UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Re: Twin Lakes Canal Company Project: Bear River Narrows, FERC No. 12486-008 Application for Major License For Bear River Narrows Hydroelectric Project on Bear River, in Franklin County Idaho	)	MOTION TO INTERVENE, PROTEST & MOTION TO DISMISS, AND COMMENTS OF AMERICAN WHITEWATER AND IDAHO RIVERS UNITED

I. INTRODUCTION

On November 27, 2013, The Twin Lakes Canal Company (TLCC) filed an application for Original Major License (Project No. 12486-008) proposing to construct a new dam and hydropower facility on the Bear River in southeastern Idaho.[1] On October 17, 2014, the Federal Energy Regulatory Commission (FERC) issued a public notice of the application and solicited motions to intervene, protests and comments.[2]

Pursuant to 18 C.F.R. § 385.214 and the Notice of Application Accepted For Filing dated October 17, 2014, American Whitewater and Idaho Rivers United (Petitioners) respectfully move to intervene, protest and comment.

II. MOTION TO INTERVENE

a. STATEMENT OF INTEREST

American Whitewater is a national non-profit 501(c)(3) river conservation organization

[1] Application for License (Major) of Twin Lakes Canal Company under P-12486. Accession No. 20131127-5079. November 27, 2013. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13403120

[2] Notice of application accepted for filing, soliciting motions to intervene and protests, ready for environmental analysis, and soliciting comments, etc re Twin Lakes Canal Company under P-12486. Accession No. 20141017-3012. October 17, 2014. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13661806

founded in 1954 with over 5,600 members and 100 local-based affiliate clubs, representing whitewater paddlers across the nation. American Whitewater's mission is to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. As a conservation-oriented paddling organization, American Whitewater has a significant percentage of members residing in southern Idaho in close proximity to the proposed project.

Idaho Rivers United is Idaho's only statewide, non-profit, 501(c)(3) conservation organization dedicated to protecting and restoring the rivers of Idaho. Founded in 1990, in response to proposed hydropower development on the Payette River, Idaho Rivers United has grown to over 3,500 members throughout Idaho and across America. For nearly twenty five years, Idaho Rivers United has participated in hydropower licensing projects throughout the state of Idaho. Our members live and recreate throughout Idaho, including in the vicinity of this project, and have a direct interest in ensuring that hydropower development and production is balanced with other public interests.

b. GROUNDS FOR INTERVENTION

In 2002, after years of negotiations, Petitioners joined with PacifiCorp, federal and state resource agencies, local governments, the Shoshone-Bannock Tribe and other environmental organizations in signing the Bear River Settlement Agreement.[3] This settlement agreement resolved concerns over many resource issues related to relicensing PacifiCorp's hydropower projects on the Bear River.

In 2003, the FERC issued a new license to PacifiCorp for its Bear River hydropower operations.[4] Central to the license order was the Bear River Settlement Agreement which the FERC

[3] PacifiCorp Offer of Settlement describing the terms of the Agreement re the application for new licenses for the Soda (P-20-024), Grace Cove (P-2401-047) and Oneida Projects (P-472-023). Accession No. 200200927-0066. September 26, 2002. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=10684104

[4] Order approving Settlement Agreement and issuing new license re PacifiCorp for the Soda Proj-20 et al. Accession No. 20031222-3044. December 22, 2003.

incorporated into the articles of the new license.

In 2005, and over the objections of Petitioners and other parties, the FERC issued a preliminary permit to the TLCC to study the feasibility of a new hydropower project to be constructed in the Bear River Narrows downstream from PacifiCorp's Oneida Dam.[5] This proposed project would be constructed on PacifiCorp land and within the existing project boundary of the Oneida Project. Further, the proposed project would inundate critical habitat for imperiled Bonneville cutthroat trout and destroy existing recreational resources and facilities. Additionally, licensing this proposed project would materially interfere with PacifiCorps' project operations, destroy substantial mitigation completed by PacifiCorp in accordance with its 2003 license and settlement agreement and, likely, irreparably harm the settlement agreement and require reopening the 2003 FERC license.

In 2008, and, once again over the objections of Petitioners and other parties, the FERC issued a second preliminary permit to TLCC.[6] Again, Petitioners and other parties outlined their concerns with this proposed project. While the FERC acknowledged Petitioners' concerns, the FERC stated that consideration of these concerns was premature and would be considered at a later date.

In 2014, the FERC issued a third preliminary permit to TLCC[7]. Once again, parties protested the application and moved for dismissal. And, once again, the FERC failed to address substantive concerns related to the injury this project would have on PacifiCorp and the other signatories to the 2002 settlement agreement.

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http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=10033558

[5] Order issuing Preliminary Permit re Twin Lakes Canal Co's Bear River Narrows Proj-12486. Accession No. 20050202-3008. February 2, 2005. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=10393453

[6] Notice of application accepted for filing and soliciting motions to intervene, protests, and comments re Twin Lakes Canal Co under P-12486. Accession No. 20080408-3013. April 8, 2008. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=11638475

[7] Order issuing successive preliminary permit and granting priority to file license application re Twin Lakes Canal Company under P-12486. December 21, 2012. https://elibrary.ferc.gov/IDMWS/file_list.asp?document_id=14076978

Finally, Petitioners have broad organizational interests in the Commission's equal consideration of power and non-power values in hydropower licensing pursuant to Sections 4(e) and 10(a) of the Federal Power Act. Petitioners have intervened in numerous projects throughout Idaho and other western states in order to assure that the Federal Power Act is administered in a manner that protects and restores natural resources impacted by hydropower projects. These organizational interests are consistent with the above-captioned proceeding.

No other party to this proceeding will be able to adequately protect the interests outlined above. Accordingly, Petitioners have a direct and substantial interest in the outcome of this proceeding, and our intervention in this proceeding is in the public interest as required by 18 C.F.R. § 385.214(b)(2)(iii). In short, Petitioners' participation in this proceeding will enable a more complete record to be developed, will lead to better informed decision making, and will serve the public interest.

Petitioners respectfully request that FERC grant this motion to intervene and to add our organizations to the official service list for this proceeding as filed by Twin Lakes Canal Company for the Bear River Narrows Hydroelectric Project. Copies of all notices, correspondence, and pleadings related to this proceeding should be directed to:

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III. PROTEST & MOTION TO DISMISS

a. IMPACTS TO EXISTING FERC LICENSE AND SETTLEMENT AGREEMENT

In 2005, and over the objections of Petitioners and other parties, the FERC issued a preliminary permit to the TLCC to study the feasibility of a new hydropower project to be constructed in the Bear River Narrows downstream from PacifiCorp's Oneida Dam. This proposed project would be constructed on PacifiCorp land and within the existing project boundary of the Oneida Project (FERC No. 20). Further the proposed project would inundate critical habitat for imperiled Bonneville cutthroat trout and destroy existing recreational resources and facilities. Additionally, the licensing of this proposed project would materially interfere with PacifiCorps' project operations, destroy substantial mitigation completed by PacifiCorp in accordance with its 2003 license and settlement agreement and, likely, irreparably harm the settlement agreement and require reopening the 2003 FERC license.

b. TLCC WATER RIGHT APPLICATION DENIED

On March 8, 2007, TLCC filed Application for Permit 13-7697 with the Idaho Department of Water Resources (IDWR) seeking to appropriate water from the Bear River for power, head storage, irrigation storage, and irrigation. Petitioner Idaho Rivers United, PacifiCorp and other signatories to the Bear River Settlement Agreement intervened in opposition to the application. A formal hearing was conducted by IDWR in March 2012 and on July 26, 2012 the hearing officer issued a *Preliminary Order Denying Application for Permit* (**Attachment 1**). TLCC appealed the Order to the Director of IDWR and on October 18, 2014 the Director issued his *Final Orde*r (**Attachment 2**) denying TLCC's application for water rights.[8] In his *Final Order*, the Director concluded that the application would illegally reduce the quantity of water available to downstream senior water right holders and that the application conflicts with the local public interest.

[8] Final Order Denying Application for Preliminary Permit, October 18, 2014. http://idwr.idaho.gov/WaterManagement/Orders/PDFs/2012/20121018_Final%20Order%20Denying%20Appl%20for%20Permit.pdf

In addition, Former IDWR Director Higginson denied a previous water right application in 1990 for a proposed dam to be located in roughly the same location. Director Higginson also concluded that the application would illegally reduce the quantity of water available to downstream senior water right holders.

In summation, the TLCC does not possess and lacks the ability to secure the required water right to operate this proposed project.

c. PROTECTED AREAS AND COMPREHENSIVE PLANS

In 1988, the Northwest Power and Conservation Council ("Council") established certain river reaches throughout the Pacific Northwest as protected from future hydropower development (i.e. "Protected Areas"). The Council has specified that the Bear River from Oneida Dam to its confluence with Battle Creek, which includes TLCC's proposed dam site, is designated as a Protected Area. (See Protected Areas Mapper,[9] and November 25, 2014 letter from the Council to FERC and TLCC,[10] **Attachment 3.**) Protected Areas were established in order to protect the most sensitive fish and wildlife habitat throughout the Pacific Northwest from the significant impacts of hydropower development and preserve those rivers and streams where hydropower development would have major negative impacts that could not be reversed.[11] The intent of the program is to direct hydropower developers to less sensitive and controversial areas.[12]

Protected Areas are described in the Council's Columbia River Basin Fish and Wildlife Program, which, in conjunction with the Council's 2010 Sixth Northwest Conservation and Electric Power Plan, has been recognized by FERC as a Comprehensive Plan under §10(a)(2)(A) of the

[9] Available at http://map.streamnet.org/website/protectedquery/viewer.htm, last visited December 9, 2014.
[10] FERC Accession No. 20141126-5267
[11] Northwest Power and Conservation Council, "Protected Areas Amendments and Response to Comments," Document 88-22, p. i and p. 2.
[12] Id. at p. i.

Federal Power Act.[13] This section of the Federal Power Act requires FERC to consider the extent to which a project is consistent with Federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. FERC has denied hydropower licenses in the past because proposed projects were located in Protected Areas, and Petitioners urge the Commission do the same in this case.

Additionally, the Council's Fish and Wildlife Program expects that the Bonneville Power Administration will not acquire power from, or provide transmission support to a new hydropower project located within a Protected Area.[14] Petitioners request that FERC ensure that the proposed project is in compliance with this aspect of the Council's Comprehensive Plan.

Developers may seek an exception to the Protected Areas status if projects have "exceptional benefits to fish and wildlife." Although TLCC proposes minimum flows in Mink Creek and states that this will provide some coldwater refugia, TLCC admits in its license application that "Mink Creek cannot provide the overall amount of adult Bonneville cutthroat trout habitat that would be lost due to the new reservoir."[15] The proposed project will harm fish and wildlife and fails to meet the "exceptional benefit" test.

d. CONCLUSION

If licensed and constructed, this project would impermissibly interfere with an existing FERC licensed project. Additionally, the State of Idaho has denied a water right for this proposed project as not being in the public interest. Finally, the proposed project is located in a Northwest Power and Conservation Council Protected Area and is inconsistent with a FERC approved comprehensive plan.

[13] A list of FERC approved comprehensive plans are available at: http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf, last visited November 26, 2014.
[14] Northwest Power and Conservation Council, 2014 Fish and Wildlife Program, pre-publication version, Section IV(A)(5)(d), p. 53. Available at: http://www.nwcouncil.org/fw/program/2014-12/, last visited December 9, 2014.
[15] Twin Lakes Canal Company Draft License Application Bear River Narrows Project, November 2014, page E8-111. FERC Accession No. 20131127-5079.

As outlined in the previous section of this filing, the FERC has either denied or failed to address petitions to dismiss that were filed by the Petitioners, PacifiCorp and other signatories to the 2002 Bear River Settlement Agreement. For over ten years, the FERC has failed to address one or more of the issues that Petitioners believe present insurmountable obstacles to the licensing of this project.

Petitioners believe that any one of the above three issues is sufficient to deny this application. Petitioners urge the FERC to address these obstacles prior to conducting its full analysis of this license application. Further, **Petitioners hereby move that this license application be dismissed as not being in the public interest.**

IV. COMMENTS

Final License Application Exhibit D - Project Costs and Financing

In 2012, Petitioners commissioned an economic review (**Attachment 4**) of the Draft License Application (DLA).[16] Since Exhibit D of the Final License Application (FLA)[17] is unchanged from the DLA, the conclusions of the economic review that the proposed "project is flawed and not economically feasible" remain valid. Further, since the completion of the review, wholesale power rates are currently lower that what was discussed in the review - making this project even more unfeasible. For example, the 2004-2013 ten-year average Mid-Columbia (Mid-C) price was $39.81 per MW/HR. Additionally, the Bonneville Power Administration's Tier 1 rate is set at $31.30 per MW/HR through October 2015. In the FLA, TLCC understates the costs associated with building and maintaining this project while, at the same time, overstating the estimated financial returns.

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16 http://www.idahorivers.org/pdf/Economic_Review_of_TLCC_FERC_DLA.pdf

17 Application for License (Major) of Twin Lakes Canal Company under P-12486. Accession No. 20131127-5079 . November 27, 2013. http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13403120

In the FLA, the TLCC states that the project will be financed through anticipated bond sales. It is unclear what, if any, bonding authority the TLCC can utilize to fund this project.

Petitioners believe that the FERC must apply a greater level of scrutiny to the economics of a proposed new license than is commonly applied to the relicensing of an existing project. Unlike relicensing, the construction of a new dam will permanently destroy invaluable ecological and recreational resources. Additionally, the licensee, a small canal company consisting of approximately 230 shareholders, will be financially responsible for the incurred debt of planning and constructing this project. The Petitioners economic analysis concludes that there is a high probability that this project will not generate a positive return and will likely encumber TLCC shareholders with an annual debt that ranges from $634,781 to $2.4 million dollars.

Recreational Impacts of the Proposed Project are Unacceptable

The proposed Bear River Narrows project would inundate nearly all of the Oneida Narrows section of the Bear River under a 4.5 mile long reservoir. Oneida Narrows is a beautiful Class I-II reach of the Bear River suitable for beginner and intermediate kayakers, canoeists, and rafters. Increasingly, it is also used for tubing. It is distinct from other sections of the Bear in many ways, including offering moderate whitewater, open canyon scenery, and daily summer flows that support whitewater paddling. It is a recreational treasure that the proposed hydropower project would destroy. The American Whitewater National Rivers Database describes it well:

> *"The Oneida Narrows reach is one of the popular sections along the Bear River for recreation. It offers a unique combination of dramatic canyon walls, high water quality, fun rapids, isolation from development, and river-accessible camping opportunities. The Oneida Narrows*

has the longest continuous public access along the whole Bear River." [18]

The Applicant acknowledges the severe impacts that their project would have on recreational uses of the Bear River. They state:

> *"River-based recreation sites within the project impact reach (about 45% of the estimated visitor use) would be lost if the new reservoir was constructed."*
>
> *"River fishing and boating would be the primary recreation activities that would be adversely affected by project construction. The upper canyon section (about 4.1 miles) would be permanently lost for whitewater boating."*
>
> *"Similarly, river fishing access would still be available on the lower canyon reach below the new dam, but the upper canyon section would be permanently lost for river fishing." See License Application Pg. xv.*

Vehicle count data from PacifiCorp confirms the scale of the recreational impacts that would be associated with the proposed Bear River Narrows project. PacifiCorp reports that, from November 2013 to November 2014, approximately 66,451 vehicle trips were made through the Oneida Narrows, nearly all of which were made for recreational purposes including sightseeing, camping, fishing, and paddling. This is an astounding amount of use that is a direct result of the quality of the recreational opportunities in the Narrows.

As mitigation, the Applicant offers to enhance public access to the Bear River below their proposed dam, and to pass-through the recreational releases from Oneida Reservoir to the downstream reach as well. This downstream section of the Bear River has relatively little recreational value, and is a fundamentally different type of paddling opportunity that appeals to a different subset of the public. It is a meandering section of flat-water flowing through agricultural fields with several large irrigation diversions. It is noteworthy that the public already has access to this reach. It is not a "new" paddling opportunity as the Applicant claims. The Applicant's proposed mitigation reveals just how impossible

[18] http://www.americanwhitewater.org/content/River/detail/id/1832/

it would be to mitigate the severe impacts of this project. The dam would destroy a unique section of the Bear River in an arid agricultural area with no similar recreational opportunities upon which to focus mitigation efforts. The Applicant's claims that the recreational values, including the flows and access areas associated with the Bear River Settlement Agreement and the subsequent FERC licensing order for the Bear River Hydropower Project, FERC No. 20, can simply be moved downstream of the Oneida Narrows are without basis or merit. We ask that the FERC recognize that the Oneida Narrows are a regionally unique and important river recreational resource that would be destroyed by the proposed project, for which mitigation is not possible.

Furthermore, we ask that the FERC conduct a thorough analysis of the cumulative impacts of the proposed Bear River Narrows project. The FERC already licenses the Bear River Hydropower Project, FERC No. 20, on the Bear River, which inundates, largely de-waters, and otherwise affects various reaches of the Bear River. In addition, other large and small dams impound and divert the Bear River along its length. We argue that an additional dam would not be in the public interest given the significant recreational interest and demand for free-flowing reaches of the Bear River, and the paucity of such reaches given existing dams and diversions.

Final License Application Exhibit A - Description of the Project, 1.14 Conservation Parcel

The applicant proposes to acquire the "Ben Johnson Family Farm," a 538-acre private farm located over twelve miles downstream from the proposed dam site. Purportedly, this site would serve as recreation and wetland mitigation for project impacts. As outlined in the previous section of this filing, there is no possibility of mitigating recreational losses in the Bear River Narrows through the development of this downstream property. Further, it is unclear how the applicant intends to secure this property.

On April 11, 2014, The Ben Johnson Family Farm, through their counsel Holland & Hart, filed

with the Commission a letter outlining their concerns with the actions of the applicant and disputing claims that the applicant made concerning the private lands and water rights belonging to the Ben Johnson Family Farm.

Petitioners urge the FERC to take a critical look at this issue given the ongoing effects to the private property values of the Ben Johnson Family Farm as described in the April 11th letter.

Respectfully submitted this 11th day of December, 2014.

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Certificate of Service

I certify that on December 11, 2014, a copy of the foregoing document and attachments was transmitted to the following by U.S. Postal Service or email:

Service List for P-12486-000 TWIN LAKES CANAL COMPANY
Contacts marked ** must be postal served

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Kevin Lewis, Conservation Director
Idaho Rivers United

Attachment 1

Preliminary Order Denying Application For Water Right

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NO. 13-7697 IN THE NAME OF TWIN LAKES CANAL CO.	)))	**PRELIMINARY ORDER DENYING APPLICATION FOR PERMIT**

On March 8, 2007, Twin Lakes Canal Company ("TLCC") filed Application for Permit 13-7697 with the Idaho Department of Water Resources ("IDWR" or "Department") seeking to appropriate water from the Bear River for powerhead storage, power, irrigation storage, and irrigation. An amended application was filed on June 18, 2010, removing the "irrigation" element from the application and adding an "irrigation from storage" element.

The amended application was advertised to the public in July 2010. The legal advertisement incorrectly included "irrigation" and "power from storage" elements. A Notice of Correction was advertised, extending the protest date to August 30, 2010. The application was further amended on August 13, 2010, adjusting the elements to be those described in this Order. The Department determined that the changes made on August 13, 2010 did not require a re-advertisement of the application.

Timely protests were filed by Oneida Narrows Organization, Great Salt Lake Keeper, Bear Lake Watch, Trout Unlimited, Greater Yellowstone Coalition ("GYC"), Bear River Water Users Association ("BRWUA"), the Idaho Department of Fish & Game ("IDFG"), Franklin County Fish & Game Association, and PacifiCorp. The U.S. Fish and Wildlife Service and Idaho Rivers United filed petitions to intervene, which were granted on August 11, 2011.

The U.S. Fish and Wildlife Service withdrew its protest on November 16, 2011. On December 14, 2011, TLCC and BRWUA signed a Stipulation for Withdrawal of Protest of [BRWUA] and Settlement Agreement ("BRWUA Agreement"), discussed in greater detail in this Order. BRWUA withdrew its protest on January 9, 2012.

On November 17, 2010, a pre-hearing conference was conducted in Pocatello and the parties requested that a formal hearing be held to resolve the protested matter. The hearing was originally scheduled to take place in August 2011, but was extended twice due to delays in completing certain study reports.

The formal hearing was held in Pocatello on March 5-9, 2012. The parties offered testimonial and documentary evidence into the record. After carefully considering the administrative record for this case, the Department finds, concludes, and orders as follows:

FINDINGS OF FACT

1. Application for Permit 13-7697 proposes the following:

Point of Diversion: T14S, R40E, Sec. 16, SENE and SWNE (location of dam)
Point of Re-diversion: T14S, R40E, Sec. 21, NENE (Bear River pumping station)
Beneficial Uses:

Storage for Powerhead	17,300 acre-feet	1/1 to 12/31
Irrigation Storage	5,000 acre-feet	1/1 to 12/31
Power	1,400 cfs	1/1 to 12/31
Irrigation from Storage	5,000 acre-feet	4/1 to 10/31

Total Quantity Appropriated: 17,300 acre-feet and 1,400 cfs
Place of Use: "18,958 acres of lands already served by [TLCC]"

2. The permit application did not include a discrete mitigation plan. Instead, the mitigation elements proposed by TLCC to offset impacts to other water rights and local public interest resources are set forth in various locations in TLCC's Federal Energy Regulatory Commission ("FERC") license application documents. (Exhibit A9, pages 178-181)

3. TLCC is a corporation registered with the state of Idaho and delivers irrigation water to over 200 shareholders. (Testimony of Clair Bosen) Clair Bosen has been the president of TLCC since 2005. (Id.) TLCC's delivery system includes 67 miles of open canal and three off-stream reservoirs (Condie, Winder, and Twin Lakes). (Id.)

4. The TLCC main canal diverts water from Mink Creek and carries the water 6.5 miles to a large siphon, which transports the water under the Bear River and back up to a hillside on the west side of the river. (Testimony of Clair Bosen) After passing through the siphon, water is transported past or through the three off-stream reservoirs and then continues on through TLCC's service area. (Id.) TLCC is able to fill or empty its three reservoirs from the main canal. (Id.)

5. TLCC has a water right from Mink Creek (13-901), which authorizes the year-round diversion of 300 cfs to be used for irrigation purposes or irrigation storage in its reservoirs. Water right 13-901 carries a priority date of April 1, 1901 and authorizes the irrigation of 16,000 acres within the TLCC service area.

6. TLCC's irrigation supply also includes other water rights from Mink Creek and Deep Creek (13-896B, 13-946B, 13-2289, 13-2296, and 13-7481). These water rights may authorize the irrigation of acres above and beyond the 16,000 acres described in water right 13-901. The hearing officer did not research the details of these other water rights as part of this contested case.

7. TLCC generally does not have a sufficient water supply to irrigate all of the acres covered by company shares. (Testimony of Clair Bosen) TLCC is often unable to fill its three reservoirs to capacity because of flow limitations in the main canal during the winter months. (Id.)

8. The main canal upstream of the siphon freezes during the winter, making it impossible to convey Mink Creek water through the canal to fill the three off-stream reservoirs. (Testimony of

Clair Bosen) The canal and siphon freeze in 19 out of 20 years, usually by late December, and do not open up again until March. (Id.) Therefore, the existing TLCC reservoirs are generally filled during the late fall and early spring. (Id.)

9. Mink Creek, a 13.1-mile-long tributary of the Bear River, is fully allocated for irrigation use during most of the summer. (Exhibit A9, page 157) TLCC's diversion dam on Mink Creek is located approximately 4.2 miles upstream from Mink Creek's confluence with the Bear River. (Id. at page 35) At times, a portion of this section of Mink Creek, between the TLCC diversion dam and the confluence with the Bear River, can be a losing reach. (Exhibit A14, pages 2-3)

10. A portion of lower Mink Creek, located somewhere between the TLCC diversion dam and the Bear River, is periodically dewatered during the summer, causing upper Mink Creek to become disconnected from the Bear River. (Exhibit A9, page 157; Exhibit P712, pages 81 and 83) During times of disconnection, there is still water flowing in Mink Creek at its confluence with the Bear River. (Exhibit A9, page 35; Testimony of David Teuscher) No evidence was presented regarding the size or the exact location of the dewatered section.

11. The Department's water right database includes two water rights on Mink Creek downstream of the TLCC diversion. Water right 13-4225, in the name of W. Hugh Hansen, describes a priority date of 1922, a diversion rate of 0.24 cfs, and the irrigation of 12 acres. (Exhibit P444) Water right 13-4217, in the name of Barbara and Gordon B. Jensen, describes a priority date of 1925, a diversion rate of 0.18 cfs, and the irrigation of 7 acres. (Exhibit P445) These two rights are statutory claims, filed pursuant to Idaho Code § 42-243, meaning they have not been confirmed by IDWR or an adjudication court. TLCC has never been required to release water past its Mink Creek diversion to satisfy downstream water rights. (Testimony of Clair Bosen)

12. Mink Creek flow data provided by TLCC at the hearing is either dated (over 60 years old) or non-continuous. (Exhibit A9, page 35; Exhibit A13, page 7; Exhibit A14, pages 1 and 3) Even though more-recent, continuous flow data for Mink Creek would have been useful in this contested case, particularly for evaluating TLCC's mitigation proposals, TLCC did not continuously monitor the flows in Mink Creek while conducting its FERC studies. (See Exhibit P701, pages 24-25 (doc. pages 16-17); Exhibit P707, pages 3-4)

13. "The Bear River drains an area of 6,900 square miles in southwestern Wyoming, northern Utah and southeastern Idaho" and terminates at the Great Salt Lake. (Exhibit A1, page O-8) "Today, on an average, nearly a million acre-feet of water still flow annually into the Great Salt Lake from the Bear River." (Id.)

14. The states of Utah, Wyoming, and Idaho have adopted an interstate compact for the Bear River and its tributaries. (Exhibit A2) The current Bear River Compact ("Compact"), approved on December 22, 1978, was ratified by the state of Idaho in 1979. (Idaho Code, Title 42, Chapter 34) "The [Compact] determines the rights and obligations of the signatory states of Idaho, Utah and Wyoming with respect to the waters of the Bear River." (Exhibit A1, page O-1)

15. The Compact divides the Bear River into three regions or divisions. (Exhibit A1, page O-9) The proposed reservoir is located within the "Lower Division," which includes "the portion

of the Bear River between Stewart Dam and [the] Great Salt Lake, including Bear Lake and its tributary drainage." (Exhibit A2, Article II.5)

16. The Bear River in the Lower Division is a highly regulated system, with four on-stream hydropower reservoirs (Soda, Grace, Oneida, and Cutler), storage deliveries from Bear Lake, and multiple irrigation diversions. (Exhibit PC204, pages 2-4; Testimony of Connely Baldwin) Connely Baldwin testified at the hearing as an expert on water accounting and water delivery within the Lower Division of the Bear River.

17. A computerized accounting program is used to determine how much natural flow and/or storage water each canal company diverts on any given day in the Lower Division. (Testimony of Connely Baldwin) The accounting program incorporates stream flow data from gages operated by PacifiCorp and the USGS. (Id.) Water rights in the Lower Division have been regulated without regard to the Idaho-Utah state line since 2004. (Testimony of Connely Baldwin and Pete Peterson) The current water accounting program could be used to track water stored in the proposed reservoir and to account for the daily diversion at the proposed river pumping station.

18. "BRWUA's membership is comprised of 4 major irrigation companies, Last Chance Canal Company and Cub River Irrigation Company in Idaho and Bear River Canal Company and West Cache Canal Company in Utah, together with approximately 81 irrigation pumpers in Utah and 22 irrigation pumpers in Idaho." (BRWUA Agreement, Recital J) BRWUA includes the majority of water users that divert from the mainstem of the Bear River in the Lower Division. (Testimony of Connely Baldwin)

19. Prior to the construction of the proposed hydropower project, TLCC must obtain a license from FERC. (Testimony of Clair Bosen) In 2004, TLCC hired Nick Josten, who does business under the company name GeoSense, to guide TLCC through the FERC application process. (Testimony of Nick Josten) Mr. Josten testified at the hearing as an expert on the FERC application process and hydropower permitting.

20. TLCC filed an application for preliminary permit with FERC in 2004. (Exhibit A10, page 1) A number of groups filed motions to intervene in the FERC process, including: PacifiCorp, Trout Unlimited, Franklin County Fish & Game Association, the state of Idaho, Idaho Rivers United, and GYC. (Id.) Many other protests were filed with FERC stating a concern that the project would cause a loss of recreation, loss of wildlife habitat, and would affect PacifiCorp's hydropower license. (Id. at page 3)

21. FERC offers protestants (intervenors) an opportunity to provide comments at various stages in the license application process. (Testimony of Nick Josten) Protestants provided comments to TLCC and FERC regarding the application, the scope of the studies conducted by TLCC, the study reports, and the Draft License Application ("DLA"). (Exhibit A9, Appendix A)

22. FERC issued a Preliminary Permit to TLCC on February 2, 2005. (Exhibit A10, page 1) A preliminary permit from FERC gives a permit holder the first right to a FERC license at the proposed site. (Id. at page 6) It provides an applicant time to conduct studies and collect information necessary to determine the feasibility of the project. (Id.)

23. The 2005 Preliminary Permit recognized that the proposed project "could significantly conflict and interfere with the license requirements and approved Settlement Agreement (SA) for [PacifiCorp's] Bear River Project" and "could eliminate a river reach used for whitewater recreation and affect the restoration and enhancement of [Bonneville Cutthroat Trout ("BCT")] habitat, which are measures contained in PacifiCorp's license." (Exhibit A10, pages 4-5)

24. Despite the potential impact to PacifiCorp's existing license and settlement agreement, FERC issued the 2005 Preliminary Permit on the basis that the final TLCC proposal may not result in an "impermissible alteration" of the PacifiCorp license. (Exhibit A10, page 5) This issue, and others raised by the FERC protestants, will be considered by FERC in its review of the final license application. (Id.)

