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BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION
FOR PERMIT 77-14378, AND
APPLICATIONS FOR TRANSFER
85396, 85397, AND 85398, AND
APPLICATION FOR EXCHANGE 85538
IN THE NAME OF PERPETUA
RESOURCES IDAHO, INC.

**PERPETUA RESOURCES IDAHO,
INC.'S EXCEPTIONS TO
PRELIMINARY ORDER**

Perpetua Resources Idaho, Inc. ("Perpetua"), through undersigned counsel, submits to the Director of the Idaho Department of Water Resources exceptions to the Preliminary Order Approving Applications issued by Hearing Officer James Cefalo, dated April 10, 2024 ("Preliminary Order"), pursuant to IDAPA 37.01.01.730.

I. INTRODUCTION

Perpetua applied for water rights to facilitate its development and operation of a modern gold and antimony mine called the Stibnite Gold Project ("SGP"), located in the Stibnite Mining District in Valley County. In addition to producing antimony, which is a critical and strategic mineral, Perpetua will dedicate revenues obtained from the SGP to clean up and restore legacy mining impacts at an abandoned site that has had over 100 years of impact. Development and

operation of the SGP will open miles of stream to ESA-listed fish and improve water quality and aquatic habitat that have been degraded from past unregulated mining activities.

When Perpetua applied to the Department for its water rights, Perpetua specifically structured its applications, and proposed conditions, to provide operational flexibility while also being protective of aquatic resources at the SGP site. Perpetua consulted with the Idaho Department of Fish and Game (“IDFG”) and Office of Species Conservation (“OSC”) to develop a condition that would provide consistent, volitional, fish passage above the Yellow Pine Pit for the first time since 1938.

Despite the multitude of benefits to aquatic resources at the SGP site, Protestants asserted that issuance of Perpetua’s water rights would be contrary to the public interest. Notably, Protestants did not assert that Perpetua’s water rights applications would be contrary to any of the other I.C. § 42-202 or 42-203A factors.

The Hearing Officer rightly rejected most of the Protestants’ arguments. The Hearing Officer found that the many benefits provided as a consequence of Perpetua’s use of the water applied for would have multiple positive impacts that were squarely in the public interest. However, the Hearing Officer erred in evaluating the evidence in the record and the public interest factors as they relate to supposed short-term impacts to fish passage and habitat. Additionally, the Hearing Officer crafted conditions that are ostensibly meant to protect the public interest, but that are not based on specific evidence in the record demonstrating that the conditions are necessary for protection of the public interest. Finally, through imposition of Conditions 9, 10, 13, 14, and 15, the Hearing Officer unduly restricted Perpetua’s operational flexibility to productively operate the SGP while simultaneously benefiting aquatic resources at the SGP site.

The Hearing Officer recognized that the peak water demand for the industrial and mining uses at the SGP will be 9.6 cfs. Despite this finding, the Hearing Officer imposed conditions that severely limit Perpetua's ability to satisfy its peak water demand. Conditions 9, 10, 13, 14, and 15¹ operate in concert to limit Perpetua's water diversions to 4.5 cfs or less, well below the peak demand. Due to the errors committed by the Hearing Officer, Perpetua respectfully requests that the Director remove and amend these conditions.

II. SUMMARY OF REQUESTED RELIEF

Perpetua requests that Conditions 9, 13, and 14² be removed from Permit No. 77-14378, Transfer Nos. 85396 (77-7122) and 85398 (77-7293), and Exchange No. 85538 (77-7293).

Condition 9: The diversion of water directly from the East Fork of the South Fork Salmon River (EFSFSR), located in the NESE, Section 3, T18N, R09E, shall not exceed a maximum diversion rate of 4.50 cfs.

Condition 13: From June 30 to September 30, no water shall be diverted under this right unless there is at least 7.25 cfs passing the river pump point of diversion on the EFSFSR in the NESE, Section 3, T18N, R09E.

Condition 14: From October 1 to June 29, no water shall be diverted under this right unless there is at least 5.00 cfs passing the river pump point of diversion on the EFSFSR in the NESE, Section 3, T18N, R09E.

Perpetua requests that Condition 10³ be removed from Permit No. 77-14378 and Transfer No. 85397 (77-7285).

¹ Condition numbers are taken from Permit No. 77-14378.

² In addition to Permit No. 77-14378, Condition 9 is also included in Exchange No. 85538 (Condition 4), Transfer No. 85396 (Condition 7), and Transfer No. 85398 (Condition 4); Condition 13 is also included in Exchange No. 85538 (Condition 7), Transfer No. 85396 (Condition 10), and Transfer No. 85398 (Condition 7); and Condition 14 is also included in Exchange No. 85538 (Condition 8), Transfer No. 85396 (Condition 11), and Transfer No. 85398 (Condition 8).

³ In addition to Permit No. 77-14378, Condition 10 is included in Transfer No. 85397 (Condition 7).

Condition 10: The thirteen industrial supply wells located in Section 15, T18N, R09E, shall not exceed a combined monthly diversion volume of 31 acre-feet.

Finally, Perpetua requests that Condition 15 be modified in Permit No. 77-14378 and Transfer No. 85397 (77-7285), as proposed by Perpetua.⁴

Condition 15: During all times when the right holder is diverting ground water under this right from any of the wells in Section 15, T18N, R09E, the right holder shall ensure a flow of at least 3.0 cfs in Meadow Creek from the existing fish passage barrier located above the confluence of Meadow Creek and Blowout Creek to the confluence of Meadow Creek and EFSFSR.

Proposed Condition 15: During any calendar year when the right holder diverts ground water under this right from any wells in Section 15, T18N, R09E, the right holder shall ensure the daily average flow in Meadow Creek from the IPDES outfall in the NW ¼ of the SE ¼ Section 15, T18N, R9E to the confluence of Meadow Creek and the EFSFSR meet or exceed the following quantities:

January 1.7 cfs	July 2.3 cfs
February 1.6 cfs	August 2.2 cfs
March 1.7 cfs	September 1.9 cfs
April 2.3 cfs	October 1.9 cfs
May 2.3 cfs	November 2.0 cfs
June 2.3 cfs	December 1.8 cfs

These flow rates shall be maintained by management of groundwater pumping volumes and by streamflow augmentation through the IPDES outfall located in Lot 6 Section 15 Township 18N Range 9E using water diverted from EFSFSR or groundwater under water rights 77-7122, 77-7285, 77-7293, and 77-14378 or from other sources in compliance with the IPDES permit. Groundwater pumping from any wells in Section 15, T18N, R09E, shall immediately cease if the daily average streamflow falls below the listed quantities.

⁴ In addition to Permit No. 77-14378, Condition 15 is included in Transfer No. 85397 (Condition 12).

III. BACKGROUND

Perpetua is developing the SGP in Valley County, which will be a modern gold, silver, and antimony mine. Preliminary Order, Findings of Fact ¶ 1. The SGP site has been impacted by over 100 years of mining. *Id.* ¶¶ 31-32, 70-73; Transcript of the Hearing (“Tr.”) at 14; Ex. 29 at 38.⁵ When the Yellow Pine Pit was excavated in the 1930s it blocked fish passage to the upper reaches of the East Fork South Fork of the Salmon River (“EFSFSR”) preventing anadromous fish from reaching spawning grounds above the YPP and isolating the remaining populations of westslope cutthroat trout and bull trout Preliminary Order, Findings of Fact ¶ 31-32.

Additionally, these past mining operations created legacy sources of environmental contamination including the Bradley tailings, Spent Ore Disposal Area (“SODA”), and Hecla Heap Leach Pad. *Id.* ¶ 70-73; Tr. at 28-31, 443; Ex. 22 at 41. These legacy features contain high levels of contaminants that are picked up by runoff, percolating rain, and snowmelt and impair groundwater and instream water quality. *Id.*; Tr. at 28-30, 35, 443, 582-83; *see* Ex. 58 at 4.

