STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

July 15, 2013

Mr. Michael Lidgard
US Environmental Protection Agency, Region 10
1200 6th Avenue, OW-130
Seattle, WA 98101

RE: Final §401 Water Quality Certification for the NPDES Permit No. ID0021296 for the Mullan Wastewater Treatment Plant, South Fork Coeur d'Alene River Sewer District

Dear Mr. Lidgard:

The State of Idaho Department of Environmental Quality (DEQ) received a request for final certification on June 19, 2013 for the Mullan Wastewater Treatment Plant to discharge from their existing facility. After review of the final permit and fact sheet, DEQ submits the enclosed final §401 water quality certification and our response to comments.

Please direct any questions to June Bergquist at 208.666.4605 or june.bergquist@deq.idaho.gov .

Sincerely,

Daniel Redline
Regional Administrator
Coeur d'Alene Regional Office

Enclosures (1)

C: Miranda Adams, DEQ Boise
Karen Burgess, EPA Region 10, Seattle
South Fork Sewer District – Ross Stout, Manager

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Idaho Department of Environmental Quality

Final §401 Water Quality Certification

July 15, 2013

NPDES Permit Number(s): ID0021296 Mullan Wastewater Treatment Plant, South Fork Coeur d'Alene River Sewer District

Receiving Water Body: South Fork Coeur d'Alene River

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 Mullan WWTP discharges the following pollutants of concern: BOD_5, pH, *E. coli*, dissolved oxygen, ammonia, chlorine, cadmium, lead, zinc, TSS, temperature, phosphorus, nitrate + nitrite, total Kjeldahl nitrogen. Effluent limits have been developed for BOD5, TSS, E. coli, pH, chlorine, ammonia, cadmium, zinc and lead. No effluent limits are proposed for dissolved oxygen, temperature, nitrate + nitrite, phosphorus and total Kjeldahl nitrogen. The reasonable potential analysis for dissolved oxygen concluded that this discharge will not cause the downstream dissolved oxygen to drop below the WQS. There was insufficient information to determine if the discharge would contribute to violations of the temperature criteria so temperature monitoring was added to the permit. Additionally, nutrient data is being monitored as part of a larger effort to identify nutrient contributions to Coeur d'Alene Lake in accordance with the *Coeur d'Alene Lake Management Plan* (Coeur d'Alene Tribe/DEQ, 2009).

Receiving Water Body Level of Protection

The Mullan WWTP discharges to the South Fork Coeur d'Alene River Subbasin assessment unit (AU) ID17010302PN011_03 (from and including Daisy Gulch [to Canyon Creek]). This AU has the following designated beneficial uses: cold water aquatic life, secondary contact recreation, agricultural and industrial water supply, wildlife habitats and aesthetics. There is no available information indicating the presence of any existing beneficial use aside from those that are already designated.

The cold water aquatic life use in the South Fork Coeur d'Alene River AU is not fully supported due to an unknown cause; however, metals are the suspected cause of the impairment (2010 Integrated Report). The secondary contact recreation beneficial use has not been assessed; however, *E. coli* data collected in 1998 and 2005 indicate that recreation uses are fully supported (DEQ Beneficial Use Reconnaissance Program data from 1998 and 2005). As such, DEQ will provide Tier 1 protection only for the aquatic life use and Tier 2 protection, in addition to Tier 1, for the recreation beneficial use (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 Mullan WWTP permit, including those final effluent limits set for pollutants for which a compliance schedule is allowed, 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. The EPA-approved *South Fork Coeur d'Alene River Sediment Subbasin Assessment and Total Maximum Daily Load* (DEQ, 2002) includes a wasteload allocation for the Mullan WWTP discharge. The proposed permit contains a limitation that is consistent with the sediment wasteload allocation.

In the absence of a TMDL and depending upon the priority status for development of a TMDL, the WQS stipulate that either there be no further impairment of the designated or existing beneficial uses or that the total load of the impairing pollutant remains constant or decreases (IDAPA 58.01.02.055.04 and 58.01.02.055.05). Discharge permits must comply with these provisions of Idaho WQS.