25. Within the FERC process, it was determined that TLCC needed to conduct 24 studies to "assess the existing condition of resources that could potentially be affected by the project." (Exhibit A9, page ES-1) TLCC hired various consultants to complete the studies, which cost TLCC over $2 million to complete. (Testimony of Nick Josten and Clair Bosen) The following studies were completed:

Study No.	Exhibit No.	Title or Subject	Author
1 and 2	A12	Fisheries Habitat and Aquatic Ecology	INSE/Hardy
3	A13	Bear River Bedload	INSE/Hardy
4	A14	Mink Creek	INSE/Hardy
5	A15	Oneida Narrows Project Water Quality Report	Stevens/Milleson
6	A16	Bear River Narrows Visual Resources Study	Ecosystem Sciences
7	A17	Recreation Use and Preference Study	Institute for Outdoor Recreation and Tourism
8	A18	Socio-Economic Studies for the Bear River Narrows Hydroelectric Project	Krannich et al.
9	A19	Cultural Resources	S.J. Miller
10	A20	Land Cover Study Report	Ecosystem Sciences
10-3 thru 10-10B	A21 thru A29	Use and habitat assessment studies for various animal species	Ecosystem Sciences
10-11	A30	Special Status Plant and Noxious Weed Survey Report	Ecosystem Sciences
10-12	A31	Report on Bear River Flow Synthesis	GeoSense
10-13	A32	Reservoir Capacity and Evaporative Loss	Schiess & Associates
10-14	A33	Fish Entrainment / Turbine-Induced Mortality	GeoSense
10-17	A34	Tailwater Elevation Study	Schiess & Associates
10-18	A35	Access Road Feasibility Study	Schiess & Associates

26. TLCC filed its DLA with FERC in September 2011. (Exhibit A9) At that time, draft final reports for studies 1-5 had been completed and were awaiting comments from the FERC protestants. (Id. at page ES-1) Final reports had been prepared for studies 6 thru 10-18. (Id.) Final

reports for studies 1-5 were completed prior to the hearing and were included in the administrative record. (Exhibits A12-A15)

27. Schiess & Associates was retained by TLCC in 2003 to prepare a preliminary design of the proposed dam and a feasibility analysis for the project. (Testimony of David Schiess) David Schiess, a principal engineer at Schiess & Associates, testified at the hearing as an expert in civil engineering, water resources engineering, and dam design. (Exhibit A8)

28. The feasibility analysis prepared by Schiess & Associates has been revised a number of times to incorporate up-to-date information, with the most recent version prepared in February 2012 ("2012 Estimate"). (Exhibits A54 and A55) The dates shown on Exhibits A54 and A55 are in error and should be February 2012. (Testimony of David Schiess)

29. The 2012 Estimate indicates the storage dam and hydropower facility could be constructed for $24,656,750. (Exhibit A54) This amount includes an $800,000 "contingency" component, for unforeseen construction expenses, and $1,000,000 for mitigation measures and recreational facilities. (Exhibit A54; Testimony of David Schiess) A witness for GYC argued that the final cost of TLCC's mitigation measures and recreational facilities may ultimately be higher than projected. (Testimony of Anthony Jones) Until FERC issues TLCC a license, however, the actual scope of mitigation required of TLCC is unknown.

30. The 2012 Estimate also includes a section describing the anticipated annual operations and maintenance ("O&M") expenses for the project. (Exhibit A54) One of the items in this section, property taxes, is incorrect. (Testimony of Clair Bosen) The initial tax rate will be based on the final cost of construction for the project and will likely be in the range of $250,000, bringing the total O&M cost to $550,000 per year. (Id.) As a large canal company, TLCC already has a full-time staff and maintenance equipment to maintain its existing reservoirs and facilities, which will result in an O&M cost savings to the canal. (Id.)

31. The 2012 Estimate also lists the anticipated revenue from the hydropower facility. (Exhibit A54) Schiess & Associates estimates that the hydropower plant will produce 50,676 MWh per year. (Id.) This estimate is the result of a flow duration analysis completed by Schiess & Associates using historical flow data (1958 - 2009) for the Bear River at the project site. (Exhibit A9, pages 9-11) The flow duration analysis ensures that the projected flows (and projected power generation values) are not skewed by infrequent flood events. (Id.)

32. In order to calculate the projected annual revenue from power production, Schiess & Associates used the then-current avoided cost rate under PURPA (Public Utilities Resource Policy Act). (Testimony of David Schiess) Given the project specifications, the proposed project will likely qualify for PURPA power sales rates.

33. Assuming an annual power production of 50,676 MWh per year and a power sales rate of $78.50 per MWh, the expected annual power revenue for the project would be $3,978,066.00. (Exhibit A54) The revenue estimate does not incorporate the loss in hydropower head and power production caused by use of the 5,000 acre-feet of irrigation storage. (Testimony of David Schiess)

34. When the annual cost to operate the project, including the loan payment and an adjusted tax estimate of $250,000 (described above), is compared to the projected annual revenue, TLCC's proposed project could generate an annual profit of about $1.4 million. (Exhibit A54)

35. TLCC plans on financing the project through a bond sale, facilitated by the Idaho Water Resource Board ("IWRB"). (Exhibit A9, page 17) An application for bonding through IWRB cannot be filed until TLCC has obtained a FERC license and a power purchase agreement. (Testimony of Clair Bosen) If bonds are issued through IWRB, they will be paid back using hydropower revenue. (Id.) Private financing for a project of the size proposed by TLCC is not available until all critical permits have been obtained. (Testimony of Ted Sorensen)

36. TLCC does not own any of the property in the area of the proposed reservoir or dam. (Testimony of Clair Bosen) TLCC will obtain the lands needed to complete the project through eminent domain after the FERC license is issued. (Id.)

37. RB&G Engineering prepared a Phase I Study of the proposed dam site for Schiess & Associates in July 2004. (RB&G Report (Attachment to App. 13-7697)) RB&G Engineering found that a safe, functional reservoir is feasible at the proposed dam site, but recommended a number of additional tests to identify any hidden safety concerns. (RB&G Report, page 8-9)

38. Franklin County Fish & Game asked Dr. Paul Link, a professional geologist, to review geologic data and existing reports relating to the proposed dam site. (Exhibit P400) In his report, Dr. Link concluded: "[T]here is enough complexity of the local bedrock, joints, faults, and permeability zones, that a full assessment of seismic hazard, bedrock strength, fracture networks, and vadose zone hydrogeology is required before we can have a reasonable estimate of what are the safety concerns at the damsite . . . ." (Exhibit P400, page 2)

39. The United States Bureau of Reclamation conducted an analysis of the geology at the mouth of the Oneida Narrows in 1960 and 1961 and found that construction of a large dam was feasible in that area, but recommended additional geologic testing to ensure the dam would be safe. (Exhibits P401 thru P405)

40. RB&G's recommendation for additional testing of the geology at the proposed dam site is consistent with the recommendations of the Bureau of Reclamation and Dr. Link. Prior to commencing construction of any dam, TLCC must obtain approval of the plans, drawings, and specifications for the dam from the Department's dam safety program. (Idaho Code § 42-1712)

41. The dam design included with the application is only preliminary. (Testimony of David Schiess) A final design will not be prepared until the FERC license and IDWR water permit are obtained. (Id.) TLCC proposes constructing the dam with a roller compacted concrete layer, which is a safe and stable dam design that can withstand overtopping. (Id.)

42. TLCC will install two hydropower turbines at the facility, each with a flow capacity of 700 cfs and a maximum power output of 5.0 MW, resulting in a total maximum generation capacity of 10 MW. (Exhibit A9, page 4) The minimum flow needed to generate power at the site is 175 cfs. (Testimony of David Schiess)

43. The proposed reservoir, when full, will have a capacity of 12,647 acre-feet and a surface area of 362 acres. (Exhibit A9, page 2) The reservoir capacity described in the DLA (12,674 acre-feet) is much smaller than the 17,300 acre-feet reservoir described in the application. The water right application has not been reduced to match the reservoir capacity listed in the DLA.

44. 5,000 acre-feet of the water stored in the proposed reservoir will be available for irrigation purposes. Irrigation storage will be released from the dam into the Bear River and pumped into the TLCC system at a pumping station located on the river downstream of the proposed dam. (Exhibit A9, page ES-2)

45. TLCC will use the irrigation storage water only in severe dry weather conditions when the value of irrigation water exceeds the value of water held in the reservoir to maintain hydropower head. (See Exhibit A9, page 39) TLCC estimates that the irrigation storage will be partially used one out of every three years and fully used one out of every five years. (Id.)

46. TLCC believes the proposed reservoir will improve its irrigation water supply in two ways: (1) 5,000 acre-feet of irrigation storage held in the proposed reservoir will be available for use; (2) revenues from the hydropower facility will be used to pipe the TLCC main canal, reducing evaporation and seepage losses in the canal. (Exhibit A9, page 8) No evidence was offered showing TLCC will be required to use the hydropower revenue to pipe its canal system.

47. Piping the TLCC main canal will cost approximately $45 million or about $670,000 per mile of canal. (Testimony of David Schiess) Given the current projected revenues from the hydropower facility, the main canal could be piped in about 30 years. Once the TLCC main canal is piped, winter freezing issues will be eliminated, and TLCC will be able divert Mink Creek water all year, maximizing the fill in its off-stream reservoirs and further improving its water supply. (Testimony of Clair Bosen) The main canal from the diversion dam to the siphon could be piped for just over $4 million.

48. Unallocated flows on the Bear River will be used to fill the proposed reservoir initially and will be used for any subsequent refill of the irrigation storage space. (Exhibit A9, page 36) If unallocated water does not exist on the Bear River, TLCC will fill the proposed reservoir by exchanging Mink Creek water for its Bear River diversion (releasing Mink Creek water past the TLCC diversion to replace the water diverted from the Bear River for reservoir storage). (Id.)

49. If water levels in the proposed reservoir are held steady, evaporative losses from the reservoir will result in reduced flow in the Bear River below the proposed dam. Schiess & Associates calculated the expected evaporative losses from the proposed reservoir. (Exhibit 32) "Evaporative loss was estimated for the proposed reservoir using pan evaporation methodology, which incorporates precipitation, pan evaporation, and air temperature measurements to compute average annual evaporation loss in inches." (Id. at page 1) Precipitation and pan evaporation data were taken from a weather station in Logan, Utah. (Id. at page 6)

50. The method used by Schiess & Associates to estimate evaporation is approved by the Idaho Department of Environmental Quality ("IDEQ") for determining evaporation from

wastewater treatment lagoons. (Exhibit 32, page 6 and Appendix A) Using the IDEQ method, Schiess & Associates estimated the annual evaporation loss from proposed reservoir to be 32.86 inches (2.74 feet), resulting in an annual evaporation volume of 991 acre-feet. (Id. at page 7)

51. Averaging the estimated total annual evaporation of 991 acre-feet over the entire year results in a constant flow of approximately 1.40 cfs. (Exhibit A32, page 7) TLCC proposes releasing 1.40 cfs of Mink Creek water past its Mink Creek diversion all year to offset the evaporation loss from the reservoir. (Testimony of David Schiess)

52. Using the IDEQ method, Schiess & Associates estimated that evaporation from the proposed reservoir could exceed 1.4 cfs in June, July, and August, even after including an offset for expected precipitation. (Exhibit A9, page 37) According to Schiess & Associates, instantaneous evaporation in July could exceed 2.6 cfs if actual precipitation is less than expected. (Id.)

53. The BRWUA Agreement includes the following recital:

> In order to meet FERC's mitigation requirements, [TLCC] has proposed to mitigate environmental impacts to fish and to mitigate for evaporation impacts of the reservoir by allowing 10 cfs of Water Right No. 13-901 to flow past [TLCC's] authorized point of diversion to provide natural flow water down to where Mink Creek flows into the Bear River . . . . [TLCC] may thereafter pump 8.6 cfs of water from below the proposed dam site into its distribution canals, leaving 1.4 cfs in the Bear River for evaporative losses. (BRWUA Agreement, Recital D)

54. The BRWUA Agreement uses a different method for calculating evaporation than the IDEQ method used by Schiess & Associates. The BRWUA Agreement uses evaporation data from ET Idaho Station No. 107346 in Preston, Idaho. (See Attachment to BRWUA Agreement) Using the ET Idaho precipitation deficit table for deep, open water systems (lakes or reservoirs), the BRWUA Agreement estimates annual evaporation from the proposed reservoir to be 112.99 acre-feet. (BRWUA Agreement, Recital F)

55. 112.99 acre-feet equates to 0.27 cfs when averaged over the irrigation season, April through October. (BRWUA Agreement, Recital F) The ET Idaho table included as an attachment to the BRWUA Agreement shows, after factoring in average precipitation, positive monthly evaporation generally only occurs in June, July, August, and September. (See Attachment to BRWUA Agreement) 112.99 acre feet equates to 0.47 cfs when averaged over 122 days, June through September.

56. "If following completion of the [TLCC] Dam the actual evaporation is determined by the IDWR to be a greater amount, [TLCC] will increase its mitigation releases to an amount not less than the actual evaporation amount so as to fully mitigate any evaporation loss to BRWUA members." (BRWUA Agreement, (2)(a))

57. The ET Idaho estimate of evaporation is more reliable than the Schiess & Associates estimate of evaporation (IDEQ method) for two reasons. First, the ET Idaho estimates are based on meteorological data from the immediate area (Preston), rather than from Logan, Utah. Second, the

ET Idaho estimate is for deep, open water systems such as lakes and reservoirs rather than for wastewater lagoons, which are much shallower.

58. "Long-term infiltration losses [from the proposed reservoir] are expected to be minimal after the reservoir fills and lake-bed sediments become saturated." (Exhibit A9, page 38)

59. The proposed dam and reservoir would be constructed within a canyon of the Bear River known as the Oneida Narrows. "The Bear River Narrows [or Oneida Narrows] is a scenic area with riverine-riparian vegetation along the river, rugged canyons, steep cliffs, mountainous terrain and wildlife." (Exhibit A9, page ES-10) The Oneida Narrows includes a high-gradient section of river with fast-flowing water. (Testimony of David Teuscher; Exhibit A12, page 37)

60. The proposed dam will be built about ¾ of a mile upstream of the mouth of the Oneida Narrows canyon, inundating the remainder of the Bear River in the narrows section. (Testimony of Clair Bosen) The proposed reservoir will inundate approximately 5 miles of the Bear River in the Oneida Narrows, which equates to about 90% of the canyon. (Exhibit P708, page 12)

61. The BLM has designated a portion of its land within the Oneida Narrows as an Area of Critical Environmental Concern, "where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources and other natural systems or processes . . . ." (Exhibit P812, page 11)

62. TLCC hired Dr. Thomas Hardy at the Institute for Natural Systems Engineering ("INSE") at Utah State University to complete studies relating to fisheries and aquatic habitat. (Exhibits A12 thru A14 (Studies 1-4)) Dr. Hardy testified at the hearing as an expert in fish biology and aquatic habitat. Dr. Hardy analyzed water temperature, existing fisheries resources, and aquatic habitat for the Bear River downstream of Oneida Dam and for Mink Creek.

63. Historical data provided by TLCC shows water temperatures in the Bear River range from 0°C to 22°C at a site downstream of the proposed reservoir. (Exhibit A9, pages 47-51, Station 4906140 (identified as "BR4")) The highest temperature measured at the INSE BR4 site in 2009 was 20.2°C. (Exhibit A9, page 50)

64. Water temperatures greater than 25°C are stressful on salmonid species and can be lethal if lasting for an extended period of time. (Testimony of Tom Hardy; Exhibit P701, page 34 (doc. page 4)) "Salmonid" is a term used to describe the family of fish that includes salmon and trout. (Exhibit P710, Glossary, page 45)

65. TLCC's study regarding water temperatures at the proposed reservoir site agreed with the historical data: "Temperature observations were generally in compliance with the standards for cold water aquatic life requiring temperature to be ≤22°C with ≤19°C for a daily average." (Exhibit A9, page 66)

66. The most favorable temperature regime for trout (including BCT) in the Bear River between Oneida Dam and the Idaho-Utah border is located in the Oneida Narrows. (Exhibit P707, page 2) Temperatures in the mainstem become less favorable for salmonid species as you move

downstream of the Oneida Narrows. (Testimony of Tom Hardy; Exhibit A12, page 130) The Bear River downstream of the Oneida Narrows can reach peak summer temperatures that approach lethal limits for BCT. (Exhibit P707, page 2)

67. "[BCT] is the only native trout in the Bear River system." (Exhibit P711, page 361) Within the state of Idaho, BCT are only found in the Bear River and its tributaries. (Testimony of David Teuscher) BCT have been identified by IDFG as a species of greatest conservation need. (Exhibit P710, Appendix F, pages 31-33) "Populations of fluvial [BCT] in the larger streams of the Bear River drainage are depressed." (Id. at page 32 (citation omitted))

68. Warren Colyer, director of Trout Unlimited's watershed restoration program, testified as an expert in aquatic ecology and BCT's use of and movement in the Bear River and its tributaries. As part of a graduate degree program, Mr. Colyer studied the movement and habitat use of fluvial BCT in the Bear River. (Exhibit P300) Mr. Colyer's work for Trout Unlimited has included coordinating projects to restore migration corridors for fluvial BCT populations. (Id.) Mr. Colyer's testimony regarding BCT life strategies and use of the mainstem Bear River was persuasive.

69. David Teuscher, Regional Fisheries Manager over southeast Idaho for IDFG, testified at the hearing as an expert in aquatic habitat, fisheries, and fishing recreation. Mr. Teuscher is the co-author of a 2007 IDFG guidance document, Management Plan for Conservation of Bonneville Cutthroat Trout in Idaho ("BCT Management Plan"). (Exhibit P712)

70. The BCT Management Plan describes three BCT life history strategies:

> [BCT] in Idaho exhibit three potential life history characteristics; resident, fluvial, and adfluvial. Resident life history pattern fish can spend their entire lives in tributary streams, while fluvial fish migrate from the river to spawn in smaller water and return to the river. Adfluvial fish spend most of their lives in lakes and spawn upstream primarily in tributaries. Multiple life history patterns within a population add to its biodiversity and resiliency. (Exhibit P712, page 8 (citation omitted))

71. Fluvial populations are especially important to the survival of a species because they disperse genetic material between resident populations and can re-colonize areas where resident fish may have been eliminated by a local catastrophic event. (Exhibit P813, page 3 and Exhibit P34, pages 14-18) In order for a fluvial BCT population to be viable, there needs to be acceptable mainstem and tributary habitat available to support the full life cycles of the fish. (Testimony of Warren Colyer)

72. Fluvial BCT can travel great distances between their primary habitat and their spawning habitat. (Testimony of Warren Colyer) Fluvial BCT that use the Cub River for spawning (located approximately 40 miles downstream of Oneida Dam) could use the Oneida Narrows as primary habitat. (Id.; Exhibit P302, page 2; Exhibit A12, page 114)

73. IDFG's BCT Management Plan divides the Bear River in Idaho into six management units. (Exhibit P712, pages 14-15) The Bear River and its tributaries between Oneida Dam and the Idaho-Utah border are identified as the Riverdale Management Unit. (Id. at pages 27-29)

74. "[A] fluvial population of [BCT] was observed in mainstem reaches in the Bear River within the Riverdale management unit during general population surveys completed in 1988 and 1993." (Exhibit P712, page 28) The BCT Management Plan rates the population of BCT in the Bear River [in the Riverdale management unit] as "low," meaning electro-fishing surveys found less than 5 fish per 100 meters of river. (Id. at pages 13 and 29)

75. "[T]he fluvial population component in the Riverdale management unit appears to be declining precipitously based on recent surveys." (Exhibit P712, page 56) Fish surveys conducted in 2005 and 2006 found no BCT in the Bear River between Oneida Dam and Riverdale. (Exhibit P700, page 13) Evidence provided by TLCC, however, shows that BCT are still present in the Bear River below Oneida Dam. (Exhibit A9, page 178; Exhibit A12, page 20)

76. As part of his studies, Dr. Hardy divided the Bear River below Oneida Dam into five reaches. (Exhibit A12, pages 36-51) Reaches 4 and 5 encompass the area to be inundated by the proposed reservoir and are generally synonymous with the term "Oneida Narrows" as it is used in this Order. (Id. at pages 37-43) Reach 3 is the 2-mile stretch of the Bear River immediately downstream of the proposed reservoir site and includes the confluence with Mink Creek. (Id. at pages 43-45)

77. BCT are primarily located in Reaches 3, 4, and 5 as compared to the downstream reaches of the Bear River. (Exhibit A9, pages 101 and 106) Reaches 3, 4, and 5 also serve as the primary habitat for Rainbow Trout, Brown Trout, and Mountain Whitefish as compared to the downstream reaches of the Bear River. (Id. at pages 100-110) "Generally, trout species and smallmouth bass exhibited the greatest density in the proposed inundation area of the Bear River Narrows and quickly decreased as distance from Oneida Dam increased." (Id. at page 112)

78. "The most abundant habitat for salmonid species occurs in the [Oneida Narrows] canyon reach of the Bear River, much of which will be inundated by the new reservoir." (Exhibit A9, page ES-5) "Below this reach [salmonid] habitat quantity decreases by about 50%." (Id.; Exhibit A9, pages 113-126) Below Oneida Dam, there are approximately 10 contiguous miles of suitable habitat for trout species. (Testimony of Warren Colyer) The proposed reservoir would inundate about half of the available trout habitat in that stretch of the Bear River. (Id.)

79. Dr. Hardy conducted a telemetry study which confirmed BCT use of the proposed inundation area during all seasons. (Exhibit A9, pages 147-151) 14 of the 32 BCT tagged in the study were captured in Reaches 4 and 5. (Exhibit A12, pages 105-106) The majority of BCT telemetry locations were on the mainstem of the Bear River, with over 35% of those locations occurring within the proposed inundation area. (Id. at page 109; Exhibit P303, Attachment)

80. The Oneida Narrows is a critical section of primary aquatic habitat for current BCT populations and for the rehabilitation of BCT in the Riverdale section of the Bear River. (Testimony of Warren Colyer and David Teuscher) BCT exhibiting a fluvial life strategy use the

mainstem of the Bear River for rearing and maturing, then use tributaries for spawning. (Id.) BCT spawning usually occurs during the spring and early summer. (Exhibit P712, page 9)

81. Mink Creek provides better habitat than the mainstem Bear River in terms of BCT spawning and early life stage rearing. (Testimony of Tom Hardy) Although the Oneida Narrows may not be ideal for BCT or Rainbow trout spawning, it is an acceptable spawning area for Mountain whitefish and Brown trout. (Exhibit A9, page ES-6)

82. The BCT Management Plan states that "the primary focus of conservation in the Riverdale management unit should be on protecting existing populations from habitat degradation and reconnecting tributary spawning habitats for mainstem fluvial populations." (Exhibit P712, page 56) The Bear River mainstem and the Cub River are listed as top priorities. (Id. at page 57) Although Mink Creek is identified as "likely the best spawning tributary in [the Riverdale management unit] for [the] fluvial [BCT] population," Mink Creek is listed as one of the lowest priorities in the area. (Id.) It will require much more than simply creating a minimum flow to establish Mink Creek as well-functioning BCT spawning tributary. (Exhibit P38, pages 6-7)

83. IDFG periodically prepares a Fisheries Management Plan ("FMP"), which describes the agency's goals and objectives and sets forth specific management directives for each of the regions in the state. (Exhibit P711, page 1) The current FMP lists specific objectives for management of the Bear River and its tributaries, including improving habitat for [BCT] and working with other groups to enhance BCT in the Bear River system. (Id. at pages 364-365)

84. During the hearing, TLCC challenged IDFG's participation in this contested case under IDFG's current policies. Pursuant to the FMP, IDFG is authorized to participate in the review of water right applications and FERC hydropower applications. (Exhibit P711, page 18) "[IDFG] will ensure that cutthroat trout are considered in fisheries, land, and water management decisions in their remaining habitat." (Id. at page 23)

85. IDFG has concluded that the proposed project is not consistent with its FMP or the goals stated in its BCT Management Plan. (Exhibit P708, page 13) "The nearly 5 miles of rearing and migratory corridor in the Bear River is an essential component of habitat throughout the BCT's range." (Id.) "As proposed, the reconnection of Mink Creek as the primary mitigation measure, in conjunction with the inundation of mainstem habitat, will result in a significant loss of critical habitat and impede restoration of BCT in Idaho." (Id.)

86. TLCC proposes releasing 10 cfs past its diversion on Mink Creek continuously throughout the year to mitigate for the impacts to aquatic habitat resulting from inundation of the Oneida Narrows. TLCC argues the 10 cfs flow could improve water temperatures for salmonid habitat and spawning in Mink Creek during low water years when flows in the creek would otherwise drop below 10 cfs. (Exhibit A9, page 90)

87. TLCC also argues the 10 cfs flow would facilitate fish passage across obstacles that act as barriers during low flows, providing access from the Bear River to upper Mink Creek. (Testimony of Dr. Hardy) Potential low flow fish barriers include the TLCC diversion dam and a

rock waterfall located about 1.3 miles upstream from the Mink Creek confluence with the Bear River. (Exhibit A9, pages 158 and 162-165; Exhibit A14, page 51)

88. The 10 cfs Mink Creek minimum flow would provide minimal benefits in terms of water temperatures in Mink Creek or the Bear River. "Although temperatures are likely to drop, the Mink Creek mitigation will improve conditions for coldwater fisheries in Mink Creek only marginally because Mink Creek already fully supports that use." (Exhibit A9, page 89) "All of the historical and project temperature data from Mink Creek show that cold water aquatic life is fully supported with regard to temperature . . . ." (Id. at page 88) "[A]ny small reduction in Mink Creek temperature will be absorbed in the much larger Bear River with no measureable impact on the Bear River temperature." (Id. at page 89)

89. The 10 cfs Mink Creek minimum flow proposed by TLCC would provide little or no benefit to the trout species in terms of spawning. "For rainbow and cutthroat trout, Mink Creek flows are normally well in excess of the 10 cfs during the April – June spawning window." (Exhibit A9, page 90)

90. "In the Bear River system, BCT that reside in the mainstem Bear River for part of their life history, typically make a spawning migration upstream into tributaries like Mink Creek in the high flow season . . . ." (Exhibit P813, page 3; Testimony of Warren Colyer) During the low flow time period on Mink Creek, when the TLCC release will provide flow for fish passage, BCT are least likely to be moving in or out of Mink Creek. (Testimony of Warren Colyer)

91. The 10 cfs Mink Creek minimum flow may not even provide benefits to fish in terms of fish passage. Dr. Hardy testified during cross-examination that he believed fish could make it past the barriers in lower Mink Creek with a minimum flow of 10 cfs. However, the selection of 10 cfs as a bypass flow was not the result of a fish passage analysis. (Id.) No specific evidence was presented as to how the 10 cfs value was selected. Outside of Dr. Hardy's statement, there is no evidence in the record that 10 cfs is sufficient to allow passage across the TLCC diversion dam or across the rock waterfall. (See Exhibit A14, pages 12-17)

92. Approximately 88 acres of riparian habitat will be inundated by the proposed reservoir. (Exhibit A9, page 199) "Riparian habitat, which is an important habitat type for many wildlife species, is more limited in distribution within the immediate project vicinity." (Id. at page ES-7) The river channel and a portion of the riparian land in the project area are designated as wetland areas by the U.S. Fish & Wildlife Service. (Id. at page 327)

93. The Oneida Narrows canyon is made up of a number of habitat types including: deciduous and evergreen forests, wetlands, grasslands, open water, and multiple riparian habitat types. (Exhibit A9, pages 183-184) The convergence of the various habitats available in the Oneida Narrows provides synergistic benefits that are not likely to be available in other locations in the area. (Testimony of David Delehanty)

94. If reservoir levels are held relatively constant, about 15 acres of riparian vegetation could develop around the proposed reservoir. (Exhibit A9, page 199) Withdrawal of the 5,000

acre-feet of irrigation storage will lower the water level in the reservoir by 16 feet, making it difficult to establish a riparian area around the reservoir. (Exhibit A9, pages ES-2 and 2)

95. "[R]eservoir shoreline areas, proposed as sites where [TLCC] proposes to establish wetlands are not in-kind replacement for the river shore habitats that would be lost in the [proposed inundation] area." (Exhibit P813, page 3) Reservoir fringe riparian habitat is subject to a greater concentration of human activity and disturbance. (Testimony of David Delehanty) A riparian fringe around a reservoir takes a long time to develop and is not as robust as river riparian habitats (Testimony of Martha Wackenhut)

96. The DLA asserts that 4 acres of riparian habitat would develop through the Mink Creek mitigation (10 cfs minimum flow). (Exhibit A9, pages 199 and 332) "At present, it does not appear that the seasonal dewatering of Mink Creek has a notable impact on the riparian community downstream of the [TLCC] diversion dam." (Id. at page 165)

97. 48 animal species, which may exist within the proposed project area based on IDFG records, are designated by IDFG as "Idaho Species of Greatest Conservation Need." (Exhibit A9, page 208) No federal threatened or endangered species are located within the project area. (Id.)

98. The existing non-aquatic species in the Narrows canyon rely on the riparian and riverine habitats for foraging, water, nesting, roosting, open water during the winter, and/or cover. (Testimony of Corey Class and Martha Wackenhut) The presence of open, free-flowing water is especially important to waterfowl species in the winter. (Exhibit P39, pages 5-8)

99. "The loss or change of habitat, particularly riparian habitat, would likely change the mix of wildlife species and the amount of wildlife present in the immediate project area." (Exhibit A9, page 251) "Wildlife would continue to use the area, but some animals would initially be displaced and move to available habitat outside the project impact area causing a decrease in the local wildlife population and diversity." (Id.)

100. It would be difficult, if not impossible, to fully mitigate for the riparian habitat lost through inundation by the proposed project. (Testimony of Martha Wackenhut) Rehabilitation of nearby impaired riparian areas will still result in a net loss of riparian habitat. (Id.)

101. Although the DLA refers to a Riparian Habitat Development Plan, which is intended to mitigate for the loss of riparian habitat areas, no such plan presently exists, and there is no current legal obligation requiring its development. (Exhibit A9, page B-2)

102. The Oneida Narrows is a popular recreation area. Camping, fishing, swimming, boating, and tubing are the most popular recreational activities in the canyon area. (Exhibit PC206, page 95) The canyon is also used for hiking, hunting, and wildlife viewing. (Testimony of Kerry Larsen) Oneida Narrows, with its various water-based recreation activities, is a popular location for family reunions and other group activities. (Exhibit P622, page 5)

103. "The Oneida Narrows provides recreation opportunities that are not found elsewhere on the Bear River due to numerous dams and dewatered reaches." (Exhibit P815, page 1) Because

of the good public access road and the public (BLM) ownership of much of the canyon, the public is able to easily access the canyon. (Id.)

