



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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June 24, 2016

C.L. "Butch" Otter, Governor
John H. Tippetts, Director

Mr. Michael J. Lidgard
NPDES Permits Unit Manager
EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Subject: Final 401 Water Quality Certification for the City of Nampa Wastewater
Treatment Facility, ID-0022063

Dear Mr. Lidgard:

The Boise Regional Office of the Department of Environmental Quality (DEQ) has reviewed the above-referenced permit for the City of Nampa WWTF. Section 401 of the Clean Water Act requires that states issue certifications for activities which are authorized by a federal permit and which may result in discharge to surface waters. In Idaho, DEQ is responsible for reviewing these activities and evaluating whether the activity will comply with Idaho's Water Quality Standards, including any applicable water quality management plans (e.g., total maximum daily loads). A federal discharge permit cannot be issued until DEQ has provided certification or waived certification either expressively, or by taking no action.

This letter is to inform you that DEQ is issuing the attached draft 401 certification subject to the terms and conditions contained therein. DEQ is requesting the following changes be made to the compliance schedule:

Compliance Schedule Changes for Temperature

- Remove task i) from the additional temperature requirements:
"Within fifteen (15) months of the EDP, complete collection of at least one year of continuous temperature monitoring data and submit an evaluation of current monthly temperature variations to DEQ and EPA".
- Change the compliance dates by 1 year for the additional temperature tasks in the compliance schedule (see iv-ix).

Compliance Schedule Changes for Copper

- Change the compliance dates by 1 year for the additional copper tasks in the compliance schedule (see i, and vi-ix)

Michael J. Lidgard
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Please contact Kati Carberry at (208) 373-0434 to discuss any questions or concerns regarding the content of this certification.

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron Scheff". The signature is fluid and cursive, with the first name "Aaron" written in a larger, more prominent script than the last name "Scheff".

Aaron Scheff
Regional Administrator
Boise Regional Office

*Enclosures: Final 401 Certification Permit ID-002206-3
Response to Comments
City of Nampa Request for TSS Reserve for Growth
DEQ Approval Letter for TSS Reserve for Growth*

c: Brian Nickel, EPA Region 10

ec: Nicole Deinarowicz, DEQ State Office
Justin Hayes, Idaho Conservation League
TRIM 2016AKF67



Idaho Department of Environmental Quality Final §401 Water Quality Certification

June 24, 2016

NPDES Permit Number(s): ID-002206-3, City of Nampa WWTF

Receiving Water Body: Indian Creek

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier 1 Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier 2 Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier 3 Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The City of Nampa WWTF discharges the following pollutants of concern: temperature, five day biochemical oxygen demand (BOD₅), total suspended solids (TSS), pH, *E. coli*, total phosphorus (TP), ammonia, total residual chlorine (chlorine), copper, cyanide, dissolved oxygen, mercury, nitrate, nitrite, Total Kjeldahl nitrogen (TKN), arsenic, cadmium, chromium, lead, molybdenum, nickel, selenium, silver, whole effluent toxicity (WET) and zinc. Effluent limits have been developed for temperature, BOD₅, TSS, pH, *E. coli*, TP, ammonia, chlorine, copper, cyanide, dissolved oxygen, and mercury. No effluent limits are proposed for nitrate, nitrite, TKN, arsenic, cadmium, chromium, lead, molybdenum, nickel, selenium, silver, whole effluent toxicity (WET) and zinc, however monitoring requirements are included in the permit to determine WQS compliance and future permit limits, where needed.

Receiving Water Body Level of Protection

The City of Nampa WWTF discharges to Indian Creek within the Lower Boise Subbasin assessment unit (AU) 17050114SW002_04 (Indian Creek – 4th order below Sugar Avenue in Nampa). This AU has the following designated beneficial uses: cold water aquatic life and secondary contact recreation. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

The cold water aquatic life use in the Indian Creek is not fully supported due to excess sedimentation/siltation, temperature and cause unknown (nutrients suspected) (2012 Integrated Report). The secondary contact recreation beneficial use is not fully supported due to excess *E. coli* bacteria. As such, DEQ will provide Tier 1 protection only for aquatic life and recreation beneficial uses (IDAPA 58.01.02.051.02; 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier 1 Protection)

As noted above, a Tier 1 review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of designated beneficial uses. The effluent limitations and associated requirements contained in the City of Nampa WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL.