The SGP will be constructed over three years, followed by 12 years of actual mining, three years of post-mining ore processing, and approximately eight years of post-mining restoration. Tr. at 41, 91-92, 457; Ex. 22 at 36, 83; Ex. 29 at 68. The SGP will produce ore from three open pits, two of which were previously mined – the Yellow Pine Pit and the West End Pit – and the newly constructed Hangar Flats Pit. Preliminary Order, Findings of Fact ¶ 4.

Additionally, Perpetua will reprocess tailings from past mining activities that occurred onsite. *Id.*; Tr. at 29-30. Tailings from the ore processing facility will be piped to the fully lined Tailings Storage Facility (“TSF”), which has a design capacity of approximately 120 million tons and will occupy approximately 423 acres. Preliminary Order, Findings of Fact ¶¶ 68, 75; Ex. 22 at 50.

⁵ For ease of reference, citations to page numbers refer to the PDF page number instead of the document page number.

The SGP will produce approximately 4.5 million ounces of gold and approximately 115 million pounds of antimony. *Id.* at 22; Ex. 23 at 8, 18. Antimony has been designated as one of 35 critical minerals that are vital to the nation's security and economic prosperity. Tr. at 22; Ex. 23 at 29. 23 at 39. Antimony is used in the production of fire retardants, batteries, and, importantly for national security, ammunition. Tr. at 22. There is currently no domestic production of antimony, and the United States is reliant on foreign sources, often from nations at odds with U.S. interests. Ex. 23 at 40. China, Russia, and Tajikistan currently produce 92 percent of the world's antimony. *Id.* The Department of Defense has recognized the SGP as a strategic center to develop a domestic supply of antimony. Tr. at 23-24, 113; Ex. 59 at 67.

Beyond producing a critical mineral, mining operations will fund significant restoration of legacy mining impacts at the SGP. Perpetua has planned and is committed to begin restoration at the SGP during the construction phase, before any mining occurs. *See* Ex. 29 at 60. Specifically, Perpetua has committed to install a tunnel with a fishway around the Yellow Pine Pit to provide fish passage into the upper reaches of the EFSFSR and Meadow Creek, restoring volitional fish passage to the site before the first year of operation. Preliminary Order, Findings of Fact ¶ 34; Tr. at 44, 364-65; Ex. 22 at 62; Ex. 34 at 61-62. Perpetua will also begin work on Blowout Creek to restore wetlands and minimize sediment discharge into Meadow Creek and downstream into the EFSFSR in the third year of construction. Preliminary Order, Findings of Fact ¶ 84-85; Tr. at 34, 636, 728-31; Ex. 22 at 64. Perpetua is also planning to remove fish barriers throughout the SGP site and restore legacy mining impacts to the EFSFSR from Meadow Creek to the YPP, even though Perpetua will not directly impact these areas. Tr. at 732-33.

The Idaho Legislature has recognized the important role the SGP will play for national security, the local economy, and restoring legacy mining impacts and improving the environment. Ex. 72. In 2018, the Legislature passed a Joint Memorial in support of the SGP, supporting action by the federal and state agencies to approve the SGP in a timely and cost-effective manner to permit the redevelopment and restoration of the site. *Id.* at 2.

Water is critical to the success of the SGP. Tr. at 51; Ex. 26 at 15. Water will be used in mining for drilling, to control dust along haul roads, and throughout the mill process circuit to process the ore. Preliminary Order, Findings of Fact ¶ 24; Tr. at 51-53; Ex. 26 at 24, 83-85. Additionally, Perpetua will need to dewater the mine pits and will either beneficially use or treat and discharge dewatering water. Tr. at 51-52; Ex. 26 at 27; Ex. 25b at 37. Perpetua has designed the water management system at the SGP to reuse water in the ore processing circuit and prioritize the use of contact water before diverting water from freshwater sources. Tr. at 190, 428; Ex. 27a at 51-52. However, there will be times when there are insufficient supplies of reclaim water and contact water to meet water demands at the SGP. Tr. at 189, 206-08; Ex. 27A at 81. During these times, which primarily occur during the first four years of mining operations, Perpetua will need to divert freshwater from alluvial supply wells in the Meadow Creek Valley and from the surface water intake located on the EFSFSR at the mouth of the fishway tunnel. Tr. at 391-92, 431-32. To offset the impact of groundwater diversion on surface water flows in the Meadow Creek Valley, Perpetua will line the restored stream corridor to reduce seepage loss and place an IPDES- permitted outfall on Meadow Creek, which will be used to augment flows in Meadow Creek. Tr. at 438; Ex. 26 at 94, 114.

Perpetua holds existing water rights at the SGP site, Preliminary Order, Findings of Fact ¶¶ 9-19; Tr. at 125; Ex. 61 at 1-2; however, these water rights are not sufficient for the

water needs of the SGP. Tr. at 125; Ex. 61 at 1-2. The SGP will require up to 9.6 cfs of water for industrial and mining use, including ore processing, dust control, and drilling. Preliminary Order, Findings of Fact ¶ 23-24. To meet its water needs Perpetua submitted Application for Permit 77-14378 proposing to divert up to 9.6 cfs from freshwater supply wells, groundwater dewatering wells, and/or from a surface water intake on the EFSFSR. *Id.* ¶¶ 5-8. Perpetua also submitted applications for transfer and an application for exchange to align its existing water rights with the mine plan for the SGP and Application for Permit 77-14378. *Id.* ¶¶ 9-22.

When developing its applications, Perpetua designed both its water rights and proposed conditions to ensure operational flexibility and the protection of aquatic resources at the SGP site. *See* Ex. 61; Tr. at 140, 147, 162. Perpetua consulted with IDFG and OSC to develop a condition that would be protective of fishery resources at the SGP. *See* Ex. 206. The condition developed with IDFG and OSC, Condition 12 in Permit No. 77-14378 (“Condition 12”), will require Perpetua to reduce water withdrawals from all sources of supply during low flow conditions. *See id.*; Tr. at 544. Therefore, Perpetua will be required to divert additional water during high flow conditions to meet operational requirements. Tr. At 544. To ensure operational flexibility Perpetua did not propose specific diversion rate limits on each point of diversion, instead Perpetua proposed to condition maximum diversion rate from all sources of supply in all permits to a combined 9.6 cfs. *See* Ex. 61.

The Nez Perce Tribe, Idaho Conservation League, and Save the South Fork Salmon (collectively “Protestants”) filed protests to Perpetua’s water right applications.⁶ Preliminary Order at 1. Protestants’ sole claim was based on speculative and largely unsupported concerns

⁶ The U.S. Forest Service also filed a protest, which was resolved through settlement prior to the hearing. Preliminary Order at 1.

about impacts to the local public interest. Notably, neither IDFG nor OSC protested Perpetua's water right applications. *See id.*

Following a five-day hearing on Perpetua's applications, on April 10, 2024 the Hearing Officer issued his Preliminary Order. Despite the significant improvements for fish passage, fish habitat, and water quality at the SGP site, under Perpetua's plan of operations,⁷ the Hearing Officer found it necessary to impose conditions on Perpetua's water rights ostensibly to ensure short-term fish passage during SGP construction and operations.

On April 24, 2024, Perpetua filed a timely petition for reconsideration, requesting that the Hearing Officer reconsider the evidentiary support for, and necessity of, Conditions 9, 10, 13, 14 and 15. Petition for Reconsideration (Apr. 24, 2024). On May 9, 2024 the Hearing Officer denied the petition for reconsideration. Order Denying Petition for Reconsideration ("Reconsideration Order") (May 9, 2024).

