

Response to Comments Received on Proposed Reissuance of NPDES Permit CO-0020974  
United States Department of the Air Force, Air Force Academy Wastewater Treatment Facility

Comments were received from the Colorado Department of Natural Resources, Colorado Parks and Wildlife (CPW) and from the Air Force Academy. The CPW stated that it is familiar with the site and based on both the location and type of action being proposed, CPW believes impacts to the wildlife resource to be negligible. Some of the comments the AFA were received prior to going to public notice and some changes were incorporated into the permit and/or fact sheet before going to public notice. The comments and the response to comments are given in a separate document titled Some of the comments received before going to public notice concerned typos that were corrected before going to public notice.

Comments Regarding Fact Sheet

1. Comment, Page 1: Responsible official will change to Lt Col Jose L. Rivera.

Response: The public notice version of the fact sheet had Jose L. Rivera Hernandez, Lieutenant Colonel, USAF. That has been corrected to Jose L. Rivera, Lieutenant Colonel, USAF.

2. Comment: The monitoring data that USAFA has collected for selenium/zinc was used for this Reasonable Potential Analysis shows that we do not exceed WQBELs for chronic and acute for either outfall 001A or 001B. We would request that this be taken off the monitoring schedule in the new permit based on no reasonable potential to exceed WQBELs.

Response: In accordance with the WQCD's policy on reasonable potential, no effluent limitations for either selenium or zinc will be placed in the permit. However, since the projected maximum concentration of both pollutants is greater than 50% of the WQBELs, monitoring will be required for both pollutants on a quarterly frequency.

3. Comment: Please explain how changing WET tests to every 10 months will determine if there is a change in chronic toxicity throughout year? Also, please clarify if test is every 10 months or once every 10 months?

Response: The purpose of the 10 month frequency is to determine over the life of the permit if there is any chronic toxicity in the effluent during different times of the year. The monitoring is to be done at approximately 10 month intervals. The first routine test is to be done in June, 2015, with the next test done in April, 2016. Because of when the permit will be issued, the date for doing the first test was changed from February, 2015 to June, 2015.

4. Comment: Recommend replacing the identification of the Contractor (CH2M Hill Academy Services, LLC) with a more generic statement that the Plant is operated under the Civil Engineer Support Services Contract. A later comment was that the Contractor name has changed from CH2M Hill Academy Services to Aleut.

Response: The wording has been changed to "The complete operation and maintenance of the WWTF is done under a Civil Engineer Support Services contract." That change was made before going to public notice. The new contractor's name will not be included in the permit or the fact sheet.

5. Comment, Page 26, 4<sup>th</sup> paragraph, 2<sup>nd</sup> sentence: The sentence reads “the need to work on NPR #,..” Is this meant to be NPR#1 or any NPR?

Response: It should have been NPR#1.

6. Comment, Page 26, 5<sup>th</sup> paragraph, 2<sup>nd</sup> sentence: The permit states that "Available data indicate that the existing treatment system is not adequate to meet the WQBEL on T.I.N. of 13 mg/L as a daily maximum". USAFA should be able to meet the TIN as a daily maximum per the WWTP operator. The WWTP has changed the process within the last year and will be able to meet this daily maximum. A related comment about the permit states “Request that there be a language that states compliance schedule will not have to be met if WWTF can already meet this limitation.

Response: Based on this comment, the effluent limitation on T.I.N. in the permit has been changed to 13 mg/L effective immediately (i.e., on the effective date of the permit) and the appropriate wording changes apply to the fact sheet. The compliance schedule will be deleted from the permit.

7. Comment, Pages 13 & 14, comments made before and after going to public notice: This gaging station does not take into account Smith Creek, Monument Branch, Middle Tributary and Black Squirrel Creek, Deadmans Creek, etc. which are all tributaries to Monument Creek. Dilution flow values could be higher in Table 5 with flows from the eastern tributaries. Is there some sort of corrected value that takes into account the other contributing streams? The statement that reads"....There are water quality data for the USGS gaging station 07103780. Those data can be used to determine ambient water quality in Monument Creek above the discharge from Outfall 001A. ". If this station is used to determine pollutant loading for Monument Creek, it does not take into account the other contributing streams from the eastern or western boundaries. The gaging station would not be representative of true water quality above Outfall 001A. If this station is being used to determine what effluent limitations the Academy will have to follow, then there should be some sort of 'credit' for additional flow from eastern and western tributaries that could contribute to dilution.

Response: The Colorado Water Quality Control Division (WQCD) uses the flow and water quality data from the USGS gaging station above the North Gate Boulevard at the AFA (07103780), along with data from other stations, etc., for determining water quality based effluent limitations for wastewater discharges to Monument Creek. The USGS had a gaging station (07103790) located on Monument Creek below the WWTF from April 2000 through September 2003 and collected flow data for portions of each year. (Apparently no water quality data were collected along with the flow data for station 07103790, whereas there are water quality data for station 07103780.) A comparison of the flow data from stations 07103780 and 07103790 indicate that there generally was an increase in flow between the two stations for the periods when there were data. However, there are insufficient flow data for station 07103790 to do statistical evaluations of the data to determine the appropriate low flows for calculating effluent limitations.

There has been significant development to the east of I-25 during the past 20 years. To this writer's knowledge, it is not known how much of the increase in flow in Monument Creek at the WWTF is due to the development east of I-25. Also, the quality of those flows is not known.

For now, the calculation of the WQBELs for the water quality standards that apply at the point of discharge will be based on the flow data for USGS station 07103780.