As previously stated, the cold water aquatic life use in this South Fork Coeur d'Alene River AU is not fully supported due to an unknown cause; however excess cadmium, lead and zinc are suspected as the cause of impairment. A TMDL has not yet been developed for these pollutants, but this is a high priority segment for the development of a TMDL. A temperature TMDL for the South Fork Coeur d'Alene River has been drafted but is not yet complete. Interim effluent limits in the draft permit for cadmium and zinc are the same as those currently allowed under the 2009 variance. Lead has been given an effluent limit due to a reasonable potential for this pollutant to exceed WQS. This limit will not allow any increase in lead concentration or load, beyond that currently discharged. There is also no proposed change in design flow, influent quality, or treatment processes that would result in increased discharge of temperature or metals. Therefore, the proposed permit ensures that the total load of temperature, cadmium, lead and zinc will remain constant or decrease, in compliance with IDAPA 58.01.02.055.04, as well as IDAPA 58.01.02.051.01 and 58.01.02.052.01.

High-Quality Waters (Tier 2 Protection)

The South Fork Coeur d'Alene River is not assessed for recreational use support. As noted above, Beneficial Use Reconnaissance Monitoring data for *E. coli* collected by DEQ in 1999 and 2005 indicate that the South Fork Coeur d'Alene River is high quality for the secondary contact recreation beneficial use. Additionally, mercury data collected approximately 2.5 miles upstream of this discharge in 1999 and 2000, was reported as less than method detection limits (*Fact Sheet for Permit Remand and Modification Proceedings* for the Hecla Lucky Friday Mine, EPA, 2005) also indicating full support for secondary contact recreation. As such, the water quality relevant to the secondary contact recreation use of the South Fork Coeur d'Alene River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to secondary contact recreation use of the South Fork Coeur d'Alene River (IDAPA 58.01.02.052.05). These include the following: *E. coli* bacteria, phosphorus, zinc and mercury. Effluent limits are set in the proposed and existing permit for *E. coli* bacteria (discussion follows).

For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license (IDAPA 58.01.02.052.06.a). For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.06.a).

Pollutants with Limits in the Current and Proposed Permit: *E. coli* and Zinc

For Tier 2 pollutants that are currently limited (have effluent limits) and will have limits under the reissued permit, the current discharge quality is based on the limits in the current permit or license (IDAPA 58.01.02.052.06.a.i), and the future discharge quality is based on the proposed permit limits (IDAPA 58.01.02.052.06.a.ii). For the Mullan WWTP permit, this means determining the permit's effect on water quality based upon the limits for *E. coli* in the current and proposed permits. Table 1 provides a summary of the current permit limits and the proposed or reissued permit limits. There were no changes in the *E. coli* effluent limit from the current to the proposed permit and no changes in design flow or treatment process. Therefore, no adverse change in water quality and no degradation will result from the discharge of *E. coli*.

While the South Fork Coeur d'Alene River is Tier 2 for recreational uses, this segment of the river is listed as impaired for aquatic life uses due to unknown pollutants with metals as the suspected pollutants. Because zinc is relevant to both uses, and the water quality standards require both uses be protected, the use with the more stringent requirement limits the zinc levels. The final effluent limits in the draft permit require a substantial reduction in zinc to protect aquatic life uses, the more stringent standard. These limits meet the Tier 2 requirement under the antidegradation policy because there will be no degradation in water quality, but rather an improvement in zinc levels.

Pollutants with No Limits: Mercury and Phosphorus

There are two pollutants of concern, mercury and phosphorus, relevant to Tier 2 protection of recreation that currently are not limited and for which the proposed permit also contains no limit (Table 1). For such pollutants, a change in water quality is determined by reviewing whether changes in production, treatment, or operation that will increase the discharge of these pollutants are likely (IDAPA 58.01.02.052.04.a.ii). With respect to mercury and phosphorus, there is no reason to believe these pollutants will be discharged in quantities greater than those discharged under the current permit. This conclusion is based upon the fact that there have been no changes in the design flow, influent quality, or treatment processes that would likely result in an increased discharge of this pollutant. Because the proposed permit does not allow for any increased water quality impact from these pollutants, DEQ has concluded that the proposed permit should not cause a lowering of water quality for these pollutants with no limits. As such,

the proposed permit should maintain the existing high water quality in South Fork Coeur d'Alene River.