104. The local public uses the canyon heavily and enjoys the water-based recreation opportunities the canyon provides. (Testimony of Murray Nichols) Oneida Narrows and its river-based recreation add to the quality of life of the local community. (Testimony of Tom Lucia) Recreation surveys conducted for TLCC may not accurately reflect the full extent of recreation taking place within the Oneida Narrows. (Exhibit P34, pages 23-24)

105. The recreation use of the canyon has grown exponentially over the last two decades. (Testimony of Star Coulbrooke) The quality of recreation within the Oneida Narrows has also improved over the last twenty years. (See Exhibit P415, pages 13-14; Exhibit A17, pages 11-13)

106. The majority of people that use the canyon come from within the region. (Exhibit P815, Attachment, page 1) Over half of the anglers surveyed by IDFG in the Oneida Narrows in a 2003 study identified themselves as "residents." (Exhibit P700, page 14) A survey completed for TLCC found that over two-thirds of the visitors to the Oneida Narrows area live within 40 miles of the area. (Exhibit A17, page 9) TLCC's survey concluded: "[T]he Oneida Narrows area is mostly enjoyed by local and regional residents rather than being a national recreation destination." (Id.)

107. "A Class II-III whitewater boating run begins . . . downstream of the [Oneida Dam] powerhouse and extends approximately 6 miles downstream to [Bosen] diversion dam." (Exhibit PC206, page 95) "The [Oneida Narrows] is a unique resource for teaching kayaking and canoeing because of the level of difficulty of the river (Class II) and the proximity to the road." (Written Testimony of Jean Lown) The lower portion of the canyon flattens out and is not very good for rafting or kayaking. (Testimony of Dana Olson)

108. There are some recreation opportunities for whitewater rafting and kayaking in the immediate area, specifically in the Black Canyon stretch of the Bear River, located between PacifiCorp's Grace hydropower facility and Oneida Reservoir. (See PC204, pages 50-54) However, Black Canyon is very technical and dangerous for all but advanced kayakers and boaters. (Testimony of Kerry Larsen and Dana Olson)

109. A large portion of the total recreation fishing activity in Franklin County takes place on the mainstem of the Bear River. (Exhibit P714) The Bear River, when viewed as a single recreation site, surpassed all other recreation fishing sites in Franklin County in 2003 in terms of dollars spent on fishing trips. (Exhibit P714)

110. "The reach below Oneida Dam is the most heavily fished portion of the Bear River in Idaho . . . ." (Exhibit P712, page 41) A survey conducted by IDFG of people fishing the Bear River between Oneida Dam and Riverdale showed the highest fishing usage and success rate took place within the Oneida Narrows section. (Exhibit P700, pages 14-18) The quality of fishing in the Oneida Narrows coincides with the abundance of trout within that reach. (See Exhibit A12, pages 116-127) The existing fishing opportunities below the proposed dam are not as good as those currently existing in the area to be inundated. (Exhibit P700, pages 14-18)

111. Fishing recreation within the Oneida Narrows has increased dramatically over the last 25 years. (See Exhibit P701, Figure 6, page 17) The success rate (catch rate) for rainbow trout within the Oneida Narrows has also improved over the same time period. (Id.)

112. The Oneida Narrows is such a popular recreational fishery, IDFG stocks 12,000 sterile rainbow trout at sites below Oneida Dam every year. (Exhibit P700, page 13) "[P]ast and present stocking programs help meet angler demands that cannot be met by native species alone such as BCT and mountain whitefish." (Id.) As the BCT population within the Oneida Narrows is restored, the rainbow trout stocking program will change. (Exhibit P712, page 42)

113. The Oneida Narrows section of the Bear River is fully accessible to the public because of the public road that parallels the river through the canyon. (Exhibit P700, page 14) "In total, there is approximately 11 miles of publicly owned land along the Bear River in Idaho." (Id. at page 18 (citation omitted)) "The largest contiguous section is in the Oneida River Narrows." (Id.) "In additional to 2.7 miles of BLM land, PacifiCorp owns and manages 3.7 miles of river front property in the Narrows for public access." (Id.)

114. Outside of the Oneida Narrows canyon, the Bear River between Oneida Dam and the Idaho-Utah border is primarily private land with limited public access for fishing. (Testimony of David Teuscher; Exhibit A9, page 283) Lower Mink Creek is also surrounded by private property, making public access to the creek difficult. (Protest of Great Salt Lake Keeper, pages 4-5)

115. There are nine reservoirs with public access within Franklin County. (Testimony of David Teuscher; Exhibit P411, page 3) If the proposed reservoir is built, it will replace a preferred and rare river/trout fishing opportunity with a less-preferred reservoir fishing opportunity that is already abundant in Franklin County. (Testimony of David Teuscher) The proposed reservoir will have the same fish composition as Oneida Reservoir, a warm-water fishery dominated by non-native species, including carp. (Testimony of Tom Hardy)

116. PacifiCorp operates four hydroelectric facilities on the mainstem of the Bear River (Soda, Grace, Oneida, and Cutler). (Exhibit A9, page 22) Three of the facilities (Soda, Grace, and Oneida) were relicensed by FERC in 2003 ("2003 License"), in addition to the Cove Plant, which has since been decommissioned. (Exhibit PC204) During relicensing, Soda, Grace, Oneida, and Cove were consolidated into one project designated as the Bear River Hydroelectric Project No. 20 ("Project 20"). (Id.)

117. In conjunction with the relicensing of Project 20, PacifiCorp negotiated a settlement agreement ("2002 Agreement") with participants to the relicensing process, which included the state of Idaho. (Exhibit PC205) The 2002 Agreement was signed by Governor Dirk Kempthorne on behalf of the state of Idaho. (Id. at page 43) Mark Stenberg testified at the hearing as an expert on the terms and implementation of the 2003 License and 2002 Agreement.

118. The 2002 Agreement was the result of three years of negotiations with the relicensing participants. (Testimony of Mark Stenberg) Representatives from GYC and Trout Unlimited were very involved in the negotiation of the 2002 Agreement. (Testimony of Marv Hoyt

and Scott Yates) Large amounts of time and resources have been dedicated by the parties to the negotiation and implementation of the 2002 Agreement. (Testimony of Marv Hoyt)

119. "In general, the [2002 Agreement] contains specific measures that will protect and enhance the environmental resources of the portions of the Bear River affected by the project." (Exhibit PC204, page 5) "These measures include proposals designed to enhance fishery and wildlife resources, provide additional recreational opportunities, and provide for improved management of project lands." (Id.) The 2003 License balanced the benefits of dependable hydropower and its associated environmental consequences with the benefits arising from extensive mitigation measures adopted by PacifiCorp. (See Exhibit PC204, pages 20-23)

120. Under the 2002 Agreement, PacifiCorp must "provide funding up to $648,000 in one time costs and up to $567,000 annually, for the studies and implementation of the aquatic resources restoration measures." (Exhibit PC204, page 6) The majority of fishery protection and enhancement measures in the 2002 Agreement focus on the restoration of BCT. (Id. at page 5)

121. The 2003 License requires PacifiCorp to "develop a plan for undertaking actions to benefit and restore aquatic and riparian habitat for BCT and other fish and wildlife resources . . . ." (Exhibit PC204, page 38) PacifiCorp is also required to prepare a comprehensive BCT Restoration Plan in consultation with the Environmental Coordination Committee ("ECC"), a group of representatives from the parties to the 2002 Agreement. (Exhibit PC205, pages 1, 14 and 27; Exhibit PC204, pages 35-37) The BCT Restoration Plan must include specific measures, including a BCT telemetry study for the Bear River and its tributaries in Idaho. (Exhibit PC204, pages 36 and 37) The BCT restoration plan and telemetry study, if completed, were not offered into the administrative record for this contested case.

122. Pursuant to the 2002 Agreement, PacifiCorp created a habitat enhancement grant fund, used for reconnection projects, fencing riparian areas, fish screening, and fish passage improvements. (Testimony of Mark Stenberg) PacifiCorp has granted over $400,000 for habitat improvements. (Id.) These funds have been matched with $1.2 million in federal funds. (Id.) None of this money has been spent on projects within the Mink Creek drainage. (Id.)

123. PacifiCorp is also required to "provide funding up to $160,000 in one time costs and up to $17,000 annually for the implementation of the recreation measures." (Exhibit PC204, pages 7 and 47-49, See also Exhibit PC205, pages 21-25) The boundaries for Project 20 were expanded to incorporate the recreational sites in the Oneida Narrows canyon. (Exhibit PC204, pages 12-13) PacifiCorp has spent $100,000 on improving the public road in the canyon. (Testimony of Mark Stenberg) PacifiCorp has also fenced off riparian areas and terminated agricultural leases within the canyon. (Id.) Overall, PacifiCorp has spent about $500,000 in the Oneida Narrows canyon in habitat improvement and public access improvement, not including staff time. (Id.)

124. The existence of the Oneida Narrows as available habitat for BCT is essential for the ECC's BCT restoration work in the Bear River below Oneida Dam to be successful. (Testimony of Marv Hoyt) If the Oneida Narrows is inundated, the current benefits resulting from money spent by PacifiCorp and the ECC on public access, recreation, habitat improvements, and BCT restoration below Oneida Dam would be lost. (Id.)

125. PacifiCorp operates the outlet works on Bear Lake and maintains contracts to provide storage water from Bear Lake to various water users upstream and downstream of the proposed project. (Exhibits PC208, PC231-PC244, PC249-PC251, and PC256) PacifiCorp also maintains contracts and agreements relating to water levels in Bear Lake and the Bear Lake National Wildlife Refuge and flows into and out of Bear Lake. (Exhibits PC208, PC245-PC248)

126. PacifiCorp operates its Bear River hydropower facilities "in a coordinated manner to meet irrigation demands and generate power." (Exhibit PC204, page 3) The PacifiCorp facilities are usually operated in a modified run-of-the-river mode, meaning there can be some shaping of reservoir releases, based on downstream irrigation demand, with Oneida releases varying to optimize power production. (Id.)

127. The 2003 License requires a minimum flow of 250 cfs below Oneida Dam, unless inflow to Oneida Reservoir is less than 250 cfs. (Exhibit PC204, page 42) The 2002 Agreement also states that PacifiCorp will try to maintain a minimum operational flow of 900 cfs in the Oneida Narrows section between Memorial Day and Labor Day for whitewater boating. (Exhibit PC205, page 24) PacifiCorp is restricted in how quickly it can ramp down flow out of Oneida Reservoir. (Exhibit PC204, page 6)

128. Prior to relicensing, large, immediate flow fluctuations occurred downstream of Oneida Dam. (Exhibit P701, page 12 (doc. page 4); Exhibit P704, Figures 1 and 2) After the 2003 License was issued, large, immediate fluctuations in flows below the Oneida facility are no longer a significant issue and the proposed project will have little value in buffering river fluctuations. (Id.)

129. PacifiCorp owns five hydropower water rights at Cutler Dam (located downstream of the proposed project), with priority dates senior to January 1, 1976, totaling 3,540 cfs. (Exhibit PC230, Water Delivery Schedule No. 1; Exhibits PC252, PC252C, and PC255, page 10) There are times when the flow of the Bear River at Cutler Dam exceeds PacifiCorp's hydropower pre-1976 water rights. (Testimony of Connely Baldwin)

130. Excess water, which cannot be used for irrigation or hydropower under existing water rights, is released over the Cutler Dam spillway into the Bear River channel below the dam. (Testimony of Connely Baldwin) During the winter season, there is rarely any spill past Cutler Reservoir. (Id.) During the summer months, once the run-off has ended, all of the water at Cutler Dam is diverted for irrigation. (Id.)

131. "Historically, [using] the flow data from about 1922 to the present, [spill at Cutler Dam] does occur on about 64% of the years." (Testimony of Connely Baldwin) But, in the past ten years, excess flows at Cutler Dam have only occurred one out of every three years. (Id.)

132. The water rights held by PacifiCorp for Cutler Dam are the largest water rights downstream of the proposed project. (See Exhibit PC 230, Water Delivery Schedule No. 1) Because the water rights are non-consumptive, if the PacifiCorp hydropower rights at Cutler Dam are fully satisfied, then the remaining water rights on the Bear River downstream of the Cutler Dam will be satisfied. (Testimony of Connely Baldwin)

133. The U.S. Fish & Wildlife Service has a water right from the Bear River (Utah water right #29-1014), which authorizes the diversion of 1,000 cfs under a 1928 priority date for use at the Bear River Migratory Bird Refuge. (Protest of U.S. Fish & Wildlife Service) Even though 2007 was a very poor water year in terms of available water supply in the Bear River drainage, the stream flow of the Bear River near Corinne, Utah (as measured at USGS Station 10126000) exceeded 1,000 cfs for most of the non-irrigation season (November 2006 – April 2007). (Exhibit A1, pages 07-1 thru 7-5, and 07-47)

134. TLCC must obtain other permits in addition to a water right permit from IDWR and a FERC license before proceeding with the proposed project. A Section 404 permit must be obtained from the Army Corps of Engineers for the discharge of fill material into the Bear River to construct the proposed dam. (Exhibit P803, pages 1-2) The Section 404 permit application may be filed at any time, but had not been filed as of the hearing date. (Testimony of Nick Josten)

135. As part of its Section 404 permit application, TLCC will be required to provide a detailed review of alternatives to the proposed project. (Exhibit P803, pages 2-4) As of December 2011, TLCC had not sufficiently evaluated other alternatives to the proposed project. (Id.) "The EPA has significant concerns regarding the proposed project's potential impacts on aquatic resources, water quality, dissolved oxygen, and temperature of the Bear River." (Id. at page 6)

136. TLCC will also be required to obtain a Section 401 water quality permit from the EPA and IDEQ. (Testimony of Nick Josten) The Section 401 permit application is generally filed at the same time the final license application is submitted to FERC. (Id.) A mineral extraction permit and separate right-of-way permit may also be required from the BLM. (Testimony of David Schiess and Exhibit 812, page 11)

137. A similar water right application (13-7462) was filed by S&F Power Co. on February 16, 1989. (Exhibit IDWR2) Application 13-7462 proposed the following:

Point of Diversion: T14S, R40E, Sec. 16, SWNE (location of dam)
Beneficial Uses:

Power	1,440 cfs	1/1 to 12/31
Storage for Powerhead	17,800 acre-feet	1/1 to 12/31

Total Quantity Appropriated: 17,800 acre-feet and 1,440 cfs
Estimated Hydropower Generation Capacity: 9.8 MW

138. Application 13-7462 was protested by a number of individuals and groups, including TLCC. (Exhibit IDWR3) The 13-7462 protestants raised many of the same concerns as were raised by the protestants in this contested case. (Id.) Although the 13-7462 protests generally referred to potential impacts to fish and wildlife habitat, they did not specifically focus on BCT concerns. (Id.) Application 13-7462 and its associated protests resulted in a contested case hearing before the Department. (Exhibit IDWR4)

139. On September 26, 1990, the Department issued a Memorandum Decision in the case, rejecting the water right application. (Exhibit IDWR4) The basis for the rejection was that 1)

the proposed project would reduce the quantity of water under existing rights, 2) the applicant did not have sufficient financial resources to complete the project, and 3) the proposed project was not in the local public interest. (Exhibit IDWR4, pages 11-15)

140. After setting forth the various local interest factors relating to the Oneida Narrows canyon and the project proposed in Application 13-7462, Keith Higginson, the Director of the Department at that time, reached the following conclusion:

> After due consideration it is determined that the expected benefits from construction of the dam and reservoir proposed . . . are insufficient to overcome the negative public impacts. Approval of the application would not be in the local public interest. If the dam site, which is protected as a matter of state policy, and the canyon of the Oneida Narrows is to be utilized for a water storage project such project ought to provide widespread benefits in the local area and region. (Exhibit IDWR4, page 15)

EVALUATION CRITERIA / ANALYSIS

1. Idaho Code § 42-203A(5) states in pertinent part:

> In all applications whether protested or not protested, where the proposed use is such (a) that it will reduce the quantity of water under existing water rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the applicant has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho, or (g) that it will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates; the director of the department of water resources may reject such application and refuse issuance of a permit therefor, or may partially approve and grant a permit for a smaller quantity of water than applied for, or may grant a permit upon conditions.

2. The applicant bears the ultimate burden of persuasion regarding all factors set forth in Idaho Code § 42-203A(5). (IDAPA 37.03.08.40.04.c)

3. Prior to the hearing, the parties stipulated that element (f) relating to the conservation of water resources and element (g) relating to adverse effects to the local economy are not at issue in this contested case. There is no evidence in the record that the proposed project is contrary to the conservation of water resources within the state of Idaho or that the proposed place of use is outside of the watershed of the identified water source.

4. Rule 40.05 of the Department's Water Appropriation Rules (IDAPA 37.03.08) identifies certain information that must be provided by any applicant seeking to appropriate more than 5 cfs or more than 500 acre-feet of storage. The Department did not make a formal request for information under Rule 40.05. Therefore, the relevant information described in Rule 40.05 was to be included as part of TLCC's evidence and pre-hearing disclosures.

5. Rule 45 of the Department's Water Appropriation Rules (IDAPA 37.03.08) sets forth criteria for evaluating all applications to appropriate water. The criteria in Rule 45 provide additional guidance in applying the elements set forth in Idaho Code § 42-203A(5).

Reduction of Quantity of Water under Existing Rights / Mitigation

6. An applicant shall provide information concerning "any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights." (IDAPA 37.03.08.40.05.c.iii)

7. A proposed use reduces the quantity of water under an existing water right if "[t]he amount of water available under an existing water right will be reduced below the amount recorded by permit, license, decree or valid claim or the historical amount beneficially used by the water right holder under such recorded rights, whichever is less." (IDAPA 37.03.08.45.01.a) "An application that would otherwise be denied because of injury to another water right may be approved upon conditions which will mitigate losses of water to the holder of an existing water right, as determined by the Director." (IDAPA 37.03.08.45.01.a.iv)

8. The term "mitigation" is used in two different contexts in this contested case. "Mitigation" is used to describe the plan to replace water lost from the Bear River system due to evaporation from the proposed reservoir. The term is also used to describe the replacement of lost or impacted local public interest elements such as aquatic habitat, riparian areas, or recreational opportunities. This section only addresses the mitigation for impacts to water rights. Mitigation for impacts to habitat, wildlife, and recreation is addressed in the local public interest analysis.

9. The Department's water right records include a number of Idaho water rights for the Bear River downstream of the proposed project. (See Exhibit IDWR09) These downstream water rights authorize the diversion of more than 330 cfs. (Id.) Two of the rights, 13-4234 and 13-4236, do not include diversion rates, only annual diversion volumes. (Id.) The priority dates for these downstream rights range from 1880 to 1974. (Id.) Evaporation from the proposed reservoir will reduce the quantity of Bear River natural flow available to fill these downstream water rights.

10. TLCC proposes to mitigate for impacts to downstream Bear River water rights by continuously releasing 10 cfs past its Mink Creek diversion and leaving 1.4 cfs of the bypass flow in the Bear River, where it will be available to downstream water rights. TLCC proposes to pump the remaining 8.6 cfs from the river into its canal. The mitigation flow rate to be left in the Bear River, 1.4 cfs, is greater than the calculated daily evaporation from the proposed reservoir. (Findings of Fact 49-57)

11. TLCC's mitigation plan to offset evaporation losses is deficient in two ways. First, there are certain times of the year when no actual mitigation will take place. Evidence presented by TLCC shows there are times when the flow past the TLCC headgate on Mink Creek exceeds 10 cfs. (Exhibit A9, page 35) In fact, the evidence suggests that flows in Mink Creek below the TLCC diversion exceed 10 cfs for about 8 months of the year. (Id.) These naturally-occurring excess flows are not intentional releases and cannot be considered mitigation. TLCC appears to be seeking mitigation credit for bypass flows that would occur regardless of a mitigation requirement.

12. In order for a mitigation proposal to be viable, the mitigating party must demonstrate that the water being supplied as mitigation would not otherwise be available to the impacted parties. In this case, TLCC must show that the water used to mitigate for evaporation losses from the proposed reservoir is not water that would otherwise have entered the Bear River from Mink Creek.

13. Second, TLCC's mitigation plan is deficient because it does not address the possibility that mitigation water will not actually reach the Bear River. Evidence suggests that lower Mink Creek may be a losing reach for at least part of the year. (Finding of Fact 9) There are also recorded water rights on Mink Creek downstream of the TLCC diversion dam that may divert Mink Creek water. (Finding of Fact 11)

14. If 10 cfs is released past the TLCC diversion dam, and part of the flow is lost or diverted in lower Mink Creek, and TLCC diverts 8.6 cfs through its pumping stations on the Bear River, impacts to downstream water rights will not be mitigated. In fact, such a scenario would actually result in additional impacts to downstream water rights, above and beyond those caused by the evaporative losses.

15. TLCC's proposal to use Mink Creek flows as exchange water to fill the proposed reservoir during times when there is no unallocated water available on the Bear River fails for the same reasons. Mr. Bosen testified that TLCC generally cannot divert Mink Creek water during the winter because the main canal and siphon freeze and cannot convey water. Water bypassing the TLCC Mink Creek diversion during such freezing events cannot be considered "replacement" or "exchange" water because TLCC would not have been able to divert the bypassed water anyway. There is also the issue that intentional bypass flows may not reach the Bear River because of losses or diversions in lower Mink Creek.

Sufficiency of Water Supply

16. An applicant shall provide information regarding "the water requirements of the proposed project, including, but not limited to, the required diversion rate during the peak use period and the average use period, the volume to be diverted per year, the period of year that water is required, and the volume of water that will be consumptively used per year." (IDAPA 37.03.08.40.05.d.i) An applicant shall also provide information regarding "the quantity of water available from the source applied for, including, but not limited to, information concerning flow rates for surface water sources available during periods of peak and average project water demand . . . ." (IDAPA 37.03.08.40.05.d.ii)

17. "The water supply will be determined to be insufficient for the proposed use if water is not available for an adequate time interval in quantities sufficient to make the project economically feasible . . . ." (IDAPA 37.03.08.45.01.b)

18. TLCC met its burden of persuasion regarding the sufficiency of the water supply. Although unallocated water may not be available to fill the proposed reservoir every year, unallocated water is periodically available and the reservoir could legally capture water during such times. TLCC also demonstrated that flows in the Bear River below Oneida Dam are sufficient to support its proposed hydropower facility.

Good Faith / Speculation

19. An applicant shall provide "copies of deeds, leases, easements or applications for rights-of-way from federal or state agencies documenting a possessory interest in the lands necessary for all project facilities and the place of use or if such interest can be obtained by eminent domain proceedings the applicant must show that appropriate actions are being taken to obtain the interest." (IDAPA 37.03.08.40.05.e.i) The applicant shall also provide "copies of applications for other needed permits, licenses and approvals, and must keep the department apprised of the status of the applications and any subsequent approvals or denials." (IDAPA 37.03.08.40.05.e.ii)

20. In determining whether an application is not made in good faith or is made for delay or speculative purposes, the Department should analyze the intentions of the applicant with respect to the filing and diligent pursuit of application requirements. (IDAPA 37.03.08.45.c) An application will be found to have been made in good faith if the applicant has "legal access to the property necessary to construct and operate the proposed project [or] has the authority to exercise eminent domain authority to obtain such access," "is in the process of obtaining other permits needed to construct and operate the project;" and that "[t]here are no obvious impediments that prevent the successful completion of the project." (Id.)

21. "Speculation for the purpose of this rule is an intention to obtain a permit to appropriate water without the intention of applying the water to beneficial use with reasonable diligence." (IDAPA 37.03.08.45.c) "The judgment of another person's intent can only be based upon the substantive actions that encompass the proposed project." (Id.)

22. TLCC has met its burden of persuasion on this element and has demonstrated that the water right application was made in good faith and not for delay or speculative purposes. Although Rule 45.c suggests an applicant must presently have the authority to exercise eminent domain, Rule 40.05.e.i states that an applicant must only demonstrate that "appropriate actions are being taken" to obtain an interest in the property. Rule 45.c does not require an applicant to already have approvals for the "other permits needed to construct and operate [a] project."

23. In this case, because the eminent domain authority is directly contingent on the issuance of the FERC license, TLCC is not required to currently have the authority to exercise eminent domain. TLCC must only demonstrate that it is diligently pursuing the FERC license. The thousands of pages of FERC filings included in the administrative record and millions of dollars spent on FERC required studies demonstrate an active, steady pursuit of a FERC license. If TLCC

were successful in obtaining a FERC license, it would acquire the authority to condemn the lands required to build and operate its project.

24. A fair amount of evidence was offered by the protestants arguing that TLCC will not be successful in obtaining a FERC license. The viability of TLCC's license application to FERC has no bearing on the outcome of this contested case. The Department cannot and should not attempt to determine whether TLCC's FERC license application meets the FERC criteria. The FERC application review process is much broader than that of the Department. The Department does not have expertise in evaluating FERC applications under the FERC criteria.

25. An applicant is not required to show that it will ultimately be successful in obtaining the other required permits. An applicant must only show that it is "in the process" of obtaining other permits needed to construct and operate the project. It falls to the agency or entity issuing the other permits to determine whether their permitting criteria are satisfied.

Sufficient Financial Resources

26. An applicant will be found to have sufficient financial resources upon a showing that it is reasonably probable that funding will be available for project construction or upon a financial commitment letter acceptable to the Department. (IDAPA 37.03.08.45.01.d) An applicant shall also provide "plans and specifications along with estimated construction costs for the project works" that are "definite enough to allow for determination of project impacts and implications." (IDAPA 37.03.08.40.05.f)

27. An applicant is not required to have financing in place at the time an application for permit is filed or even by the time the Department issues a permit. For large water developments, financing is generally not available until all of the critical permits have been obtained.

28. Through the testimony provided by Clair Bosen, David Tuthill, and Blair Hawkes, including the testimony regarding the bonding program through the IWRB, TLCC demonstrated that it is reasonably probable that financing will be available to complete the proposed project.

29. The feasibility of a project is also encompassed by this review criterion. It is not reasonably probable that a financially unsound project would qualify for financing from public or private sources. A financially unsound project may also be considered speculative in nature.

30. There is a certain amount of variability in the cost and revenue projections associated with the construction of a hydropower project. A feasibility analysis completed today may not be valid six months from now. In evaluating an applicant's feasibility analysis, the Department does not need to consider every hypothetical future cost scenario. In other words, a permit should not be denied on the basis that construction costs or power revenue *may* change in the future. An accurate representation of the current cost to complete the project will satisfy this element of review.

31. In this case, the feasibility analysis prepared by Schiess & Associates was reasonable and demonstrates that the proposed project was financially feasible at the time of the analysis.

Local Public Interest

32. Idaho Code § 42-203A(5)(e) gives the Department the authority to deny an application for permit when the proposed water use would conflict with the local public interest as defined in Idaho Code § 42-202B. "Local public interest" is defined in Section 42-202B(3) as "the interests that the people in the area directly affected by a proposed water use have in the effects of such use on the public water resource."

33. The current definition of local public interest in Section 42-202B(3) was adopted in 2003 and supersedes the evaluation criteria set forth in the Department's Water Appropriation Rules (IDAPA 37.03.08, Rules 40.05.g-h and 45.01.e), which were adopted in 1993 and were based on a different definition of "local public interest."

34. At the hearing, attorneys representing GYC and IDFG recited language from the legislative history for the 2003 amendment to the definition of local public interest. The attorneys noted that local public interest includes fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, transportation, navigation, water quality, and alternative future uses of water. The quoted legislative history also verified, however, that these categories of local public interest must be directly related to the public water resource.

35. "The Idaho State Water Plan was adopted by [IWRB] to guide the development, management, and use of the state's water and related resources." (Exhibit IDWR10, page 1) The State Water Plan provides an additional standard to be used in evaluating new hydropower projects:

> [IWRB] prefers that new hydropower resources be developed at dams having hydropower potential that do not currently generate power or do not generate at their maximum potential. New structures or projects should be carefully evaluated to insure that the benefits to the state outweigh any negative consequences associated with the proposed development. (Exhibit IDWR10, page 15)

36. The first step in evaluating the local public interest is to define the "area directly affected by a proposed water use." In other words, to define the parameters of the local area. Based on the evidence provided, the most logical local area designation is Franklin County.

37. "People" within the local area includes corporations that conduct business or operate facilities in the designated area, such and PacifiCorp. It also includes government entities charged with providing services to people and managing wildlife resources within the designated area, such as IDFG. Trout Unlimited, Franklin County Fish & Game, Idaho Rivers United, GYC, and Oneida Narrows Organization sufficiently demonstrated that their respective organizations have members who reside in Franklin County on a full-time or part-time basis. The public witness testimony offered confirms that some Franklin County residents share many of the same concerns as those advanced by the protestants.

38. In this particular case, "people" in the local area also includes the various parties to the 2002 Agreement (arising from the relicensing of PacifiCorp Project 20), because the 2002 Agreement sets forth specific tasks to be performed within the Oneida Narrows. The signatories to

the 2002 Agreement have a direct contractual interest in the activities occurring within the Oneida Narrows and therefore also qualify as "people" within the context of Section 42-202B(3).

39. The second step in evaluating the local public interest is to identify the "effects" of the proposed water use on the public water resource. In this case, the proposed project would change the nature of the public water resource dramatically. Currently, the public water resource in the Oneida Narrows is a scenic, free-flowing river that is primarily used for whitewater boating, tubing, fishing, and other recreation. (Findings of Fact 102-115) The free-flowing river also constitutes an important section of riverine and riparian habitat for animal species in the area. (Findings of Fact 92-101)

40. The proposed project would convert the public water resource into a still-water reservoir that could be used for reservoir fishing and boating and that creates hydrostatic head for power generation purposes. Another "effect" or change to the public water resource would be converting water that would otherwise flow out of the canyon, to water that is held in a reservoir for potential irrigation use.

41. The third step in evaluating the local public interest is to identify the "interests" that the people in the local area have in the effects or changes to the public water resource.

42. The local public has a strong interest in the free-flowing water recreational activities within the Oneida Narrows. Even though native trout species, such as BCT, do not currently dominate the fish populations within the Oneida Narrows, the canyon is still a highly-used local fishery. (Findings of Fact 110-112) The Oneida Narrows includes a significant portion of suitable salmonid habitat on the Bear River between Oneida Dam and the Idaho-Utah border. (Findings of Fact 76-81)

43. The local public has an interest in the benefits to wildlife species provided by the riverine and riparian habitats associated with the free-flowing river. Many of the animal species in the area rely on the water and riparian areas in the canyon for food, cover, and/or nesting. (Finding of Fact 98) The local public also has an interest in the scenic value of the river flowing through a rugged canyon.