IV. EXCEPTIONS

Perpetua files these exceptions to Conditions 9, 10, 13, 14, and 15 because, individually, they are not supported by evidence in the record, are duplicative, and have limited benefit to the public interest. Additionally, these conditions operate in combination to severely constrain the volume of water that may be diverted during most times of the year, unnecessarily limiting Perpetua's operational flexibility to optimize water management at the SPG for both ore processing and resource protection.

The Hearing Officer found that the peak water demand of the SGP will be 9.6 cfs. Preliminary Order, Findings of Fact ¶¶ 23-24. Despite this finding, the Hearing Officer then

⁷ Perpetua's plan of restoration and operations, entitled the Refined Proposed Action ModPRO2, is currently being evaluated by the United States Forest Service, which is required to approve the plan of restoration and operations before Perpetua may begin construction of the SGP. *See* Preliminary Order, Findings of Fact ¶ 2; Ex. 22; Tr. at 387.

imposed conditions that make the maximum diversion rate effectively 4.5 cfs or less. Perpetua raised this concern to the Hearing Officer in its petition for reconsideration, Pet. for Reconsideration at 5. Yet the Hearing Officer erroneously concluded that this concern was without merit. Reconsideration Order at 9-10. To reach this conclusion, the Hearing Officer stated that 1) much of the mill demand will be supplied from storage reservoirs and recycled water, 2) only 4.5 cfs of mill demand will come from freshwater supplies, 3) and a significant portion of the water demand will be for excess dewatering water. However, these conclusions are not accurate as there was no evidence in the record as to the combined impact these unexpected conditions would have on the mining operations.

First, while it is true that over the life of the SGP a significant portion of the water demand will come from stored contact water and reclaim water, this is not true in the first four years of operations. Preliminary Order, Findings of Fact ¶ 27; *see also* Ex. 1g at 54; Ex. 27a at 82; Tr. at 391-92, 431-32. Instead, during the first four years makeup water demand will be significantly higher than later in the life of the SGP. Ex. 27a at 81. This is due to the small size of the TSF pool during the first five years of mining. Ex. 27a at 67. So, although Perpetua will have additional operational flexibility later in the life of the SGP, this flexibility is constrained in the first four years of operation.

Second, compliance with Condition 12, requiring diversion reductions during low flows, will require higher freshwater diversions during high flow periods. Tr. at 234; 547-48. Condition 12 was developed and agreed to after the bulk of the modeling work was completed as reflected in the Site Wide Water Balance (“SWWB”) and Stibnite Hydrologic Site Model (“SHSM”) Reports, so although these models reflect that 4.5 cfs of mill demand will come from freshwater supplies, they do not reflect the additional mill demand that will be required to offset periods of

reduced operations due to diversion restrictions under Condition 12, which was adopted, along with the other conditions imposed even more recently, after the modeling was concluded. Tr. at 283. Instead, Perpetua will need to divert higher volumes of water during high flow periods to meet annual ore processing requirements. Tr. at 234, 547-48. Additionally, the SWWB and SHSM model water demand in monthly time-steps, and there will likely be times when instantaneous freshwater diversion demand is higher than reflected in the monthly modeling output. Tr. at 207-08.

Third, the Hearing Officer was correct that Perpetua will utilize dewatering water for ore processing, and will treat dewatering water for flow augmentation, when dewatering is occurring. However, the Hearing Officer failed to recognize that dewatering is not determined by water demand, but is instead determined by the timing of pit development and mining. Tr. at 226-27; Ex. 22 at 38; Ex. 27a at 38-39. Dewatering will only occur when required for mine pit construction and operation. *See id.* Dewatering the Hangar Flats Pit generates the bulk of dewatering water, but this dewatering does not begin until late in mine year three. Ex. 27a at 39. Therefore, there will be little dewatering water to augment freshwater diversion during the early years of the SGP. *See id.* In addition to the limitations on the availability of dewatering water, Condition 15 has the potential to curtail all groundwater pumping in Section 15, which includes both the alluvial supply wells and the Hangar Flats Pit dewatering wells, from September through March, when baseflows naturally fall below 3.0 cfs. *See Pet. for Reconsideration* at 5.

In the Reconsideration Order, the Hearing Officer suggested that water released to Meadow Creek for flow augmentation could be used to satisfy Conditions 13, 14, and 15. However this is contrary to the plain language of the condition. Condition 13 requires Perpetua to maintain a minimum flow of 3.0 cfs in Meadow Creek from the existing fish passage barrier

located above the confluence of Meadow Creek and Blowout Creek to the confluence of Meadow Creek and the ESFSFSR. Perpetua has proposed to install an IPDES-permitted outfall a short way downstream of the fish passage barrier for flow augmentation. However, Meadow Creek baseflows naturally fall below 3.0 cfs for approximately seven months of the year. And, Perpetua will not have the ability to augment flows in the short reach between the fish passage barrier and the IPDES outfall. Therefore, Perpetua cannot, by the terms of the condition, use flow augmentation to meet the requirements of Condition 15 when flows are below 3.0 cfs, and will have to cease groundwater pumping in Section 15. In addition to the loss of water supply caused by cessation of groundwater pumping, loss of groundwater pumping for dewatering will effectively limit mining of the Hangar Flats pit contrary to Perpetua's plan of restoration and operations and the flexibility requested in its application.

Perpetua, through consultation with IDFG and OSC, had already committed to constrain its operations by agreeing to reduce or cease diversions during low flow periods under Condition 12. Diversion reductions during low flow periods will necessitate higher diversion rates during periods of high flow. These increased diversion rates will have proportionally less impact on stream flow and aquatic resources than diversions during low flow conditions. Unfortunately, the Hearing Officer imposed a suite of conditions that will prevent Perpetua from utilizing its planned operational flexibility, prevent it from optimizing diversions during high flow periods, and unreasonably constrain mining operations contrary to Idaho water law.

In addition to the effects of Conditions 9, 10, 13, 14, and 15 operating in combination to limit diversion rates below 9.6 cfs for significant portions of the year, Perpetua also takes exception to each of these specific conditions because they are not based on sufficient evidence, are duplicative, and do not benefit the public interest.

A. Condition 9 Is Not Related To Protection Of The Public Interest

The Hearing Officer appears to have imposed Condition 9, limiting the surface water withdrawals from the EFSFSR to 4.5 cfs, to avoid impacts to local public interest factor of fish passage. Preliminary Order at 24, 29. However, nowhere in the Preliminary Order or the Reconsideration Order does the Hearing Officer explain how imposing Condition 9, and limiting the surface water intake to 4.5 cfs, has any connection to fish passage or other public interest factors. *See generally id.*; Reconsideration Order at 8-9. Nor does the Hearing Officer cite any record evidence that the 4.5 cfs limitation is necessary to protect fish passage.

The Hearing Officer purported to rely on “substantial evidence” in imposing Condition 9, in the form of design documents and statements in the record related to the size of the surface water intake. Reconsideration Order at 8-9. While this may be evidence of the design, at the time, of the surface water intake, it is not evidence of the effect of surface water diversions will have on fish passage or other public interest factors.

Under the Department’s precedential orders and Idaho law relating to protecting the public interest, there must be specific evidence of the impact to public interest that the condition is designed to mitigate. “Permit conditions arising from the local public interest review should be based on specific information in the record, not on speculation or assertions of indeterminate impacts.” Order on Exceptions; Final Order at 28-29, *In re Application for Permit No. 74-16187 in the name of Kurt W. Bird or Janet E. Bird (“In re Bird”)* (May 21, 2020) (citing *Hardy v. Higginson*, 123 Idaho 485, 491, 849 P.2d 946,952 (1993)). In *In re Bird*, there was significant evidence of the importance of instream flows in the Lemhi River, yet the Director rejected a condition protecting all unappropriated flows, where there was an “absence of target flows or specific data identifying the streamflow needed to provide optimum fish habitat.” *Id.* at 31.

