

## RESPONSE TO COMMENTS

### City of Culdesac NPDES Permit ID0024490 August 15, 2016

On April 15, 2016 the U.S. Environmental Protection Agency (EPA) issued a public notice for the reissuance of the City of Culdesac National Pollutant Discharge Elimination System (NPDES) Permit No. ID0024490. This Response to Comments provides a summary of significant comments and provides corresponding EPA responses.

The following changes to the permit resulted from the comments received during the public review of the draft permit.

- The facility plan is required to be submitted to the Idaho Department of Environmental Quality (IDEQ).
- The maximum daily limit (MDL) for total residual chlorine concentration is changed from 94 µg/L to 17 µg/L.
- The average monthly limit (AML) for total residual chlorine concentration is changed from 51 µg/L to 9 µg/L.
- The MDL for the total residual chlorine loading is changed from 0.043 lbs/day to 0.0082 lbs/day.
- The AML for the total residual chlorine loading is changed from 0.023 lbs/day to 0.0041lbs/day.

Comments were received from the following:

Noreen Durante, City Clerk/Treasurer, City of Culdesac (City Clerk)

Robert D. E. Sharp, Mayor, City of Culdesac (Mayor)

Stuart Hurley, P.E., Mountain Waterworks on behalf of Culdesac (Mountain Waterworks)

Justin Hays, Program Director, Idaho Conservation League (ICL)

- 1. Comment (City Clerk):** The Fact Sheet's Treatment Plant Description states our facility has "Three intermittent sand filters and two infiltration and percolation ditches." However, our facility has two intermittent sand filter, and one infiltration and percolation ditches.

**Response:** The EPA does not revise the fact sheet. This Response to Comments documents the information.

The comment did not result in a change in the permit.

- 2. Comment (City Clerk):** On page 17 of the Fact Sheet V. Monitoring Requirements, C. Surface Water Monitoring states "Culdesac failed to monitor surface water as required in the existing permit." Our lead operator Herman Smith said that statement is incorrect because Culdesac did monitoring of the surface water of Lapwai Creek every four years

as require in the exiting permit. Enclosed are the lab reports from the surface water monitoring for Lapwai Creek for the years 2008, 2012 and beginning of 2016.

**Response:** The EPA received the monitoring for 2008, 2012 and 2016 with the comment. These data were not available when EPA developed the draft permit. As a result, EPA relied on data from 2003 and 2004 for pH and temperature values used to develop the ammonia criteria. A review of the newer data did not change the ammonia criteria. Therefore the ammonia limits in the permit remain the same. The permit requires that the permittee submit surface water monitoring results with the DMR.

The comment did not result in a change in the permit.

3. **Comment (Mayor):** The City of Culdesac appreciates the EPA recognizing our wastewater treatment facility will not meet the proposed ammonia limits contained in the draft permit. As a small rural, low-income community, the economic burden associated with meeting the proposed ammonia limits is going to be significant. We have limited resources to maintain safe and secure utility services. The ammonia limits will require the City complete a high capital cost project to meet the limits or eliminate surface water discharge, each a very expensive option with much higher operation and maintenance costs compare to our current system. We respectfully request the ammonia limits be eliminated or set at a level the City can achieve with our existing treatment facility.

**Response:** The Clean Water Act (CWA) and the NPDES regulations require EPA to include the ammonia effluent limits to meet the water quality standards for the receiving water. If a discharge has the “reasonable potential” to exceed the criteria for the receiving water, EPA must include final effluent limits that will protect the receiving water. EPA does not have the discretion to eliminate or adjust the water quality-based limits based on the economic burden that the limits place on the community.

The permit includes a compliance schedule to meet the new ammonia limits. One of the tasks in the compliance schedule is to obtain funding to meet the limits.

The comment did not result in a change in the permit.

4. **Comment (Mountain Waterworks):** The draft permit contains an *E. coli* sampling frequency of 5/month. Due to sample collection and commute time necessary to deliver to the City’s certified laboratory within the allowable holding times, the City is requesting to reduce the sampling frequency to 1/week as contained in the current permit. The additional time and expense of sampling 5/month will be very difficult for the City to achieve. We believe sampling 1/week is adequate for permit compliance.