Chlorine and Ammonia

While both the current and proposed water quality effluent limits for ammonia and chlorine were developed to protect cold water aquatic life from acute and chronic exposure, the proposed limits are less stringent than the 1999 permit. Two factors contributed to the change in the permit limits for ammonia: 1) The methodology for calculating ammonia criteria in Idaho's WQS was revised in 2002; and, 2) current receiving water temperature and pH data used to calculate ammonia limits varied substantially from data available in 1999.

Two factors contributed to the change in the permit limits for chlorine: 1) An increase in facility design flow; and, 2) new, more comprehensive flow data for Indian Creek determined seasonal high and low flow conditions criteria were more appropriate than the previous permit's flow tier based limits.

The proposed limits for ammonia and chlorine will protect and maintain existing and designated beneficial uses in Indian Creek. These limits do not exceed narrative or numeric criteria in the Idaho WQS and meet the requirements for Tier 1 protection (IDAPA 58.01.02.051.01.).

Temperature

The City of Nampa WWTF discharges to Indian Creek (AU 17050114SW002_04), which is impaired for temperature; however a TMDL has not yet been completed. Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04), which as described above, means ensuring compliance with the numeric and narrative criteria in the WQS. The discharge has the potential to cause or contribute to excursions above water quality standards for temperature; therefore, the permit proposes water quality based effluent limits for temperature that will ensure compliance with temperature criteria. In addition, continuous temperature monitoring of the effluent and receiving water are permit requirements; this data will be used to assess whether the discharge affects the temperature of Indian Creek.

Total Phosphorus

In the 2012 Integrated Report Indian Creek is listed cause unknown (nutrients suspected) in Category 5 until such time that either: 1) water quality data demonstrates that beneficial uses are no longer impaired by nutrients; 2) a TMDL is developed; or 3) readily available data and information shows the original listing was made in error.

Although a TMDL has not yet been developed for Indian Creek, the *Lower Boise River TMDL 2015 Total Phosphorus Addendum* was approved December 22, 2015 for the Boise River AU 17050114SW001_06 (Boise River - Indian Creek to mouth), approximately 15 miles downstream from the Boise River outfall. Water quality monitoring and modeling completed

since 2012 have determined the extent of impairment as well as WLAs expected to restore beneficial uses in the Boise River. The WLAs developed in the Lower Boise River TMDL for the City of Nampa WWTP are proposed as effluent limits in this NPDES permit. The effluent limitations in the permit will result in a decrease of TP in Indian Creek and the Boise River.

Additionally, the Hells Canyon segment of the Snake River is also impaired because of excess nutrients. The *Snake River Hells Canyon (SR-HC) TMDL* (DEQ 2003) established a load allocation for the Boise River based upon a TP concentration of 0.07 mg/L at the mouth of the Boise River. The TMDL for TP for the Boise River ensures that the load allocation for the SR-HC TMDL will be achieved. DEQ believes the permit will ensure compliance with the TMDLs and the applicable narrative criteria.

Sediment and *E. coli* Bacteria

Indian Creek is also impaired for sediment and bacteria. The City of Nampa WWTF discharge meets technology-based limits for sediment (TSS) and water quality-based bacteria limits in its current NPDES permit and has similar requirements in the new draft permit. The *Lower Boise River TMDL 2015 Sediment and Bacteria Addendum* was developed to address sediment and bacteria impairment in Indian Creek. The TMDL WLAs for the City of Nampa WWTP have been incorporated into the proposed NPDES permit.

The *Lower Boise River TMDL 2015 Sediment and Bacteria Addendum E. coli* wasteload allocations are based on a bacteria concentration of 126 cfu/100 mL, collected as a 5-sample geometric mean over 30 days; which is consistent with current permit limits. Sediment wasteload allocations are based on 20 mg/L, less 2.5 mg/L for natural background, and are expressed as 4-month averages. This TMDL is concentration based, so the WLAs are based on the design flow:

$$E. coli \text{ WLA (in } 10^9 \text{ cfu/day)} = Q \times 4.76$$

$$\text{Sediment WLA (in kg/day)} = Q \times 66.2$$

Where Q is the design flow of the facility in million gallons per day (mgd).

The coefficients are simply a collection of conversion constants:

$$E. coli: 126 \text{ cfu}/100 \text{ mL} \times \frac{3.785 \text{ L/gal} \times 10^6 \text{ gal/million gal}}{0.1 \text{ L}/100 \text{ mL} \times 10^9} = 4.76 \times 10^9 \text{ cfu/day/mgd}$$

$$\text{Sediment: } \frac{(20-2.5) \text{ mg}}{\text{L}} \times \frac{3.785 \text{ L/gal} \times 10^6 \text{ gal/million gal}}{10^6 \text{ mg/kg}} = 66.2 \text{ kg/day/mgd}$$

If the design flow were to increase in the future, then the WLAs would correspondingly increase. The present design flows and WLA are shown in the *Lower Boise River TMDL 2015 Sediment and Bacteria Addendum*. To ensure consistency with this TMDL, DEQ expects this and future permits to contain a 4-month average effluent limit of 17.5 mg/l TSS with an associated load based on the permitted design flow of the facility and *E. coli* average monthly effluent limits of 126 cfu/100ml and maximum daily limits of 576 cfu/100 ml.