Here, the Hearing Officer entirely failed to explain what impacts to fish passage would be mitigated by imposing Condition 9 and limiting the surface water intake to 4.5 cfs. Instead, the record demonstrates that the key public interest factor from the mouth of the fishway tunnel to the confluence of Sugar Creek is fish passage. *See* Ex. 219. Condition 12 protects flows in the fishway and downstream reach. Ex. 219. Withdrawals from the surface water intake when flows are above those protected by Condition 12 will have no impact on fish passage. To be sure, surface water withdrawals could have an impact on flows without Condition 12. However, Condition 9 does nothing to ensure fish passage. It simply limits the volume of water Perpetua is able to withdraw from the surface water diversion, irrespective of the volume of water flowing past the intake structure. Condition 12 provides protections for fish passage by requiring Perpetua to reduce diversions during low flow periods. *See* Preliminary Order at 21-23.

Condition 9 also creates a perverse scenario because it artificially limits water withdrawals at the downgradient end of the SGP site. The intake location was intentionally located at this downstream site specifically to limit the length of stream affected by withdrawals. Tr. at 391. Due to Condition 12, and other conditions imposed by the Hearing Officer, Perpetua may be required to reduce ore processing at the mill during low flow periods. As Perpetua's expert witnesses Dan Stanaway and Gene Bosley testified, if water withdrawals are limited due to the conditions imposed on withdrawals, Perpetua would still need to meet annual throughput objectives by offsetting production reductions during low water periods with increased production during periods of high flows. Tr. at 234, 547-48. Additionally, Perpetua has committed to using an adaptive management approach to balance mining and production needs with protection of fisheries resources. Tr. at 220; Ex. 26 at 34-36. Under an adaptive management approach, there may be times when it is advantageous to utilize higher volumes of

water from the surface water intake rather than utilizing stored contact water, reserving the stored water for use during the ensuing lower flow period. Tr. at 221; Preliminary Order at 17 (“The delayed production could be made up... when streamflow increases”).

Removing the 4.5 cfs limit will allow Perpetua flexibility to divert less EFSFSR water during low flow periods and increase diversion rates during high flow periods.⁸ This will allow Perpetua to optimize its operations and storage to maximize production while also protecting fish passage. Additionally, diverting from the surface water intake instead of diversion points higher in the SGP site, will affect fewer stream miles which was the intent of locating the raw water intake at the tunnel rather than farther upstream. Tr. at 391.

Diverting at rates above 4.5 cfs when stream flows are high will also allow Perpetua to balance Meadow Creek well field pumping to maintain streamflow between the Meadow Creek wellfield and the EFSFSR diversion. *See* Ex. 63 at 19. The Meadow Creek Valley wells, both dewatering and supply, were the principal alternative sources of water contemplated in setting the diversion intake design flow at 4.5 cfs. Tr. at 538-39. With the restrictions imposed on Meadow Creek supplies through Conditions 10 and 15, in addition to the Condition 9 limit on diversions at the surface water intake, Perpetua’s aggregate water withdrawals would be curtailed to 4.5 cfs or less, not the 9.6 cfs requested. This is especially problematic because withdrawals from the intake may be required for streamflow augmentation under other conditions imposed by the Hearing Officer or that may be imposed by other agencies via ESA Section 7 consultation. The unexpected imposition of a 4.5 cfs diversion limitation at the intake, in combination with Conditions 10 and 15, changes the facts underlying Perpetua’s expert

⁸ Condition 3 of Permit No. 77-14378 provides: “Rights 77-7122, 77-7285, 77-7293 and 77-14378 when combined shall not exceed a total diversion rate of 9.60 cfs.” Therefore, Perpetua would not be able to withdraw more than 9.6 cfs in total and the diversion rate at the surface water intake would be further limited when any groundwater diversions are occurring.

testimony and applications, related to managing diversion demand to meet Perpetua's water needs. Condition 9 prevents Perpetua from withdrawing water from the location and at the times of year where the impact of such diversion would be the least.

Prior to issuance of the Preliminary Order, Perpetua did not have notice of Conditions 9, 10, and 15, which materially impact water management at the SGP. Had Perpetua been aware of the possibility of these conditions, it would have provided additional documentary evidence of the need to increase the rate of diversion above 4.5 cfs at the surface water intake. Regardless, Perpetua did not propose to limit diversions at the surface water intake to 4.5 cfs in either its application or Rule 40 supplemental information. Expecting Perpetua to have foreseen this during development of the written record and testimony is unreasonable.

The Hearing Officer erred in imposing Condition 9. The Hearing Officer relied on evidence of the intake design, which is not evidence that Condition 9 will have any meaningful effect in protecting fish passage or otherwise protect the public interest. Instead, Condition 9 unnecessarily limits Perpetua's ability to adaptively manage water diversions, which would otherwise be used to decrease impacts to water resources at the SGP site. The application did not propose a 4.5 cfs limit from the EFSFSR, nor did the supporting Rule 40 additional information suggest a limit. Accordingly, Perpetua requests that Condition 9 be removed.

B. Condition 15 Is Not Based On Substantial Evidence.

Condition 15 requires that Perpetua ensure a flow of at least 3.0 cfs in Meadow Creek from the existing fish passage barrier located above the confluence of Meadow Creek and Blowout Creek to the confluence of Meadow Creek and EFSFSR any time Perpetua is diverting groundwater from any of the wells in Section 15, T18N, R09E. Preliminary Order at 24; Reconsideration Order at 3. The Hearing Officer appears to have imposed Condition 15 to protect flows in Meadow Creek, which is listed as critical habitat for ESA-listed fish. *Id.* Even

though the Hearing Officer indicated due deference should be accorded to the expert state and federal agencies in evaluating local public interest factors like fishery protection, there was no evidence in the record from state or federal agencies such a flow restriction was necessary to protect the fishery. Indeed, there was no evidence in the record from the fishery expert witnesses that such a flow requirement was necessary or warranted.

The Preliminary Order did not explain how the Hearing Officer chose 3.0 cfs as the appropriate threshold for pumping restrictions or chose the partial barrier as the point of compliance. Preliminary Order at 24. It was not until the Reconsideration Order that the Hearing Officer, for the first time, explained that “the hearing officer drafted a condition requiring Perpetua to maintain the *upper end of the median base* flow in Meadow Creek to pump ground water from the basin.” Reconsideration Order at 3 (emphasis added). The Hearing Officer explained that “[a]fter the snowmelt run-off period ends, the flow in Meadow Creek drops to base flow conditions ... [of] between approximately 2.0 cfs and 3.0 cfs.” Reconsideration Order at 3. Also for the first time, the Hearing Officer explained that he chose the partial barrier – instead of an IPDES-permitted outfall, specifically designed to augment stream flows, Ex. 63 at 19 – because there was ambiguity in the record as to the location of the IPDES outfall, and therefore the Hearing Officer chose a specific location, “the existing fish passage barrier.” Reconsideration Order at 4.

1. 3.0 CFS Minimum Stream Flow Is Not Supported By The Record.