Table 1. Comparison of current and proposed permit limits for pollutants of concern.

Parameter	Units	Current Permit			Proposed Permit			Change[a]
		Average Monthly Limit	Average Weekly Limit	Maximum Daily	Average Monthly Limit	Average Weekly Limit	Maximum Daily	
Pollutants with limits in both the current and proposed permit								
BOD_5	mg/L	30	45	—	30	45	—	NC
	lb/day	75	113	—	75	113	—	
	% removal	85%	—	—	85%	—	—	NC
TSS	mg/L	30	45	—	30	45	—	NC
	lb/day	67.4	176	—	67.5	176	—	
	% removal	85%	—	—	85%	—	—	
pH	s.u.	6.5–9.0 all times			6.5–9.0 all times			NC
E. coli	no./100 mL	126	—	576	126	—	576	NC
Total Residual Chlorine	µg/L	33.0	—	55	18	—	45	D
	lb/day	0.15	—	0.25	0.082	—	0.21	
Total Ammonia	mg/L	8.95	—	20.2	8.2	—	22	I[b]
	lb/day	41	—	93	39	—	101	
VARIANCE LIMITS in effect until midnight July 30, 2014								
Cadmium	µg/L	5.5	—	10.8	5.5	—	10.8	NC
	lb/day	0.025	—	0.049	0.025	—	0.049	
Zinc	µg/L	1610	—	3682	1610	—	3682	NC
	lb/day	7.4	—	17	7.4	—	17	
NEW INTERIM LIMITS from July 31, 2014 through December 31, 2034								
Cadmium	µg/L	—	—	—	5.5	—	10.8	D
	lb/day	—	—	—	0.025	—	0.049	D
Zinc	µg/L	—	—	—	1610	—	3682	D
	lb/day	—	—	—	7.4	—	17	D
FINAL LIMITS effective January 1, 2035[d]								
Cadmium[c]	µg/L	—	—	—	0.72	—	1.05	D
	lb/day	—	—	—	0.0033	—	0.0048	
Zinc[c]	µg/L	—	—	—	87	—	127	D
	lb/day	—	—	—	0.04	—	0.58	
Pollutants with limits only in the proposed permit								
Lead upon permit issuance through 12-31-2034	µg/L	—	—	—	30	—	49	
	lb/day	—	—	—	0.14	—	0.22	NC
Lead effective January 1, 2035	µg/L	—	—	—	16	—	32	D
	lb/day	—	—	—	0.073	—	0.15	
Pollutants with no limits in either the current and proposed permit								
Temperature	°C	—	2X/mo	Report	Report	5X/wk	Report	NC
Oil and grease	mg/L	—	—	—	Report	—	Report	NC
Total Phosphorus	µg/L	—	—	Report	Report	—	Report	NC
Kjeldahl Nitrogen	mg/L	—	—	Report	Report	—	Report	NC
Nitrate-Nitrite	mg/L	—	—	Report	Report	—	Report	NC

[a] NC = no change in effluent limit from current permit; I = increase of pollutants from current permit; D = decrease of pollutants from current permit

[b] Ammonia limits are slightly higher due to a change in the calculation methodology and the use of long term critical river flows. Refer to page 25 of the fact sheet for a detailed discussion. This increase is not due to an actual increase of ammonia discharged.

[c] Final limits for cadmium and zinc are slightly lower than those in the current permit due to the use of calculated multipliers rather than table values provided in the *Technical Support Document for Water Quality Based Toxics Control* (EPA, 1991). See Fact Sheet page 25 for more details.

[d] It is possible to amend the final limits per paragraph 3 under the Compliance Schedule section.

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

Compliance Schedule

Pursuant to IDAPA 58.01.02.400.03, DEQ may authorize compliance schedules for water quality–based effluent limits when they are issued in a permit for the first time. Mullan WWTP cannot immediately achieve compliance with the effluent limits for cadmium, lead and zinc; therefore, DEQ authorizes a compliance schedule and interim requirements as set forth below. This compliance schedule provides the permittee a reasonable amount of time to achieve the final effluent limits as specified in the permit. At the same time, the schedule ensures that compliance with the final effluent limits is accomplished as soon as possible.