At the confluence of Indian Creek, the Boise River (AU 17050114SW001_06 (Boise River – Indian Creek to mouth) is also impaired for sediment and bacteria. The EPA-approved *Lower Boise River TMDL* (DEQ 1999) and TMDL Addendum (2008) established load allocations for

sediment and bacteria at the mouth of Indian Creek and also wasteload allocations for sediment and bacteria for the City of Nampa WWTF. In accordance with the procedure outlined in the sediment TMDL, the City of Nampa requested an increase in their wasteload allocation from the sediment TMDL reserve for growth. Their design flow has increased from 11.76 million gallons per day (MGD) at the time of TMDL development to 18.0 MGD. DEQ has approved the requested sediment wasteload allocation increase and has adjusted the remaining reserve for growth accordingly. These sediment and bacteria allocations are designed to ensure the Boise River will achieve the water quality necessary to support its existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. The effluent limitations and associated requirements contained in the City of Nampa WWTF permit are set at levels that comply with these wasteload allocations.

In sum, the effluent limitations and associated requirements contained in the City of Nampa WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *Lower Boise River TMDL 2015 Total Phosphorus TMDL Addendum*, *Lower Boise River TMDL 2015 Sediment and Bacteria Addendum*, and *Lower Boise River TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses of Indian Creek in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Compliance Schedules

Pursuant to IDAPA 58.01.02.400.03, DEQ may authorize compliance schedules for water quality-based effluent limits issued in a permit for the first time. The City of Nampa WWTF cannot immediately achieve compliance with the effluent limits for TP, temperature, mercury and copper; therefore, DEQ authorizes compliance schedules and interim requirements as set forth below. These compliance schedules provide the permittee a reasonable amount of time to achieve the final effluent limits as specified in the permit. At the same time, the schedules ensure that compliance with the final effluent limits is accomplished as soon as possible.

A nine (9) year and 11 month (two-permit-cycle) compliance schedule is authorized for new TP, mercury and copper effluent limits that cannot be immediately achieved. No conventional treatment options exist to meet some of these effluent limits (mercury and copper). Further, the compliance schedule and annual reporting requirements will allow for site specific data to fill data gaps (i.e. for copper and temperature) and allow a more accurate assessment of treatment performance for all constituents. It is anticipated that the addition of biological nutrient removal and improved tertiary filtration implemented for phosphorus removal will provide some level of enhanced removal for metals as general effluent quality is improved. Improvements to enhance removals of phosphorus and nitrogen through process enhancements, such as longer solids retention time in the biological treatment process, effluent filtration improvements to reduce effluent solids, solids side stream controls to reduce loadings, recycling back to the liquid stream and sustained and stable operational performance will all contribute to improved effluent quality.

A fourteen (14) year and eleven (11) month compliance schedule is authorized for new temperature effluent limits. Treatment improvements to meet the final TP, mercury and copper effluent limits may result in changes to effluent temperature. Continuous effluent and receiving water temperature monitoring and evaluation throughout the compliance schedule will help the facility assess the temperature reduction necessary and the best approach to achieve the final effluent limit.

While the schedules of compliance are in effect, the City of Nampa WWTF must comply with the following interim requirements:

- 1) The Permittee must submit an annual progress report outlining overall progress made toward reaching the final compliance dates for TP, temperature, mercury, and copper. The annual report of progress must be submitted to DEQ and EPA by December 31st of each year. The first report is due December 31, 2016, and annually thereafter until compliance with the final effluent limits is achieved.
- 2) At a minimum, the written notice must include:
 - a) An assessment of the previous year's TP, temperature, mercury and copper data and comparison to the final effluent limitations in the Permit.
 - b) A description of progress made towards meeting the final effluent limitations, including the applicable deliverables required under the tasks in Table 2 or interim requirement 3, below. Include any exceedances of interim Permit limits or anticipated challenges for compliance within the next year. This may include a technological explanation and/or a request to modify the Permit.
 - c) Further actions and milestones targeted for the upcoming year.
- 3) The permittee must comply with the Interim Effluent Limits, Compliance Tasks and Compliance Dates in Table 1 and Table 2:

Table 1: Interim Effluent Limits and Compliance Dates.¹

Pollutant	Effluent Limit	Compliance Dates
Total Phosphorus (TP)	Not to exceed 6.4 mg/L (seasonal average)	May 1, 2015 through September 30, 2019
	Not to exceed 500 µg/L (monthly average)	May 1, 2020 through September 30, 2020 and every May 1 through September 30 every year thereafter until the final limit is achieved.
	Not to exceed 1500 µg/L (seasonal average)	October 1, 2020 through April 30, 2021 and every October 1 through April 30 every year thereafter until the final limit is achieved.
Mercury, total	0.024 µg/l	1 st and 2 nd permit cycle

¹ For temperature and copper there is no effluent limit in effect until the end of the compliance schedule.

Table 2. Tasks Required Under the Schedules of Compliance for TP, Temperature, Mercury and Copper.

Task No.	Completion Date	Task Activity
1	December 31, 2016	<p>Report of Progress: The Permittee must submit an annual progress report outlining overall progress made toward reaching the final compliance dates for TP, temperature, mercury, and copper.</p> <p>Deliverable: The annual report of progress must be submitted to DEQ and EPA by December 31st of each year. The first report is due December 31, 2016, and annually thereafter until compliance with the final effluent limits is achieved.</p>
2	December 31, 2019	<p>Wastewater Facility Upgrades:</p> <p>Phase I Upgrades include the following:</p> <ul style="list-style-type: none"> • Modifications and additions to the existing secondary treatment system such that it is capable of biological phosphorus removal • Installation of a new Primary Effluent Pump Station • New Primary Anaerobic Digester • New Solids Handling Facility with rotary drum thickeners and dewatering centrifuges <p>Deliverable: The permittee must submit by December 31, 2019 a written notice to DEQ and EPA stating that the applicable modifications are constructed and operational.</p>
3	May 1, 2020	Achieve May-September TP interim limit not to exceed 500 µg/L (monthly average).
4	October 1, 2020	Achieve October-April TP interim limit not to exceed 1500 µg/L (seasonal average).
5	December 31, 2021-2022	<p>Evaluate options available to achieve final effluent limitations including, but not limited to, treatment plant upgrades, effluent trading projects, seasonal re-use, and infiltration.</p> <p>Deliverables:</p> <ul style="list-style-type: none"> • No later than December 31, 2021, the permittee must decide on the final option that will be used to achieve the final effluent limits for TP, mercury and copper. • No later than December 31 2022, the permittee must provide, to DEQ and EPA, a preliminary schedule of design upgrades and a preliminary construction schedule that will be used to achieve compliance with the final limits.
6	Nine (9) years and eleven (11) months from the Effective Date of the Permit (EDP)	<p>Implement selected option(s) to achieve final effluent limitations for TP, mercury and copper.</p> <p>Dependent on the option(s) selected, tasks will include:</p> <ul style="list-style-type: none"> • Securing funds for treatment facility upgrades • Submission of a final schedule of design upgrades • Submission and approval of final engineering plan • Completion of construction • Commissioning of facility upgrades • Submission and approval of an alternative mitigation plan • Implementation of alternative mitigation plan.
7	Nine (9) years and eleven (11) months from the EDP	No later than 9 years and 11 months from the effective date of the permit, the permittee must be in compliance with the final TP, mercury and copper effluent limits. The permittee must notify DEQ and EPA in writing when the final effluent limit is achieved.
8	Fourteen (14) years and eleven (11) months from EDP	No later than 14 years and 11 months from the effective date of the permit, the permittee must be in compliance with the final temperature effluent limits. The permittee must notify DEQ and EPA in writing when the final effluent limit is achieved.