While there may be some evidence of how the Hearing Officer arrived at Condition 15, there is no evidence in the record to support a finding that a flow of 3.0 cfs is necessary to protect the public interest in Meadow Creek. Requiring Perpetua to maintain a streamflow of 3.0 cfs at the point of compliance, before pumping groundwater in Section 15 would require Perpetua to augment flows in Meadow Creek above median natural base flows in most months of

the year. *See* Petition for Reconsideration at 5. The Protestants failed to offer evidence of the streamflow needed to provide fish habitat in Meadow Creek above Blowout Creek, and instead found it “difficult ... to fully understand and predict impacts to fish and their habitat caused by [Perpetua’s] proposed water withdrawals.” Ex. 216 at 2. In the absence of specific evidence in the record to demonstrate the streamflow rate that is required to protect fish habitat, such a condition cannot be imposed. Order on Exceptions; Final Order at 31, *In re Bird* at 31 (“In the absence of target flows or specific data identifying the streamflow needed to provide optimum fish habitat in the upper Lemhi River, it would not be appropriate to impose a bypass flow condition for the upper Lemhi River on Proposed Permit 74-16187.”); *Hardy*, 123 Idaho at 491.

Beyond the lack of evidence to support the minimum flow condition, the portion of the Meadow Creek watershed that the Hearing Officer sought to protect through Condition 15 is not pristine habitat. As described by Perpetua’s Water Management Plan,

The Meadow Creek valley has been heavily impacted by legacy mining-related activities, including deposition of legacy tailings and spent heap leach ore, ... repeated stream relocations into straight riprap or other erosion resistant material-lined channels, and subsequent incomplete attempts at restoration.

Ex. 26 at 106. The Nez Perce Tribe’s expert testified that sections of Meadow Creek are “severely degraded.” Tr. at 1172. Indeed, the “unlined” portion of Meadow Creek the Hearing Officer referred to in the Reconsideration Order, Reconsideration Order at 2, which may be impacted by groundwater pumping, is a rock-lined channel that was constructed to prevent surface water from coming in contact with the SODA that contains millions of tons of tailings and spent heap leach ore and is a significant source of pollutants to the watershed. Ex. 29 at 26; Tr. at 32 (The rock ditch was installed “in the early 2000’s to try to keep the water from coming into contact with the SODA and those tailings underneath.”); *id.* at 728-29 (“The existing Meadow Creek ... is diverted around the SODA in a rock lined ditch until [the] partial barrier ...

just upstream of the [Blowout Creek.]”). Consistent with its degraded status, neither the IDFG, nor OSC Conservation, ever asserted that any measures needed to be taken to protect flows in Meadow Creek. *See* Ex. 206.

Perpetua has committed to, and through approval of its plan of restoration and operations will be required to, implement multiple measures that will improve fish habitat in Meadow Creek. Ex. 63 at 27-28; *see also* Ex. 72. These improvements will be achieved through stream restoration and enhancement, removing sources of pollutants, and reducing water temperatures in the Meadow Creek Valley. *Id.*; Ex. 58 at 4-5. Beginning during the construction phase and continuing through mine year five, Meadow Creek will be rerouted and lined to reduce impacts from groundwater withdrawals and improve fish habitat. Ex. 25b at 21-22; Ex. 29 at 68-69; Ex. 63 at 27-28. So, although there may be short-term impacts from water withdrawals, there will be significant long-term benefits to fish habitat. Ex. 63; Tr. at 728-29. These long-term benefits are in the public interest and offset any short-term impacts to this degraded stream reach.

2. Locating The Point Of Compliance For Condition 15 At The Fish Passage Barrier Is Not Supported By The Evidence.

In the Reconsideration Order, the Hearing Officer stated that Perpetua would be able to augment flows in Meadow Creek by discharging water from the IPDES outfall to satisfy Condition 13. Reconsideration Order at 10 (“Water released into Meadow Creek can be used to satisfy Condition 15.”). While Perpetua appreciates that the Hearing Officer’s intent may have been to allow flow augmentation to satisfy Condition 15, that is not how the condition is written. Instead, Condition 15 requires flows to be maintained at 3.0 cfs from the fish passage barrier, which is located a short way upstream of the IPDES outfall. *See* Reconsideration Order at 4 (“[T]he IPDES ... outfall is located approximately 100 yards downstream from the existing fish passage barrier on Meadow Creek.”). Therefore, there would be a short section of Meadow

Creek below the fish passage barrier that Perpetua would be unable to augment with water from the IPDES outfall. Consequently, Perpetua would not be able to comply with Condition 15, by its terms, during periods when natural flows are below 3.0 cfs (which is much of the year). If for no other reason, Condition 15 should be modified to address this discrepancy.

In the Reconsideration Order, the Hearing Officer rejected Perpetua's proposal to move the point of compliance for Condition 15 from the "partial barrier" to the IPDES outfall. Reconsideration Order at 4. The Hearing Officer rejected the IPDES outfall as the point of compliance because the "record does not include details of the IPDES permit" and "[i]t is not clear whether the IPDES permit allows the outfall to be moved around ... or if it is confined to a specific location." *Id.* However, the only evidence in the record identifying the location of the barrier, which the Hearing Officer set as the point of compliance, is a map of the entire SGP site showing the barrier as a large square. Ex. 63 at 11. The map relied on by the Hearing Officer does not identify the location of the partial barrier with any specificity. *Id.* The only other evidence in the record of the location of the barrier, and point of compliance, are general statements offered at the hearing. *See* Tr. at 726, 729.

Contrary to the Hearing Officer's findings, the location of the IPDES outfall will be certain and will not be "moved around." The Department of Environmental Quality's Rules Regulating the Idaho Pollutant Discharge Elimination System Program, IDAPA 58.01.25, require that an applicant of a new source of water pollution must specifically identify the location of the outfall, including the latitude and longitude to the nearest second. IDAPA 58.01.25.105.16.a.i. The Water Management Plan shows the location of the IPDES outfall that will be permitted under IDAPA 58.01.01 and that it is located very near the barrier that the

Hearing Officer established as the point of compliance. Ex. 26 at 94, 108, 114; Tr. at 438; *see also* Ex. 63 at 19.

Establishing the IPDES outfall as the point of compliance will have two benefits. First, it provides a more specific, and enforceable, condition than the vaguely identified barrier. Not only is the barrier not well identified in the record, but it will also be removed in mine year 18 when the rock-lined channel is restored to a sinuous and naturally functioning channel that will provide quality fish habitat. *See* Ex. 29 at 68-69; Ex. 22 at 91.

Second, locating the point of compliance at the IPDES outfall will allow Perpetua to augment flows below the point of compliance through the pumping of either freshwater from the surface water intake or discharge of treated dewatering and contact water. Ex. 63 at 19. If the point of compliance for Condition 15 is not moved to the IPDES outfall, it will prevent Perpetua from operating either the groundwater supply withdrawal wells or the Hangar Flats Pit dewatering wells for much of the year. The gauge data for USGS gauge #13310850 (Meadow Creek near Stibnite, Idaho), which is located upstream of the barrier, demonstrate that the three-day rolling mean of daily average flows is below 3.0 cfs for seven months of the year in normal water years and eight months of the year in low water years. Ex. 201 at 6. Because the point of compliance is located slightly upstream of the IPDES outfall, Perpetua will be unable to meet the minimum instream flows for a significant portion of the year over a 100-yard, or less, segment of stream, and will be required to cease dewatering the Hangar Flats Pit for significant portions of the year.⁹

⁹ Perpetua specifically designed water management at the SGP to utilize contact water, including pit dewatering water, before utilizing sources of freshwater. Tr. at 190, 428; Ex. 27a at 51-52. As the Hearing Officer recognized, Perpetua would not be required to obtain a water right if it did not propose to put dewatering water to beneficial use. Preliminary Order at 24. Therefore, if Perpetua were to simply dewater the pits and rely on freshwater supplies pit dewatering would not be subject to Condition 15. However, because Perpetua proposes to put dewatering water – water that must be pumped for mining operations – to beneficial use, Condition 15 may require that Perpetua withdraw additional water from the surface water intake instead of taking it from pit-dewatering.

3. Despite The Lack Of Evidence In The Record To Support Minimum Flows In Meadow Creek, Perpetua Is Willing To Accept A Minimum Flow Condition.