**Response:** Section 301(b)(1)(C) of the CWA requires the development of limitations in permits necessary to meet water quality standards. Federal regulations at 40 CFR 122.44(d) require that the conditions in NPDES permits ensure compliance with the water quality standards. The Idaho water quality standards state that waters of the State of Idaho, that are designated for recreation, are not to contain *E. coli* bacteria in concentrations exceeding 126 organisms per 100 ml based on a minimum of five samples taken every three to seven days over a thirty day period. Therefore, the draft permit contains a monthly geometric mean effluent limit for *E. coli* of 126 organisms per 100 ml (IDAPA 58.01.02.251.01.a.) and, as set forth in the water quality standard, requires sampling to be done at a frequency of five samples/month.

The permit is not changed.

- 5. Comment (Mountain Waterworks):** The draft permit total residual chlorine concentrations (both average monthly and maximum daily) are not achievable with the City's current wastewater treatment facility. The City is requesting a compliance schedule similar to ammonia (Table 3 in the draft permit) to provide adequate time to plan, fund, and construct new facilities to meet the proposed total residual chlorine limits.

**Response:** The NPDES regulations under 40 CFR 122.47 allow for EPA to provide for a compliance schedule under limited circumstances. EPA may only consider a compliance schedule for an effluent limit when the limit is in the permit for the first time. The total residual chlorine limits are less stringent than the limits in the existing permit. EPA cannot provide a compliance schedule for an existing or less stringent effluent limit.

- 6. Comment (Mountain Waterworks):** Task 1 of the ammonia compliance schedule includes completing a facility plan by January 1, 2017. The City has applied for funding from IDEQ and USDA-Rural Development to prepare a facility plan. Funding status for the facility plan is currently unknown. The earliest funding would become available from IDEQ for completing the facility plan is in July of 2016. The City intends to complete a facility plan and is requesting to extend the completion date from January 1, 2017 to August 1, 2017. The additional time is necessary for the City to fully evaluate available alternatives, include public participation in selecting the preferred alternative, and analyzing the various environmental impacts associated with each alternative.

**Response:** The EPA agrees and extends to August 1, 2017 Task 1 of the Ammonia Schedule of Compliance requiring the permittee to provide the EPA and the Nez Perce Tribe with written notice the facility plan is complete.

- 7. Comment (Mountain Waterworks):** We question the validity of Section II.C. of the draft permit.

Table 4 indicates the maximum monthly flow design criteria for the wastewater facility is 0.055 mgd. The proposed effluent limitations contained in Table 1 include both concentration (mg/L) and loading (lbs/day). Therefore, if the City is able to achieve the concentration and specifically the loading limits, flow rate should not be a limiting condition or constraint for the City.

**Response:** The 0.055 mgd in Section II.C. Table 4 is not an effluent limitation for the City. The condition requires Culdesac to compare influent flow to the facility's design flow and if any two months in a 12 month period exceed the design flow the City must develop a new or updated facility plan to maintain capacity and compliance with NPDES permit effluent limits. The condition ensures the capacity of the treatment plant to treat influent.

The permit is unchanged.

- 8. Comment (Mountain Waterworks):** Additional provisions within this section requires the City to submit the facility plan to the Nez Perce Tribe. The IDEQ is the agency in Idaho responsible for reviewing and approving wastewater facility plans. The IDEQ also has facility plan requirements that must be evaluated and included in the final document.

**Response:** IDEQ has indicated that, given their regulatory authority concerning engineering plans at POTWs, IDEQ will review and approve the facility plan. Therefore, EPA has changed the provision to require submittal of the facility plan to both IDEQ and the Nez Perce Tribe.”

- 9. Comment (Mountain Waterworks):** The draft permit section requires if the City reaches the 0.055 mgd flow for any two months during a 12-month period the permittee must update the facility plan and consider reducing flows. Limits on future sewer extensions or connections or additional waste loads is an alternative that must be considered. If the EPA requires the City to consider “no community growth” as a future planning condition, it could potentially create a significant economic hardship in an already low income community. The economic burden of considering no growth due to a condition contained in an NPDES permit we believe is beyond the authority of the EPA and could be implemented without fully understanding what impacts those conditions may have on sustaining a viable community.

**Response:** Condition II.C. requires the City to plan for future growth. When the treatment plant exceeds the design capacity of 0.055 mgd Condition II.C. requires a plan and schedule to identify the actions necessary to maintain adequate capacity and to meet the limits and requirements of the permit.