#### Comments Regarding Permit

1. Comment: Parts of permit referenced under Compliance Schedule do not match document (1.3.1.4?) Could not find the section 1.3.1.4 in permit.

Response: Typo error, corrected before going to public notice.

2. Comment, Self-Monitoring Requirements: Is new effluent monitoring (temperature, metals, sulfates, etc.) being used to determine pollutant loading in Non-potable reservoir #1? If so, this water is mixed with well water during the summer and is distributed throughout irrigation system so would not be representative of what is going on in just this water body. Is an effluent and well water dominated body considered Waters of the U.S.? With non-potable #1 being "use protected" would monitoring and an anti-degradation analysis even be required?

Response: Non-potable reservoir #1 (NPR#1) is considered to be located in waters of the U.S. and the applicable Colorado water quality standards (WQS) apply to it. Because of the use-protected" designation in the WQS for NPR#1, it is not necessary to do an anti-degradation analysis. It is recognized that during the irrigation season to supplement the supply of water in NPR#1, well water is often pumped into the pipeline that carries the effluent from the WWTF to NPR#1. However, the well water is not present all of the time, even during the irrigation season, and it is necessary to consider the water quality impacts of the effluent when the well water is not present. Unless the AFA conducts a mixing zone study in accordance with the WQCD's requirements, no dilution will be considered in determining effluent limitations.

Compared to the previous permit, this renewal permit has more extensive monitoring requirements. There are several reasons for this, including a more detailed consideration of water quality standards, the lack of adequate effluent data for several of the pollutants of potential concern, the Nutrient Management Control regulation (Regulation #85) and the new temperature criteria in the water quality standards. It is the policy of both the EPA Region 8 and the WQCD to have a minimum of 10 separate effluent concentrations of a pollutant in order to do a reasonable potential analysis for that pollutant of concern. The permit requires monthly monitoring of those pollutants of potential concern where there are insufficient data to perform a reasonable potential analysis. For those pollutants there is a provision that after one year of data have been collected, the permittee may request that the frequency of monitoring for this effluent characteristic be reduced to quarterly or eliminated based on a reasonable potential analysis of the data collected since the permit was issued. The reasonable potential analysis shall be done based on a lognormal distribution and a 95 percent confidence interval. Depending on the calculated maximum estimated pollutant concentration (MEPC), generally speaking, the WQCD's policy is as follows:

1. If MEPC > WQBEL, then a limitation(s) will be placed in the permit;
2. If MEPC < WQBEL, but > 50% of WQBEL, then no permit limitation, but routine monitoring required;
3. If MEPC < WQBEL, then monitoring normally not required.

3. Comment, page 7: "There shall be no chronic toxicity for an instream waste concentration (IWC) of 100 percent of the final effluent from Outfall 001B or  $TUc < 1.0. c/$ " - Please explain this sentence at the bottom of table. Comment made before going to public notice.

Response: The "or  $TUc < 1.0.$ " was deleted before going to public notice. The footnote, "c/" should have been deleted also. It will be deleted in the issued permit. The statement "There shall be no chronic toxicity for an instream waste concentration (IWC) of 100 percent of the final effluent from Outfall 001B." means there shall be no chronic toxicity in the effluent from Outfall 001B at 100 strength (i.e. no dilution).

4. Comment, page 7: Please clarify if the frequency sampling for ammonia as a 2/week composite can be the only sampling to ensure compliance with the daily maximum.

Response: The monitoring frequency is determined based on a number of factors including the size of the facility, the pollutant, and the WQCD's policy on monitoring. The permittee is free to monitor more frequently if done in accordance with the requirements of Part 2.5 of the permit. Compliance with the effluent limitations in the permit is normally based on the self-monitoring results and any other results that may be available provided they are done with approved procedures. Normally, if the self-monitoring results show compliance, the permittee is considered to be in compliance with the applicable effluent limitations in the permit.

5. Comment: Please clarify what "The permittee shall at all times . . . control" mean? What level of automation does the EPA feels is enough of control?

Response: Part 3.5 of the permit does not require automation, but rather requires the permittee to "at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit."

6. Comment: To meet the new temperature/effluent monitoring requirements, USAFA will have to have prior notice to install guage and get sampling protocol completed. Please provide anticipated effective date.

Response: The first sentence in footnote h/ on page 9 of the permit has been changed to the following "Beginning no later than six (6) months after the effective date of the permit, the permittee shall monitor the temperature of the effluent at a minimum frequency of hourly with values rounded to the nearest 0.1 °C." Six months after the effective date of the permit should be more than adequate time to be ready to monitor the temperature as specified in the permit. Wording in the fact sheet has been changed to explain the six month time period.

7. Comment: Impractical is not clearly defined in the permit. We assume the term "impractical" follows the potential reasons outlined in the Fact Sheet (Effluent Limitations Outfall 001A).

Response: The intent was that there be no discharge from Outfall 001A except when it was impractical to pump the effluent to NPR#1 due to reason such as given on page 26 of the Fact Sheet. There may be other valid reasons for it being impractical to pump effluent to NPR#1, but those situations will have to be evaluated when they occur, if they occur.

8. Comment: The 2006 USAFA NPDES permit states that Total Residual Chlorine limits only applied when the chlorination system is used. Is there a reason this is not identified in the effluent limitations but is in the self-monitoring requirements?

Response: That was an oversight on our part and will be corrected in the issued permit.

9. Comment: Request that the total nitrogen and total phosphorus composite sample be changed to a grab sample. This would match the nutrient monitoring for the state and eliminated duplicating efforts.

Response: The request is denied. The samples for total nitrogen and total phosphorus can be taken from the composite samples for ammonia, etc.