Despite the lack of evidentiary support for Condition 15, Perpetua does not seek to completely eliminate Condition 15. Instead, Perpetua proposes to revise Condition 15 as follows:

During any calendar year when the right holder diverts ground water under this right from any wells in Section 15, T18N, R09E, the right holder shall ensure the daily average flow in Meadow Creek from the IPDES outfall in the NW ¼ of the SE ¼ Section 15, T18N, R9E to the confluence of Meadow Creek and the EFSFSR meet or exceed the following quantities:

January 1.7 cfs	July 2.3 cfs
February 1.6 cfs	August 2.2 cfs
March 1.7 cfs	September 1.9 cfs
April 2.3 cfs	October 1.9 cfs
May 2.3 cfs	November 2.0 cfs
June 2.3 cfs	December 1.8 cfs

These flow rates shall be maintained by management of groundwater pumping volumes and by streamflow augmentation through the IPDES outfall located in Lot 6 Section 15 Township 18N Range 9E using water diverted from EFSFSR or groundwater under water rights 77-7122, 77-7285, 77-7293, and 77-14378 or from other sources in compliance with the IPDES permit. Groundwater pumping from any wells in Section 15, T18N, R09E, shall immediately cease if the daily average streamflow falls below the listed quantities.

This proposed condition establishes minimum flows based on 95% exceedance flows as observed at USGS gauge #13310850 except during the higher flow runoff period of May through July. USGS gauge #13310850 is located high in the Meadow Creek Valley approximately one mile upstream of the confluence with Blowout Creek, which contributes a significant portion of the total flow in Meadow Creek below their confluence. The proposed condition is therefore based on flow statistics that do not include 40% of the drainage basin. Tr. at 746. This condition is appropriate for the following reasons.

First, instead of relying on an arbitrarily selected minimum flow of 3.0 cfs, this condition is based on, and reflects, monthly 95% exceedance flows in Meadow Creek above Blowout Creek. Utilizing 95% exceedance flows is consistent with guidance from the National Marine Fisheries Service (“NMFS”) for evaluating fish passage and habitat effects.¹⁰ See Preliminary Order, Findings of Fact ¶ 55; Ex. 206 at 9; Ex. 219 at 3, 35 (explaining the use of 95% exceedance flows for the evaluation of passage and habitat restoration); Ex. 246 at 42; Tr. at 479-80, 663. In the absence of evidence to the contrary, it is appropriate to utilize 95% exceedance flows as a minimum flow condition as these flow levels will ensure that Meadow Creek is not dewatered, and will provide flows that are representative of natural conditions. This condition also protects flows for the entire year when Perpetua diverts water from groundwater wells in Section 15 at any point during that year, not just at times when Perpetua is actively diverting groundwater.

Second, the section of Meadow Creek protected by this flow condition is relatively short, approximately 700 feet. Reconsideration Order at 2. Below this section, streamflow increases because of Blowout Creek and flows below Blowout Creek will be consistently higher than the flows at USGS gauge #13310850. Flows from Blowout Creek will provide additional flows for fish habitat and spawning. See Ex. 63 at 27.

Third, the point of compliance is also moved from a largely undefined fish passage barrier to a specific point of compliance – the IPDES outfall. As previously discussed, the

¹⁰ The Hearing Officer faulted Perpetua for proposing to use 95% exceedance flows, stating that “[t]here is nothing in statute or rule requiring the Department to use 95% exceedance flows as a benchmark when drafting conditions to protect the public interest elements.” RO at 3. However, the Hearing Officer failed to recognize that there is also nothing in the statute or rule authorizing, much less requiring or even defining, the use of “the upper end of median base flow.” *Id.* The Hearing Officer failed to recognize that any condition to protect the public interest must be based on specific evidence.

IPDES outfall is located less than 100 yards downstream from the barrier and is the upstream-most point that Perpetua can feasibly augment streamflow.

Fourth, this proposed condition will provide additional operational flexibility. Basing the condition on 95% exceedance flows will allow Perpetua to continue pumping groundwater during baseflow periods while still protecting natural flow conditions. To the extent that groundwater pumping reduces the flows in Meadow Creek, which is most likely when the Hangar Flats Pit is being dewatered, Perpetua will be able to augment those stream flows to meet minimum flow conditions. Water for augmentation would come either from dewatering the Hangar Flats Pit, which results in a water surplus, or by pumping water from the surface water intake.

This condition should not apply to Water Right 77-7285 (Transfer No. 85397). Water Right 77-7285 has a priority date of 1988 and authorizes the diversion of 0.5 cfs and 30.2 acre-feet per year from a groundwater well in Section 15. *See* Ex. 1c. This right should be available, as it historically has been, in years when streamflow augmentation is not available (i.e., late in the reclamation phase when water treatment is no longer operating) and when streamflow augmentation is generally not needed because large volumes of groundwater are not being diverted under Permit No. 77-14378.

C. Condition 10 Is Duplicative And Not Necessary To Protect The Public Interest

Condition 10 limits diversions from the industrial supply wells in Section 15 to a combined monthly diversion volume of 31 acre-feet per month. Preliminary Order at 25. In the Preliminary Order, the Hearing Officer appears to have based this condition on a mistaken belief that “Perpetua propose[d] to limit its industrial production wells around Meadow Creek to an average monthly diversion rate of 0.5 cfs.” Preliminary Order, Findings of Fact ¶ 66. It was not until the Reconsideration Order that the Hearing Officer explained that “Condition 10 serves a

separate purpose from Condition 15 by preventing ground water pumping impacts to the unlined section of Meadow Creek” above the restored and lined section. Reconsideration Order at 3. Apparently, the Hearing Officer believed that this was necessary to “protect the unlined section of Meadow Creek (upstream of the reach described in Condition 15),” *id.* at 10, because this reach contains habitat for ESA-listed species. The Hearing Officer misinterpreted the facts related to Condition 10 and it should be removed.

Evidence in the record demonstrates that Perpetua never intended to limit groundwater diversions from the industrial supply wells to 0.5 cfs or 31 acre-feet per month. As explained above, Water Right 77-7285 was already permitted for 0.5 cfs and 30.2 acre-feet. Perpetua proposed 13 supply wells when it already had a single well capable of 0.5 cfs. It would not have done so if it planned to divert only 0.5 cfs. The Hearing Officer relied on a passage in the SWWB to support his finding that Perpetua proposed to limit diversions from the industrial supply wells to 0.5 cfs. Preliminary Order, Findings of Fact ¶ 66 (citing Ex. 27a at 76). However, the SWWB explicitly contradicts the Hearing Officer’s finding. Specifically, it states,

0.5 cfs was determined from the groundwater flow model (BC 2021b) as an amount that could be withdrawn [from the supply wells] without adverse impacts on Meadow Creek. *Actual well yield and effects on streamflow will be reevaluated upon well installation and operation, and well pumping rates fine-tuned at that time.*

Ex. 27a at 76 (emphasis added). The complete passage is contrary to the Hearing Officer’s finding.

The 0.5 cfs pumping rate was used as a modeling parameter because the model identified that, during low flows, 0.5 cfs was an amount of water that could be withdrawn without having adverse impacts on Meadow Creek. Preliminary Order, Findings of Fact ¶ 66. Importantly, there is no evidence in the record that this modeling parameter correlates to fish habitat. Moreover,

this modeling parameter was not intended to reflect actual operations. Mr. Stanaway, Perpetua's expert witness who was responsible for evaluating the impacts of water diversions at the SGP testified:

[W]hat should be taken from [the modeling is] that the intent would be to utilize [diversions from the industrial supply wells] to the extent reasonable to maintain stream flow conditions. And this 0.5 [cfs] was showing the modeling. In reality that rate will be dependent on stream flows, the well field capacity, and various other influences.