Although Condition II.C. requires consideration of limits on future sewer extensions or connections and reduction of industrial or commercial flows, it also requires an analysis of the present design and proposed process modifications and modification or expansion of the treatment facilities. Planning to increase the capacity of the treatment plant to meet effluent limitations with increased flows allows the City to accommodate growth in service area build-out and new industrial users. This will help the City prevent violations of the permit effluent limitations, enforcement actions and violations of the water quality standards protecting Lapwai Creek. Planning for increases in flow capacity to allow industrial and population growth is a common practice for many cities in Idaho.

Condition II.C. also includes consideration of reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system (I and I). Consideration of reduction in I and I could help reduce costs to the City. Dilution of loading by I and I directly increases costs of pumping and chlorination. It takes up capacity in the sewer connections and ends up at the wastewater treatment plant where it must be treated like sewage, resulting in higher treatment costs and potentially higher rates to customers.

The permit is unchanged.

- 10. Comment (Mountain Waterworks):** As written, this draft permit section makes coordination, preparation, and ultimate approval of the facility planning document by IDEQ difficult to achieve. We request this entire section be removed from the draft permit. As noted, IDEQ must review and approve the facility plan document per State standards.

**Response:** See Response to Comment 6. With the added requirement of reporting the Facility Plan to IDEQ, Condition II.C. ensures the coordination with and approval by IDEQ of the facility plan. Condition II.C. remains a permit condition.

**11. Comment (Mountain Waterworks):** In the Fact Sheet a mixing zone allowance is provided. We agree a mixing zone is appropriate for the City and support the mixing zone allowance be included for final permit issuance.

**Response:** The EPA concurs a mixing zone is appropriate for the City of Culdesac and the effluent limitations based on the allowance of a mixing zone remain in the final permit.

The permit is not changed.

**12. Comment (ICL):** Mercury Limits Needed

Given that fish tissue in downstream waters exceeds the mercury fish tissue limits, we believe that EPA is obligated to assign this facility mercury limits in its NPDES or at least a requirement calling for the creation and implementation of a mercury minimization plan.

**Response:** The EPA disagrees it has an obligation to assign Culdesac mercury limits in the NPDES permit or has an obligation to require the creation and implementation of a mercury minimization plan.

The *Implementation Guidance for the Idaho Mercury Water Quality Criteria*, Idaho Department of Environmental Quality, April, 2005 on page 8 states:

- “Significant permittees are defined as having either been assigned a wasteload allocation as part of the TMDL process or have been determined to have reasonable potential to exceed (RPTE) the mercury criteria.
- *De minimis* permittees are those facilities that, although they may discharge mercury, do not discharge enough mercury to be assigned a wasteload allocation within the TMDL process nor do they have reasonable potential to exceed the mercury criteria.”

And on page 10

“Permit conditions for both municipal and industrial *de minimis* sources will rely on voluntary BMPs used to control or reduce the discharge of mercury, where feasible.”

Page 92 of the Guidance

“Similar to other parameters, it is important to note that certain facilities that have very little potential to discharge mercury would be excluded from requiring *any NPDES mercury permit conditions* [emphasis added].”

Page 93 of the Guidance

“This determination may be based on available data, surrogate facility monitoring (for example, if another facility for an industrial company uses the same processes and available mercury monitoring data indicate that no mercury is discharged), other literature information, or best professional judgment in the absence of such information.”

“RPTE is assigned to all mercury dischargers to a water body with fish tissue concentrations  $>0.24$  mg/kg.”

Using best professional judgement the EPA determines that Culdesac does not have a RPTE for mercury for the following reasons:

- Culdesac is a minor discharger and has a small design flow of 0.055 million gallons per day (mgd) and a small actual average flow rate of 0.03 mgd.
- A waste load allocation has not been assigned to Culdesac
- The discharge is to Lapwai Creek that is not known to exceed mercury fish tissue limits. The downstream receiving water is the Clearwater River and is also not known to exceed mercury fish tissue limits. Neither Lapwai Creek or the Clearwater River is known to have fish tissue mercury concentrations  $>0.24$  mg/kg.
- The nearest downstream listing for fish tissue mercury is in the Columbia River near Kennewick more than 150 miles downstream. Within the long stretch of the river, below Culdesac to the impairment, there are numerous tributaries to the Snake River and potential mercury sources over this long distance of the river.
- No industrial users discharge to the Culdesac sewage treatment plant.