1. The permittee must comply with all effluent limitations and monitoring requirements in Part I beginning on the effective date of the permit, except those for which a compliance schedule is specified as shown in Part I and II of the permit.

2. A schedule of compliance is authorized on August 1, 2014 (after the expiration of the DEQ authorized variance dated June 5, 2009) for the following pollutants:
   a) Cadmium
   b) Lead (a new interim effluent limit for lead becomes effective upon permit issuance)
   c) Zinc

3. The permittee must achieve compliance with the final effluent limitations for cadmium, lead and zinc as set forth in Part I.B. (Table 1) of the permit, not later than twenty (20) years and five months from August 1, 2014 through December 31, 2034. If an approved TMDL for cadmium, lead and zinc is developed prior to the expiration date of the compliance schedule and the TMDL contains wasteload allocations for this discharge, then those wasteload allocations will replace the final effluent limits in Table 1. Superfund related metals enter this wastewater collection system through inflow and infiltration. Because of this circumstance and the uncertainty of Superfund cleanup progress, the compliance schedule duration may be amended if the permittee submits compelling evidence that the presence of Superfund related metals prevents them from meeting WQS for cadmium, lead and zinc within the 20 year and five month timeframe. The evidence must also demonstrate that the treatment system itself is not a source of dissolved metals. Results of facility planning, special studies, implementation of conditions of the permit, implementation of conditions required by this 401 certification, and/or new Bunker Hill Superfund related information are all sources of potentially new information not available at this time which could further our understanding of the source of metals in this wastewater discharge. The permittee must

provide the evidence along with a new proposed compliance schedule timeframe and submit it for DEQ's review and approval as part of their application for renewal of this permit.

4. While the schedule of compliance specified in Part II of the permit is in effect, the permittee must meet interim effluent limits, monitoring requirements, and special conditions as specified in Parts I and II of the permit.

5. All other provisions of the permit, except the interim and final effluent limits for cadmium, lead and zinc must be met after the effective date of the final permit.

Compliance Schedule Justification

A 20 year five month compliance schedule is being allowed for the Mullan WWTP to meet final effluent limits for cadmium, lead and zinc. This schedule provides the time needed to evaluate the existing conditions, study inflow and infiltration (I/I) reduction methods, address I/I, conduct facility planning to evaluate treatment options, if necessary, and construct any necessary treatment facilities. This compliance schedule is reasonable given the resources of the permittee, the influence of historic sources of metals and the related schedule for addressing ground water and surface water quality in the Upper Basin of the Coeur d'Alene River Basin.

The *Interim Record of Decision (ROD) Amendment, Upper Basin of the Coeur d'Alene River Bunker Hill Mining and Metallurgical Complex Superfund Site* (EPA, August 2012) was recently issued. This amendment lays out a 30 year timeframe to accomplish selected remedies for surface water, soil, sediments and groundwater in the Upper Basin (which includes the South Fork Coeur d'Alene River). Mullan's collection system and discharge point is located within the Upper Basin of the Bunker Hill Superfund site.

As a result of being located where ground water and surface water have been impacted with Superfund-related pollutants, and having large amounts of inflow and infiltration (I/I) of these polluted waters into utility lines, the wastewater effluent contains elevated concentration of cadmium, lead and zinc. Reduction of I/I is a responsibility of, and a challenge for, every municipal wastewater collection system. Although seldom eliminated, systems must work towards sufficient reduction of I/I so that the treatment system performs optimally and there are no sanitary sewer overflows or bypass events. This ever-present I/I condition means that even if a collection system is well maintained, Superfund-related metals are likely to always be part of the pollutant load received by municipal dischargers located in the Upper Basin. Implementation of the remedies set out in the ROD may influence the ability of the South Fork Coeur d'Alene Sewer District to meet metal limits at the Mullan facility. As a result, it is reasonable to establish the compliance schedule so that the efforts to meet standards at the Mullan facility can take advantage of, and are coordinated with, ROD implementation.