Tr. at 260; *see also* Tr. at 224-25. Mr. Stanaway further testified that, irrespective of how well the model was calibrated, there is a level of uncertainty inherent in modeling and that adaptive management will be used to adjust diversion rate by source during operations to adjust to operational realities. Tr. at 220-21. Recognizing that the diversion rates may have to be adjusted to reflect operational realities, neither Perpetua's water right applications nor its Rule 40 supplemental disclosure proposed a diversion-rate limit or monthly-volume limit for the industrial supply wells. *See* Ex. 1g.

In addition to misinterpreting the record with regard to Perpetua's intent to limit diversions from the industrial supply wells, the Hearing Officer also misinterpreted the record with regard to the extent to which Condition 10 will protect fish habitat. It appears that the Hearing Officer believed Condition 10 was necessary to protect fish habitat in the unlined portion of Meadow Creek, above the passage barrier that will not be protected by Condition 15. Reconsideration Order at 2-3. However, as previously explained, this unlined section of Meadow Creek is a rock chute that has little to no value as fish habitat. Ex. 29 at 26; Tr. at 32, 728-29. To the extent that the Hearing Officer was concerned about effects to fish habitat upstream of the rock lined channel, those concerns are unfounded. To facilitate construction of the TSF "Meadow Creek will be diverted around the south side of the TSF and TSF Buttress and will

discharge back into the existing SODA diversion channel.” Ex. 26 at 106. This diversion channel will be lined and fish screening will be installed at the upper end of the diversion, per NMFS guidance, to prevent entry of fish into the diversion channel from the upper reaches of Meadow Creek. *See* Ex. 26 at 130; Ex. 29 at 29. The only reach of Meadow Creek where fish may exist and that will be impacted by groundwater withdrawals is the riprap-lined channel around SODA. This section lacks cover or spawning substrate and does not provide quality fish habitat. Ex. 29 at 26; Tr. at 32, 728-29.

Because the unlined section of Meadow Creek above the passage barrier is highly degraded and does not provide quality fish habitat, Condition 10 is duplicative of Condition 15. Condition 15, as proposed by Perpetua, will ensure that flows through the restored section of Meadow Creek are sufficient to protect both fish passage and habitat. With Proposed Condition 15 in place, Condition 10 provides no protection for the public interest. Moreover, Condition 10 arbitrarily limits diversions even at times of high flow, when impacts from increased diversions would be proportionally less than at times of low flow.

The Hearing Officer erred in imposing Condition 10. Condition 10 was imposed contrary to evidence in the record regarding Perpetua’s planned diversion rates from the supply wells. Condition 10 is duplicative of Condition 15 and provides no additional protections to fish habitat beyond that provided by Condition 15. Accordingly, Perpetua requests that Condition 10 be removed.

D. Conditions 13 And 14 Are Contrary To Evidence In The Record And Unnecessary For The Protection Of The Public Interest.

Even though Condition 13 and 14 are less impactful to Perpetua’s mining operations, they reduce operational flexibility, are contrary to evidence in the record, and therefore should be removed. Condition 13 states that “[f]rom June 30 to September 30, no water shall be diverted

under this right unless there is at least 7.25 cfs passing the river pump point of diversion on the EFSFSR in the NESE, Section 3, T18N, R09E.” *See* Preliminary Order at 25. Condition 14 states that “[f]rom October 1 to June 29, no water shall be diverted under this right unless there is at least 5.00 cfs passing the river pump point of diversion on the EFSFSR in the NESE, Section 3, T18N, R09E.” *Id.* Condition 13 and 14 are contrary to evidence in the record, do not provide significant additional protections for fish passage beyond Condition 12, and unnecessarily limit Perpetua’s ability to utilize its water rights. Accordingly, they should be removed.

Condition 13 and 14 appear to arise from a statement by IDFG and OSC, that the Department should condition any permit to ensure that surface water diversions and infrastructure at the SGP will not at any time impede the passage of any life stage of ESA-listed fish, or cutthroat trout from the confluence of the EFSFSR and Sugar Creek past the surface water intake. *See* Preliminary Order at 25. Notably, fish passage “at any time” and “of any life stage” is not even required by NMFS. Instead, NMFS guidance specifies that fishways should be designed to pass fish at the 95% exceedance flow during periods when migrating fish are normally present. *Ex. 246 at 42.* Moreover, IDFG and OSC did not specify what conditions would be either necessary or sufficient such that Perpetua’s water diversions would not at any time impede the passage of any life stage of ESA-listed fish. *See Ex. 206.* If the IDFG and OSC believed that additional conditions were necessary, beyond Condition 12, they had the opportunity to suggest them, but did not. *See Ex. 219A.*

The fishway at the SGP has been designed in consultation with NMFS and USFWS, which will have ultimate authority to approve the design and likely impose conditions on fishway operation through the ESA consultation process. *See Ex. 29 at 12; Ex. 22 at 21-22; Tr. at 350; id. at 381, 474; id. at 546-47.* Even though the fishway is designed to ensure fish passage,

there may be times when fish are unwilling to pass through the fishway. Tr. at 707-08.

Accordingly, Perpetua has designed the north (downstream) portal of the tunnel to allow for trap and haul if necessary. Tr. at 664-67; Ex. 34 at 48-49. The only difference between transporting fish upstream from the north portal of the tunnel and the Nez Perce Tribe's trap and haul program, which is how Chinook salmon currently "pass" the Yellow Pine Pit, is that the distance fish are transported would be significantly shorter under Perpetua's plan.¹¹ Tr. at 665-66, 706. Additionally, the Fishway Operation and Management Plan requires Perpetua to use adaptive management in consultation with NMFS and USFWS to adjust fishway operations as needed to facilitate fish passage. Ex. 34 at 56-57; Tr. at 664-65.

Perpetua relied on site-specific and species-specific information when determining that the fishway would provide passage during fish migration periods. Although the NMFS guidance suggests that one foot of flow should be maintained over the weirs, the NMFS guidance is general to all fishways and does not provide species-specific depth criteria. Instead, the NMFS guidance provides that fish passage should be evaluated for local hydrology, target species, and other factors. Ex. 246 at 15. Idaho has not issued fish passage criteria, so to conduct its evaluation of fish passage, Perpetua's fisheries experts looked to the next closest state that provided species-specific passage criteria, which is California. Tr. at 503-09; 744-75. To determine the minimum depths required to pass the target fish species, Perpetua's fisheries experts relied on the California Department of Fish and Wildlife guidance ("CDFW guidance"), which specifies species-specific minimum depths for riffles. *See* Ex. 238; Ex. 219 at 5-6, 9-10. Perpetua's expert, Rob Richardson, testified that fish passage through riffles is more likely to be impaired by flow depth depletions than in step-pool reaches because riffles are longer and

¹¹ Perpetua notes that, as the Nez Perce Tribe's witness testified, trap and haul is generally a safe and effective means of transporting fish. Tr. at 913-14.

consistently shallower than step pools. Tr. at 745. Mr. Richardson testified that because the tunnel is a type of step pool, application of the CDFW guidance to evaluate passage in the fishway and reach below is inherently conservative.¹² Tr. at 745.