Therefore, the permit does not contain any NPDES mercury permit conditions.

The permit is unchanged.

### **13. Comment (ICL): Antideg Review**

Typically, the State of Idaho undertakes NPDES related antideg reviews as a component of the 401 certification that accompanies an NPDES permit. However, in the instance of the Culdesac NPDES permit, we have been informed that because Culdesac is located within the boundary of the Nez Perce Reservation, the State of Idaho will not be undertaking a 401 cert. As such, EPA, not the State of Idaho, has undertaken the Antideg review.

While we concur with the EPA’s conclusion that no additional degradation will occur for BOD5, TSS, E coli, and pH, we do not agree with the EPA’s conclusion that the less stringent total residual chlorine limit does not constitute additional degradation. EPA seems to be making some sort of distinction between what it now chooses to call the “quantifiable level” and the permit limit. We are not familiar with the legal basis for such a distinction and ask that EPA further explain this in the response to comments.

The proposed permit limits authorizes a significantly greater discharge of total residual chlorine. This means that EPA is relaxing a permit limit in a manner that will allow for increased degradation in a tier 2 waterbody. EPA’s antideg review does not appear to undertake the level of review that is necessary to authorize such a change. To the best of our knowledge, the EPA review has not considered issues of ‘significance’ within the context of the discharge and the assimilative capacity of the receiving water nor has the EPA undertaken a socio-economic review justifying the discharge. Absent this level of

review and the consideration of the other aspects of an antideg review, the EPA cannot legally authorize this increase.

**Response:** Based on the comment the EPA performed an anti-degradation analysis to determine if the discharge results in significant degradation. Based on that analysis the EPA is retaining the limits from the previous permit.

If degradation is deemed insignificant, then no further Tier 2 analysis is required (IDAPA 58.01.02.52.08.a.iii). Degradation may be deemed insignificant if the discharge results in a cumulative decrease in assimilative capacity of ten percent (10%) or less (IDAPA 58.01.02.52.08.a.i). Using the 1Q10 and 7Q10 flow values there is more than a 10 percent loss in assimilative capacity and the EPA has determined the degradation is not insignificant for both the AML and the MDL.

These values were calculated using IDEQ's draft Anti-degradation Guidance Document (2012) (Guidance) page 32 and 33.

The calculations are shown below.

“For all activities or discharges, we calculate their effect on downstream water quality using Equation 1:

$$C_p - C_c = \Delta C \quad \text{Equation 1. Effect on water quality}$$

Where:

$C_p$  = proposed downstream water quality, after mixing

$C_c$  = current downstream water quality, after mixing

$\Delta C$  = change in downstream water quality, after mixing”

Page 34 of the Guidance

“There will be at least two sets of critical conditions to be evaluated: one for the current permit or license and a second for the proposed permit or license. These will yield  $C_c$  and  $C_p$  in Equation 2 for each pollutant evaluated, which are then used in Equation 1. It is possible, but unlikely, that the receiving stream critical conditions used in the analysis will differ between now and the future.”

The previous permit stated:

“There is no information about the flow regime of Lapwai Creek in the vicinity of the discharge. The nearest USGS gaging station is station #13342450 located on Lapwai Creek near Lapwai, Idaho, at Latitude 46°25'36", Longitude 116°48'15". Statistical analysis of available flow information for this segment of Lapwai Creek indicate a 7Q10

flow of 1.0 cubic feet per second (cfs) and a 1Q10 flow of 1.17 cfs, or 0.65 mgd and 0.75 mgd, respectively. Since there are several creeks and streams that influence the flow between Culdesac and Lapwai, this flow data cannot be used to develop effluent limits for this permit, except to show that low flows are expected to be lower than those at the Lapwai gaging station.”

The draft permit used monitoring upstream of Culdesac collected by the Nez Perce tribe between June, 2003 and June 2004. The draft permit also adjusted the Lapwai Creek USGS station data to account for the creeks and streams. This provides a more accurate flow rate for Lapwai Creek than identified in the previous permit and therefore is used in the analysis of both  $C_p$  and  $C_c$ .

The Guidance provides the following equation.