44. Since the 2002 Agreement, an additional interest has developed within the Oneida Narrows. A large amount of time, money and other resources have been dedicated to improving recreational facilities, riparian habitat, and public access within the canyon. (Findings of Fact 116-128) In addition, a significant amount of money has been spent on BCT restoration efforts on the Bear River and its tributaries below Oneida Dam. (Id.) The local public has a substantial interest in preserving and perpetuating the benefits derived from the work performed under the 2002 Agreement. (Id.) Maintaining the mainstem trout habitat within the Oneida Narrows is critical for the success of BCT restoration efforts within the area. (Findings of Fact 67-82)

45. On the other hand, the local public also has an interest in augmenting the water supply to farmers and irrigators in the local communities. The irrigation storage and hydropower generation revenue has the potential to increase water supply and agricultural yields for the TLCC shareholders, particularly if hydropower revenues are used to pipe the TLCC main canal.

46. The mitigation proposed by TLCC, releasing 10 cfs continuously past its Mink Creek diversion, does little to mitigate for the impacts to local public interest elements. (Findings of Fact 86-91) The 10 cfs release will not improve aquatic habitat in lower Mink Creek, will not create a significant amount of riparian habitat or improve the quality of existing riparian habitat, will not improve spawning conditions for BCT, will provide very few water quality benefits, and may not even provide fish passage from the Bear River to the upper section of Mink Creek. It is unknown how much of Mink Creek will be rewatered by the 10 cfs minimum flow because the extent of the "dewatered" section of lower Mink Creek was not defined.

47. The proposed reservoir will have little positive effect on flow fluctuations in the Bear River. Under PacifiCorp's new operation regime for Oneida Dam, implemented after the 2003 License, there is little need to buffer fluctuations in the Bear River flow below the Oneida Dam.

48. Under §42-203A(5)(e), it is the Department's role to weigh the evidence in the administrative record and to determine whether a proposed project conflicts with the local public interest. Based on the evidence in the record, the proposed project does conflict with the local public interest. The public interests associated with the Bear River in its current state far outweigh the public interests associated with the proposed project. Although the potential benefits to TLCC shareholders would be sizeable, the benefits to the local area residents who are not TLCC shareholders would be minimal. The benefits to the state of Idaho would also be minimal.

49. The TLCC application differs from the 1990 S&F Power application in a number of ways. The current application was filed by a local company and includes an irrigation component. The studies conducted by TLCC and its contractors appear to be much more detailed than existed in the 1990 application. Further, the mitigation proposed by TLCC appears to be greater than was proposed in the 1990 application. Since the 1990 application, however, the public interests relating to the water resource in the canyon have also increased and multiplied. Based on the evidence in the administrative record relating to the local public interest, any mitigation proposed to offset impacts to the local public interests caused by inundation of the Oneida Narrows would have to be substantial, far greater than has been proposed by TLCC.

Bear River Compact

50. One of the "major purposes" of the Compact is to "permit additional development of water resources of [the] Bear River." (Compact, Article I.A) "It is the policy of the signatory States to encourage additional projects for the development of the water resources of the Bear River to obtain the maximum beneficial use of water . . . ." (Compact, Article VII)

51. The Compact describes how water in the Lower Division, in excess of existing water rights applied to beneficial use on or before January 1, 1976, should be allocated to the states. (Compact, Article V.A) "Idaho shall have the first right to the use of such remaining water resulting in an annual depletion of not more than 125,000 acre-feet." (Compact, Article V.A(1)) "However, new development using the compact apportionment cannot injure prior water rights in Idaho or rights with a priority earlier than January 1, 1976, in the State of Utah." (Exhibit PC258,

page 4) As of 1992, Idaho still had 117,700 acre-feet of depletions that could be developed in the Lower Division. (See Exhibit A1, Figure O.3, page O-11)

52. Article XI of the Compact addresses the approval of new water rights:

> Applications for appropriation . . . of Bear River water shall be considered and acted upon in accordance with the law of the State in which the point of diversion is located, but no such application shall be approved if the effect thereof will be to deprive any water user in another State of water to which he is entitled. (Compact, Article XI)

53. Evidence in the record shows there are still periodically unallocated flows available in the Lower Division of the Bear River, available for appropriation by the state of Idaho under Article V of the Compact. (Findings of Fact 129-133) During these time periods, water rights downstream of the proposed project with priority dates senior to January 1, 1976, including Utah water rights, are fully satisfied.

54. Under the Compact, Idaho has the first right to develop the first 125,000 acre-feet of unallocated water in the Bear River system, even if the unallocated (or excess) water is not present in the system every year. Storage projects are ideal for developing the unallocated Bear River supply because unallocated water can be captured when it is available and used at a later time when the river may be fully appropriated.

55. Flows and diversion in the Lower Division are highly regulated and closely monitored. With the addition of stream gages and measurement devices, the current accounting program is sufficient to ensure that the proposed storage reservoir would only divert water during times when unallocated water is available in the Lower Division.

56. If the evaporative losses associated with the proposed reservoir were fully mitigated to the satisfaction of IDWR, the Compact would not prohibit the approval of Application 13-7697. However, because this Order finds that downstream water rights in the state of Idaho will be impacted by evaporative losses from the proposed reservoir, with no mitigation for those impacts, downstream water rights in Utah will also be impacted. Consequently, approval of Application 13-7697 is prohibited by Article XI of the Compact.

Other Issues

57. Other issues were raised within the protests and during the hearing that fall outside the scope of the Department's review: (1) Whether TLCC's FERC license will impermissibly impact PacifiCorp's existing FERC license; (2) Whether the proposed project falls within a Northwest Power and Conservation Council designated protected area; (3) Whether TLCC's reasonable alternatives analysis is sufficient; (4) Whether the replacement access road for Oneida Dam proposed by TLCC is sufficient; (5) Whether TLCC's FERC license application is viable and could be approved; (6) Whether TLCC's FERC application or studies meet the standards/expectations of FERC; and (7) Whether PacifiCorp's certification as a low impact hydropower facility will be impacted by TLCC's proposed project.

58. Although these topics may be somewhat related to the Department's review criteria, the Department does not have sufficient expertise in these areas to make a determination on their outcomes. It would be improper for IDWR to approve or deny an application for permit based on IDWR's interpretation or application of another agency's or group's rules.

CONCLUSIONS OF LAW

1. Based on the evidence in the administrative record, TLCC failed to establish elements (a) and (e) of Idaho Code § 42-203A(5). The proposed application will reduce the quantity of water under existing water rights and the proposed application conflicts with the local public interest.

2. In addition, because the application, as proposed, would impact downstream water rights in the state of Utah, approval of the application is prohibited by Article IX of the Compact.

ORDER

IT IS HEREBY ORDERED that Application for Permit No. 13-7697 in the name of Twin Lakes Canal Company is DENIED.

Dated this 26th day of July, 2012.

James Cefalo
Water Resources Program Manager

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 26th day of July, 2012, true and correct copies of the document described below were served by placing a copy of the same with the United States Postal Service, certified mail with return receipt requested, postage prepaid and properly addressed to the following:

Sharla Cox
Administrative Assistant

U.S. CERTIFIED MAIL
Document Served: Preliminary Order Denying Application for Permit, 13-7697

Holden Kidwell Hahn & Crapo
Robert L. Harris
PO Box 50130
Idaho Falls ID 83405-0130

Idaho Rivers United
PO Box 633
Boise ID 83701

Mabey Wright & James
David Wright
175 S Main, Ste. 1330
Salt Lake City UT 84111

Great Salt Lake Keeper
PO Box 522220
Salt Lake City UT 84152

PacifiCorp
Attn: Claudia Conder
1407 W. North Temple #110
Salt Lake City UT 84116

Idaho Dept of Fish & Game
Cindy Robertson
PO Box 25
Boise ID 83707

Bear Lake Watch Inc
C/O Claudia Cottle
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Fish Haven ID 83287

Trout Unlimited
Peter R. Anderson
910 W Main St., Ste. 342
Boise ID 83702

Franklin County Fish & Game Assoc
235 Park Ave
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Office of the Attorney General
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Boise ID 83720-0010

Greater Yellowstone Coalition
Andrea L. Santarsiere
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Idaho Falls ID 83401

State of Idaho
Dept of Fish & Game
1345 Barton Rd
Pocatello ID 83204

Oneida Narrows Organization
143 North 100 West
Smithfield UT 84335

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was held)

The accompanying order is a **Preliminary Order** issued by the Idaho Department of Water Resources (Department) pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department unless a party petitions for reconsideration or files an exception and brief as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the hearing officer within fourteen (14) days of the service date of the order as shown on the certificate of service. **Note: the petition must be received by the Department within this fourteen (14) day period.** The hearing officer will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding to the Director. Otherwise, this preliminary order will become a final order of the agency.

If any party appeals or takes exceptions to this preliminary order, opposing parties shall have fourteen (14) days to respond to any party's appeal. Written briefs in support of or taking exceptions to the preliminary order shall be filed with the Director. The Director retains the right to review the preliminary order on his own motion.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, request for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with Rules of Procedure 302 and 303.

FINAL ORDER

The Department will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The Department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

Attachment 2

Final Order Denying Application For Water Right

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NO. 13-7697 IN THE NAME OF TWIN LAKES CANAL CO.	))))	**FINAL ORDER DENYING APPLICATION FOR PERMIT**

On March 8, 2007, Twin Lakes Canal Company ("TLCC") filed Application for Permit 13-7697 with the Idaho Department of Water Resources ("IDWR" or "Department") seeking to appropriate water from the Bear River for power head storage, power, irrigation storage, and irrigation. An amended application was filed on June 18, 2010, removing the "irrigation" element from the application and adding an "irrigation from storage" element.

Notice of the amended application was published in July 2010. The legal notice incorrectly included "irrigation" and "power from storage" elements. A notice of correction was advertised, extending the protest date to August 30, 2010. The application was further amended on August 13, 2010, adjusting the elements to be those described in this order. The Department determined that the changes made on August 13, 2010 did not require a re-advertisement of the application.

Timely protests were filed by Oneida Narrows Organization, Great Salt Lake Keeper, Bear Lake Watch, Trout Unlimited, Greater Yellowstone Coalition ("GYC"), Bear River Water Users Association ("BRWUA"), the Idaho Department of Fish & Game ("IDFG"), Franklin County Fish & Game Association, and PacifiCorp. The U.S. Fish and Wildlife Service and Idaho Rivers United filed petitions to intervene, which were granted on August 11, 2011.

The U.S. Fish and Wildlife Service withdrew as an intevenor on November 16, 2011. On December 14, 2011, TLCC and BRWUA signed a *Stipulation for Withdrawal of Protest of [BRWUA] and Settlement Agreement* ("BRWUA Agreement"), discussed in greater detail in this order. BRWUA withdrew its protest on January 9, 2012.

On November 17, 2010, a pre-hearing conference was conducted in Pocatello and the parties requested that a formal hearing be held to resolve the protested matter. The hearing was originally scheduled to take place in August 2011, but was extended twice due to delays in completing certain study reports.

The formal hearing was held in Pocatello on March 5-9, 2012. The parties offered testimonial and documentary evidence into the record. On July 26, 2012, the hearing officer

issued a *Preliminary Order Denying Application for Permit*. On August 8, PacifiCorp filed exceptions and on August 9, TLCC filed exceptions to the preliminary order with the director of IDWR ("director"). On August 22, 23 and 24, parties filed responses to the exceptions.

The director reviewed the documents filed by the parties and the hearing record. Below is an analysis of the exceptions.

RESTATEMENT OF EXCEPTIONS

The following is a brief restatement of the exceptions filed by the parties:

Twin Lakes Canal Company Exceptions

Mitigation

TLCC asserts that the hearing officer failed to properly consider the provisions of its agreement with the Bear River Water Users Association, and that the agreement provides for adequate mitigation in quantity, time, and location for all affected water right holders.

Local Public Interest

TLCC asserts that the preliminary order fails to consider substantial public interest evidence submitted by TLCC, fails to defer to the Federal Energy Regulatory Commission ("FERC") on matters of public interest, and fails to consider economic benefits to the community.

PacifiCorp Exceptions

Eminent Domain

PacifiCorp takes exception to a conclusion of law that "If TLCC were successful in obtaining a FERC license, it would acquire the authority to condemn the lands required to build and operate the project." PacifiCorp argues that TLCC will not be authorized to condemn PacifiCorp property because it would interfere with PacifiCorp's Oneida Project.

Miscellaneous Corrections to Findings of Fact

PacifiCorp asserts several findings are not factually correct or need to be clarified. Other than findings of fact related to eminent domain above, the suggested corrections would not have affected the outcome of the preliminary order. Nonetheless, the findings identified by PacifiCorp as needing correction will be discussed in an analysis section below.

ANALYSIS OF EXCEPTIONS

Authorities

Idaho Code § 42-1706 assigns to the director the responsibility of actively identifying and studying possible water storage locations in the state of Idaho:

> The director shall collect facts and make surveys to ascertain suitable locations for reservoirs upon streams where such reservoirs may be possible and beneficial, and shall, as far as possible, determine the cost of constructing such reservoirs, and all other facts possible in regard to quantity of water possible to be stored, the character and extent of land that may be reclaimed by the water from such reservoirs, together with all other information possible that may bear upon the subject.

Idaho Code § 42-1805(3) further describes these duties:

> To conduct surveys, tests, investigations, research, examinations, studies, and estimates of cost relating to availability of unappropriated water, effective use of existing supply, conservation, storage, distribution and use of water.

The director is statutorily assigned a duty to promote and encourage storage of water in the state of Idaho. This assignment is not taken lightly.

The director is also required to closely regulate hydropower projects. Article XV, Section 3 of the Idaho Constitution states, in part:

> The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied, except that the state may regulate and limit the use thereof for power purposes.

Idaho Code § 42-203B(1) "finds and declares that it is in the public interest to specifically implement the state's power to regulate and limit the use of water for power purposes . . .." Idaho Code § 42-203B(6) further states:

> The director shall have the authority to subordinate the rights granted in a permit or license for power purposes to subsequent upstream beneficial depletionary uses. A subordinated water right for power use does not give rise to any claim against, or right to interfere with, the holder of subsequent upstream rights established pursuant to state law.

The Idaho State Water Plan provides an additional standard for evaluating new hydropower projects:

> [IWRB] prefers that new hydropower resources be developed at dams having hydropower potential that do not currently generate power or do not generate at their maximum potential. New structures or projects should be carefully evaluated to insure that the benefits to the state outweigh any negative consequences associated with the proposed development. (Exhibit IDWR10, page 15)

Paragraph A, Article V of the Amended Bear River Compact, approved by the United States Congress in 1980, states:

> Rights to water first applied to beneficial use on or after January 1, 1976, shall be satisfied from the respective allocations made to Idaho and Utah in this paragraph and the water allocated to each State shall be administered in accordance with State law. Subject to the foregoing provisions, the remaining water in the Lower Division [in which the TLCC proposed project is located] including water tributary to the Bear River, is hereby apportioned for use in Idaho and Utah as follows:
>
> (1) Idaho shall have the first right to the use of such remaining water resulting in an annual depletion of not more than 125,000 acre-feet.
> (2) Utah shall have the second right to the use of such remaining water resulting in an annual depletion of not more than 275,000 acre-feet.
> (3) Idaho and Utah shall each have an additional right to deplete annually on an equal basis 75,000 acre-feet of the remaining water after the rights provided by subparagraphs (1) and (2) above have been satisfied.

Idaho Code § 42-203A establishes the criteria for evaluating new applications to appropriate water:

> The director of the department of water resources shall find and determine from the evidence presented to what use or uses the water sought to be appropriated can be and are intended to be applied. In all applications whether protested or not protested, where the proposed use is such (a) that it will reduce the quantity of water under existing water rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the application has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho, or (g) that it will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates;

> the director of the department of water resource may reject such application and refuse issuance of a permit therefor, or may partially approve and grant a permit for a smaller quantity of water than applied for, or may grant a permit upon conditions.

As a component of the TLCC application, TLCC also proposes using a portion of an existing water right for mitigation. This change in nature of use requires a transfer, invoking the criteria for evaluating applications for transfer contained in Idaho Code § 42-222:

> The director of the department of water resources shall examine all the evidence and available information and shall approve the change in whole, or in part, or upon conditions, provided no other water rights are injured thereby, the change does not constitute an enlargement in use of the original right, the change is consistent with the conservation of water resources within the state of Idaho and is in the local public interest as defined in section 42-202B, Idaho Code, the change will not adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates, and the new use is a beneficial use .... The director may consider consumptive use, as defined in section 42-202B, Idaho Code, as a factor in determining whether a proposed change would constitute an enlargement in use of the original water right .... The transfer of the right to the use of stored water for irrigation purposes shall not constitute an enlargement in use of the original right even though more acres may be irrigated if no other water rights are injured thereby.

The duties assigned to the director as set forth above and the provisions of the Bear River Compact must be considered by the director in addition to the criteria for review of a new water right application contained in Idaho Code § 42-203A.

Local Public Interest

I. Authority to Balance the Local Public Interest Criterion Rests With the Director of IDWR.

The plain language of Idaho Code vests the authority to evaluate the local public interest with the director of IDWR. Idaho Code § 42-203A provides that the director may "reject" and "refuse issuance of a permit" that "conflict[s] with the local public interest as defined in section 42-202B, Idaho Code, ..." Idaho Code § 42-202B in turn defines the local public interest as "the interests that the people in the area directly affected by a proposed water use have in the effects of such use on the public water resource." Idaho Code § 42-202B(3). As recognized by the legislature, this definition intentionally vests in the director of IDWR the authority to balance local public interest values when considering a water right application. Statement of Purpose, H.B. 284(2003)("The

determination of what elements of the public interest are impacted, and what the public interest requires, is committee [sic] to Water Resources' sound discretion.") The Idaho Supreme Court has affirmed this broad grant of discretion: "[T]he determination of which local public interests are impacted and balancing those impacts is left to the sound discretion of IDWR." *Chisholm v. Idaho Dept. of Water Res.*, 142 Idaho 159, 164, 125 P.3d 515, 520 (2005).

In its exceptions, TLCC argues *Shokal v. Dunn*, 109 Idaho 330, 707 P.2d 441 (1985) requires that, when an agency other than the IDWR has primary jurisdiction over a particular area of law, IDWR should approve a permit with conditions that defer to the decision making authority of the other agency and simply require adherence to the laws administered by the other agency. TLCC attempts to bolster this argument by citing to the Statement of Purpose for House Bill 284 (2003), the legislative bill that amended Idaho Code § 42-202B(3) and codified the present definition of "local public interest." In its exceptions, TLCC argues that the Statement of Purpose for H.B. 284 states that "IDWR must exercise restraint and afford the appropriate deference to administrative agencies that have jurisdiction over a matter being considered." TLCC further argues that FERC has jurisdiction over determination of the local public interest when a hydropower water right application is filed. TLCC suggests that IDWR should defer to FERC on matters of the local public interest in this case, issue a permit approving the TLCC application, and condition the permit to require adherence to FERC's requirements.

TLCC's reading of *Shokal* is too broad and if adopted, would result in an impermissible, wholesale abdication of the director's responsibilities related to the local public interest. TLCC would have the state skip any evaluation of the local public interest when considering an application for a hydropower project in Idaho, leaving the evaluation and determination of the local public interest to a federal entity. It is an incredible argument that the Idaho legislature intended to abdicate to FERC – a federal entity – the state's authority to weigh the local public interest when considering a water right application. Furthermore, Idaho state courts have not held in *Shokal* or any other case that the legislature has deferred to or the law requires deference to FERC in matters of the local public interest when the director is considering a state water right application.[1] This suggestion of abdication is even more surprising in the present case because TLCC asked IDWR to consider its water right application prior to submitting a final application to FERC for a FERC license. IDWR has a responsibility to consider all the criteria contained in Idaho Code § 42-203A, including the local public interest. This is particularly true when no other jurisdiction has made any determination on the subject. Furthermore, the interpretation suggested by TLCC cannot be sustained in light of the

[1] TLCC cites the testimony of former IDWR director David Tuthill for authority that the director of IDWR should defer to FERC on issues of the local public interest. Even if the former director intended to abdicate this authority during his tenure, this director does not intend to do so. Such action would be contrary to law. Moreover, the director disagrees with the suggestion that conditions historically used on hydropower water rights were intended to defer to FERC as to local public interest issues.

Idaho's constitutional and statutory authorizations to the Department to regulate the use of water in Idaho for power purposes. Idaho Const. Art. XV, § 3; Idaho Code § 42-203B(1).

The present case is factually distinguishable from *Shokal*. In *Shokal*, the protestants raised a question about whether a proposal for water use would satisfy water quality standards. Water quality was one small aspect of the local public interest criterion. In contrast, TLCC is attempting to extend *Shokal* to eliminate all public interest review by the director. Nothing in *Shokal* can be read to suggest such a complete abdication of authority. This argument is erroneous because it would read the director's express statutory duty out of existence. Moreover, in this case, the Idaho agency vested with decision making authority related to fish and game, the Idaho Department of Fish and Game, participated as a full party to the contested case. In contrast to *Shokal*, where the Department of Environmental Quality did not participate in the hearing and questions about water quality were unanswered, IDWR has before it in this contested case the state agency with primacy over fish and game matters in Idaho. The arguments of TLCC are not applicable to the facts in this case setting.

II. After Consideration of All the Evidence, the Director Concludes the Application is Not in the Local Public Interest.

As discussed above, the definition of the phrase "local public interest" is found in Idaho Code § 42-202B(3):

> "Local public interest" is defined as the interests that the people in the area directly affected by a proposed water use have in the effects of such use on the public water resource.

The definition of local public interest was amended in 2003 to its present form. Prior to 2003, the definition of local public interest was broader, allowing a review of the "affairs of the local people." The prior language was interpreted to require an evaluation of a broad range of issues having a secondary relationship to the water.

Under the current definition of the local public interest, the focus of the director must be trained on the interests the local people affected by a proposed water use have "in the effects of such use **on the public water resource**." (Emphasis added) The narrowing of the definition in 2003 excluded direct consideration of secondary impacts of the new proposed use. Statement of Purpose, H.B. 284(2003)("The 'local public interest' ... should not be construed to require the Department to consider secondary effects of an activity simply because that activity happens to use water."). Secondary impacts, both negative and positive, may be economic. One might argue that most economic information should not be a part of the director's local public interest review because it is a secondary impact. However, even if the director accepts for the purposes of this proceeding TLCC's suggestion that economic information provided by TLCC at the hearing should be considered, it does not change the result. The director reviewed the economic information provided by TLCC at the hearing and concludes that the project is

not in the local public interest. The following discussion weighs the local public interest values considered by the director in making the determination that the proposed project is not in the local public interest.

A. The project would provide positive economic benefits.

TLCC provided evidence of the economic benefits of the project. First, the project would have a positive economic benefit for TLCC. As will be discussed further below, the primary purpose of the project is to create revenues for TLCC from generation of hydropower. These revenues are intended to finance the following: (1) the up-front costs of constructing the dam and hydroelectric facilities and, (2) future improvements to an aging irrigation delivery infrastructure including the piping of much or all of the open channels in the delivery system. When the improvements to the infrastructure are complete, TLCC will be able to divert water to its existing, distant reservoirs during periods of the non-irrigation, storage season when, historically, icing prevented diversion through its open channels and conduits. Piping open channels in the existing delivery system would also reduce delivery losses in both the irrigation and storage seasons. These improvements would increase TLCC's water supply, probably reducing the need for delivery of any storage water for irrigation from the proposed impoundment in the Bear River Narrows.

TLCC would also benefit from the storage and occasional delivery of up to 5,000 acre-feet of irrigation storage. An additional 5,000 acre-feet of irrigation storage would enhance irrigation supplies in the occasional year of water shortage. Delivery of storage water for irrigation would allow planting and growing crops requiring a full season irrigation supply. (Testimony of Clair Bosen) However, as discussed in section B.ii.a below, the storage water will be used infrequently, if at all, for irrigation.

The director reviewed pages 264-272 of Exhibit A9, which contain much of the financial information prepared for the proposed project.

The local community would receive a modest economic benefit from jobs created by the project. Employment will increase because of the construction of the proposed dam, powerhouse, and associated delivery systems. (Exhibit A9, Table 101). The total employment over a three year period of construction would be 60 FTE's. An FTE is defined as one full time person working for one year. (Id.) Over a three year period, this would equate to 20 full time jobs for three years. On page 271 of Exhibit A9, the following quotation is found:

> Because workforce requirements for the project would be relatively modest, and because at least some portion of those employed would likely commute from existing residential locations in the region rather than relocate temporarily from more distant points of origin, the project would not generate major population growth associated with the in-migration of construction-phase workers.

TLCC calls attention to 75 jobs that would be created for 10 years after TLCC begins the improvements to its existing system. (Exhibit A9, Table 106) However, these jobs could be strung out over decades because, as stated in finding of fact no. 47, "[g]iven the current projected revenues from the hydropower facility, the main canal could be piped in about 30 years." In addition, the referenced 75 jobs are really 75 FTE's, which means that they are the equivalent of 75 jobs for one year. Spreading the 75 FTE's over a ten year period would result in an average of 7.5 jobs for ten years. Spreading the 75 FTE's over a 30 year period would result in an average of 2.5 jobs for the 30 years.

Franklin County will derive significant property taxes from the property value of the dam and generation facility.

The record also shows that the economic impacts of the project are not all positive. Annual revenue from recreational use will be lost every year into the future after the dam is constructed. According to the TLCC's own projections (these were contested by the protestants as being too low), at a minimum, over $200,000 in annual revenues and 1.6 jobs will be permanently lost in Franklin County because some who now recreate in Franklin County would no longer recreate in the area. (Exhibit A9, Table 103). These benefits now accruing to Franklin County will be lost each and every year after dam construction, and the loss would increase with inflation and as population increases because there would be a corresponding increase in the number of people who would have used the resource.

B. Other considerations weigh against the approving the application.

i. Recreation and environmental considerations weigh against approving the application.

The hearing officer provided extensive analysis of recreation and environmental matters. The director adopts the hearing officer's analysis and recites a handful of the findings here to underscore their importance.

The Bear River Narrows (hereafter referred to as "Bear River Narrows" or "Oneida Narrows") is a scenic area with riverine-riparian vegetation along the river, rugged canyons, steep cliffs, mountainous terrain and wildlife. "The BLM has designated a portion of its land within the Oneida Narrows as an Area of Critical Environmental Concern, 'where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources and other natural systems or processes … .'" (preliminary order, finding of fact 61, *See* Exhibit P812, page 11).

The Bonneville Cutthroat Trout ("BCT") is the only native trout in the Bear River system. The preliminary order discussed at length the importance of the relationship between the spawning populations of BCT in Mink Creek and the fluvial (river) populations. The Bear River Narrows is important to any recovery efforts for the BCT.

The Bear River Narrows is the largest contiguous section of public land along the Bear River in Idaho. It is a popular recreation area for camping, fishing, swimming,

boating, and tubing. The Bear River Narrows provides recreation opportunities that are not found elsewhere on the Bear River due to numerous dams and dewatered reaches. Details of the recreational use were more fully stated in the preliminary order.

The Bear River Narrows below Oneida Dam is the most heavily fished portion of the Bear River in Idaho.

The riverine environment in the Bear River Narrows cannot be found in any other stretch of the Bear River in Idaho.

In the FERC relicensing of the Soda, Grace, and Oneida projects, PacifiCorp negotiated a settlement agreement ("2002 Agreement") with participants to the relicensing process, which included the state of Idaho. The 2002 Agreement was signed by Governor Dirk Kempthorne on behalf of the state of Idaho. The 2002 Agreement was the result of three years of negotiations. The 2002 Agreement balanced the benefits of dependable hydropower and its associated environmental consequences with the remaining undeveloped conditions on the river enhanced by mitigation required of PacifiCorp. Protecting and improving the Bear River Narrows was an integral part of the 2002 Agreement.

ii. The proposed project's dominant hydropower purpose and the lesser irrigation component weighs against approval of the application because of limited development opportunities for storage projects that maximize development of Idaho's water resources in the Bear River Basin .

a. The primary purpose of the project is hydropower, and the irrigation storage will be used infrequently, if at all.

The proposed dam and storage impoundment is a joint hydropower and irrigation project dominated by the hydropower component. The application seeks to appropriate 17,300 acre feet for hydropower head and 5,000 acre-feet for irrigation storage.[2] If the irrigation storage of 5,000 acre-feet is released to irrigate crops, over 70% of the water stored after the irrigation release (12,300 acre-feet) will be permanently retained behind the dam to create hydraulic head for hydropower generation. Less than 30% of the water stored behind the proposed dam (5,000 acre-feet) will be dedicated to irrigation storage.

[2] Alternatively, there is information in the record that the impoundment of water behind the dam would be limited to 12,674 acre-feet. As stated in the preliminary order, "the reservoir capacity described in the [FERC study documents] (12,674 acre feet) is much smaller than the 17,300 acre-feet reservoir described in the application. The water right application has not been reduced to match the reservoir capacity listed in the [FERC study documents]." Although the agency must consider the application based on the quantity sought for appropriate by the application (17,300 acre-feet), if the 5,000 acre-feet were vacated from an assumed storage of 12,674 acre-feet, approximately 60% of the water stored after the irrigation storage release (7,674 acre-feet) will be permanently retained behind the dam to create hydraulic head for hydropower generation.

As further proof of the hydropower dominancy in the project, the irrigation storage is predicted to be only fully used once every five years, and partially once every three years. And when there is a need for use of the irrigation storage, "TLCC will use the irrigation storage water only in severe dry weather conditions when the value of irrigation water exceeds the value of water held in the reservoir to maintain hydropower head." (Quoted from the preliminary order, *See* Exhibit A9, page 39). In other words, TLCC will evaluate whether it is more profitable to deliver the water for irrigation or leave the water designated for irrigation storage in the reservoir to create additional hydraulic head for generation of electricity. This was confirmed in testimony of David Schiess during an exchange with the Greater Yellowstone Coalition attorney Brett Sommermeyer:

> Sommermeyer: . . . Let's say you have a 5,000 acre-foot drawdown. How will that affect the power revenues?
> Shiess: Less.
> Sommermeyer: It will affect it less?
> Shiess: You will get less power output if you draw down.
> Sommermeyer: And at that number, will that make the project unfeasible as far as getting your money out of it?
> Shiess: Twin Lakes would be able to make the decision whether the power production is more valuable or water, and that would depend on the condition of – the time of year, the condition of the reservoir, condition of – there's a lot that would go into making that decision.