- 4) In addition to the tasks above the permittee must comply with the following compliance schedule tasks:
- a. **Temperature:** The permittee must comply with the following Compliance Schedule requirements for temperature and complete the tasks and reports described below:
- i) No later than December 31, 2017 permanently take out of service one of the existing trickling filters at the Nampa WWTP.
 - ii) Within fifteen months of the completion of the Phase I Upgrades, complete collection of one year of continuous temperature monitoring data and submit a report to DEQ and EPA including an evaluation of the effect of removal of one trickling filter and Phase 1 upgrades on effluent temperature.
 - iii) No later than December 31, 2023 complete an evaluation of alternatives that the City may use to achieve the final temperature effluent limits. The evaluation should at a minimum consider: facility improvements, removal of trickling filters, alternative discharge locations, re-use of effluent and possible trading mechanisms such as offsite mitigation, including wetland and habitat restoration.
 - iv) Starting in 2024, and continuing until final effluent limits are achieved, the permittee must submit a Report of Progress to EPA and DEQ detailing the evaluation of each available option, progress made toward achieving the final effluent limitation, and the series of actions that will be taken in the coming year. The Reports must be submitted by December 31st of each year.
 - v) No later than June 30, 2025, the City must provide DEQ and EPA with a preliminary schedule of design upgrades and preliminary construction schedules for any additional treatment that will be used to achieve compliance with the final temperature effluent limits.
 - vi) No later than June 30, 2026 the City must complete the preliminary design of any planned facility upgrades and/or a preliminary plan and schedule for an alternative temperature mitigation approach, which will address the City's effluent temperature limit. The preliminary design and/or plan will select the specific technology/technologies/activities to be used to meet the effluent temperature limits based on the previously completed alternatives evaluation.
 - vii) No later than December 31, 2027, the City must complete and receive DEQ approval of the final design of any facility upgrades and/or alternative temperature mitigation plan to address the effluent temperature limits.
 - viii) No later than December 31, 2029, the City must complete construction of the facility upgrades at the Nampa WWTP and/or implement an alternative temperature mitigation plan.
 - ix) No later than fourteen (14) years and eleven (11) months from the effective date of the permit, the permittee must be compliance with the final effluent limits for temperature. The permittee must notify DEQ and EPA in writing when the final effluent limit is achieved.

- b. **Copper:** The permittee must comply with the following compliance Schedule requirements for copper and complete the tasks and reports described below:
- i) No later than December 31, 2019 complete a wastewater characterization to determine sources of copper within the City's service area. This wastewater characterization will be completed in annual phases focused on different contributors within the City's wastewater system. The phases will continue until a likely source of copper has been determined in the system. The planned annual focus areas are noted below.
 - ii) Significant industrial users
 - iii) Significant (categorical) industrial users
 - iv) Minor industrial users, insignificant wet (ISW) and insignificant dry (ISD)
 - v) Other commercial and residential customers
 - vi) No later than June 30, 2020, the City must submit a letter to DEQ if the City determines that no facility improvements or operational changes are necessary to meet the final effluent limits based on the results of the wastewater characterization. .
 - vii) No later than December 30, 2021 complete an evaluation of alternatives methods the City may use to achieve the final copper effluent limits, if necessary. The evaluation should consider facility improvements and pretreatment controls. The evaluation will be integrated in the City's TP alternatives evaluation as several of the proposed discharge options may impact the effluent copper concentrations.
 - viii) No later than December 31, 2022, the City must provide a preliminary schedule of design upgrades and preliminary construction schedules for the approach that will be used to achieve compliance with the final limits if facility improvements are necessary.
 - ix) If design upgrades are necessary to meet final copper effluent limitations, then by December 31, 2023 and of each year thereafter the permittee must provide a Report of Progress to DEQ and EPA which details the progress made toward achieving the final effluent limitation, and the series of actions that will be taken in the coming year.
 - x) No later than nine (9) years and eleven (11) months from the effective date of the permit, the permittee must be compliance with the final effluent limits for copper. The permittee must notify DEQ and EPA in writing when the final effluent limit is achieved.

Mixing Zones

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a mixing zone that utilizes 25% of the critical flow volumes of Indian Creek for ammonia, chlorine, copper, cyanide, and mercury.

Other Conditions

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the “Rules of Administrative Procedure before the Board of Environmental Quality” (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Kati Carberry, DEQ Boise Regional Office at 208.373.0434 or Kati.Carberry@deq.idaho.gov.



Aaron Scheff

Regional Administrator

Boise Regional Office

RESPONSE TO COMMENTS

Nampa WWTP NPDES Permit # ID-0022063

Idaho Department of Environmental Quality

On July 23, 2015, the U.S. Environmental Protection Agency issued a public notice for the reissuance of the City of Nampa Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) permit No. ID-0022063, including the draft Clean Water Act (CWA) Section 401 certification and antidegradation analysis prepared by Idaho Department of Environmental Quality (DEQ). This Response to Comments provides a summary of significant comments received by DEQ on the 401 certification of this NPDES permit and provides corresponding DEQ responses.

Comments were received by:

1. Justin Hayes, Program Director, Idaho Conservation League (ICL), received August 11, 2015

Commenter: Justin Hayes, Idaho Conservation League (ICL)

Comments submitted to EPA (and cc'd to DEQ) that are related to DEQ's 401 certification:

Comment:

Mercury Compliance Schedule

We do not support the provision in this draft permit that provides for a 9 year 11 month compliance schedule for mercury.