In addition, implementation of the ROD may affect the WQS for portions of the South Fork Coeur d'Alene River which, in turn, would affect the effluent limits for the Mullan facility. Part of the ROD Amendment's 30 year cleanup plan is an attempt to meet ambient water quality standards for the South Fork Coeur d'Alene River. If the cleanup is unsuccessful in meeting this water quality goal, the ROD Amendment indicates the possibility of issuing a Technical Impracticability waiver for specific locations and a revised water quality goal for these waterbody segments. Currently, it is unknown if the cleanup plan can achieve its goals and where along the South Fork Coeur d'Alene River it may improve water quality or determine it

impracticable. This has the potential to affect WQS, and subsequently effluent limits, for some dischargers.

Given the above factors, a 20 year five month compliance schedule was determined to be the minimum amounts of time necessary to 1) address I/I in concert with facility planning to ensure treatment systems function optimally and effluent limits for non-metal pollutants can be met year round. After I/I controls and treatment optimization, dischargers will have an accurate assessment of their remaining metals load so an appropriate metals treatment can be selected and constructed, if necessary. The Compliance Schedule and Facility Planning Requirement provide finite deadlines for these improvements; clear direction and milestones to check progress; and 2) coordinate with ROD implementation activities.

Mixing Zones

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a mixing zone that utilizes 25% of the critical flow volumes of South Fork Coeur d'Alene River for ammonia and chlorine.

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 June Bergquist, Coeur d'Alene Regional Office at 208.666.4605 or via email at june.bergquist@deq.idaho.gov .

Daniel Redline
Regional Administrator
Coeur d'Alene Regional Office

IDEQ Response to Comments on CWA §401 Certification

1. Comment from SFSD on the Certification of Mullan Permit

Comments from SFSD	IDEQ Response
1. P. 2, Para 4 "*The cold water aquatic life use in the South Fork Coeur d'Alene River AU is not fully supported due to an unknown cause.*" Please provide clarification about how this Assessment Unit is not supported and why the cause is unknown.	The 2010 Integrated Report indicates that the cold water aquatic life use is impaired and the suspected impairment is due to metals. The cause will remain unknown until a sub-basin assessment is developed to determine the problem and the remedy.
2. P. 3, Para 4 "*A temperature TMDL for the South Fork Coeur d'Alene River has been drafted but is not yet complete.*" The District has not been involved with or aware of the formation of the BAG/WAG. Please send additional information regarding this TMDL.	The Watershed Advisory Group (WAG) for this Total Maximum Daily Load (TMDL) development has not yet been formed. A draft temperature TMDL has been prepared but is not yet complete. The draft TMDL will not be complete until a WAG has been formed and DEQ completes the review and consultation process with the WAG. Notification of NPDES permittees as well as other stake holders about the formation of a WAG is standard practice.
3. P. 4, Para 1 Considered Tier 2 for P and Zinc. It is our assumption that the current phosphorus load will be the maximum discharged historically.	The draft permit requires only phosphorus monitoring and no effluent limits at this time. It is difficult to predict what future permits might require. As indicated in the draft certification, this segment of the river is considered high quality for recreational uses and therefore, has no impairment due to excess phosphorus.
4. P. 5, Table 1 a. There is a conflict between final limits effective date (January 1, 2033) and Compliance schedule (December 31, 2034). b. Add a note "d" to the final limits date as follows, "d. limits predicated on increased water quality in receiving water."	a. The dates in the certification Table 1 for interim limits and final limits do require revision to match the final permits. Thank you for pointing this out, we will make the revisions. b. We have added a footnote that references paragraph 3 of the Compliance Schedule section that describes how the compliance schedule might be amended.