Furthermore, another exchange between Shiess and Sommermeyer at the hearing regarding TLCC's power generation assumptions demonstrates the dominance of the production of hydropower and the secondary importance of the irrigation storage. Referring to Applicant's Exhibit no. 54:

> Sommermeyer: Now that number, the 50,676 [MW-hrs] power output, that's dependent on a number of things including you maintain a constant reservoir elevation.
>
> Shiess: What do you mean by constant?
>
> Sommermeyer: Let's turn to – a – the draft license agreement – application – excuse me, Exhibit 9, page 9. If you'll look in the middle of the page, it states that hydraulic head for power production is determined by the water level in the reservoir, and then it states, even further, the reservoir will be operated to meet a constant elevation of 4,734 feet above sea level at all times including low water years. From that, I take it that the one basis for – the big basis for the 50,000 dollar, 50,000 figure in Exhibit 54 is maintaining the constant reservoir elevation.
>
> Shiess: As high as we are permitted to be, which would maximize the head, which would make your power output the highest.

Sommermeyer: So that 50,000 number assumes that there's going to be a constant reservoir elevation?

Shiess: Under these calculations, yes, that's the assumption we used to derive these.

Another exchange on this subject occurred later in Sommermeyer's examination of Shiess:

Sommermeyer: Let's go to the DLA again one more time, page 39. That's the section *Storage and Withdrawal from New Reservoir*. At the bottom of the first paragraph, it states: Twin Lakes estimates that partial draw down might occur one out of every three years and full draw down of 5,000 acre-feet might occur one out of every five years. So those are contingencies that could occur and looks like you accounted for them in drawdown years that would affect power production, right?

Shiess: Uh, I don't know.

Despite an assertion that the irrigation water will be used from the reservoir sporadically, resulting in a reduction of hydraulic head for hydropower generation, these sporadic releases and resulting draw downs appear not to be accounted for in the estimates of power production nor are they accounted for in the revenue estimates. At best, David Shiess didn't have any knowledge about whether irrigation storage draw downs were included in the power production estimate. The logical conclusion is that the draw downs from irrigation storage deliveries would be so infrequent that they were not worthy of inclusion in the power production estimates.

b. <u>The proposed site is not conducive to dual use of storage water and there are other ways to general hydropower at this site without a dam.</u>

Most on-stream dams are constructed in a constrictive gap in the stream corridor suitable for locating an obstructing dam across the channel. Many of the reservoirs created by these dams inundate the upstream channel where the areas surrounding the channel are much less constrictive than the location of the dam. These reservoirs hold a significant and disproportionately larger portion of the water stored in the reservoir in the upper elevations of the storage space. As a result, when the reservoir is full, a large quantity of water stored can be released from the reservoir without significantly reducing the surface elevation of the water in the reservoir. These reservoirs are conducive to joint uses of storage water: large quantities of water can be released from storage for irrigation from the upper elevations of reservoir while reserving hydraulic head in the lower reservoir levels for hydropower generation with proportionately small quantities of storage water remaining in the reservoir.

In contrast, the Bear River Narrows is, as the name connotes, a confined canyon with steep walls and little open area for water to occupy, resulting in a proportionately smaller volume of storage in the upper elevations of storage. David Shiess testified about this subject:

> Some reservoirs have a big flat plain that when you get up so high it takes a lot of water to fill them – but with this reservoir, the walls are relatively steep and there is just not a lot of storage no matter how high you get. The storage is not – it's like filling up a bowl. It's not going into a big flood plain that would take a lot of water.

In the Bear River Narrows, to release any significant quantity of storage for irrigation requires a sizeable reduction in the elevation of water stored in the reservoir. Withdrawal of the 5,000 acre-feet of irrigation storage would result in a 16-foot drop in reservoir levels (Preliminary Order Finding of Fact 94, Exhibit A9, page 2). This withdrawal of storage significantly reduces the hydraulic head necessary to drive the hydroelectric turbines, reduces the power production, and could reduce the power production efficiency of the turbines. As a result, there is incentive to hold water elevations in the reservoir high for hydropower production, reducing the quantity of water available for irrigation.

The Bear River Narrows is a good site for hydroelectric generation because of the steep stream gradient that creates hydraulic head for power generation in a relatively short distance. Whether the head is created by a dam or some other method, power can be produced because of the hydraulic head and the available flow. There are other methods of producing hydropower at this site without the dam and impoundment of water, although these methods would not provide storage for irrigation (Testimony of Nick Josten).

The Bear River Narrows is also a reasonable storage site for uses other than hydropower production if the storage is not reserved for hydropower production. However, the Bear River Narrows is a marginal site for a joint irrigation storage/hydropower facility because of the tension between the use of water for irrigation and the loss of hydraulic head for hydropower production.

c. Idaho must maximize its storage development opportunities because of the Bear River Compact.

The Bear River Compact grants to Idaho the first 125,000 acre-feet of additional depletion of water (additional development) from the Bear River Basin in the Lower Division. After development of the additional depletion, Idaho will be foreclosed from additional development until Utah develops an additional 275,000 acre feet.

The opportunities for Idaho to develop its full allocation using only ground water or natural flow are limited. Because of the relationship of ground water to Bear River flows, IDWR has approved a ground water management plan requiring that an

appropriation of ground water in the Bear River Basin where the river is located in Idaho must be accompanied by a mitigation plan. Appropriations from the mainstem of the Bear River and tributaries located in Idaho are similarly restricted. IDWR presently processes applications for new water rights in the Malad River Basin. The Malad River is tributary to the Bear River in Utah. Water development in the Malad River Basin will account for some additional depletions. Some additional depletions may result from growing more consumptive crops. None of these developments will approach 125,000 acre feet of depletion. Any other depletions for future economic growth will require water storage and consumptive beneficial use of the storage water.

Sites for storing water in Idaho for future beneficial use have been identified in Policy 1L of the Idaho State Water Plan, titled *Surface Water Supply Enhancement*. One of the sites is the Caribou Dam site on the Bear River, located just upstream from Soda Springs. This particular site would store 48,000 acre-feet, and is topographically similar to reservoir sites that would hold a disproportionately large storage volume in the upper elevations of the impoundment.

There are already three existing hydropower dams and reservoirs on the Bear River in Idaho solely dedicated to hydropower production. The names of the power facilities are: Soda, Grace, and Oneida. Discharges from Bear Lake to the Bear River also produce hydropower. Because of these existing hydropower dams and impoundments, additional suitable sites for on-stream future storage development for uses other than hydropower on the Bear River are not plentiful.

While hydropower water rights and the associated power generated have great value in the state of Idaho, the state constitution and associated statutes recognize that hydropower development should not restrict or limit future water development in the state. IDWR subordinates all new hydropower water rights and the associated hydropower use authorized by the hydropower rights to future non-hydropower development.

Idaho must be cautious when approving storage projects in the Bear River Basin. Storage projects constructed at available storage sites in the Bear River Basin must maximize the multiple, expected future beneficial uses.

Granting a permit to TLCC for its proposed dam and storage that is dominated by a hydropower use would limit the ability of the state to utilize the Bear River Narrows as a future storage site for uses other than hydropower. IDWR and the director must maximize opportunities to develop the additional 125,000 acre feet for other uses prior to permanently dedicating additional storage sites on the Bear River for hydropower purposes.

C. Based on the Weight of the Evidence, TLCC's Proposed Project is not in the Local Public Interest

In summary, a number of factors weigh in favor of this project. The immediate economic benefits identified by TLCC at the hearing weigh in favor of the application. There will be modest increases in employment during construction of the dam and reconstruction of delivery infrastructure. These benefits are tempered by the permanent reduction of recreationists who would no longer visit Franklin County if the proposed project is constructed, the permanent loss of revenue from these recreationists, and the permanent loss of jobs related to recreation.

The director recognizes that there is a public interest value in improving the irrigation delivery infrastructure of TLCC. The revenues derived from the proposed hydroelectric facilities would enhance the positive effects of the TLCC's use of the public water resource and could increase TLCC's water supply.

In addition, the director recognizes that there is direct public interest value in storing additional water for irrigation and supplying the irrigation water in times of shortage. However, in this case, the public interest value is diminished by the proportionately small storage volume for irrigation compared to hydropower storage, the projected sporadic delivery of water for irrigation, and the proposed TLCC economic determination of whether the irrigation storage water will be delivered or whether the storage should be retained in the reservoir for hydraulic head to generate hydropower.

Nonetheless, while there is direct public interest value in storing water for production of hydropower, hydropower production should not replace or limit the use of water for other beneficial uses. The public interest value of producing hydropower is diminished by the dominant nature of the hydropower component of the proposal when compared to the irrigation component. This dominance conflicts with state policies governing the status of hydropower in relationship to other uses of water in the state.

As the hearing officer found, a number of local public interest factors weigh against this project. Some of these are:

- Adherence to a state balancing of hydropower use and other beneficial uses on the Bear River in the 2002 Agreement for hydropower licensing of the PacifiCorp power plants.
- Preservation of a unique canyon environment for recreational activities.
- Preservation of the opportunity for continued enhancement of Bonneville Cutthroat Trout recoveries. It is remarkable that, given all the fisheries studies conducted by TLCC, that there was no technical study of the benefits, if any, of bypassing 10 cfs from TLCC's Mink Creek diversion for fisheries mitigation. Witnesses acknowledged that 10 cfs was an arbitrary flow rate chosen by TLCC.
- Preservation of the Bear River Narrows site for future storage to address larger beneficial use needs.

Local support for this project is mixed. A straw, advisory vote of Franklin County voters sponsored by the Franklin County Commission in 2006 resulted in 51% of residents who voted opposing the project and 49% of residents who voted favoring the project. (Exhibit P30 and Testimony of Clair Bosen). On page 272 of Exhibit A9, one of TLCC's exhibits, is the following statement:

> [T]he relatively high levels of familiarity with and recreational use of the Oneida Narrows area reported by residents of Franklin County suggest that project implementation would cause considerable disturbance to existing use patterns among residents of that more localized population. Approval and development of the project would undoubtedly generate dissatisfaction among the substantial segment of the local population that is actively engaged in uses of, and strongly attached to, existing river environment conditions and recreation opportunities in the project area. Although substantial numbers of local residents also express agreement that provision of additional water supplies to area irrigators should be prioritized and that creation of additional hydropower capacity is important, those sentiments are less widespread than those prioritizing protection and preservation of existing resource conditions.
>
> In light of public attitudes and concerns regarding environmental conditions in the project area, it is not surprising that a majority of Franklin County residents express opposition to the project proposal.

TLCC questions whether the hearing officer "gave appropriate consideration to Twin Lakes and the evidence it presented at hearing." TLCC further argues that "the hearing officer failed to weigh the evidence presented by Twin Lakes, as demonstrated by the lack of discussion of Twin Lakes' evidence in the Preliminary Order." Finally, TLCC argues the hearing officer "failed to consider and appropriately weigh evidence presented by Twin Lakes relative to the local public interest."

These statements are incorrect. Twin Lakes' evidence formed the basis for many of the findings of fact in the preliminary order relating to the local public interest. If just the findings of fact of the preliminary relating to the local public interest items are considered (preliminary order findings of fact 59 thru 124), evidence presented by TLCC is cited over 50 times in the preliminary order.

On balance, the director determines that the benefits from hydropower generation and a relatively small addition of 5,000 acre feet of storage for occasional irrigation use do not justify the permanent inundation of the Bear River Narrows, given the unique recreational and wildlife values of the Bear River Narrows and the possibility that the Bear River Narrows may be needed in the future as a storage site for critical beneficial

consumptive or other depletionary uses.[3] Hydropower can be produced in other ways without inundation of the Bear River Narrows. An alternative hydropower proposal might have to be reduced in size and scope to address environmental concerns.

Mitigation

TLCC developed an extensive argument in its exceptions about how its agreement with the Bear River Water Users Association (BRWUA) will fully mitigate for evaporation and other losses. The following is a one line summary of the argument: TLCC will provide 1.4 cfs year round to downstream water users – IDWR, through Water District 11, must figure out how to measure, account for, and deliver the 1.4 cfs. There are two problems with this general assertion:

1. The delivery of 1.4 cfs of natural flow from Mink Creek for mitigation is a change in the nature of use of water under TLCC's water rights, and, without a reduction in acres irrigated, is an enlargement of use.
2. TLCC expects the water district, through its normal water administration, to determine how to administer the complex delivery of the mitigation water.

I. Enlargement of Use

TLCC proposes to release 1.4 cfs continuous from Mink Creek to mitigate for evaporation from the reservoir. Water right(s) held by TLCC presently authorize diversion of natural flow water from Mink Creek for irrigation and diversion to irrigation storage. The use of natural flow water from Mink Creek for mitigation is a change in the nature of use of the natural flow portion of TLCC's water right(s) that will require a transfer of the water right(s).

The director may consider consumptive use as a factor in determining whether a change of a water right results in an enlargement of use. TLCC proposes a change in nature of use of 1.4 cfs to compensate for consumptive evaporation, but does not propose a corresponding reduction in the number of acres irrigated to reduce natural flow irrigation consumption. A reasonable base value for determining the number of "dry up" acres would be the volume of water needed by TLCC patrons to grow a crop during the irrigation season. It takes approximately two acre feet per acre in the TLCC area to grow a crop. (Testimony of Clair Bosen) A flow rate of 1.4 cfs delivered continuously

[3] It may seem that there is a conflict in this order's discussion about preserving the recreational and environmental values associated with the canyon and the discussion about the site being reserved for a future project with broader beneficial uses. A time may come when the Director concludes that the benefits of a different project outweigh the preservation of the recreational and environmental values associated with the canyon. However, because this project as currently proposed does not maximize the beneficial uses of the water, the proposed project does not overcome the significant recreational and environmental values associated with the canyon and the application must be denied.

over the irrigation season of 214 days (IDWR standards for irrigation season in area of the proposed project) would result in a total volume of water of 594 acre-feet (1.4 cfs x 1.9835 acre-feet /day/1cfs x 214 days). At a rate of 2.0 acre-feet per acre, TLCC would need to "dry up" 297 acres to deliver the 1.4 cfs continuous during the irrigation season to compensate for evaporative losses during the season when most of the evaporation will occur.

TLCC has not proposed any reduction in the number of acres irrigated to offset the consumption resulting from evaporation. Rather, TLCC argues that it could simply increase the number of acres authorized to be irrigated from the storage water in its existing reservoirs because "[t]he transfer of the right to the use of stored water for irrigation purposes shall not constitute an enlargement in use of the original right even though more acres may be irrigated if no other water rights are injured thereby." (Idaho Code § 42-222, Exchange between Clair Bosen, Rob Harris, and Peter Anderson during Clair Bosen testimony) TLCC misinterprets the statute. The mitigation water of 1.4 cfs proposed to be delivered from Mink Creek to the Bear River is natural flow water, not storage water. During the irrigation season, TLCC would deliver natural flow for mitigation, and reduce the amount of natural flow water delivered for irrigation or for storage. If the same number of acres are authorized to be irrigated with natural flow, natural flow water will be consumed by the crops, additional water will be consumed by evaporation, and 1.4 cfs will be continuously released for mitigation, resulting in increased consumption of water; an enlargement of use.

The director recognizes the complexity created by the authorization of storage for irrigation in the TLCC water right(s). This complexity should not act as a screen for enlargement of use of the natural flow. To mitigate without enlargement, TLCC would have needed to reduce its irrigated acreage to account for the change in nature of use in its natural flow water rights.

II. Complex Delivery of Mitigation Water

Delivery of water for mitigation requires the following of the watermaster: (1) Delivering 10 cfs past the TLCC diversion structure on Mink Creek; (2) Ensuring that no other water right holders divert any portion of the 10 cfs; (3) Ensuring that the 10 cfs released past TLCC Mink Creek diversion does not diminish below 1.4 cfs before reaching the mouth of Mink Creek; (4) Determining that there is at least 1.4 cfs of released water mixed with naturally occurring flows in Mink Creek in the lower reaches of Mink Creek; and (5) Releasing storage water from the proposed dam and reservoir to backfill any deficiencies in the 1.4 cfs mitigation quantity.

IDWR's Water Appropriation Rules require that an applicant shall provide information concerning "any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights." (IDAPA 37.03.08.40.05.c.iii). The proposed mitigation plan is deficient in the details of how the proposed mitigation will be monitored and accomplished. The hearing officer identified these deficiencies in concluding that the mitigation plan was deficient. To address these

deficiencies, TLCC needed to describe the location and design of bypass structures, measuring devices, access to lands for measurement and regulation, remote reporting and control capabilities, other equipment needs, and how the water master could read and adjust the components of mitigation in real time. The descriptions of the above items did not need to be in final, blue print form, but needed to be of sufficient detail that IDWR could assess whether the mitigation proposal would be administrable.

Eminent Domain

Holders of a FERC license have the power of eminent domain. PacifiCorp argues that the eminent domain provisions do not apply to lands that are part of the project of another FERC license holder. The legal issue of a right to eminent domain is one that would have to be determined by FERC, the applicant, and the existing holder of a FERC license.

Miscellaneous Matters

PacifiCorp argues that TLCC did not demonstrate it had sufficient financial resources. According to *Shokal v. Dunn*, 109 Idaho 330, 707 P.2d 441 (1985), the applicant needs to demonstrate that it is reasonably probable that he can acquire financing. TLCC satisfied the standard of proof to show it has sufficient financial resources.

Regarding other assertions of factual errors, the following are changes or responses to each:

Conclusion of Law, Paragraph 2: This paragraph contains a typing error. "Article IX" will be changed to "Article XI."

Finding of Fact No. 2: The FERC documents included in the administrative record, including those describing TLCC's mitigation proposals, were primarily associated with TLCC's draft license application. The word "draft" will be added to the finding.

Finding of Fact No. 4: The testimonial evidence about the location of the siphon relative to the Bear River was vague. The paragraph could be changed to state that the siphon "transports the water across the Bear River."

Finding of Fact No. 25: the finding will be amended to read: "The following studies were conducted and submitted to FERC as part of the DLA."

Finding of Fact No. 26: The dollar amount listed in the first sentence should be $24,565,750.

Finding of Fact No. 35: This finding of fact is correct as drafted. No changes are warranted. TLCC's FERC documents state that TLCC plans on financing the project through the IWRB bonding program.

Finding of Fact No. 36: See eminent domain discussion above.

Finding of Fact No. 113: The administrative record does not specifically delineate which portion of the Oneida Narrows canyon road is public is which portion is private. Ownership of the road is not critical to the outcome of this case. It is sufficient to recognize that the public has access to the canyon road. This finding will be amended to change "public road" to "road."

Finding of Fact No. 121: This finding of fact is consistent with the evidence in the administrative record. No evidence was presented regarding the completion of the BCT restoration plan or the telemetry studies.

Finding of Fact No. 122: This finding of fact should be revised slightly to match the testimony offered by Mr. Stenberg. It should say: In the first four years of the fund, PacifiCorp granted approximately $400,000 for habitat improvements. These funds were matched with $1.2 million in federal funds. (*See* Testimony of Mark Stenberg)

Finding of Fact No. 123: Same issue as Finding of Fact No. 113. The same correction will be made, changing "public road" to "road."

Evaluation Criteria / Analysis No. 19: This paragraph is a quotation of the Department's Water Appropriation Rules. No change is warranted.

Evaluation Criteria / Analysis No. 20: This paragraph is also a quotation of the Department's Water Appropriation Rules. No change is warranted.

Evaluation Criteria / Analysis No. 22: This paragraph is the hearing officer's analysis of the facts under the Department's rules. No change is warranted.

Evaluation Criteria / Analysis No. 23: See eminent domain discussion above.

Evaluation Criteria / Analysis No. 28: This paragraph is the hearing officer's analysis of the facts under the Department's rules. No change is warranted.

Evaluation Criteria / Analysis No. 37: This paragraph contains a typing error. The phrase "such and PacifiCorp" will be changed to "such as PacifiCorp."

A citation was omitted from Finding of Fact 91. The sentence reading "Dr. Hardy testified . . . 10 cfs." should be followed by a citation to the "Testimony of Dr. Hardy."

Based on the above analysis, the director finds, concludes, and orders as follows:

FINDINGS OF FACT

1. Application for Permit 13-7697 proposes the following:

Point of Diversion: T14S, R40E, Sec. 16, SENE and SWNE (location of dam)

Point of Re-diversion: T14S, R40E, Sec. 21, NENE (Bear River pumping station)

Beneficial Uses:

Storage for Power head	17,300 acre-feet	1/1 to 12/31
Irrigation Storage	5,000 acre-feet	1/1 to 12/31
Power	1,400 cfs	1/1 to 12/31
Irrigation from Storage	5,000 acre-feet	4/1 to 10/31

Total Quantity Appropriated: 17,300 acre-feet and 1,400 cfs

Place of Use: "18,958 acres of lands already served by [TLCC]"

2. The permit application did not include a discrete mitigation plan. Instead, the mitigation elements proposed by TLCC to offset impacts to other water rights and local public interest resources are set forth in various locations in TLCC's Federal Energy Regulatory Commission ("FERC") draft license application documents. (Exhibit A9, pages 178-181)

3. TLCC is a corporation registered with the state of Idaho and delivers irrigation water to over 200 shareholders. (Testimony of Clair Bosen) Clair Bosen has been the president of TLCC since 2005. (Id.) TLCC's delivery system includes 67 miles of open canal and three off-stream reservoirs (Condi, Winder, and Twin Lakes). (Id.)

4. The TLCC main canal diverts water from Mink Creek and carries the water 6.5 miles to a large siphon, which transports the water across the Bear River and back up to a hillside on the west side of the river. (Testimony of Clair Bosen) After passing through the siphon, water is transported past or through the three off-stream reservoirs and then continues on through TLCC's service area. (Id.) TLCC is able to fill or empty its three reservoirs from the main canal. (Id.)

5. TLCC has a water right from Mink Creek (13-901), which authorizes the year-round diversion of 300 cfs to be used for irrigation purposes or irrigation storage in its reservoirs. Water right 13-901 carries a priority date of April 1, 1901 and authorizes the irrigation of 16,000 acres within the TLCC service area.

6. TLCC's irrigation supply also includes other water rights from Mink Creek and Deep Creek (13-896B, 13-946B, 13-2289, 13-2296, and 13-7481). These water rights may authorize the irrigation of acres above and beyond the 16,000 acres described in water right 13-901. The hearing officer did not research the details of these other water rights as part of this contested case.

7. TLCC generally does not have a sufficient water supply to irrigate all of the acres covered by company shares. (Testimony of Clair Bosen) TLCC is often unable to fill its three reservoirs to capacity because of flow limitations in the main canal during the winter months. (Id.)

8. The main canal upstream of the siphon freezes during the winter, making it impossible to convey Mink Creek water through the canal to fill the three off-stream reservoirs. (Testimony of Clair Bosen) The canal and siphon freeze in 19 out of 20 years, usually by late December, and do not open up again until March. (Id.) Therefore, the existing TLCC reservoirs are generally filled during the late fall and early spring. (Id.)

9. Mink Creek, a 13.1-mile-long tributary of the Bear River, is fully allocated for irrigation use during most of the summer. (Exhibit A9, page 157) TLCC's diversion dam on Mink Creek is located approximately 4.2 miles upstream from Mink Creek's confluence with the Bear River. (Id. at page 35) At times, a portion of this section of Mink Creek, between the TLCC diversion dam and the confluence with the Bear River, can be a losing reach. (Exhibit A14, pages 2-3)

10. A portion of lower Mink Creek, located somewhere between the TLCC diversion dam and the Bear River, is periodically dewatered during the summer, causing upper Mink Creek to become disconnected from the Bear River. (Exhibit A9, page 157; Exhibit P712, pages 81 and 83) During times of disconnection, there is still water flowing in Mink Creek at its confluence with the Bear River. (Exhibit A9, page 35; Testimony of David Teuscher) No evidence was presented regarding the size or the exact location of the dewatered section.

11. The Department's water right database includes two water rights on Mink Creek downstream of the TLCC diversion. Water right 13-4225, in the name of W. Hugh Hansen, describes a priority date of 1922, a diversion rate of 0.24 cfs, and the irrigation of 12 acres. (Exhibit P444) Water right 13-4217, in the name of Barbara and Gordon B. Jensen, describes a priority date of 1925, a diversion rate of 0.18 cfs, and the irrigation of 7 acres. (Exhibit P445) These two rights are statutory claims, filed pursuant to Idaho Code § 42-243, meaning they have not been confirmed by IDWR or an adjudication court. TLCC has never been required to release water past its Mink Creek diversion to satisfy downstream water rights. (Testimony of Clair Bosen)

12. Mink Creek flow data provided by TLCC at the hearing is either dated (over 60 years old) or non-continuous. (Exhibit A9, page 35; Exhibit A13, page 7; Exhibit A14, pages 1 and 3) Even though more-recent, continuous flow data for Mink Creek would have been useful in this contested case, particularly for evaluating TLCC's mitigation proposals, TLCC did not continuously monitor the flows in Mink Creek while conducting its FERC studies. (See Exhibit P701, pages 24-25 (doc. pages 16-17); Exhibit P707, pages 3-4)

13. "The Bear River drains an area of 6,900 square miles in southwestern Wyoming, northern Utah and southeastern Idaho" and terminates at the Great Salt Lake.

(Exhibit A1, page O-8) "Today, on an average, nearly a million acre-feet of water still flow annually into the Great Salt Lake from the Bear River." (Id.)

14. The states of Utah, Wyoming, and Idaho have adopted an interstate compact for the Bear River and its tributaries. (Exhibit A2) The current Bear River Compact ("Compact") was ratified by the state of Idaho in 1979. (Idaho Code, Title 42, Chapter 34) The compact was approved by Congress in 1980. "The [Compact] determines the rights and obligations of the signatory states of Idaho, Utah and Wyoming with respect to the waters of the Bear River." (Exhibit A1, page O-1)

15. The Compact divides the Bear River into three regions or divisions. (Exhibit A1, page O-9) The proposed reservoir is located within the "Lower Division," which includes "the portion of the Bear River between Stewart Dam and [the] Great Salt Lake, including Bear Lake and its tributary drainage." (Exhibit A2, Article II.5)

16. The Bear River in the Lower Division is a highly regulated system, with four on-stream hydropower reservoirs (Soda, Grace, Oneida, and Cutler), storage deliveries from Bear Lake, and multiple irrigation diversions. (Exhibit PC204, pages 2-4; Testimony of Connely Baldwin) Connely Baldwin testified at the hearing as an expert on water accounting and water delivery within the Lower Division of the Bear River.

17. A computerized accounting program is used to determine how much natural flow and/or storage water each canal company diverts on any given day in the Lower Division. (Testimony of Connely Baldwin) The accounting program incorporates stream flow data from gages operated by PacifiCorp and the USGS. (Id.) Water rights in the Lower Division have been regulated without regard to the Idaho-Utah state line since 2004. (Testimony of Connely Baldwin and Pete Peterson) The current water accounting program could be used to track water stored in the proposed reservoir and to account for the daily diversion at the proposed river pumping station.

18. "BRWUA's membership is comprised of 4 major irrigation companies, Last Chance Canal Company and Cub River Irrigation Company in Idaho and Bear River Canal Company and West Cache Canal Company in Utah, together with approximately 81 irrigation pumpers in Utah and 22 irrigation pumpers in Idaho." (BRWUA Agreement, Recital J) BRWUA includes the majority of water users that divert from the mainstem of the Bear River in the Lower Division. (Testimony of Connely Baldwin)

19. Prior to the construction of the proposed hydropower project, TLCC must obtain a license from FERC. (Testimony of Clair Bosen) In 2004, TLCC hired Nick Josten, who does business under the company name GeoSense, to guide TLCC through the FERC application process. (Testimony of Nick Josten) Mr. Josten testified at the hearing as an expert on the FERC application process and hydropower permitting.

20. TLCC filed an application for preliminary permit with FERC in 2004. (Exhibit A10, page 1) A number of groups filed motions to intervene in the FERC process, including: PacifiCorp, Trout Unlimited, Franklin County Fish & Game Association, the

state of Idaho, Idaho Rivers United, and GYC. (Id.) Many other protests were filed with FERC stating a concern that the project would cause a loss of recreation, loss of wildlife habitat, and would affect PacifiCorp's hydropower license. (Id. at page 3)

21. FERC offers protestants (intervenors) an opportunity to provide comments at various stages in the license application process. (Testimony of Nick Josten) Protestants provided comments to TLCC and FERC regarding the application, the scope of the studies conducted by TLCC, the study reports, and the Draft License Application ("DLA"). (Exhibit A9, Appendix A)

22. FERC issued a Preliminary Permit to TLCC on February 2, 2005. (Exhibit A10, page 1) A preliminary permit from FERC gives a permit holder the first right to a FERC license at the proposed site. (Id. at page 6) It provides an applicant time to conduct studies and collect information necessary to determine the feasibility of the project. (Id.)

23. The 2005 Preliminary Permit recognized that the proposed project "could significantly conflict and interfere with the license requirements and approved Settlement Agreement (SA) for [PacifiCorp's] Bear River Project" and "could eliminate a river reach used for whitewater recreation and affect the restoration and enhancement of [Bonneville Cutthroat Trout ("BCT")] habitat, which are measures contained in PacifiCorp's license." (Exhibit A10, pages 4-5)

24. Despite the potential impact to PacifiCorp's existing license and settlement agreement, FERC issued the 2005 Preliminary Permit on the basis that the final TLCC proposal may not result in an "impermissible alteration" of the PacifiCorp license. (Exhibit A10, page 5) This issue, and others raised by the FERC protestants, will be considered by FERC in its review of the final license application. (Id.)