EPA and DEQ have justified a 9 year 11 month compliance schedule for total phosphorus based on the time (and funding) needed to evaluate and implement various potential facility upgrades.

However, the achievement of final effluent limits for mercury is not based on pending facility upgrades. Rather, mercury compliance is based on the city developing and implementing a Mercury Minimization Plan. Developing such a plan should not take the city too long – as this is pretty standard and the city will undoubtedly be benefiting from the many other Mercury Minimization Plans that have been created in Idaho and across the United States. There are a limited number of generally well-understood types of facilities that typically discharge mercury into the influent of WWTPs. Whereas total phosphorus compliance will require years of complicated construction at the WWTP, mercury compliance will require that the city simply change the behavior of a limited number of facilities discharging to the WWTP. There is no justification for such a protracted compliance schedule for mercury and it should be greatly shortened or completely eliminated.

Response:

The 9 year 11 month compliance schedule is for the City of Nampa WWTF to meet the final mercury limits. Currently the City cannot immediately achieve compliance with the effluent limits for Mercury in the permit. However, it is anticipated that the addition of biological nutrient removal and improved tertiary filtration implemented for phosphorus removal will also provide some level of enhanced removal for mercury.

The Mercury Minimization Plan was not included as part of the compliance schedule and is to be developed and implemented within 180 days of the effective date of this permit. The mercury minimization plan will likely reduce discharges of mercury from the Nampa WWTP.

Comment:Copper Compliance Schedule

We do not support the provision of this draft permit that provides for a 9 year 11 month compliance schedule for copper.

EPA and DEQ have justified a 9 year 11 month compliance schedule for total phosphorus based on the time (and funding) needed to evaluate and implement various potential facility upgrades.

However, the achievement of final effluent limits for copper is not based on pending facility upgrades. Rather, copper compliance is based on the city identifying the contributing facilities and developing and implementing a pollutant minimization plan. There are a limited number of generally well-understood types of facilities (like circuit board manufactures) that typically discharge copper into the influent of WWTPs.

Whereas total phosphorus compliance will require years of complicated construction at the WWTP, copper compliance will require that the city simply change the behavior of a limited number of facilities discharging to the WWTP. There is no justification for such a protracted compliance schedule for copper and it should be greatly shortened or completely eliminated.

Response:

The 9 year 11 month compliance schedule is for the City of Nampa WWTF to meet the final copper effluent limits. Currently the City cannot immediately achieve compliance with the final Copper effluent limits in the permit. Currently, there are no conventional treatment options that exist to meet the copper effluent limits. However, it is anticipated that the addition of biological nutrient removal and improved tertiary filtration implemented for phosphorus removal will also provide some level of enhanced removal for copper.

No later than December 31, 2018 the Nampa WWTF is required to complete a wastewater characterization to determine sources of copper within the City's service area. It is still unknown what the level of upgrades may be needed to meet the final copper limit.

Comment:

Total Phosphorus Limits

ICL has expressed support for the Lower Boise River TMDL: 2015 Total Phosphorus Addendum's conclusion to develop waste load allocations consistent with effluent concentrations of 0.1 mg/l in the May 1 – September 30 period and 0.35 mg/day in the October 1 – April 30 time period.

It is our understanding that the maximum amount of TP that can be discharged at the Nampa WWTP would be the appropriate seasonal concentration target (i.e. either 0.1 mg/l in the May 1 – September 30 period and 0.35 mg/day in the October 1 – April 30 time period) applied to the facility's design flow (i.e. 18 mgd). This would result in a *maximum* discharge of 15 lbs./day TP during May 1 – September 30 and 52.6 lbs./day during the October 1 – April 30 period expressed as a monthly average.

The TMDL developed concentration based waste load allocations. Thus, Nampa's TP effluent limit needs to be based on a combination of effluent concentration and discharge volume. It is not appropriate to only articulate this limit in terms of lbs./day loading.

Rather, Nampa's limit needs to be expressed such that their discharge does not exceed a concentration of either 0.1 mg/l in the May 1 – September 30 period or 0.35 mg/day in the October 1 – April 30 time period and also does not exceed a total load discharge of 15 lbs./day TP during May 1 – September 30 and 52.6 lbs./day during the October 1 – April 30 period (expressed as a monthly average and weekly average).

To be consistent with the TMDL, the concentration limits cannot be exceeded. This is the case even if the total loading is less than 15 lbs./day TP during May 1 – September 30 and 52.6 lbs./day during the October 1 – April 30 period (expressed as a monthly average and weekly average).

