effluent Limitations under R317-1-3.3.C.1.c. (July 25, 2018)
- e. Request for extension of variance of state's TBPEL Rule for Courthouse Wash Water WWTP (June 12, 2019) (DWQ-2018-00527)

12. Based on the foregoing submissions, and additional analysis conducted by DWQ staff summarized below, the Director has determined that the Facility has continued to establish that the TBPEL is unnecessary to protect water downstream from the point of discharge, within the meaning of UAC R317-1-3.3.C.1.c.

DWQ analysis concluded that the current and future loads constitute a small proportion of the total annual loading in the Colorado River and are not anticipated to cause any negative effects

due to the following factors. Based on CWF's request, DWQ Staff has determined a continued variance with UAC R317-1-3.3, is appropriate and recommend CWF be granted a variance.

- a. The proportional load from the CWF based on seasonal average flows and loads varies from a low of 0.004% in the Fall to a high of 0.046% in the Winter. The proportion of future loading from the CWF remains low throughout the life of the permit.
- b. The potential impact of phosphorus loading from CWF on the Colorado River's beneficial uses (i.e. dissolved oxygen and algae growth) is smallest in the fall and winter months due to cold temperatures and limited light availability.
- c. The Colorado River's unique characteristics mitigate the effect of phosphorus additions, specifically the high sediment loads of the Colorado River which constantly scour the river channel and limits light penetration and hence algae growth. Turbidity in the Colorado River has been documented to be an important limitation to algae growth (Lovich and Melis, 2007).

VARIANCE

13. The Director hereby grants the Facility a variance to the TBPEL; subject to the following conditions:

- a. This variance does not extend beyond **XXXXXX XX**, 2024, which is the expiration date of CWF's UPDES permit. This variance shall be revisited at the time of the CWF's next UPDES permit renewal and may be renewed, modified, or abandoned.
- b. Pursuant to *UAC R317-1-3.3.C.2*, this variance is subject to re-evaluation in the event that there is any substantive change in the facility design. CWF must provide timely notice to DWQ of any such substantive changes.
- c. If it is found that CWF has failed comply with the requirements of this variance the Division of Water Quality may terminate this variance and CWF will be immediately expected to comply with the requirements *UAC R317-1-3.3*.
- d. CWF agrees to collect monthly samples as required by *UAC R317-1-3.3.E*. for influent and effluent of Outfall Number 001 and report the results to DWQ for in accordance with their UPDES permit.

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- e. If CWF does not operate at the anticipated concentration and flow used in this analysis as an annual average, the Division of Water Quality may revisit or terminate this variance.
 - i. While the relative load from the facility is small relative to background TP loads in the Colorado River, TP concentrations are high in comparison with other municipal discharges in Utah. DWQ has requested that the CWF exercise due diligence and attempt to identify and minimize potential phosphorus sources.
 - f. No later than July 1, 2021, and again by no later than July 1, 2023, CWF agrees to submit to DWQ a biannual report relating to its phosphorus discharges (the "Biannual Report"). The scope of the Biannual Report shall include descriptions of evaluations of source control, pretreatment measures, and treatment measures, in reasonable detail, to reduce total phosphorus discharge loads. These controls and measures shall include an economic evaluation for affordability and impacts to CWF and its customers. The Biannual Report will provide a summary of progress and milestones achieved in all construction, study, controls, measures, funding, planning, and design projects during the previous reporting period, projected progress and milestones scheduled to be completed during the following reporting period, and if the project(s) are on schedule. The Biannual Report will also provide information on effluent phosphorus concentrations.

Erica Brown-Gaddis, PhD
Director
Utah Division of Water Quality

Date: _____

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