25. Within the FERC process, it was determined that TLCC needed to conduct 24 studies to "assess the existing condition of resources that could potentially be affected by the project." (Exhibit A9, page ES-1) TLCC hired various consultants to complete the studies, which cost TLCC over $2 million to complete. (Testimony of Nick Josten and Clair Bosen) The following studies were conducted and submitted to FERC as part of the DLA:

Study No.	Exhibit No.	Title or Subject	Author
1 and 2	A12	Fisheries Habitat and Aquatic Ecology	INSE/Hardy
3	A13	Bear River Bedload	INSE/Hardy
4	A14	Mink Creek	INSE/Hardy
5	A15	Oneida Narrows Project Water Quality Report	Stevens/Milleson
6	A16	Bear River Narrows Visual Resources Study	Ecosystem Sciences
7	A17	Recreation Use and Preference Study	Institute for Outdoor Recreation and Tourism

8	A18	Socio-Economic Studies for the Bear River Narrows Hydroelectric Project	Krannich et al.
9	A19	Cultural Resources	S.J. Miller
10	A20	Land Cover Study Report	Ecosystem Sciences
10-3 thru 10-10B	A21 thru A29	Use and habitat assessment studies for various animal species	Ecosystem Sciences
10-11	A30	Special Status Plant and Noxious Weed Survey Report	Ecosystem Sciences
10-12	A31	Report on Bear River Flow Synthesis	GeoSense
10-13	A32	Reservoir Capacity and Evaporative Loss	Schiess & Associates
10-14	A33	Fish Entrainment / Turbine-Induced Mortality	GeoSense
10-17	A34	Tailwater Elevation Study	Schiess & Associates
10-18	A35	Access Road Feasibility Study	Schiess & Associates

26. TLCC filed its DLA with FERC in September 2011. (Exhibit A9) At that time, draft final reports for studies 1-5 had been completed and were awaiting comments from the FERC protestants. (Id. at page ES-1) Final reports had been prepared for studies 6 thru 10-18. (Id.) Final reports for studies 1-5 were completed prior to the hearing and were included in the administrative record. (Exhibits A12-A15)

27. Schiess & Associates was retained by TLCC in 2003 to prepare a preliminary design of the proposed dam and a feasibility analysis for the project. (Testimony of David Schiess) David Schiess, a principal engineer at Schiess & Associates, testified at the hearing as an expert in civil engineering, water resources engineering, and dam design. (Exhibit A8)

28. The feasibility analysis prepared by Schiess & Associates has been revised a number of times to incorporate up-to-date information, with the most recent version prepared in February 2012 ("2012 Estimate"). (Exhibits A54 and A55) The dates shown on Exhibits A54 and A55 are in error and should be February 2012. (Testimony of David Schiess)

29. The 2012 Estimate indicates the storage dam and hydropower facility could be constructed for $24,565,750. (Exhibit A54) This amount includes an $800,000 "contingency" component, for unforeseen construction expenses, and $1,000,000 for mitigation measures and recreational facilities. (Exhibit A54; Testimony of David Schiess) A witness for GYC argued that the final cost of TLCC's mitigation measures and recreational facilities may ultimately be higher than projected. (Testimony of Anthony Jones) Until FERC issues TLCC a license, however, the actual scope of mitigation required of TLCC is unknown.

30. The 2012 Estimate also includes a section describing the anticipated annual operations and maintenance ("O&M") expenses for the project. (Exhibit A54) One of the items in this section, property taxes, is incorrect. (Testimony of Clair Bosen) The initial tax

rate will be based on the final cost of construction for the project and will likely be in the range of $250,000, bringing the total O&M cost to $550,000 per year. (Id.) As a large canal company, TLCC already has a full-time staff and maintenance equipment to maintain its existing reservoirs and facilities, which will result in an O&M cost savings to the canal. (Id.)

31. The 2012 Estimate also lists the anticipated revenue from the hydropower facility. (Exhibit A54) Schiess & Associates estimates that the hydropower plant will produce 50,676 MWh per year. (Id.) This estimate is the result of: (a) a flow duration analysis completed by Schiess & Associates using historical flow data (1958 - 2009) for the Bear River at the project site (Exhibit A9, pages 9-11), and (b) an assumption that the electrical generators will be operated at maximum hydraulic head. The flow duration analysis ensures that the projected flows (and projected power generation values) are not skewed by infrequent flood events. (Id.)

32. In order to calculate the projected annual revenue from power production, Schiess & Associates used the then-current avoided cost rate under PURPA (Public Utilities Resource Policy Act). (Testimony of David Schiess) Given the project specifications, the proposed project will likely qualify for PURPA power sales rates.

33. Assuming an annual power production of 50,676 MWh per year and a power sales rate of $78.50 per MWh, the expected annual power revenue for the project would be $3,978,066.00. (Exhibit A54) The revenue estimate does not incorporate the loss in hydropower head and power production caused by use of the 5,000 acre-feet of irrigation storage. (Testimony of David Schiess)

34. When the annual cost to operate the project, including the loan payment and an adjusted tax estimate of $250,000 (described above), is compared to the projected annual revenue, TLCC's proposed project could generate an annual profit of about $1.4 million. (Exhibit A54)

35. TLCC plans on financing the project through a bond sale, facilitated by the Idaho Water Resource Board ("IWRB"). (Exhibit A9, page 17) An application for bonding through IWRB cannot be filed until TLCC has obtained a FERC license and a power purchase agreement. (Testimony of Clair Bosen) If bonds are issued through IWRB, they will be paid back using hydropower revenue. (Id.) Private financing for a project of the size proposed by TLCC is not available until all critical permits have been obtained. (Testimony of Ted Sorensen)

36. TLCC does not own any of the property in the area of the proposed reservoir or dam. (Testimony of Clair Bosen) TLCC intends to obtain the lands needed to complete the project through eminent domain after the FERC license is issued. (Id.)

37. RB&G Engineering prepared a Phase I Study of the proposed dam site for Schiess & Associates in July 2004. (RB&G Report (Attachment to App. 13-7697)) RB&G

Engineering found that a safe, functional reservoir is feasible at the proposed dam site, but recommended a number of additional tests to identify any hidden safety concerns. (RB&G Report, page 8-9)

38. Franklin County Fish & Game asked Dr. Paul Link, a professional geologist, to review geologic data and existing reports relating to the proposed dam site. (Exhibit P400) In his report, Dr. Link concluded: "[T]here is enough complexity of the local bedrock, joints, faults, and permeability zones, that a full assessment of seismic hazard, bedrock strength, fracture networks, and vadose zone hydrogeology is required before we can have a reasonable estimate of what are the safety concerns at the damsite . . . ." (Exhibit P400, page 2)

39. The United States Bureau of Reclamation conducted an analysis of the geology at the mouth of the Oneida Narrows in 1960 and 1961 and found that construction of a large dam was feasible in that area, but recommended additional geologic testing to ensure the dam would be safe. (Exhibits P401 thru P405)

40. RB&G's recommendation for additional testing of the geology at the proposed dam site is consistent with the recommendations of the Bureau of Reclamation and Dr. Link. Prior to commencing construction of any dam, TLCC must obtain approval of the plans, drawings, and specifications for the dam from the Department's dam safety program. (Idaho Code § 42-1712)

41. The dam design included with the application is only preliminary. (Testimony of David Schiess) A final design will not be prepared until the FERC license and IDWR water permit are obtained. (Id.) TLCC proposes constructing the dam with a roller compacted concrete layer, which is a safe and stable dam design that can withstand overtopping. (Id.)

42. TLCC will install two hydropower turbines at the facility, each with a flow capacity of 700 cfs and a maximum power output of 5.0 MW, resulting in a total maximum generation capacity of 10 MW. (Exhibit A9, page 4) The minimum flow needed to generate power at the site is 175 cfs. (Testimony of David Schiess)

43. The proposed reservoir, when full, will have a capacity of 12,647 acre-feet and a surface area of 362 acres. (Exhibit A9, page 2) The reservoir capacity described in the DLA (12,674 acre-feet) is much smaller than the 17,300 acre-feet reservoir described in the application. The water right application has not been reduced to match the reservoir capacity listed in the DLA.

44. Five thousand (5,000) acre-feet of the water stored in the proposed reservoir will be available for irrigation purposes. Irrigation storage will be released from the dam into the Bear River and pumped into the TLCC system at a pumping station located on the river downstream of the proposed dam. (Exhibit A9, page ES-2)

45. TLCC will use the irrigation storage water only in severe dry weather conditions when the value of irrigation water exceeds the value of water held in the reservoir to maintain hydropower head. (See Exhibit A9, page 39) TLCC estimates that the irrigation storage will be partially used one out of every three years and fully used one out of every five years. (Id.)

46. TLCC believes the proposed reservoir will improve its irrigation water supply in two ways: (1) 5,000 acre-feet of irrigation storage held in the proposed reservoir will be available for use; (2) revenues from the hydropower facility will be used to pipe the TLCC main canal, reducing evaporation and seepage losses in the canal. (Exhibit A9, page 8) No evidence was offered showing TLCC will be required to use the hydropower revenue to pipe its canal system.

47. Piping the TLCC main canal will cost approximately $45 million or about $670,000 per mile of canal. (Testimony of David Schiess) Given the current projected revenues from the hydropower facility, the main canal could be piped in about 30 years. Once the TLCC main canal is piped, winter freezing issues will be eliminated, and TLCC will be able divert Mink Creek water all year, maximizing the fill in its off-stream reservoirs and further improving its water supply. (Testimony of Clair Bosen) The main canal from the diversion dam to the siphon could be piped for just over $4 million.

48. Unallocated flows on the Bear River will be used to fill the proposed reservoir initially and will be used for any subsequent refill of the irrigation storage space. (Exhibit A9, page 36) If unallocated water does not exist on the Bear River, TLCC will fill the proposed reservoir by exchanging Mink Creek water for its Bear River diversion (releasing Mink Creek water past the TLCC diversion to replace the water diverted from the Bear River for reservoir storage). (Id.)

49. If water levels in the proposed reservoir are held steady, evaporative losses from the reservoir will result in reduced flow in the Bear River below the proposed dam. Schiess & Associates calculated the expected evaporative losses from the proposed reservoir. (Exhibit 32) "Evaporative loss was estimated for the proposed reservoir using pan evaporation methodology, which incorporates precipitation, pan evaporation, and air temperature measurements to compute average annual evaporation loss in inches." (Id. at page 1) Precipitation and pan evaporation data were taken from a weather station in Logan, Utah. (Id. at page 6)

50. The method used by Schiess & Associates to estimate evaporation is approved by the Idaho Department of Environmental Quality ("IDEQ") for determining evaporation from wastewater treatment lagoons. (Exhibit 32, page 6 and Appendix A) Using the IDEQ method, Schiess & Associates estimated the annual evaporation loss from proposed reservoir to be 32.86 inches (2.74 feet), resulting in an annual evaporation volume of 991 acre-feet. (Id. at page 7)

51. Averaging the estimated total annual evaporation of 991 acre-feet over the entire year results in a constant flow of approximately 1.40 cfs. (Exhibit A32, page 7)

TLCC proposes releasing 1.40 cfs of Mink Creek water past its Mink Creek diversion all year to offset the evaporation loss from the reservoir. (Testimony of David Schiess)

52. Using the IDEQ method, Schiess & Associates estimated that evaporation from the proposed reservoir could exceed 1.4 cfs in June, July, and August, even after including an offset for expected precipitation. (Exhibit A9, page 37) According to Schiess & Associates, instantaneous evaporation in July could exceed 2.6 cfs if actual precipitation is less than expected. (Id.)

53. The BRWUA Agreement includes the following recital:

> In order to meet FERC's mitigation requirements, [TLCC] has proposed to mitigate environmental impacts to fish and to mitigate for evaporation impacts of the reservoir by allowing 10 cfs of Water Right No. 13-901 to flow past [TLCC's] authorized point of diversion to provide natural flow water down to where Mink Creek flows into the Bear River . . . . [TLCC] may thereafter pump 8.6 cfs of water from below the proposed dam site into its distribution canals, leaving 1.4 cfs in the Bear River for evaporative losses. (BRWUA Agreement, Recital D)

54. The BRWUA Agreement uses a different method for calculating evaporation than the IDEQ method used by Schiess & Associates. The BRWUA Agreement uses evaporation data from ET Idaho Station No. 107346 in Preston, Idaho. (See Attachment to BRWUA Agreement) Using the ET Idaho precipitation deficit table for deep, open water systems (lakes or reservoirs), the BRWUA Agreement estimates annual evaporation from the proposed reservoir to be 112.99 acre-feet. (BRWUA Agreement, Recital F)

55. 112.99 acre-feet equates to 0.27 cfs when averaged over the irrigation season, April through October. (BRWUA Agreement, Recital F) The ET Idaho table included as an attachment to the BRWUA Agreement shows, after factoring in average precipitation, positive monthly evaporation generally only occurs in June, July, August, and September. (See Attachment to BRWUA Agreement) 112.99 acre feet equates to 0.47 cfs when averaged over 122 days, June through September.

56. "If following completion of the [TLCC] Dam the actual evaporation is determined by the IDWR to be a greater amount, [TLCC] will increase its mitigation releases to an amount not less than the actual evaporation amount so as to fully mitigate any evaporation loss to BRWUA members." (BRWUA Agreement, (2)(a))

57. The ET Idaho estimate of evaporation is more reliable than the Schiess & Associates estimate of evaporation (IDEQ method) for two reasons. First, the ET Idaho estimates are based on meteorological data from the immediate area (Preston), rather than from Logan, Utah. Second, the ET Idaho estimate is for deep, open water systems such as lakes and reservoirs rather than for wastewater lagoons, which are much shallower. Nonetheless, TLCC has agreed to deliver 1.4 cfs of water continuously to the Bear River to mitigate for evaporation. (BRWUA Agreement, Recital D)

58. "Long-term infiltration losses [from the proposed reservoir] are expected to be minimal after the reservoir fills and lake-bed sediments become saturated." (Exhibit A9, page 38)

59. The proposed dam and reservoir would be constructed within a canyon of the Bear River known as the Oneida Narrows. "The Bear River Narrows [or Oneida Narrows] is a scenic area with riverine-riparian vegetation along the river, rugged canyons, steep cliffs, mountainous terrain and wildlife." (Exhibit A9, page ES-10) The Oneida Narrows includes a high-gradient section of river with fast-flowing water. (Testimony of David Teuscher; Exhibit A12, page 37)

60. The proposed dam will be built about ¾ of a mile upstream of the mouth of the Oneida Narrows canyon, inundating the remainder of the Bear River in the narrows section. (Testimony of Clair Bosen) The proposed reservoir will inundate approximately 5 miles of the Bear River in the Oneida Narrows, which equates to about 90% of the canyon. (Exhibit P708, page 12)

61. The BLM has designated a portion of its land within the Oneida Narrows as an Area of Critical Environmental Concern, "where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources and other natural systems or processes . . . ." (Exhibit P812, page 11)

62. TLCC hired Dr. Thomas Hardy at the Institute for Natural Systems Engineering ("INSE") at Utah State University to complete studies relating to fisheries and aquatic habitat. (Exhibits A12 thru A14 (Studies 1-4)) Dr. Hardy testified at the hearing as an expert in fish biology and aquatic habitat. Dr. Hardy analyzed water temperature, existing fisheries resources, and aquatic habitat for the Bear River downstream of Oneida Dam and for Mink Creek.

63. Historical data provided by TLCC shows water temperatures in the Bear River range from 0°C to 22°C at a site downstream of the proposed reservoir. (Exhibit A9, pages 47-51, Station 4906140 (identified as "BR4")) The highest temperature measured at the INSE BR4 site in 2009 was 20.2°C. (Exhibit A9, page 50)

64. Water temperatures greater than 25°C are stressful on salmonid species and can be lethal if lasting for an extended period of time. (Testimony of Tom Hardy; Exhibit P701, page 34 (doc. page 4)) "Salmonid" is a term used to describe the family of fish that includes salmon and trout. (Exhibit P710, Glossary, page 45)

65. TLCC's study regarding water temperatures at the proposed reservoir site agreed with the historical data: "Temperature observations were generally in compliance with the standards for cold water aquatic life requiring temperature to be ≤22°C with ≤19°C for a daily average." (Exhibit A9, page 66)

66. The most favorable temperature regime for trout (including BCT) in the Bear River between Oneida Dam and the Idaho-Utah border is located in the Oneida Narrows. (Exhibit P707, page 2) Temperatures in the mainstem become less favorable for salmonid species as you move downstream of the Oneida Narrows. (Testimony of Tom Hardy; Exhibit A12, page 130) The Bear River downstream of the Oneida Narrows can reach peak summer temperatures that approach lethal limits for BCT. (Exhibit P707, page 2)

67. "[BCT] is the only native trout in the Bear River system." (Exhibit P711, page 361) Within the state of Idaho, BCT are only found in the Bear River and its tributaries. (Testimony of David Teuscher) BCT have been identified by IDFG as a species of greatest conservation need. (Exhibit P710, Appendix F, pages 31-33) "Populations of fluvial [BCT] in the larger streams of the Bear River drainage are depressed." (Id. at page 32 (citation omitted))

68. Warren Colyer, director of Trout Unlimited's watershed restoration program, testified as an expert in aquatic ecology and BCT's use of and movement in the Bear River and its tributaries. As part of a graduate degree program, Mr. Colyer studied the movement and habitat use of fluvial BCT in the Bear River. (Exhibit P300) Mr. Colyer's work for Trout Unlimited has included coordinating projects to restore migration corridors for fluvial BCT populations. (Id.) Mr. Colyer's testimony regarding BCT life strategies and use of the mainstem Bear River was persuasive.

69. David Teuscher, Regional Fisheries Manager over southeast Idaho for IDFG, testified at the hearing as an expert in aquatic habitat, fisheries, and fishing recreation. Mr. Teuscher is the co-author of a 2007 IDFG guidance document, Management Plan for Conservation of Bonneville Cutthroat Trout in Idaho ("BCT Management Plan"). (Exhibit P712)

70. The BCT Management Plan describes three BCT life history strategies:

> [BCT] in Idaho exhibit three potential life history characteristics; resident, fluvial, and adfluvial. Resident life history pattern fish can spend their entire lives in tributary streams, while fluvial fish migrate from the river to spawn in smaller water and return to the river. Adfluvial fish spend most of their lives in lakes and spawn upstream primarily in tributaries. Multiple life history patterns within a population add to its biodiversity and resiliency. (Exhibit P712, page 8 (citation omitted))

71. Fluvial populations are especially important to the survival of a species because they disperse genetic material between resident populations and can re-colonize areas where resident fish may have been eliminated by a local catastrophic event. (Exhibit P813, page 3 and Exhibit P34, pages 14-18) In order for a fluvial BCT population to be viable, there needs to be acceptable mainstem and tributary habitat available to support the full life cycles of the fish. (Testimony of Warren Colyer)

72. Fluvial BCT can travel great distances between their primary habitat and their spawning habitat. (Testimony of Warren Colyer) Fluvial BCT that use the Cub River for spawning (located approximately 40 miles downstream of Oneida Dam) could use the Oneida Narrows as primary habitat. (Id.; Exhibit P302, page 2; Exhibit A12, page 114)

73. IDFG's BCT Management Plan divides the Bear River in Idaho into six management units. (Exhibit P712, pages 14-15) The Bear River and its tributaries between Oneida Dam and the Idaho-Utah border are identified as the Riverdale Management Unit. (Id. at pages 27-29)

74. "[A] fluvial population of [BCT] was observed in mainstem reaches in the Bear River within the Riverdale management unit during general population surveys completed in 1988 and 1993." (Exhibit P712, page 28) The BCT Management Plan rates the population of BCT in the Bear River [in the Riverdale management unit] as "low," meaning electro-fishing surveys found less than 5 fish per 100 meters of river. (Id. at pages 13 and 29)

75. "[T]he fluvial population component in the Riverdale management unit appears to be declining precipitously based on recent surveys." (Exhibit P712, page 56) Fish surveys conducted in 2005 and 2006 found no BCT in the Bear River between Oneida Dam and Riverdale. (Exhibit P700, page 13) Evidence provided by TLCC, however, shows that BCT are still present in the Bear River below Oneida Dam. (Exhibit A9, page 178; Exhibit A12, page 20)

76. As part of his studies, Dr. Hardy divided the Bear River below Oneida Dam into five reaches. (Exhibit A12, pages 36-51) Reaches 4 and 5 encompass the area to be inundated by the proposed reservoir and are generally synonymous with the term "Oneida Narrows" as it is used in this Order. (Id. at pages 37-43) Reach 3 is the 2-mile stretch of the Bear River immediately downstream of the proposed reservoir site and includes the confluence with Mink Creek. (Id. at pages 43-45)

77. BCT are primarily located in Reaches 3, 4, and 5 as compared to the downstream reaches of the Bear River. (Exhibit A9, pages 101 and 106) Reaches 3, 4, and 5 also serve as the primary habitat for Rainbow Trout, Brown Trout, and Mountain Whitefish as compared to the downstream reaches of the Bear River. (Id. at pages 100-110) "Generally, trout species and smallmouth bass exhibited the greatest density in the proposed inundation area of the Bear River Narrows and quickly decreased as distance from Oneida Dam increased." (Id. at page 112)

78. "The most abundant habitat for salmonid species occurs in the [Oneida Narrows] canyon reach of the Bear River, much of which will be inundated by the new reservoir." (Exhibit A9, page ES-5) "Below this reach [salmonid] habitat quantity decreases by about 50%." (Id.; Exhibit A9, pages 113-126) Below Oneida Dam, there are approximately 10 contiguous miles of suitable habitat for trout species. (Testimony of Warren Colyer) The proposed reservoir would inundate about half of the available trout habitat in that stretch of the Bear River. (Id.)

79. Dr. Hardy conducted a telemetry study which confirmed BCT use of the proposed inundation area during all seasons. (Exhibit A9, pages 147-151) Fourteen of the 32 BCT tagged in the study were captured in Reaches 4 and 5. (Exhibit A12, pages 105-106) The majority of BCT telemetry locations were on the mainstem of the Bear River, with over 35% of those locations occurring within the proposed inundation area. (Id. at page 109; Exhibit P303, Attachment)

80. The Oneida Narrows is a critical section of primary aquatic habitat for current BCT populations and for the rehabilitation of BCT in the Riverdale section of the Bear River. (Testimony of Warren Colyer and David Teuscher) BCT exhibiting a fluvial life strategy use the mainstem of the Bear River for rearing and maturing, then use tributaries for spawning. (Id.) BCT spawning usually occurs during the spring and early summer. (Exhibit P712, page 9)

81. Mink Creek provides better habitat than the mainstem Bear River in terms of BCT spawning and early life stage rearing. (Testimony of Tom Hardy) Although the Oneida Narrows may not be ideal for BCT or Rainbow trout spawning, it is an acceptable spawning area for Mountain whitefish and Brown trout. (Exhibit A9, page ES-6)

82. The BCT Management Plan states that "the primary focus of conservation in the Riverdale management unit should be on protecting existing populations from habitat degradation and reconnecting tributary spawning habitats for mainstem fluvial populations." (Exhibit P712, page 56) The Bear River mainstem and the Cub River are listed as top priorities. (Id. at page 57) Although Mink Creek is identified as "likely the best spawning tributary in [the Riverdale management unit] for [the] fluvial [BCT] population," Mink Creek is listed as one of the lowest priorities in the area. (Id.) It will require much more than simply creating a minimum flow to establish Mink Creek as well-functioning BCT spawning tributary. (Exhibit P38, pages 6-7)

83. IDFG periodically prepares a Fisheries Management Plan ("FMP"), which describes the agency's goals and objectives and sets forth specific management directives for each of the regions in the state. (Exhibit P711, page 1) The current FMP lists specific objectives for management of the Bear River and its tributaries, including improving habitat for [BCT] and working with other groups to enhance BCT in the Bear River system. (Id. at pages 364-365)

84. During the hearing, TLCC challenged IDFG's participation in this contested case under IDFG's current policies. Pursuant to the FMP, IDFG is authorized to participate in the review of water right applications and FERC hydropower applications. (Exhibit P711, page 18) "[IDFG] will ensure that cutthroat trout are considered in fisheries, land, and water management decisions in their remaining habitat." (Id. at page 23)

85. IDFG has concluded that the proposed project is not consistent with its FMP or the goals stated in its BCT Management Plan. (Exhibit P708, page 13) "The nearly 5 miles of rearing and migratory corridor in the Bear River is an essential component of

habitat throughout the BCT's range." (Id.) "As proposed, the reconnection of Mink Creek as the primary mitigation measure, in conjunction with the inundation of mainstem habitat, will result in a significant loss of critical habitat and impede restoration of BCT in Idaho." (Id.)

86. TLCC proposes releasing 10 cfs past its diversion on Mink Creek continuously throughout the year to mitigate for the impacts to aquatic habitat resulting from inundation of the Oneida Narrows. TLCC argues the 10 cfs flow could improve water temperatures for salmonid habitat and spawning in Mink Creek during low water years when flows in the creek would otherwise drop below 10 cfs. (Exhibit A9, page 90)

87. TLCC also argues the 10 cfs flow would facilitate fish passage across obstacles that act as barriers during low flows, providing access from the Bear River to upper Mink Creek. (Testimony of Dr. Hardy) Potential low flow fish barriers include the TLCC diversion dam and a rock waterfall located about 1.3 miles upstream from the Mink Creek confluence with the Bear River. (Exhibit A9, pages 158 and 162-165; Exhibit A14, page 51)

88. The 10 cfs Mink Creek minimum flow would provide minimal benefits in terms of water temperatures in Mink Creek or the Bear River. "Although temperatures are likely to drop, the Mink Creek mitigation will improve conditions for coldwater fisheries in Mink Creek only marginally because Mink Creek already fully supports that use." (Exhibit A9, page 89) "All of the historical and project temperature data from Mink Creek show that cold water aquatic life is fully supported with regard to temperature . . . ." (Id. at page 88) "[A]ny small reduction in Mink Creek temperature will be absorbed in the much larger Bear River with no measureable impact on the Bear River temperature." (Id. at page 89)

89. The 10 cfs Mink Creek minimum flow proposed by TLCC would provide little or no benefit to the trout species in terms of spawning. "For rainbow and cutthroat trout, Mink Creek flows are normally well in excess of the 10 cfs during the April – June spawning window." (Exhibit A9, page 90)

90. "In the Bear River system, BCT that reside in the mainstem Bear River for part of their life history, typically make a spawning migration upstream into tributaries like Mink Creek in the high flow season . . . ." (Exhibit P813, page 3; Testimony of Warren Colyer) During the low flow time period on Mink Creek, when the TLCC release will provide flow for fish passage, BCT are least likely to be moving in or out of Mink Creek. (Testimony of Warren Colyer)

91. The 10 cfs Mink Creek minimum flow may not even provide benefits to fish in terms of fish passage. Dr. Hardy testified during cross-examination that he believed fish could make it past the barriers in lower Mink Creek with a minimum flow of 10 cfs. (Testimony of Dr. Hardy) However, the selection of 10 cfs as a bypass flow was not the result of a fish passage analysis. (Id.) No specific evidence was presented as to how the 10

cfs value was selected. Outside of Dr. Hardy's statement, there is no evidence in the record that 10 cfs is sufficient to allow passage across the TLCC diversion dam or across the rock waterfall. (See Exhibit A14, pages 12-17)

92. Approximately 88 acres of riparian habitat will be inundated by the proposed reservoir. (Exhibit A9, page 199) "Riparian habitat, which is an important habitat type for many wildlife species, is more limited in distribution within the immediate project vicinity." (Id. at page ES-7) The river channel and a portion of the riparian land in the project area are designated as wetland areas by the U.S. Fish & Wildlife Service. (Id. at page 327)

93. The Oneida Narrows canyon is made up of a number of habitat types including: deciduous and evergreen forests, wetlands, grasslands, open water, and multiple riparian habitat types. (Exhibit A9, pages 183-184) The convergence of the various habitats available in the Oneida Narrows provides synergistic benefits that are not likely to be available in other locations in the area. (Testimony of David Delehanty)

94. If reservoir levels are held relatively constant, about 15 acres of riparian vegetation could develop around the proposed reservoir. (Exhibit A9, page 199) Withdrawal of the 5,000 acre-feet of irrigation storage will lower the water level in the reservoir by 16 feet, making it difficult to establish a riparian area around the reservoir. (Exhibit A9, pages ES-2 and 2)

95. "[R]eservoir shoreline areas, proposed as sites where [TLCC] proposes to establish wetlands are not in-kind replacement for the river shore habitats that would be lost in the [proposed inundation] area." (Exhibit P813, page 3) Reservoir fringe riparian habitat is subject to a greater concentration of human activity and disturbance. (Testimony of David Delehanty) A riparian fringe around a reservoir takes a long time to develop and is not as robust as river riparian habitats (Testimony of Martha Wackenhut)

96. The DLA asserts that 4 acres of riparian habitat would develop through the Mink Creek mitigation (10 cfs minimum flow). (Exhibit A9, pages 199 and 332) "At present, it does not appear that the seasonal dewatering of Mink Creek has a notable impact on the riparian community downstream of the [TLCC] diversion dam." (Id. at page 165)

97. Forty-eight animal species, which may exist within the proposed project area based on IDFG records, are designated by IDFG as "Idaho Species of Greatest Conservation Need." (Exhibit A9, page 208) No federal threatened or endangered species are located within the project area. (Id.)

98. The existing non-aquatic species in the Narrows canyon rely on the riparian and riverine habitats for foraging, water, nesting, roosting, open water during the winter, and/or cover. (Testimony of Corey Class and Martha Wackenhut) The presence of open, free-flowing water is especially important to waterfowl species in the winter. (Exhibit P39, pages 5-8)

99. "The loss or change of habitat, particularly riparian habitat, would likely change the mix of wildlife species and the amount of wildlife present in the immediate project area." (Exhibit A9, page 251) "Wildlife would continue to use the area, but some animals would initially be displaced and move to available habitat outside the project impact area causing a decrease in the local wildlife population and diversity." (Id.)

100. It would be difficult, if not impossible, to fully mitigate for the riparian habitat lost through inundation by the proposed project. (Testimony of Martha Wackenhut) Rehabilitation of nearby impaired riparian areas will still result in a net loss of riparian habitat. (Id.)

101. Although the DLA refers to a Riparian Habitat Development Plan, which is intended to mitigate for the loss of riparian habitat areas, no such plan presently exists, and there is no current legal obligation requiring its development. (Exhibit A9, page B-2)

102. The Oneida Narrows is a popular recreation area. Camping, fishing, swimming, boating, and tubing are the most popular recreational activities in the canyon area. (Exhibit PC206, page 95) The canyon is also used for hiking, hunting, and wildlife viewing. (Testimony of Kerry Larsen) Oneida Narrows, with its various water-based recreation activities, is a popular location for family reunions and other group activities. (Exhibit P622, page 5)

103. "The Oneida Narrows provides recreation opportunities that are not found elsewhere on the Bear River due to numerous dams and dewatered reaches." (Exhibit P815, page 1) Because of the good public access road and the public (BLM) ownership of much of the canyon, the public is able to easily access the canyon. (Id.)