During periods of lesser discharge flow from the facility (i.e. less than 18 mgd) total loading has to be kept in check by requirements to not exceed the concentration of either 0.1 mg/l in the May 1 – September 30 period or 0.35 mg/day in the October 1 – April 30 time period. See the NPDES permit for the City of Boise's West WWTP ID-002398-1 for an example of permit limits that are expressed as both a concentration and a load.

Response:

The TP limits in the permit that are expressed as mass loads (lbs/day) were derived specifically from the mass WLAs in the *Lower Boise River Total Phosphorus Addendum TMDL*. Expressing the limits in the permit as a mass loading (lbs/day) will enable the implementation of reuse and water quality trading programs because typically the BMPs used in these programs measure reductions in lbs versus concentrations. Facilitating alternative methods for achieving TP reductions will allow for more efficient and cost effective TP reductions in the LBR subbasin.

Comment:

TSS Limits

Although the DEQ provided (and EPA approved) that Nampa could increase its WLA for TSS by allocating to Nampa some of the TSS that had been reserved for growth in the prior Lower Boise Sediment TMDL, it is not appropriate for the EPA to incorporate this change into the City of Nampa's TSS effluent limit. In this instance, because the receiving water, Indian Creek, continues to violate water quality standards for sedimentation and siltation, this increase in allowable TSS discharges represents backsliding, irrespective of the changed conditions at the WWTP. Increasing the TSS effluent limit will cause and/or contribute to a violation of water quality standards.

Response:

The proposed effluent concentration and load for sediment support the existing, cold water aquatic life and secondary contact recreation uses in Indian Creek. The sediment load allocations in the 1999 *Lower Boise River TMDL* and 2015 *Lower Boise River Sediment and Bacteria Addendum TMDL* were designed to ensure the Boise River and its tributaries, including Indian Creek, will achieve the water quality necessary to support their existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. A reserve for growth based on 20 year build out scenarios for wastewater facilities was part of the TMDL allocations. The Nampa WWTF requested an increase in their wasteload allocation from this reserve for growth. Allotting the Nampa WWTP a portion of the reserve will not exceed the TSS targets established in the TMDL. Thus, DEQ is maintaining water quality to protect the beneficial uses in Indian Creek.

Michael J. Fuss, P.E., MBA
Public Works Director



Sheri L. Murray
Executive Assistant

City of Nampa Public Works Department

April 3, 2014

Ms. Lori Monnot
Idaho Department of Environmental Quality
Boise Regional Office
1445 North Orchard
Boise, Idaho 83706

Subject: 401 Water Quality Certification for the City of Nampa Wastewater Treatment
Plant National Pollution Discharge Elimination System Permit

Dear Ms. Monnot:

The City of Nampa (City) has been actively working with the Environmental Protection Agency (EPA) to determine the necessary and applicable discharge limitations for the Nampa Wastewater Treatment Plant's (WWTP) renewed National Pollutant Discharge Elimination System (NPDES) permit. Through this interaction, the City has built a constructive relationship with EPA with the goal of implementing permit limits that best meet the needs of the City, Indian Creek, and the greater Lower Boise River community. It is the City's understanding that EPA recently provided a draft version of the Nampa WWTP's renewed NPDES permit to the Idaho Department of Environmental Quality (IDEQ) for Section 401 Water Quality Certification.

The City would like to continue the constructive working relationship with the regulatory agencies as the renewed NPDES permit transitions to the next phase of its development. To this end, the purpose of this letter is to provide IDEQ with proposed compliance schedules for Section 401 Water Quality Certification for the City of Nampa. Pursuant to the Idaho Water Quality Standards (IDAPA 58.01.02), IDEQ may authorize compliance schedules that allow point source discharges to phase in, over time, compliance with water quality-based effluent limitations. The City believes a compliance schedule is warranted and necessary for several of the proposed constituent limits in the renewed NPDES permit.

The City believes compliance schedules are warranted and necessary for the new permit limits for total phosphorus, mercury, cyanide, and copper. The Nampa WWTP would not be able to immediately meet the new effluent limitations for these constituents, and thus will require time to study, plan, design, and construct necessary improvements or modifications in operations to meet these requirements. The City has developed suggested compliance schedules for each of these limitations based on what it considers reasonable timeframes to complete these activities. These suggested compliance schedules are outlined in Attachment A – Suggested Compliance Schedules for Nampa WWTP NPDES Permit. The City respectfully requests that IDEQ review the suggested compliance schedules presented in Attachment A and discuss any necessary changes with the City prior to submitting the draft Section 401 Water Quality Certification to EPA.