For either situation, the following simple mixing equation (Equation 2) can be used to determine the resulting concentration after full mixing:

$$C = \frac{LR_{up} + LR_{dn}}{Q_{up} + Q_{ds}} \quad \text{Equation 2. Mixing equation for effect of discharges}$$

Where:

$C$  = concentration in the receiving water body resulting from discharge after full mixing downstream

$LR_{up}$  = concentration of the receiving water body pollutant, upstream of the discharge

$LR_{dis}$  = concentration of the discharge pollutant

$Q_{up}$  = flow of receiving water body, upstream of the discharge

$Q_{dis}$  = flow of discharge

Page 33 of the Guidance states:

“Equation 2 is generic and dynamic. It has infinite solutions, but we are interested in a particular pair of solutions for each pollutant of concern: 1) the receiving water concentration allowed by the current permit ( $C_c$ ) and 2) the receiving water concentration allowed by the proposed permit ( $C_p$ ).”

$C_c$  - Current downstream water quality, after mixing based on previous permit - MDL

$$C_c = \frac{LR_{up} + LR_{dn}}{Q_{up} + Q_{ds}} = \frac{0 + 17}{1.35 + 0.085} = 11.8 \mu\text{g/L}$$

Receiving water flow: 1Q10 = 1.35 cfs



Effluent flow = 0.085 cfs

Background chlorine = 0 µg/L

$C_p$  - Proposed downstream water quality, after mixing based on the draft permit - MDL

$$C_p = \frac{0 + 94}{1.35 + 0.085} = 65.5 \text{ } \mu\text{g/L}$$

Receiving water flow: 1Q10 = 1.35 cfs

Effluent flow = 0.085 cfs (unchanged)

Background chlorine = 0 µg/L

$$\Delta C = 65.5 - 11.8 = 53.7 \text{ } \mu\text{g/L}$$

10% of the remaining assimilative capacity:

Remaining capacity = 19 µg/L - 11.8 = 7.2 µg/L.

10% of the remaining assimilative capacity

$$7.2 \times 0.10 = 0.72 \text{ } \mu\text{g/L}$$

The increase in the MDL from the previous permit,  $\Delta C$ , exceeds the assimilative capacity of Lapwai Creek. Therefore the EPA is retaining the previous permit's MDL.

$C_c$  - Current downstream water quality, after mixing based on previous permit - AML

$$C_c = \frac{LR_{up} + LR_{dn}}{Q_{up} + Q_{ds}} = \frac{0 + 9}{1.88 + 0.085} = 4.6 \text{ } \mu\text{g/L}$$

Receiving water flow: 7Q10 = 1.88 cfs

Effluent flow: 0.085 cfs

Background chlorine = 0 µg/L

$C_p$  - Proposed downstream water quality, after mixing based on the draft permit - AML

$$C_p = \frac{0 + 51}{1.88 + 0.085} = 26 \text{ } \mu\text{g/L}$$

Receiving water flow:  $7Q_{10} = 1.88$  cfs

Effluent flow = 0.085 cfs (unchanged from previous permit)

Background chlorine = 0  $\mu\text{g/L}$

$$\Delta C = 26 - 4.6 = 21.4 \mu\text{g/L}$$

10% of the remaining assimilative capacity:

$$\text{Remaining capacity} = 11 \mu\text{g/L} - 4.6 = 4.6 \mu\text{g/L}.$$

10% of the remaining assimilative capacity

$$4.6 \times 0.10 = 0.46 \mu\text{g/L}$$

The increase in the AML from the previous permit,  $\Delta C$ , exceeds the assimilative capacity of Lapwai Creek. Therefore the EPA is retaining the previous permit's AML.

In summary, the total residual chlorine concentration limit is changed from the draft permit AML of 51  $\mu\text{g/L}$  to 9  $\mu\text{g/L}$  in the final permit. The MDL is changed from 94  $\mu\text{g/L}$  in the draft permit to 17  $\mu\text{g/L}$  in the final permit.

The total residual chlorine loading MDL of 0.043 lbs/day in the draft permit is changed to 0.0082 lbs/day in the final permit which is the loading limit in the previous permit.

The AML for the total residual chlorine loading is changed from 0.023 lbs/day to the loading limit of the previous permit which is 0.0041 lbs/day.

#### **14. Comment (ICL): Anti-backsliding**

EPA's relaxation of discharge limits for total residual chlorine constitutes backsliding. In the fact sheet accompanying this draft permit, EPA asserts that these less stringent limits are not backsliding because EPA holds that the relaxed standard is consistent with Idaho's antideg requirements. However, as discussed above, the EPA has not adhered to the antideg review requirements. As a result, it is not proper to say that the new standards are consistent with Idaho's antideg policy.