The CDFW guidance specifies that minimum depth for passage of Chinook salmon is 0.9 feet. Ex. 238 at 20. Hydraulic modeling of the fishway demonstrated that flows down to 6.6 cfs will consistently provide at least 0.92 feet of water over the weirs of the fishway during Chinook salmon migration.¹³ Ex. 47 at 11-12; Ex. 219 at 9-10. The CDFW guidance also establishes species-specific passage depths for steelhead (0.7 feet), trout (0.4 feet), and juvenile salmon (0.3 feet), which are supported by common sense in that each successively smaller fish requires a lower flow depth. Ex. 238 at 20. Hydraulic modeling demonstrated that flows of 5.0 cfs would provide 0.72 feet of water over the weir of the fishway, which is above the minimum requirement for steelhead and bull trout. Ex. 219 at 9-10. That 5.0 cfs provides sufficient depth for two of the larger fish of interest (adult steelhead and bull trout) is not, as the Hearing Officer misinterpreted, evidence that 5.0 cfs is a lower bound to fish passage.

Perpetua conducted an analysis of 95% exceedance flows in the EFSFSR and found that Condition 12 would ensure at least 6.6 cfs of streamflow through the tunnel during Chinook salmon migration and at least 5.0 cfs of flow during steelhead, bull trout, and westslope cutthroat trout migration. Ex. 219. This evaluation demonstrates that there will be sufficient flows during each species' migration period to provide fish passage through the tunnel and the reach below. Ex. 219 at 4, 9-10, 30.

¹² Notably, although the Hearing Officer rejected application of the species-specific CDFW guidance for Chinook salmon, he accepted it for other fish species. RO at 7.

¹³ Perpetua's expert, Paul Leonard testified that Chinook salmon would be expected to pass at depths of 0.9 feet, consistent with the CDFW guidance. Tr. at 710-12.

Steelhead migrate April 1 to May 31, bull trout migrate July 8 to September 30, and Chinook salmon migrate from June 30 to September 30. Ex. 219 at 20. Between September 30 and April 1, the only fish that may require passage are juvenile salmonids. *Id.* The minimum over-weir flow depth for juvenile salmonids is 0.3 feet. This flow depth can be met with streamflow that is much lower than 5.0 cfs, given that 5.0 cfs results in an over-weir depth of 0.72 feet.¹⁴ Ex. 47 at 11.

The Hearing Officer rejected this reasoning, finding that because NMFS guidance suggested one foot flows over the weirs, he must establish a condition to ensure one foot flows over the weirs during the Chinook salmon migration period. Preliminary Order at 22. The Hearing Officer rejected Perpetua's species-specific passage evaluation and instead relied on general guidance to impose Condition 13. *Id.* The NMFS guidance does not provide species-specific flow depth criteria and specifically directs users to utilize site-specific information, which would include the type of species passing through the fishway. Ex. 246 at 17; Tr. at 664. The Hearing Officer faulted Perpetua for relying on the species-specific CDFW guidance. But, Idaho has not established any guidance for fish passage, and Perpetua looked to the closest state that offered species-specific guidance, a state in which some of the very same fish species occur as occur at the SGP site. Notably, while the Hearing Officer rejected application of the CDFW guidance for Chinook salmon passage, he accepted use of the guidance for the remaining species of concern that would be passing through the tunnel. Reconsideration Order at 7.

In rejecting Perpetua's petition for reconsideration on Condition 14, the Hearing Officer selected flows from an isolated day, February 8, 2019, to demonstrate that on that particular day, Perpetua's diversions under Condition 12 could reduce flows at gauge #13311250 (EFSFSR

¹⁴ Perpetua only modeled flows through the tunnel down to 5.0 cfs. Ex. 47 at 7.

above Sugar Creek) below 5.0 cfs. This isolated example does not support Condition 14 for several reasons. First, the only fish that may be passing in February are juvenile salmon, passing downstream, which require a significantly lower depth that could still be achieved at this reduced flow. Ex. 219 at 5. More problematic, this is the flow of a single day, not 95% exceedance flows. NMFS guidance does not require evaluation of the lowest possible flow; it requires evaluation of 95% exceedance flows. Ex. 238 at 42. Additionally, as Mr. Leonard testified, fish are adaptive and passage will not be blocked by short-term reductions below minimum flow targets, which is why NMFS does not require fishways to pass fish at the lowest possible flow. Tr. at 644.

The Hearing Officer recognized that Condition 12 would be the primary limiting factor on Perpetua's water withdrawals, and that Conditions 13 and 14 would only limit withdrawals a few times a year. As Perpetua's species-specific passage evaluation, Ex. 219, demonstrates, Condition 12 is sufficient to provide fish passage during all fish migration periods. Conditions 13 and 14 are based on the Hearing Officer's reliance on general guidance and misunderstanding of passage requirements. Because Condition 12 is protective of fish passage, Conditions 13 and 14 are unnecessary.

The Hearing Officer also rejected testimony from Perpetua's expert, Mr. Bosley, that the weir notch could easily be redesigned to provide increased flow depths to achieve a one foot depth during Chinook salmon migration. Tr. at 385-86. Ultimately the decision on weir notch geometry will be made in consultation with NMFS, if NMFS finds it necessary to increase the flow depth over the weir notch.¹⁵ The Hearing Officer also suggested that changing the dimensions of the weir notch would constitute a substantial change to the Modified Plan of

¹⁵ In its petition for reconsideration, Perpetua offered an amended Condition 14, that would require Perpetua to maintain one foot of flow over the weir notch in the fishway during Chinook salmon migration (June 30 – Sept 30), which would account for any changes to the dimension of the weir notch. As described above, this condition is unnecessary to ensure passage. However, this condition would be an acceptable alternative to current Condition 14.

Restoration and Operations, requiring an amendment of the permit under Condition 11 of Permit No. 77-14378. Reconsideration Order at 5. Perpetua notes that the weir dimensions are not specified in the Modified Plan of Restoration and Operations. *See* Ex. 22. Further, as depth is the only constraint on passage at low flow (velocity being far lower than the relevant fish swim speed thresholds), the Hearing Officer's speculation that an alternative weir shape may meet depth but not velocity criteria is wholly unfounded in either the record or logic. *See* Ex. 47 at 14. Therefore, changing the weir notch dimensions should not constitute a significant change.

The Hearing Officer gave little weight to the fact that without the fishway tunnel, and the SGP, fish passage would continue to be blocked above the YPP. As Mr. Leonard testified, any volitional fish passage is better than the status-quo, Tr. at 709, and that trap and haul would be available to provide passage at times when fish were either unable or unwilling to pass through the fishway. Tr. at 541-42. NMFS has specifically stated that restoring volitional fish passage is a key goal of its recovery plan. Tr. at 655. This goal cannot be achieved without the SGP. Tr. at 909-10. Authorizing water diversions to facilitate the SGP, which in turn will restore volitional passage, is in the public interest. Conditions 13 and 14 do not provide additional benefits to the public interest that are not already provided by Condition 12. Instead, Conditions 13 and 14 unnecessarily serve to constrain Perpetua's ability to beneficially use its water rights. Accordingly, Conditions 13 and 14 should be removed.

V. CONCLUSION

The Hearing Officer erred in imposing Conditions 9, 10, 13, 14, and 15. These conditions operate in concert to greatly reduce the authorized diversion rate of surface and groundwater throughout significant portions of the year without providing benefits to the public interest. Condition 9 is not based on specific evidence that connects the condition to the protection of the public interest and should be removed. Condition 10 is based on a misrepresentation of the facts

in the record, does not protect the public interest, and should be removed. Conditions 13 and 14 are contrary to evidence in the record, are redundant to Condition 12, and should be removed. Finally, Condition 15 is not based on sufficient evidence. Although, there is not sufficient evidence to support Condition 15, Perpetua requests that it be amended instead of removed. Accordingly, Perpetua respectfully requests that the Director revise Permit No. 77-14378, Transfer Nos. 85396, 85397, and 85398, and Exchange No. 85538, as described above.

DATED: May 23, 2024

STOEL RIVES LLP

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CERTIFICATE OF SERVICE

I hereby certify that on May 23, 2024, true and correct copies of the foregoing document was served on the parties by Email:

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