Comments from SFSD	IDEQ Response
5. P. 6, Bullet 3. "*...if the permittee submits compelling evidence that the presence of .Superfund related metals prevents them from meeting WQS for cadmium, lead, and zinc within the 20 year time frame. The evidence must also demonstrate that the treatment system itself is not as source of dissolved metals.* "The term "compelling evidence" is not clearly defined. That is logical since it is unknown at this time what metals removal is possible and what the long term water quality goals are for this receiving water. It is important that the full burden not be on the District in this case, however. Instead, both the District and IDEA will need to work together to determine what is practical and achievable in this watershed.	As a partner in the Superfund cleanup, DEQ, as well as other agencies, are devoting considerable resources to investigation, planning and implementation of projects that further improve water quality. Results of this work will be available to the District as well as the public. As the cleanup progresses, what is achievable should become clearer. Additionally, planning grants and construction loans are available from DEQ to assist the District in facility planning and upgrades.
6. P. 7, para 4 "*If the cleanup is unsuccessful in meeting this water quality goal, the ROD Amendment indicates the possibility of issuing a Technical Impracticability waiver for specific locations and a revised water quality goal for these waterbody segments.*" As a practical matter, the Impracticability Waiver will likely require the State of Idaho to change the water quality standards for the South Fork of the Coeur d'Alene River. It is important that this occur prior to construction of any metals treatment facilities. If the Waiver occurs after the compliance period, the timing could cause the District to construct metals treatment facilities unnecessarily. Because of this, the Water Quality Certification should include language tying the compliance schedule to progress in improving water quality in the Coeur d'Alene River watershed. Updates to the compliance schedule would be evaluated at each permit renewal beginning in 2022 including a full review of Superfund progress by IDEQ and EPA.	Yes, if the impracticability waiver is used, it may prompt DEQ to re-evaluate water quality standards for the South Fork Coeur d'Alene River. During future permit renewals, changes such as this are evaluated. Plans can be made during these renewals to avoid a consequence where a metals treatment facility is constructed and then found unnecessary. We explored the possibility of predicating the compliance schedule based on some other event or outcome. However, a compliance schedule must have a defined start and end date, thus the 20 year timeframe.

2. Comment from SFSD on the Certification of Page Permit

IDEQ provided their response to the CWA §401 Certification below.

Comments from SFSD	IDEQ Response
1. P. 2, Para 4 "*The cold water aquatic life use in the South Fork Coeur d'Alene River AU is not fully supported due to an unknown cause.*" Please provide clarification about how this Assessment Unit is not supported and why the cause is unknown.	Please see page 2 of the Page draft certification. The cause of the impairment is due to excess cadmium, lead, zinc, sediment and temperature.
2. P. 3, Para 4 "*A temperature TMDL for the South Fork Coeur d'Alene River has been drafted but is not yet complete.*" The District has not been involved with or aware of the formation of the BAG/WAG. Please send additional information regarding this TMDL.	Please refer to Part 1 answer 2.
3. P. 3, Para 6 Considered Tier 2 for P and Zinc. It is our assumption that the current phosphorus load will be the maximum discharged historically.	Please refer to Part 1 answer 3.
4. P.5 and 6,Table 1 a. Chlorine limits should be applied over the summer months only. b. There is a conflict between final limits effective date (January 1., 2033) and the draft permit (January 1, 2035). The District requests that both the 401 WQ Certification and the Permit reflect January 1, 2035 as the correct date. c. The District requests that a footnote "e" is added to the final limits date on Table 1 as follows, *"e. limits predicated on improved water quality in receiving water."*	a. Chlorine limits in Table 1 reflect values in the draft permit. To see a discussion of chlorine limits please refer to page 61 of the Fact Sheet. The effluent limit for chlorine is based on IDAPA 58.01.02.210 of the Idaho Water Quality Standards (WQS). The WQS indicate that chlorine is a compound toxic to aquatic life in concentrations above a numeric standard. There are no seasonal aspects to this water quality standard. b. The dates in the certification Table 1 for interim limits and final limits do require revision to match the final permits. Thank you for pointing this out, we will make the revisions. c. Please refer to Part 1 answer 6.