**Response:** The EPA relaxed the discharge limits in the draft permit because the previous permit did not allow a mixing zone resulting in end of pipe compliance with the total residual chlorine water quality criteria. The draft permit allowed a mixing zone of 25 percent of Lapwai Creek allowing a higher limit while still meeting the water quality standards at the edge of the mixing zone. However the antidegradation analysis demonstrates the increase would cause significant degradation and the increase is prohibited by IDAPA 58.01.02.52.08.a.i.

#### **15. Comment (ICL): ESA Consultation**

We are concerned that the EPA seems to have relied on prior FWS comments related to the impacts of sediment associated with the Twin Falls NPDES permit to reach the

conclusion that the Culdesac NPDES permit will not harm ESA listed fish. This seems wholly insufficient to us. The EPA needs to formally consult with both NOAA and the FWS on the impacts of the limits in this NPDES permit. All pollutants, including ammonia and chlorine, need to be formally consulted on.

**Response:** The EPA did not rely solely on the US Fish and Wildlife Service comments related to impacts of sediment associated with Twin Falls NPDES. As the fact sheet states the EPA also relied on the U.S. Fish and Wildlife Service Draft Bull Trout Recovery Plan (USFWS 2002):

“The U.S. Fish and Wildlife Service Draft Bull Trout Recovery Plan (USFWS 2002) identified causes of the bull trout listing. They are operation and maintenance of dams and other diversion structures, forest management practices, livestock grazing, agriculture, agricultural diversions, road construction and maintenance, mining, and introduction of nonnative species. No sewage treatment plant is identified as a contributing factor to the decline in bull trout. Similar factors have likely caused the decline of other salmonid species such as the fall Chinook salmon and the Snake River steelhead.”

Similar factors are likely causing the decline of the fall Chinook salmon. The *Snake River Fall Chinook Salmon Recovery Plan*, October, 2015, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service cited similar factors when listing the reasons for the decline and threats to the fall chinook salmon:

“Listing reasons included overharvest, blockage to and inundating of primary spawning and rearing areas, effects of the FCRPS [Federal Columbia River Power System] hydropower system on juvenile and adult migrants, and genetic risks posed by high levels of non-local hatchery fish on spawning grounds.”

The reasons for listing does not include sewage treatment plants.

The comment does not state the reasons why referencing the Biological Evaluation of the Reissuance of a National Pollutant Discharge Elimination System Permit for the Twin Falls, Idaho, Wastewater Treatment Plant (May, 2009, LimnoTech) (BE) cannot be used as part of the analysis of impacts to ESA listed fish. Both Culdesac and Twin Falls are in the Snake River watershed cited in the *Snake River Fall Chinook Salmon Recovery Plan*. One of the factors in the decline of listed species is the increase in concentration of sediment. The design flow of Culdesac is small at just 0.055 million gallons per day (mgd) and with a small actual average flow rate of 0.03 mgd. The comparative analysis indicates that Culdesac’s sediment impacts on bull trout and fall Chinook salmon will have no effect, at only 0.0009 percent of the overall sediment impacts in this watershed.

*The Draft ESA Recovery Plan for Idaho Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) and Snake River Steelhead (Oncorhynchus mykiss) Populations* November 2015, Prepared by the National Marine Fisheries Service West Coast Region Portland, states:

“The most prominent factors leading to NMFS’ conclusion that Snake River steelhead were threatened include: (1) sharp decline in natural stock returns beginning in the mid-1980s; (2) declines for both A-run and B-run steelhead in wild and natural stock areas; (3) the high proportion of hatchery fish in the run, particularly because of the lack of information on the actual contribution of hatchery fish to natural spawning; (4) threats to genetic integrity from past and present hatchery practices; (5) widespread habitat degradation and flow impairment throughout the Snake River basin; and (6) substantial modification of the seaward migration corridor by hydroelectric power development on the mainstem Snake and Columbia Rivers (Good et al. 2005).”

Sewage treatment plants are not cited as a factor leading to the conclusion Steelhead are threatened.

The Culdesac permit establishes effluent limitations for ammonia and chlorine that protect the numeric water quality criteria deemed necessary to support the beneficial use classification in Lapwai Creek for aquatic life including listed species.

For these reasons the EPA will not formally consult with the U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration on the re-issuance of the Culdesac permit.