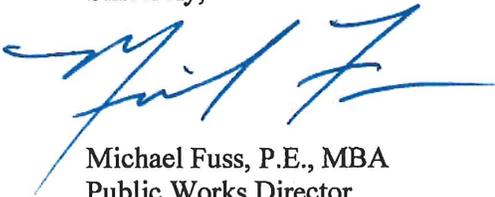
April 3, 2014
Ms. Lori Monnot
Page 2 of 2

The City also believes that a compliance schedule is necessary should a temperature limit be included in the renewed Nampa WWTP NPDES permit. While the City believes these limits are not needed based on the natural background temperatures in Indian Creek, the City would not be able to meet the proposed temperature limits immediately. Therefore, Attachment A – Suggested Compliance Schedules also includes a proposed compliance schedule for temperature.

Finally, it is the City's understanding that the proposed total suspended solids (TSS) load allocations included in the Nampa WWTP NPDES permit are based on the Lower Boise River Total Maximum Daily Load (TMDL) completed by IDEQ in 1999. Since the completion of this TMDL, the City's design flow has increased from 11.76 to 18.0 million gallons per day (mgd). Therefore, the City is requesting a portion of the growth allocations from the TMDL be allocated to Nampa such that the average monthly and average weekly effluent load limitations for the Nampa WWTP are 4,504 and 6,755 pounds per day, respectively. These load allocations would align the current design flow for the Nampa WWTP, the effluent concentration limitation, and the effluent load limitation.

The City appreciates the opportunity to continue our collaborative working relationship with IDEQ and EPA during this permit renewal process. We will be contacting you to set up a time to meet and discuss the proposed compliance schedules. Please feel free to contact me with any questions or comments. I can be reached by phone at (208) 468-5420 or by email at fussm@cityofnampa.us.

Sincerely,



Michael Fuss, P.E., MBA
Public Works Director

cc: Pete Wagner, IDEQ
Michael Mieyr, City of Nampa
Andy Zimmerman, City of Nampa
Cheryl Jenkins, City of Nampa
Matthew Gregg, Brown and Caldwell
file

Attachments (2)

Attachment A: Suggested Compliance Schedules for Nampa WWTP NPDES Permit
Attachment B: Suggested Compliance Schedules Supporting Information



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

April 15, 2014

Mr. Michael Fuss
Public Works Director
City of Nampa
411 3rd Street S.
Nampa, Idaho 83651

Subject: City of Nampa – TSS Reserve for Growth Load Allocation for the Lower Boise River TMDL

Dear Mr. Fuss:

The Boise Regional Office of the Department of Environmental Quality (DEQ) received a request from the City of Nampa to be granted a portion of the total suspended solids (TSS) reserve for growth allocation. This reserve was set aside in the *Sediment and Bacteria Allocations Addendum to the Lower Boise River TMDL* (2008).

On March 10, 2014, EPA requested 401 certification of a draft NPDES permit for the City of Nampa Wastewater Treatment Plant (WWTP). The draft permit includes a technology-based monthly average effluent limit of 30 mg/l TSS with a mass-based limit of 3000 lbs/day from the *Lower Boise River TMDL* (1999). DEQ understands that the mass-based limit is no longer achievable since the design flow for the facility increased from 11.76 million gallons per day (MGD) in 1999 to 18.0 MGD.

This letter is to inform you that DEQ is revising Table 15 of the *Sediment and Bacteria Allocations Addendum to the Lower Boise River TMDL* (2008) to allow Nampa a 4,503 lbs/day and 6,755 lbs/day for the monthly average and weekly average limits, respectively. Additional revisions to this table change the design flow of Nampa's facility from 11.76 MGD to 18.0 MGD. The resulting total remaining reserve for growth in the sediment TMDL will be 1.23 tons/day.

An additional requirement of the increased TSS wasteload allocation is that all or a portion of this allocation be returned to the reserve for growth after facility upgrades are completed and the system meets its final total phosphorus and ammonia effluent limits. Determination of the portion of the reserve for growth allocation to be returned will be dependent upon the facility design flow and performance after facility upgrades.

Michael Fuss
City of Nampa
April 8, 2014
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Please contact Lauri Monnot at the DEQ Boise Regional Office at (208) 373-0277 to discuss any questions or concerns regarding the wasteload allocation.

Sincerely,

A handwritten signature in blue ink that reads "Barry N. Burnell". The signature is written in a cursive style with a large initial 'B'.

Barry N. Burnell
Water Quality Division Administrator

BNB:MB:ls

c: Pete Wagner, DEQ Boise Regional Office