104. The local public uses the canyon heavily and enjoys the water-based recreation opportunities the canyon provides. (Testimony of Murray Nichols) Oneida Narrows and its river-based recreation add to the quality of life of the local community. (Testimony of Tom Lucia) Recreation surveys conducted for TLCC may not accurately reflect the full extent of recreation taking place within the Oneida Narrows. (Exhibit P34, pages 23-24)

105. The recreation use of the canyon has grown exponentially over the last two decades. (Testimony of Star Coulbrooke) The quality of recreation within the Oneida Narrows has also improved over the last twenty years. (See Exhibit P415, pages 13-14; Exhibit A17, pages 11-13)

106. The majority of people that use the canyon come from within the region. (Exhibit P815, Attachment, page 1) Over half of the anglers surveyed by IDFG in the Oneida Narrows in a 2003 study identified themselves as "residents." (Exhibit P700, page 14) A survey completed for TLCC found that over two-thirds of the visitors to the Oneida Narrows area live within 40 miles of the area. (Exhibit A17, page 9) TLCC's survey concluded: "[T]he Oneida Narrows area is mostly enjoyed by local and regional residents rather than being a national recreation destination." (Id.)

107. "A Class II-III whitewater boating run begins . . . downstream of the [Oneida Dam] powerhouse and extends approximately 6 miles downstream to [Bosen] diversion dam." (Exhibit PC206, page 95) "The [Oneida Narrows] is a unique resource for teaching kayaking and canoeing because of the level of difficulty of the river (Class II) and the proximity to the road." (Written Testimony of Jean Lown) The lower portion of the canyon flattens out and is not very good for rafting or kayaking. (Testimony of Dana Olson)

108. There are some recreation opportunities for whitewater rafting and kayaking in the immediate area, specifically in the Black Canyon stretch of the Bear River, located between PacifiCorp's Grace hydropower facility and Oneida Reservoir. (See PC204, pages 50-54) However, Black Canyon is very technical and dangerous for all but advanced kayakers and boaters. (Testimony of Kerry Larsen and Dana Olson)

109. A large portion of the total recreation fishing activity in Franklin County takes place on the mainstem of the Bear River. (Exhibit P714) The Bear River, when viewed as a single recreation site, surpassed all other recreation fishing sites in Franklin County in 2003 in terms of dollars spent on fishing trips. (Exhibit P714)

110. "The reach below Oneida Dam is the most heavily fished portion of the Bear River in Idaho . . . ." (Exhibit P712, page 41) A survey conducted by IDFG of people fishing the Bear River between Oneida Dam and Riverdale showed the highest fishing usage and success rate took place within the Oneida Narrows section. (Exhibit P700, pages 14-18) The quality of fishing in the Oneida Narrows coincides with the abundance of trout within that reach. (See Exhibit A12, pages 116-127) The existing fishing opportunities below the proposed dam are not as good as those currently existing in the area to be inundated. (Exhibit P700, pages 14-18)

111. Fishing recreation within the Oneida Narrows has increased dramatically over the last 25 years. (See Exhibit P701, Figure 6, page 17) The success rate (catch rate) for rainbow trout within the Oneida Narrows has also improved over the same time period. (Id.)

112. The Oneida Narrows is such a popular recreational fishery, IDFG stocks 12,000 sterile rainbow trout at sites below Oneida Dam every year. (Exhibit P700, page 13) "[P]ast and present stocking programs help meet angler demands that cannot be met by native species alone such as BCT and mountain whitefish." (Id.) As the BCT population within the Oneida Narrows is restored, the rainbow trout stocking program will change. (Exhibit P712, page 42)

113. The Oneida Narrows section of the Bear River is fully accessible to the public because of the road that parallels the river through the canyon. (Exhibit P700, page 14) "In total, there is approximately 11 miles of publicly owned land along the Bear River in Idaho." (Id. at page 18 (citation omitted)) "The largest contiguous section is in the Oneida River Narrows." (Id.) "In additional to 2.7 miles of BLM land, PacifiCorp owns and manages 3.7 miles of river front property in the Narrows for public access." (Id.)

114. Outside of the Oneida Narrows canyon, the Bear River between Oneida Dam and the Idaho-Utah border is primarily private land with limited public access for fishing. (Testimony of David Teuscher; Exhibit A9, page 283) Lower Mink Creek is also surrounded by private property, making public access to the creek difficult. (Protest of Great Salt Lake Keeper, pages 4-5)

115. There are nine reservoirs with public access within Franklin County. (Testimony of David Teuscher; Exhibit P411, page 3) If the proposed reservoir is built, it will replace a preferred and rare river/trout fishing opportunity with a less-preferred reservoir fishing opportunity that is already abundant in Franklin County. (Testimony of David Teuscher) The proposed reservoir will have the same fish composition as Oneida Reservoir, a warm-water fishery dominated by non-native species, including carp. (Testimony of Tom Hardy)

116. PacifiCorp operates four hydroelectric facilities on the mainstem of the Bear River (Soda, Grace, Oneida, and Cutler). (Exhibit A9, page 22) Three of the facilities (Soda, Grace, and Oneida) were relicensed by FERC in 2003 ("2003 License"), in addition to the Cove Plant, which has since been decommissioned. (Exhibit PC204) During relicensing, Soda, Grace, Oneida, and Cove were consolidated into one project designated as the Bear River Hydroelectric Project No. 20 ("Project 20"). (Id.)

117. In conjunction with the relicensing of Project 20, PacifiCorp negotiated a settlement agreement ("2002 Agreement") with participants to the relicensing process, which included the state of Idaho. (Exhibit PC205) The 2002 Agreement was signed by Governor Dirk Kempthorne on behalf of the state of Idaho. (Id. at page 43) Mark Stenberg testified at the hearing as an expert on the terms and implementation of the 2003 License and 2002 Agreement.

118. The 2002 Agreement was the result of three years of negotiations with the relicensing participants. (Testimony of Mark Stenberg) Representatives from GYC and Trout Unlimited were very involved in the negotiation of the 2002 Agreement. (Testimony of Marv Hoyt and Scott Yates) Large amounts of time and resources have been dedicated by the parties to the negotiation and implementation of the 2002 Agreement. (Testimony of Marv Hoyt)

119. "In general, the [2002 Agreement] contains specific measures that will protect and enhance the environmental resources of the portions of the Bear River affected by the project." (Exhibit PC204, page 5) "These measures include proposals designed to enhance fishery and wildlife resources, provide additional recreational opportunities, and provide for improved management of project lands." (Id.) The 2003 License balanced the benefits of dependable hydropower and its associated environmental consequences with the benefits arising from extensive mitigation measures adopted by PacifiCorp. (See Exhibit PC204, pages 20-23)

120. Under the 2002 Agreement, PacifiCorp must "provide funding up to $648,000 in one time costs and up to $567,000 annually, for the studies and implementation of the aquatic resources restoration measures." (Exhibit PC204, page 6) The majority of fishery protection and enhancement measures in the 2002 Agreement focus on the restoration of BCT. (Id. at page 5)

121. The 2003 License requires PacifiCorp to "develop a plan for undertaking actions to benefit and restore aquatic and riparian habitat for BCT and other fish and wildlife resources . . . ." (Exhibit PC204, page 38) PacifiCorp is also required to prepare a comprehensive BCT Restoration Plan in consultation with the Environmental Coordination Committee ("ECC"), a group of representatives from the parties to the 2002 Agreement. (Exhibit PC205, pages 1, 14 and 27; Exhibit PC204, pages 35-37) The BCT Restoration Plan must include specific measures, including a BCT telemetry study for the Bear River and its tributaries in Idaho. (Exhibit PC204, pages 36 and 37) The BCT restoration plan and telemetry study, if completed, were not offered into the administrative record for this contested case.

122. Pursuant to the 2002 Agreement, PacifiCorp created a habitat enhancement grant fund, used for reconnection projects, fencing riparian areas, fish screening, and fish passage improvements. (Testimony of Mark Stenberg) In the first four years of the fund, PacifiCorp granted approximately $400,000 for habitat improvements. (Id.) These funds have been matched with $1.2 million in federal funds. (Id.) None of this money has been spent on projects within the Mink Creek drainage. (Id.)

123. PacifiCorp is also required to "provide funding up to $160,000 in one time costs and up to $17,000 annually for the implementation of the recreation measures." (Exhibit PC204, pages 7 and 47-49, See also Exhibit PC205, pages 21-25) The boundaries for Project 20 were expanded to incorporate the recreational sites in the Oneida Narrows canyon. (Exhibit PC204, pages 12-13) PacifiCorp has spent $100,000 on improving the road in the canyon. (Testimony of Mark Stenberg) PacifiCorp has also fenced off riparian areas and terminated agricultural leases within the canyon. (Id.) Overall, PacifiCorp has spent about $500,000 in the Oneida Narrows canyon in habitat improvement and public access improvement, not including staff time. (Id.)

124. The existence of the Oneida Narrows as available habitat for BCT is essential for the ECC's BCT restoration work in the Bear River below Oneida Dam to be successful. (Testimony of Marv Hoyt) If the Oneida Narrows is inundated, the current benefits resulting from money spent by PacifiCorp and the ECC on public access, recreation, habitat improvements, and BCT restoration below Oneida Dam would be lost. (Id.)

125. PacifiCorp operates the outlet works on Bear Lake and maintains contracts to provide storage water from Bear Lake to various water users upstream and downstream of the proposed project. (Exhibits PC208, PC231-PC244, PC249-PC251, and PC256)

PacifiCorp also maintains contracts and agreements relating to water levels in Bear Lake and the Bear Lake National Wildlife Refuge and flows into and out of Bear Lake. (Exhibits PC208, PC245-PC248)

126. PacifiCorp operates its Bear River hydropower facilities "in a coordinated manner to meet irrigation demands and generate power." (Exhibit PC204, page 3) The PacifiCorp facilities are usually operated in a modified run-of-the-river mode, meaning there can be some shaping of reservoir releases, based on downstream irrigation demand, with Oneida releases varying to optimize power production. (Id.)

127. The 2003 License requires a minimum flow of 250 cfs below Oneida Dam, unless inflow to Oneida Reservoir is less than 250 cfs. (Exhibit PC204, page 42) The 2002 Agreement also states that PacifiCorp will try to maintain a minimum operational flow of 900 cfs in the Oneida Narrows section between Memorial Day and Labor Day for whitewater boating. (Exhibit PC205, page 24) PacifiCorp is restricted in how quickly it can ramp down flow out of Oneida Reservoir. (Exhibit PC204, page 6)

128. Prior to relicensing, large, immediate flow fluctuations occurred downstream of Oneida Dam. (Exhibit P701, page 12 (doc. page 4); Exhibit P704, Figures 1 and 2) After the 2003 License was issued, large, immediate fluctuations in flows below the Oneida facility are no longer a significant issue and the proposed project will have little value in buffering river fluctuations. (Id.)

129. PacifiCorp owns five hydropower water rights at Cutler Dam (located downstream of the proposed project), with priority dates senior to January 1, 1976, totaling 3,540 cfs. (Exhibit PC230, Water Delivery Schedule No. 1; Exhibits PC252, PC252C, and PC255, page 10) There are times when the flow of the Bear River at Cutler Dam exceeds PacifiCorp's hydropower pre-1976 water rights. (Testimony of Connely Baldwin)

130. Excess water, which cannot be used for irrigation or hydropower under existing water rights, is released over the Cutler Dam spillway into the Bear River channel below the dam. (Testimony of Connely Baldwin) During the winter season, there is rarely any spill past Cutler Reservoir. (Id.) During the summer months, once the run-off has ended, all of the water at Cutler Dam is diverted for irrigation. (Id.)

131. "Historically, [using] the flow data from about 1922 to the present, [spill at Cutler Dam] does occur on about 64% of the years." (Testimony of Connely Baldwin) But, in the past ten years, excess flows at Cutler Dam have only occurred one out of every three years. (Id.)

132. The water rights held by PacifiCorp for Cutler Dam are the largest water rights downstream of the proposed project. (See Exhibit PC 230, Water Delivery Schedule No. 1) Because the water rights are non-consumptive, if the PacifiCorp hydropower rights at Cutler Dam are fully satisfied, then the remaining water rights on the Bear River downstream of the Cutler Dam will be satisfied. (Testimony of Connely Baldwin)

133. The U.S. Fish & Wildlife Service has a water right from the Bear River (Utah water right #29-1014), which authorizes the diversion of 1,000 cfs under a 1928 priority date for use at the Bear River Migratory Bird Refuge. (Protest of U.S. Fish & Wildlife Service) Even though 2007 was a very poor water year in terms of available water supply in the Bear River drainage, the stream flow of the Bear River near Corinne, Utah (as measured at USGS Station 10126000) exceeded 1,000 cfs for most of the non-irrigation season (November 2006 – April 2007). (Exhibit A1, pages 07-1 thru 7-5, and 07-47)

134. TLCC must obtain other permits in addition to a water right permit from IDWR and a FERC license before proceeding with the proposed project. A Section 404 permit must be obtained from the Army Corps of Engineers for the discharge of fill material into the Bear River to construct the proposed dam. (Exhibit P803, pages 1-2) The Section 404 permit application may be filed at any time, but had not been filed as of the hearing date. (Testimony of Nick Josten)

135. As part of its Section 404 permit application, TLCC will be required to provide a detailed review of alternatives to the proposed project. (Exhibit P803, pages 2-4) As of December 2011, TLCC had not sufficiently evaluated other alternatives to the proposed project. (Id.) "The EPA has significant concerns regarding the proposed project's potential impacts on aquatic resources, water quality, dissolved oxygen, and temperature of the Bear River." (Id. at page 6)

136. TLCC will also be required to obtain a Section 401 water quality permit from the EPA and IDEQ. (Testimony of Nick Josten) The Section 401 permit application is generally filed at the same time the final license application is submitted to FERC. (Id.) A mineral extraction permit and separate right-of-way permit may also be required from the BLM. (Testimony of David Schiess and Exhibit 812, page 11)

137. A similar water right application (13-7462) was filed by S&F Power Co. on February 16, 1989. (Exhibit IDWR2) Application 13-7462 proposed the following:

Point of Diversion: T14S, R40E, Sec. 16, SWNE (location of dam)
Beneficial Uses:

Power	1,440 cfs	1/1 to 12/31
Storage for Powerhead	17,800 acre-feet	1/1 to 12/31

Total Quantity Appropriated: 17,800 acre-feet and 1,440 cfs
Estimated Hydropower Generation Capacity: 9.8 MW

138. Application 13-7462 was protested by a number of individuals and groups, including TLCC. (Exhibit IDWR3) The 13-7462 protestants raised many of the same concerns as were raised by the protestants in this contested case. (Id.) Although the 13-7462 protests generally referred to potential impacts to fish and wildlife habitat, they did not specifically focus on BCT concerns. (Id.) Application 13-7462 and its associated protests resulted in a contested case hearing before the Department. (Exhibit IDWR4)

139. On September 26, 1990, the Department issued a Memorandum Decision in the case, rejecting the water right application. (Exhibit IDWR4) The basis for the rejection was that 1) the proposed project would reduce the quantity of water under existing rights, 2) the applicant did not have sufficient financial resources to complete the project, and 3) the proposed project was not in the local public interest. (Exhibit IDWR4, pages 11-15)

140. After setting forth the various local interest factors relating to the Oneida Narrows canyon and the project proposed in Application 13-7462, Keith Higginson, the director of the Department at that time, reached the following conclusion:

> After due consideration it is determined that the expected benefits from construction of the dam and reservoir proposed . . . are insufficient to overcome the negative public impacts. Approval of the application would not be in the local public interest. If the dam site, which is protected as a matter of state policy, and the canyon of the Oneida Narrows is to be utilized for a water storage project such project ought to provide widespread benefits in the local area and region. (Exhibit IDWR4, page 15)

EVALUATION CRITERIA / ANALYSIS

1. Idaho Code § 42-203A(5) states in pertinent part:

> In all applications whether protested or not protested, where the proposed use is such (a) that it will reduce the quantity of water under existing water rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the applicant has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho, or (g) that it will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates; the director of the department of water resources may reject such application and refuse issuance of a permit therefor, or may partially approve and grant a permit for a smaller quantity of water than applied for, or may grant a permit upon conditions.

2. The applicant bears the ultimate burden of persuasion regarding all factors set forth in Idaho Code § 42-203A(5). (IDAPA 37.03.08.40.04.c)

3. Prior to the hearing, the parties stipulated that element (f) relating to the conservation of water resources and element (g) relating to adverse effects to the local

economy are not at issue in this contested case. There is no evidence in the record that the proposed project is contrary to the conservation of water resources within the state of Idaho or that the proposed place of use is outside of the watershed of the identified water source.

4. Rule 40.05 of the Department's Water Appropriation Rules (IDAPA 37.03.08) identifies certain information that must be provided by any applicant seeking to appropriate more than 5 cfs or more than 500 acre-feet of storage. The Department did not make a formal request for information under Rule 40.05. Therefore, the relevant information described in Rule 40.05 was to be included as part of TLCC's evidence and pre-hearing disclosures.

5. Rule 45 of the Department's Water Appropriation Rules (IDAPA 37.03.08) sets forth criteria for evaluating all applications to appropriate water. The criteria in Rule 45 provide additional guidance in applying the elements set forth in Idaho Code § 42-203A(5).

Reduction of Quantity of Water under Existing Rights / Mitigation

6. An applicant shall provide information concerning "any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights." (IDAPA 37.03.08.40.05.c.iii)

7. A proposed use reduces the quantity of water under an existing water right if "[t]he amount of water available under an existing water right will be reduced below the amount recorded by permit, license, decree or valid claim or the historical amount beneficially used by the water right holder under such recorded rights, whichever is less." (IDAPA 37.03.08.45.01.a) "An application that would otherwise be denied because of injury to another water right may be approved upon conditions which will mitigate losses of water to the holder of an existing water right, as determined by the director." (IDAPA 37.03.08.45.01.a.iv)

8. The term "mitigation" is used in two different contexts in this contested case. "Mitigation" is used to describe the plan to replace water lost from the Bear River system due to evaporation from the proposed reservoir. The term is also used to describe the replacement of lost or impacted local public interest elements such as aquatic habitat, riparian areas, or recreational opportunities. This section only addresses the mitigation for impacts to water rights. Mitigation for impacts to habitat, wildlife, and recreation is addressed in the local public interest analysis.

9. The Department's water right records include a number of Idaho water rights for the Bear River downstream of the proposed project. (See Exhibit IDWR09) These downstream water rights authorize the diversion of more than 330 cfs. (Id.) Two of the rights, 13-4234 and 13-4236, do not include diversion rates, only annual diversion volumes. (Id.) The priority dates for these downstream rights range from 1880 to 1974. (Id.) Evaporation from the proposed reservoir will reduce the quantity of Bear River natural flow available to fill these downstream water rights.

10. TLCC proposes to mitigate for impacts to downstream Bear River water rights by continuously releasing 10 cfs past its Mink Creek diversion and leaving 1.4 cfs of the bypass flow in the Bear River, where it will be available to downstream water rights. TLCC proposes to pump the remaining 8.6 cfs from the river into its canal. The mitigation flow rate to be left in the Bear River, 1.4 cfs, is greater than the calculated daily evaporation from the proposed reservoir. (Findings of Fact 49-57)

11. TLCC's mitigation plan to offset evaporation losses is deficient in two ways. First, the dedication of 1.4 cfs of natural flow from Mink Creek is an enlargement of the TLCC's natural flow water right(s). TLCC proposes to release 1.4 cfs continuous from Mink Creek to mitigate for evaporation from the reservoir. Water right(s) held by TLCC presently authorize diversion of natural flow water from Mink Creek for irrigation and diversion to irrigation storage. The use of water from Mink Creek for mitigation is a change in the nature of use of the natural flow portion of the water right that will require a transfer of the water right(s).

12. TLCC proposes a change in nature of use of 1.4 cfs, but TLCC has not proposed any reduction in the number of acres irrigated to offset the consumption resulting from evaporation. Rather, TLCC argues that it could simply increase the number of acres authorized to be irrigated from the storage water in its existing reservoirs because "[t]he transfer of the right to the use of stored water for irrigation purposes shall not constitute an enlargement in use of the original right even though more acres may be irrigated if no other water rights are injured thereby." (Idaho Code § 42-222) TLCC misinterprets the statute. The mitigation water of 1.4 cfs proposed to be delivered from Mink Creek to the Bear River is natural flow water, not storage water. During the irrigation season, TLCC proposes to deliver natural flow for mitigation, and reduce the amount of natural flow water delivered for irrigation or for storage. If the same number of acres are authorized to be irrigated with natural flow, natural flow water will be consumed by the crops, additional water will be consumed by evaporation, and 1.4 cfs will be continuously released for mitigation, resulting in increased consumption of water; an enlargement of use.

13. Second, TLCC's mitigation plan is deficient because it does not address the possibility that mitigation water will not actually reach the Bear River. Evidence suggests that lower Mink Creek may be a losing reach for at least part of the year. (Finding of Fact 9) There are also recorded water rights on Mink Creek downstream of the TLCC diversion dam that may divert Mink Creek water. (Finding of Fact 11)

14. The proposed mitigation plan is deficient in the details of how the proposed mitigation will be monitored and accomplished. As stated above, an applicant shall provide information concerning "any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights." TLCC needed to describe the location and design of bypass structures, measuring devices, access to lands for measurement and regulation, remote reporting and control capabilities, other equipment needs, and how the water master could read and adjust the components

of mitigation in real time. The descriptions of the above items did not need to be in final, blue print form, but needed to be of sufficient detail that IDWR could assess whether the mitigation proposal would be administrable.

Sufficiency of Water Supply

15. An applicant shall provide information regarding "the water requirements of the proposed project, including, but not limited to, the required diversion rate during the peak use period and the average use period, the volume to be diverted per year, the period of year that water is required, and the volume of water that will be consumptively used per year." (IDAPA 37.03.08.40.05.d.i) An applicant shall also provide information regarding "the quantity of water available from the source applied for, including, but not limited to, information concerning flow rates for surface water sources available during periods of peak and average project water demand . . . ." (IDAPA 37.03.08.40.05.d.ii)

16. "The water supply will be determined to be insufficient for the proposed use if water is not available for an adequate time interval in quantities sufficient to make the project economically feasible . . . ." (IDAPA 37.03.08.45.01.b)

17. TLCC satisfied its burden of persuasion regarding the sufficiency of the water supply. Although unallocated water may not be available to fill the proposed reservoir every year, unallocated water is periodically available and the reservoir could legally capture water during such times. TLCC also demonstrated that flows in the Bear River below Oneida Dam are sufficient to support its proposed hydropower facility.

Good Faith / Speculation

18. An applicant shall provide "copies of deeds, leases, easements or applications for rights-of-way from federal or state agencies documenting a possessory interest in the lands necessary for all project facilities and the place of use or if such interest can be obtained by eminent domain proceedings the applicant must show that appropriate actions are being taken to obtain the interest." (IDAPA 37.03.08.40.05.e.i) The applicant shall also provide "copies of applications for other needed permits, licenses and approvals, and must keep the department apprised of the status of the applications and any subsequent approvals or denials." (IDAPA 37.03.08.40.05.e.ii)

19. In determining whether an application is not made in good faith or is made for delay or speculative purposes, the Department should analyze the intentions of the applicant with respect to the filing and diligent pursuit of application requirements. (IDAPA 37.03.08.45.c) An application will be found to have been made in good faith if the applicant has "legal access to the property necessary to construct and operate the proposed project [or] has the authority to exercise eminent domain authority to obtain such access," "is in the process of obtaining other permits needed to construct and operate the project;" and that "[t]here are no obvious impediments that prevent the successful completion of the project." (Id.)

20. "Speculation for the purpose of this rule is an intention to obtain a permit to appropriate water without the intention of applying the water to beneficial use with reasonable diligence." (IDAPA 37.03.08.45.c) "The judgment of another person's intent can only be based upon the substantive actions that encompass the proposed project." (Id.)

21. TLCC has met its burden of persuasion on this element and has demonstrated that the water right application was made in good faith and not for delay or speculative purposes. Although Rule 45.c suggests an applicant must presently have the authority to exercise eminent domain, Rule 40.05.e.i states that an applicant must only demonstrate that "appropriate actions are being taken" to obtain an interest in the property. Rule 45.c does not require an applicant to already have approvals for the "other permits needed to construct and operate [a] project.

22. PacifiCorp raised a legal issue about whether TLCC will ever have the authority to condemn its property by eminent domain. PacifiCorp asserts that the Federal Power Act does not authorize the use of eminent domain to condemn property that is part of the power project authorized by another FERC license. IDWR will not interpret federal law in determining whether TLCC may have the right to condemn PacifiCorp property. When FERC issued a preliminary permit to TLCC, it was aware of the conflict with the Oneida Dam hydropower project owned by PacifiCorp. By issuing the preliminary permit, FERC left open the possibility of possible condemnation.

23. In this case, because the eminent domain authority is directly contingent on the issuance of the FERC license, TLCC is not required to currently have the authority to exercise eminent domain. TLCC must only demonstrate that it is diligently pursuing the FERC license. The thousands of pages of FERC filings included in the administrative record and millions of dollars spent on FERC required studies demonstrate an active, steady pursuit of a FERC license. If TLCC were successful in obtaining a FERC license, it may acquire the authority to condemn the lands required to build and operate its project.

24. A fair amount of evidence was offered by the protestants arguing that TLCC will not be successful in obtaining a FERC license. The viability of TLCC's license application to FERC has no bearing on the outcome of this contested case. The Department cannot and should not attempt to determine whether TLCC's FERC license application meets the FERC criteria. The FERC application review process is much broader than that of the Department. The Department does not have expertise in evaluating FERC applications under the FERC criteria.

25. An applicant is not required to show that it will ultimately be successful in obtaining the other required permits. An applicant must only show that it is "in the process" of obtaining other permits needed to construct and operate the project. It falls to the agency or entity issuing the other permits to determine whether their permitting criteria are satisfied.

Sufficient Financial Resources

26. An applicant will be found to have sufficient financial resources upon a showing that it is reasonably probable that funding will be available for project construction or upon a financial commitment letter acceptable to the Department. (IDAPA 37.03.08.45.01.d) An applicant shall also provide "plans and specifications along with estimated construction costs for the project works" that are "definite enough to allow for determination of project impacts and implications." (IDAPA 37.03.08.40.05.f)

27. An applicant is not required to have financing in place at the time an application for permit is filed or even by the time the Department issues a permit. For large water developments, financing is generally not available until all of the critical permits have been obtained.

28. Through the testimony provided by Clair Bosen, David Tuthill, and Blair Hawkes, including the testimony regarding the bonding program through the IWRB, TLCC demonstrated that it is reasonably probable that financing will be available to complete the proposed project.

29. The feasibility of a project is also encompassed by this review criterion. It is not reasonably probable that a financially unsound project would qualify for financing from public or private sources. A financially unsound project may also be considered speculative in nature.

30. There is a certain amount of variability in the cost and revenue projections associated with the construction of a hydropower project. A feasibility analysis completed today may not be valid six months from now. In evaluating an applicant's feasibility analysis, the Department does not need to consider every hypothetical future cost scenario. In other words, a permit should not be denied on the basis that construction costs or power revenue *may* change in the future. An accurate representation of the current cost to complete the project will satisfy this element of review.

31. In this case, the feasibility analysis prepared by Schiess & Associates was reasonable and demonstrates that the proposed project was financially feasible at the time of the analysis.

Local Public Interest

32. Idaho Code § 42-203A(5)(e) gives the Department the authority to deny an application for permit when the proposed water use would conflict with the local public interest as defined in Idaho Code § 42-202B. "Local public interest" is defined in Section 42-202B(3) as "the interests that the people in the area directly affected by a proposed water use have in the effects of such use on the public water resource."

33. The current definition of local public interest in Section 42-202B(3) was adopted in 2003 and supersedes the evaluation criteria set forth in the Department's Water

Appropriation Rules (IDAPA 37.03.08, Rules 40.05.g-h and 45.01.e), which were adopted in 1993 and were based on a different definition of "local public interest."

34. At the hearing, attorneys representing GYC and IDFG recited language from the legislative history for the 2003 amendment to the definition of local public interest. The attorneys noted that local public interest includes fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, transportation, navigation, water quality, and alternative future uses of water. The quoted legislative history also verified, however, that these categories of local public interest must be directly related to the public water resource.

35. "The Idaho State Water Plan was adopted by [IWRB] to guide the development, management, and use of the state's water and related resources." (Exhibit IDWR10, page 1) The State Water Plan provides an additional standard to be used in evaluating new hydropower projects:

> [IWRB] prefers that new hydropower resources be developed at dams having hydropower potential that do not currently generate power or do not generate at their maximum potential. New structures or projects should be carefully evaluated to insure that the benefits to the state outweigh any negative consequences associated with the proposed development. (Exhibit IDWR10, page 15)

36. The first step in evaluating the local public interest is to define the "area directly affected by a proposed water use." In other words, to define the parameters of the local area. Based on the evidence provided, the most logical local area is the Bear River Basin in Idaho with a specific emphasis on Franklin County. Because of the Bear River Compact, and the interactions of water rights under the compact, the entire river basin in Idaho must be considered as the area directly affected by the proposed use.

37. "People" within the local area includes corporations that conduct business or operate facilities in the designated area, such as PacifiCorp. It also includes government entities charged with providing services to people and managing wildlife resources within the designated area, such as IDFG. Trout Unlimited, Franklin County Fish & Game, Idaho Rivers United, GYC, and Oneida Narrows Organization sufficiently demonstrated that their respective organizations have members who reside in Franklin County on a full-time or part-time basis. The public witness testimony offered confirms that some Franklin County residents share many of the same concerns as those advanced by the protestants.

38. In this particular case, "people" in the local area also includes the various parties to the 2002 Agreement (arising from the relicensing of PacifiCorp Project 20), because the 2002 Agreement sets forth specific tasks to be performed within the Oneida Narrows. The signatories to the 2002 Agreement have a direct contractual interest in the activities occurring within the Oneida Narrows and therefore also qualify as "people" within the context of Section 42-202B(3).

39. The second step in evaluating the local public interest is to identify the "effects" of the proposed water use on the public water resource. In this case, the proposed project would change the nature of the public water resource dramatically. Currently, the public water resource in the Oneida Narrows is a scenic, free-flowing river that is primarily used for whitewater boating, tubing, fishing, and other recreation. (Findings of Fact 102-115) The free-flowing river also constitutes an important section of riverine and riparian habitat for animal species in the area. (Findings of Fact 92-101)

40. The proposed project would convert the public water resource into a still-water reservoir that could be used for reservoir fishing and boating and that creates hydrostatic head for power generation purposes. Another "effect" or change to the public water resource would be converting water that would otherwise flow out of the canyon, to water that is held in a reservoir for potential irrigation use.