Comments from SFSD	IDEQ Response
5. P. 7, Bullet 3. a. The discussion regarding replacement of wasteload allocations based on future TMDL changes is appropriate. b. "*...if the permittee submits compelling evidence that the presence of .Superfund related metals prevents them from meeting WQS for cadmium, lead, and zinc within the 20 year time frame. The evidence must also demonstrate that the treatment system itself is not as source of dissolved metals.* " The term "compelling evidence" is not clearly defined. That is logical since it is unknown at this time what metals removal is possible and what the long term water quality goals are for this receiving water. It is important that the full burden not be on the District in this case, however. Instead, both the District and IDEA will need to work together to determine what is practical and achievable in this watershed.	b. Please refer to Part 1 answer 5.
6. P. 8, para 4 "*If the cleanup is unsuccessful in meeting this water quality goal, the ROD Amendment indicates the possibility of issuing a Technical Impracticability waiver for specific locations and a revised water quality goal for these waterbody segments.*" As a practical matter, the Impracticability Waiver will likely require the State of Idaho to change the water quality standards for the South Fork of the Coeur d'Alene River. It is important that this occur prior to construction of any metals treatment facilities. If the Waiver occurs after the compliance period, the timing could cause the District to construct metals treatment facilities unnecessarily. Because of this, the Water Quality Certification should include language tying the compliance schedule to progress in improving water quality in the Coeur d'Alene River watershed. Updates to the compliance schedule would be evaluated at each permit renewal beginning in 2022 including a full review of Superfund progress by IDEQ and EPA.	Please refer to Part 1 answer 6.

3. Comments Received Regarding SFSD Notice

DEQ received seven responses related to South Fork Sewer District's notice to their customers regarding the draft permits and possible future rate increases. We have addressed common elements in these letters in the below narrative.

DEQ was interested to learn that customers of the South Fork Sewer District (SFSD) have a desire for good water quality in the South Fork Coeur d'Alene River and effective wastewater treatment. The concern expressed most often in these comments is that rate payers feel they should not have to pay to remove Superfund metals from their discharge. DEQ entirely agrees with this perspective. This is why we have authorized an unusually long 20 year five month compliance schedule. When more is learned about the progress of the Superfund cleanup, the results of an improved collection system through inflow and infiltration (I&I) reduction, and possible improvements to the wastewater treatment process, the path through this issue will become clearer. DEQ has also added a provision to the compliance schedule that allows it to be revised under certain circumstances. Both these provisions are designed to prevent an unfair burden placed on the rate payers beyond the normal planning, operation and maintenance of a wastewater facility.

To understand how metals enter this wastewater system, several potential paths of entry have to be examined. Drinking water provided by the Enaville well, serves a large portion of the SFSD customers. It is tested regularly for lead and cadmium, two of the three Superfund metals of concern that pollute the South Fork Coeur d'Alene River. Tests show these metals are largely not present in the Enaville well. One would expect that if the drinking water is low in these metals then the wastewater effluent should be low in these metals, but that is not the case. Additionally, zinc is not a health concern for humans, so the water is not tested for zinc but the concentrations are expected to be low since the other two Superfund related metals are largely absent. Testing is needed to confirm this.

Another pathway metals could enter the wastewater system is inflow and infiltration (I&I) through old and leaky collection pipes. Due to a deteriorating collection system and a rate structure that budgets little for repair, SFSD finds itself with huge amounts of metals contaminated ground water and stormwater entering their system. This I&I causes disruption of the treatment system resulting in the discharge of poorly treated effluent that sometimes does not meet permit limits for pollutants such as ammonia and bacteria. During high flows, I&I floods out the collection pipes and can cause the release of untreated wastewater from manhole covers which flows into basements, streets and area streams. Alleviating I&I problem is part of the solution to meeting limits for all pollutants and is part of the responsibility of operating any wastewater collection system. Even after significant I&I reduction, it is possible that metals from this source would continue to cause the facility to not meet final metals effluent limits. This is one of the reasons we have added a provision for an amended compliance schedule.

Another source of metals in the wastewater effluent might be coming from the treatment system itself. The wastewater treatment lagoons were constructed of unknown fill and possibly sealed with slimes left over from the historical mining. These materials might be adding metals to the effluent. If through investigation and/or upgrades the lagoons are found to not/or are no longer a source of metals, and the I&I has been repaired, the compliance schedule amendment provision is there again to protect the rate payers from the burden of Superfund metals removal.

DEQ has strived to treat the SFSD and its rate payers the same as any other collection and treatment system and to make special provisions for issues that are associated with the Bunker Hill Superfund site. Since this is an unusual situation, the laws and rules related to NPDES permits are not written with a superfund scenario in mind, thus the 20 year five month compliance schedule and the possibility of amending the compliance schedule, rather than a more straight forward approach.