41. The third step in evaluating the local public interest is to identify the "interests" that the people in the local area have in the effects or changes to the public water resource.

42. The local public has a strong interest in the free-flowing water recreational activities within the Oneida Narrows. Even though native trout species, such as BCT, do not currently dominate the fish populations within the Oneida Narrows, the canyon is still a highly-used local fishery. (Findings of Fact 110-112) The Oneida Narrows includes a significant portion of suitable salmonid habitat on the Bear River between Oneida Dam and the Idaho-Utah border. (Findings of Fact 76-81)

43. The local public has an interest in the benefits to wildlife species provided by the riverine and riparian habitats associated with the free-flowing river. Many of the animal species in the area rely on the water and riparian areas in the canyon for food, cover, and/or nesting. (Finding of Fact 98) The local public also has an interest in the scenic value of the river flowing through a rugged canyon.

44. Since the 2002 Agreement, an additional interest has developed within the Oneida Narrows. A large amount of time, money and other resources have been dedicated to improving recreational facilities, riparian habitat, and public access within the canyon. (Findings of Fact 116-128) In addition, a significant amount of money has been spent on BCT restoration efforts on the Bear River and its tributaries below Oneida Dam. (Id.) The local public has a substantial interest in preserving and perpetuating the benefits derived from the work performed under the 2002 Agreement. (Id.) Maintaining the mainstem trout habitat within the Oneida Narrows is critical for the success of BCT restoration efforts within the area. (Findings of Fact 67-82)

45. On the other hand, the local public also has an interest in augmenting the water supply to farmers and irrigators in the local communities. The irrigation storage and hydropower generation revenue has the potential to increase water supply and agricultural yields for the TLCC shareholders, particularly if hydropower revenues are used to pipe the TLCC main canal.

46. The mitigation proposed by TLCC, releasing 10 cfs continuously past its Mink Creek diversion, does little to mitigate for the impacts to local public interest elements. (Findings of Fact 86-91) The 10 cfs release will not improve aquatic habitat in lower Mink Creek, will not create a significant amount of riparian habitat or improve the quality of existing riparian habitat, will not improve spawning conditions for BCT, will provide very few water quality benefits, and may not even provide fish passage from the Bear River to the upper section of Mink Creek. It is unknown how much of Mink Creek will be rewatered by the 10 cfs minimum flow because the extent of the "dewatered" section of lower Mink Creek was not defined.

47. The proposed reservoir will have little positive effect on flow fluctuations in the Bear River. Under PacifiCorp's new operation regime for Oneida Dam, implemented after the 2003 License, there is little need to buffer fluctuations in the Bear River flow below the Oneida Dam.

48. Under §42-203A(5)(e), it is the Department's role to weigh the evidence in the administrative record and to determine whether a proposed project conflicts with the local public interest. Based on the evidence in the record, the proposed project does conflict with the local public interest. The public interests associated with the Bear River in its current state far outweigh the public interests associated with the proposed project. Although the potential benefits to TLCC shareholders would be sizeable, the benefits to the local area residents who are not TLCC shareholders would be minimal. The benefits to the state of Idaho would also be minimal. On balance, the director determines that the benefits from hydropower generation and a relatively small addition of 5,000 acre feet of storage for occasional irrigation use do not justify the permanent inundation of the Bear River Narrows, given the unique recreational and wildlife values of the Bear River Narrows and the possibility that the Bear River Narrows may be needed in the future as a storage site for critical future beneficial consumptive or other depletionary uses.

49. The TLCC application differs from the 1990 S&F Power application in a number of ways. The current application was filed by a local company and includes an irrigation component. The studies conducted by TLCC and its contractors appear to be much more detailed than existed in the 1990 application. Further, the mitigation proposed by TLCC appears to be greater than was proposed in the 1990 application. Since the 1990 application, however, the public interests relating to the water resource in the canyon have also increased and multiplied. Based on the evidence in the administrative record relating to the local public interest, any mitigation proposed to offset impacts to the local public interests caused by inundation of the Oneida Narrows would have to be substantial, far greater than has been proposed by TLCC.

Bear River Compact

50. One of the "major purposes" of the Compact is to "permit additional development of water resources of [the] Bear River." (Compact, Article I.A) "It is the

policy of the signatory States to encourage additional projects for the development of the water resources of the Bear River to obtain the maximum beneficial use of water . . . ." (Compact, Article VII)

51. The Compact describes how water in the Lower Division, in excess of existing water rights applied to beneficial use on or before January 1, 1976, should be allocated to the states. (Compact, Article V.A) "Idaho shall have the first right to the use of such remaining water resulting in an annual depletion of not more than 125,000 acre-feet." (Compact, Article V.A(1)) "However, new development using the compact apportionment cannot injure prior water rights in Idaho or rights with a priority earlier than January 1, 1976, in the State of Utah." (Exhibit PC258, page 4) As of 1992, Idaho still had 117,700 acre-feet of depletions that could be developed in the Lower Division. (See Exhibit A1, Figure O.3, page O-11)

52. Article XI of the Compact addresses the approval of new water rights:

> Applications for appropriation . . . of Bear River water shall be considered and acted upon in accordance with the law of the State in which the point of diversion is located, but no such application shall be approved if the effect thereof will be to deprive any water user in another State of water to which he is entitled. (Compact, Article XI)

53. Evidence in the record shows there are still periodically unallocated flows available in the Lower Division of the Bear River, available for appropriation by the state of Idaho under Article V of the Compact. (Findings of Fact 129-133) During these time periods, water rights downstream of the proposed project with priority dates senior to January 1, 1976, including Utah water rights, are fully satisfied.

54. Under the Compact, Idaho has the first right to develop the first 125,000 acre-feet of unallocated water in the Bear River system, even if the unallocated (or excess) water is not present in the system every year. Storage projects are ideal for developing the unallocated Bear River supply because unallocated water can be captured when it is available and used at a later time when the river may be fully appropriated.

55. Flows and diversion in the Lower Division are highly regulated and closely monitored. With the addition of stream gages and measurement devices, the current accounting program is sufficient to ensure that the proposed storage reservoir would only divert water during times when unallocated water is available in the Lower Division.

56. If the evaporative losses associated with the proposed reservoir were fully mitigated to the satisfaction of IDWR, the Compact would not prohibit the approval of Application 13-7697. However, this Order finds that downstream water will be impacted by evaporative losses from the proposed reservoir and TLCC has not proposed a plan that will mitigate for these impacts without enlarging TLCC's natural flow water rights. Consequently, approval of Application 13-7697 is prohibited by Article XI of the Compact.

Other Issues

57. Other issues were raised within the protests and during the hearing that fall outside the scope of the Department's review: (1) Whether TLCC's FERC license will impermissibly impact PacifiCorp's existing FERC license; (2) Whether the proposed project falls within a Northwest Power and Conservation Council designated protected area; (3) Whether TLCC's reasonable alternatives analysis is sufficient; (4) Whether the replacement access road for Oneida Dam proposed by TLCC is sufficient; (5) Whether TLCC's FERC license application is viable and could be approved; (6) Whether TLCC's FERC application or studies meet the standards/expectations of FERC; and (7) Whether PacifiCorp's certification as a low impact hydropower facility will be impacted by TLCC's proposed project.

58. Although these topics may be somewhat related to the Department's review criteria, the Department does not have sufficient expertise in these areas to make a determination on their outcomes. The above topics might have been addressed if the director were approving TLCC's application. Because the director is denying TLCC's application, these matters need not be addressed.

CONCLUSIONS OF LAW

Based on the evidence in the administrative record, TLCC failed to establish elements (a) and (e) of Idaho Code § 42-203A(5). The proposed application will reduce the quantity of water under existing water rights and the proposed application conflicts with the local public interest.

ORDER

IT IS HEREBY ORDERED that Application for Permit No. 13-7697 in the name of Twin Lakes Canal Company is DENIED.

Dated this 18th day of October, 2012.

Gary Spackman
Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 18th day of October, 2012, a true and correct copy of the documents described below were served by placing in the United States Postal Service mail, postage prepaid and properly addressed, and by email, to the following:

Documents Served: Final Order Denying Application for Permit and Explanatory Information to Accompany a Final Order

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Attachment 3

Northwest Power and Conservation Council Letter

Northwest **Power** and **Conservation** Council

November 25, 2014

COMMENTS

Twin Lakes Canal Company
Bear River Narrows Hydroelectric Project
Project # 12486-008

Kimberly D. Bose
Secretary, Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Dear Ms. Bose,
This letter is to inform you that the application by the Twin Lakes Canal Company for for the Bear River Narrows Hydroelectric Project (P-12486-008) is located in a river reach that has been designated by the Northwest Power and Conservation Council (NPCC) through its Columbia River Basin Fish and Wildlife Program (Program) (http://www.nwcouncil.org/fw/program/2014-12/ p. 52-53) and Sixth Northwest Consrvation and Electric Power Plan (http://www.nwcouncil.org/energy/powerplan/6/plan/) (Plan) as protected from future hydroelectric development. The Pacific Northwest Electric Power and Conservation Planning Council, also known as the Northwest Power and Conservation Council, was authorized on December 5, 1980 by Congress in the Pacific Northwest Electric Power Planning and Conservation Act, Public Law 96-501. The Council was established as an interstate agency on April 28, 1981, by agreement among the states of Idaho, Montana, Oregon and Washington. Taken together the Plan and the Program constitute a comprehensie plan for energy planning and fish and wildlife mitigationn and protection througout the four state region and has been recognized as such by the Federal Energy Regulatory Commission (http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf). Because of this we are requesting that the FERC deny the applicants request to proceed with this project.

Most of the river reaches designated as protected areas are in the Columbia River Basin. But the designations also include river reaches outside the Columbia River Basin but within the service territory of Bonneville and thus within the scope of the Pacific Northwest's regional power system. The designations are intended as an expression of the Council's authority under the Northwest Power Act to protect, mitigate and enhance

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Steve Crow
Executive Director

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fish and wildlife in the Columbia River Basin from the adverse effects of the development and operation of the region's existing hydroelectric facilities *and* as an expression of the Council's obligations under the same Act to give due consideration in the Council's regional power plans to the effects of new energy resources (including new hydroelectric resources) on fish and wildlife resources and environmental quality and to internalize the environmental costs and benefits of such new resources to the greatest degree possible in deciding whether to recommend their addition to the region's power supply.

It should be noted that the Council's Program contains a process and criteria for an exception to the protected areas provisions for projects that will have exceptional benefits for fish and wildlife. [1] If the applicant believes that the Bear River Narrows project would provide such benefits the applicant should provide the necessary documentation to the Council to initiate the review process.

Thank you for the opportunity to provide these comments.

Sincerely,

Peter J. Paquet Ph.D.
Manager, Wildlife and Resident Fish
Northwest Power and Conservation Council
851 SW 6th Ave., Suite 1100
Portland, OR 97204

cc: Nick E. Josten
Geosense
2742 Saint Charles Ave.
Idaho Falls, ID 83404

[1] **Petitions for an exception to the protected area designation for proposed projects that will provide exceptional benefits to fish and wildlife**

- Any party may file a petition with the Council for an exception to the effect of a protected area designation for a proposed project that will provide exceptional survival benefits as determined by the relevant fish and wildlife agencies and tribes for the fish, wildlife, or both that are the reason for the designation. Before filing a petition with the Council, the petitioner must notify the appropriate state and federal fish and wildlife agencies and Indian tribes and consult with those agencies and tribes regarding the petition for exception.
- Petitions must contain the following:
  - The location of the affected river reach, including the reach number as listed in the Council's protected areas data base
  - A statement of the facts showing the anticipated benefits and the anticipated detriments of the proposed project
  - An explanation of how the project will affect the Council's power plan and fish and wildlife program, or, if outside the Columbia River Basin, how the project will affect the plan and relevant state and tribal comprehensive plans
  - An explanation of how the petitioner has determined that the project will achieve exceptional fish and wildlife benefits
  - A summary of consultations the petitioner has had with relevant fish and wildlife agencies and Indian tribes regarding the petition, and the responses of the agencies and tribes
- The Council may seek independent scientific review of the petition.
- After review, and after an opportunity for public review and comment, the Council will make a decision on the petition. The Council will approve the petition only if the Council determines the proposed project will provide exceptional benefits to fish and wildlife.

Document Content(s)

Attachment 4

Economic Analysis

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Anthony Jones - Principal

REVIEW OF THE ECONOMICS
of the
BEAR RIVER NARROWS HYDROELECTRIC PROJECT
FERC PROJECT NO. 12486
DRAFT LICENSE APPLICATION

Prepared for
Idaho Rivers United

November 1, 2012

By

Anthony Jones
ROCKY MOUNTAIN ECONOMETRICS
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TABLE OF CONTENTS

EXECUTIVE SUMMARY

In September of 2011, the Twin Lakes Canal Company (TLCC) filed a Draft License Application (DLA) with the Federal Electric Regulatory Commission (FERC) for the Bear River Narrows Hydroelectric Project, FERC PROJECT NO. 12486.

TLCC's proposal calls for a new dam on the Bear River with a 10.5 MW hydroelectric generation facility on the dam outlet.

The dam would create a 12,647 acre-ft. water storage reservoir on what is currently one of the last free flowing stretches of the Bear River.

In the following pages Rocky Mountain Econometrics (RME) clearly demonstrates that, contrary to TLCC's conclusions, the project is flawed and that it is not economically feasible.

TLCC's financial documents understate maintenance and operating costs, omit or underestimate mitigation costs, fail to consider losses to recreators, fail to consider the potential of not achieving Qualifying Facility[1] (QF) status, and other factors.

The only scenario under which the TLCC project is profitable is under their narrowly defined financial description, a scenario that ignores much of the project's surrounding impacts and severely underestimates the project's operating costs.

If the project fails to achieve QF status and its energy must be sold on the open market, where prices are about half of current PURPA rates, the project will suffer financial losses even if impacts on its neighbors are ignored.

If the project's full impact on its neighbors and the environment is accounted for, regardless of pricing alternatives, the project will be a burden on both TLCC and the surrounding region, and will lose between $634,781 and $2.4 million per year.

[1] Congress enacted the Public Utilities Regulatory Policies Act (PURPA), in 1978 as part of the National Energy Plan. PURPA's intent was to address the energy crisis of that time by encouraging the more efficient generation of electricity through "a better integration of QF [qualifying facility] supplies with traditional utility supplies". Qualifying facilities, or QFs, are small power producers and cogenerators as defined in 16 U.S.C. §796(18)(A) and 18 CFR 292.203. Congress expected PURPA to stimulate markets for the products of these alternative sources of energy, which would reduce U.S. dependence on foreign oil, a major foreign policy goal in 1978. One of the major provisions of PURPA forces electric utilities to buy electricity generated by small power producers at "avoided cost" rates, that is, the rate that approximates what it would cost the utility to generate the same amount of electricity.

PROJECT COSTS AND FINANCING

TLCC presented a financial analysis limited to TLCC's construction and operation of the facility. If it were to be an operation wholly owned by private interests and operated on private land, producing power for a private interest, lapses in analytical judgment and failure to consider alternatives and downside scenarios would not be a matter of public concern. Any problems would be theirs and theirs alone.

However, such is not the case. The TLCC project requires the use of public assets in addition to their own capital for the project. Their construction plan calls for direct negative impacts to other neighboring private investments. To the extent TLCC intends to sell their power into the intermountain electrical grid, the long-term reliability of the grid will depend, in part, on the comprehensiveness and validity of TLCC's analyses. Since the TLCC project will use a combination of private and public resources it is imperative to include the cost, and or benefit, the project will have on items peripherally related to the project.

Briefly, RME expanded TLCC analysis in three broad areas, omitted costs, under and over estimates of revenue and cost streams, and PURPA vs. Open Market pricing alternatives. These three major areas of investigation involve the following sub issues.

OMITTED COSTS

1. Pacificorp Bear River ECC impact
2. Pacificorp Road Realignment & Fencing Costs
3. Habitat Mitigation – Land Acquisition Costs
4. PURPA Price Differential, (Pacificorp Ratepayer Subsidy of TLCC)
5. Recreation Losses

OVER ESTIMATES OF REVENUE / UNDER ESTIMATES OF COST

1. Lower Contractor Price Competition.
2. Under Estimation of Project Operating and Maintenance Costs
3. Over Estimation of Energy Sales (aMwh)

OPEN MARKET vs. PURPA PRICING

1. Review Of TLCC Energy Sales and Pricing Options

In following pages these issues are developed in greater detail.

OMITTED COSTS

Pacificorp Bear River ECC

PacifiCorp owns and operates Oneida Dam, the hydroelectric project immediately upstream of TLCC's proposed project. The operation of Oneida Dam is constrained by a license issued by the Federal Energy Regulatory Commission.

As part of the 2002 relicensing of the Oneida Hydropower Project and three other hydropower projects on the Bear River, PacifiCorp entered into a settlement agreement with United States Fish And Wildlife Service, United States Bureau Of Land Management, United States National Park Service, USDA Forest Service, Shoshone-Bannock Tribes, Idaho Department Of Environmental Quality, Idaho Department Of Fish And Game, Idaho Department Of Parks And Recreation, Trout Unlimited, Idaho Rivers United, Greater Yellowstone Coalition, and American Whitewater on many issues associated with the new FERC license for the project. The Bear River Environmental Coordination Committee (ECC) was created to assist PacifiCorp with the implementation of its new hydropower license. The ECC membership is comprised of the signatories to the 2002 settlement agreement (Agreement).

In summary, the agreement provides that:

> "(1) The Agreement contains specific measures that will substantially improve environmental conditions in the Bear River watershed near the Project;
> (2) The Agreement provides important resource protection and restoration measures that will benefit fish and wildlife habitat, consistent with regional restoration planning;
> (3) The Agreement provides for various interests and river uses, including irrigation, power production and natural resource values; and
> (4) The Agreement establishes a process for the Parties to collaborate to manage and enhance natural resources in the Bear River watershed throughout the terms of the New License."[2]

As part of their new operating license, Pacificorp is required to invest in a number of projects in the area TLCC is proposing to inundate. This they have done and continue to do. However, if the TLCC project is constructed it will mean a substantial portion of PacifiCorp's spending on these projects will have been wasted. Further, it means that

[2] Explanatory Statement, For The Settlement Agreement Among Pacificorp, United States Fish And Wildlife Service United States Bureau Of Land Management, et al, August 28, 2002, Concerning The Relicensing Of The Bear River Hydroelectric Projects FERC Project Nos. 20, 472, and 2401 Caribou and Franklin Counties Idaho, pp.1. Full text of the agreement at ttp://www.pacificorp.com/es/hydro/hl/br.html#

PacifiCorp's ongoing ability to comply with the settlement agreement will be compromised. It is reasonable to hold TLCC accountable for PacifiCorp's ECC losses.

According to Pacificorp, the TLCC project renders $151,000 of Pacificorp's previous investment in ECC project useless.[3]

Pacificorp Road Realignment & Fencing

If the TLCC project is approved and constructed, it will render useless a road necessary for Pacificorp to access and maintain Oneida Dam. If TLCC's project forces Pacificorp to abandon their current road, and construct a new service road, it is only reasonable that the cost of the new road be added to the total cost of the TLCC project.

According to Pacificorp the cost to realign their service road and construct fencing as a result of the TLCC project will cost $509,000.[4]

Mitigation Habitat Acquisition Cost

Mitigating for the wildlife habitat inundated by a reservoir is a routine part of the construction of any hydroelectric project that makes use of public lands. This is true regardless of whether the project is initiated by public or private entities. While TLCC made passing mention of "improving" some land surrounding the proposed reservoir, they made no mention, and included no costs, of acquiring and preserving land similar in size with similar wildlife supportive features.

Table 1 - Terrestrial Wildlife Habitat Replacement

Acres	Multiplication Factor	$/Ac	Engineering	Total
362	1	$3,000	35%	$1,466,100
362	1.5	$3,000	35%	$2,199,150
362	2	$3,000	35%	$2,932,200

Table 1, above, was developed using methodology from the SIWM analysis completed for Idaho Department of Fish and Game in August, 2008.[5]

[3] Pacificorp, Bear River Enhancement Projects, Funded by the Bear River Environmental Coordination Committee, 2005 – 2010.

[4] Pacificorp Email, from Mark Stenberg to RME, et al, 3/3/2012, 4:52 p.m.

[5] Estimated Cost To Mitigate For Wildlife Habitat Lost To Five Bureau of Reclamation Projects in Southern Idaho, August 2008, Chinook Northwest, Inc.

The Acres column reflects the number of acres the TLCC project is projected to flood, thus eliminating land wildlife currently inhabits.

The "Multiplication Factor" column provides a ratio of the amount of land that needs to be acquired to preserve land with enough animal unit carrying capacity to equal the amount of carrying capacity taken out of existence. For instance: Much of the land being inundated is riparian land that will be hard to find in other areas. It may be necessary to preserve as much as double the acreage of lower quality land to match the carrying capacity of the inundated land.

The $/Acre column presents a rough estimate of the cost of dry grazing, and or bare land in southeast Idaho.

The "Engineering" column presents an estimate of the cost to perform minimal rehabilitation to the land being acquired. This typically means the control of noxious weeds, planting more appropriate plant species, etc.

Finally, the multiplying of all the columns presents a range of costs to acquire and minimally improve habitat equal in animal carrying units to the amount of habitat taken out of existence by the TLCC project. To illustrate both the high and low side of this issue, RME used both the low estimate of $1,466,100, and the high estimate of $2,199,150

Credit Mitigation Identified in DLA

TLCC included an estimate of $500,000 to fund improvement of some existing lands in the vicinity of the proposed reservoir. It does not include funding to set aside replacement lands. RME credited TLCC the amount of this fee as a deduction from the cost to acquire and set aside wildlife habitat presented in the preceding section.[6]

PURPA differential forced on PC Customers

Whether or not the logic behind TLCC's attempt to achieve QF status and receive PURPA energy prices is sound will not be discussed in this section. However, it is fair to say that the extent to which PURPA rates are set in excess of the rates the hosting utility can purchase supplemental power on the open market constitutes a subsidy to qualifying facilities born by the ratepayers of the host utility. In essence, to the extent that TLCC Project electricity costs more than Pacificorp could acquire the same amount of power on

[6] Twin Lakes Canal Company, Reservoir and Hydroelectric Project on the Bear River, Basis of Feb 2011 Estimate, Scheiss & Associates, 2/3/12.

the open market constitutes a tax on Pacificorp customers that needs to be included in TLCC's total economic cost of operation.

In the TLCC application, Schiess and Associates (Schiess) listed a PURPA rate of $78.50 per Mwh.[7] At that time RME estimated the open market rate for energy to be $46.34[8], meaning the PURPA rate forms a de facto subsidy of $32.2 per Mwh. Multiplied times 43,535 aMwh of energy sales, the resulting subsidy per year, from Pacificorp ratepayers to TLCC amounts to $1.4 million.

Recreation Losses

From kayaking, to stream fishing, to wildlife watching, to picnicking, the stretch of the Bear River TLCC intends to transform into a reservoir is a relatively rare resource in that part of Idaho. It has value. The loss of that value needs to be accounted for in TLCC's financials.

On page 267 of the DLA, TLCC estimated that the cost of displacing existing recreational activities to other areas would range from a low of $208,000 per year to a high of $930,000. Without comment, RME included both TLCC's low of estimate of 208,817, and a mid point estimate of $569,205 in this analysis.[9]

[7] Twin Lakes Canal Company, Reservoir and Hydroelectric Project on the Bear River, Basis of Feb 2011 Estimate, Scheiss & Associates, 2/3/12.
[8] RME, Appendix 1.
[9] TLCC, DLA, pp. 267

REVIEW OF REVENUE AND COST ESTIMATES

Project cost

TLCC's Cost estimate is over a year old and was made at the bottom of the recession. As the economy improves it is reasonable to expect contractors to become less hungry, less likely to compete with the same ferocity as they were in 2010 or 2011. It seems reasonable to include a recession ending related cost adder as a reminder that whatever a final construction cost might be, it will undoubtedly be higher than that presented in the application.

For the purposes of this analysis the point is not to get into a discussion about inflation. And, the amount RME included for this issue is insignificant to the outcome. RME included a small (3 percent) price adder as a reminder, a place holder if you will, that by the time TLCC starts construction, if that time ever comes, the starvation level estimation and bidding that occurred when this application was initiated will likely have ended. In that context, it seems reasonable to expect an upward price correction that the applicant would be well advised to keep in mind. A three percent upward adjustment results in a construction cost of $25,302,723.[10]

O&M

Hydroelectric plants are, in some ways, curious facilities. They are massive in scale and both the dams themselves and the resulting reservoirs appear to be static. At any given moment very little seems to be happening. They quickly take on the semblance of geologic features of long standing.

On run of river projects such as this, the water flows out at about the same rate as it flows in. The number of acre-feet of water in the reservoir remains nearly constant much of the time. The reservoir maintains the same level for months, even years at a time. In the event that it does change, it changes subtly, a foot or two per day. Even the powerhouse churns out the electricity and puts it on the electrical grid without much need for human involvement on a moment-by-moment basis.

[10] To put this in context, *Schiess document, Twin Lakes Canal Company, Reservoir and Hydroelectric Project on the Bear River, Estimate of Probable Cost, 2/3/2012,* lists a history of cost estimates going back 13 years. The first estimate, in 1999, was for a total cost of only $6.5 million. By 2007 the estimate was up to $17.5 million. In the four years between 2007 and 2011, the cost estimate went up another $5.2 million to their current estimate of $22.7 million. The compound rate of interest for these estimates is, at 10.8 percent, well in excess of inflation. Given the history of cost escalation for this project, a 3 percent, $600,000, placeholder seems prudent for the 20-month span since the most recent estimate.

At the same time, the owner of even a modest hydroelectric project incurs a massive responsibility. Everything may seem static at the project at any given moment but the potential energy of the stored water is unrelenting. Floodgates fail, abutments leak, earthquakes happen, and even the best-engineered dams collapse. Fortunately, events such as these are rare. The reason they are rare is that it is common to intensively monitor modern hydroelectric projects.

The magnitude of potential losses and injury associated with the failure of projects such as this requires a high level of oversight to make sure, beyond the smallest level of doubt that everything is being done to make sure the projects are safe, and that all systems are operating properly. Dam failure is not something to be taken lightly. Dam failure is not something left solely to remote sensors and periodic inspections. The memory of the Teton Dam collapse is still fresh in the minds of many Idahoans, particularly eastern Idahoans. Dams can progress from little or no sign of problem, to complete collapse in a matter of hours.

With the foregoing in mind, RME surveyed the O&M spending at other hydro facilities in the northwest relative to the size and cost of the installation. It quickly became apparent that TLCC's estimate of O&M spending is lower than typical O&M spending by a substantial amount.

More to the point, RME surveyed 43 hydro projects in the Pacific Northwest. RME ranked these plants in order of magnitude of O&M spending as a percent of total capital cost. The median plant spends 5.8 percent of total capital cost each year. If TLCC were to spend the same 5.8 percent of capital cost on O&M they would need to spend $1.443 million per year. Instead, TLCC proposes to spend a scant $180,000 per year[11], barely 12 percent of what other long established companies spend on similar projects.[12]

RME recognizes that for the first few years after completion, the project may not need as much in the way of O&M spending as do older facilities. However, we are concerned with more than the O&M cost of new plants. The project will not be new for long. Thus, it is more appropriate to look at average O&M costs over the life of the plant.[13]

Dams need supervision and even the best-designed generators and turbines require maintenance and repair as time progresses. If the TLCC project is to stay current, safe,

[11] Twin Lakes Canal Company, Reservoir and Hydroelectric Project on the Bear River, Basis of Feb 2011 Estimate, Scheiss & Associates, 2/3/12.

[12] Attachment RME, TLCC FERC Form 1.pdf

[13] It is worth noting that new construction is not a guarantee of safety. The Teton Dam in Idaho failed while being filled. The St. Francis Dam in California failed within days of being filled, and the Fontenelle Dam in Wyoming suffered a partial failure in its first year of operation. https://en.wikipedia.org/wiki/St._Francis_Dam, https://en.wikipedia.org/wiki/Dam_failure, https://en.wikipedia.org/wiki/Fontenelle_Dam.

and up to date, RME estimates that it will take O&M spending of about $1,442,624 per year to accomplish this result.

Energy Sales

RME, with technical assistance from Pacificorp, reviewed TLCC's electrical generation forecast. By comparing forecast generation at TLCC with actual generation at Pacificorp's Oneida Project, it is possible to produce a real world check on TLCC's power generation forecast of 50,676 aMwh.

Pacificorp currently owns and operates a very similar project, on exactly the same river, upstream of TLCC's proposed project. In that light, it seems reasonable to look at Pacificorp's history of energy production.

Pacificorp's Oneida hydroelectric dam is 6 miles upstream of TLCC's proposed dam and there are no tributaries or diversions between the two. For most of the year, water discharged from Oneida's turbines will, with very little delay, also be sent through TLCC's turbines. In other words, the two dams would have nearly identical volumes of water flowing through their turbines at nearly identical times of the year. The only difference of substance between the two is the hydraulic head of the two systems.

Given the same volume of water, power generation is directly proportional to the height of the water column.

> Oneida has a head of 145 feet and an historic average of 59,553 aMwh of generation.
>
> TLCC is proposed to have a head of 106 feet.
>
> Multiplying 59,553 by 106/145 we arrive at a 43,535 aMwh of generation for TLCC, 7,141 aMwh less than TLCC's forecast.

For one of the open market price scenarios RME gave TLCC the benefit of the doubt and added a 5 percent efficiency bonus to the 43,535 number, bringing total revised annual generation up to 45,712.

PRICING ISSUES - OPEN MARKET VS. QF (PURPA) RATES

QF Rates

In the months preceding, and subsequent, to TLCC's filing the Idaho PUC was and is in the process of reviewing PURPA rates. There are undoubtedly many reasons for this, but at least one of them is that for the past several years more and more energy sources, alternative and conventional, have come on line and, concurrently, open market prices have plummeted.

Some of the earliest TLCC documents show PURPA rates as high as $100.39 per Mwh[14]. By the time the application was submitted PURPA rates had been revised downward by nearly 25 percent to $78.50 / Mwh. As this is being written, Pacificorp has a case before the IPUC seeking to reduce the rate still further.

For the purposes of this report RME used TLCC's PURPA rate of $78.50 / Mwh. That said, the reader needs to remain conscious of the various motions before the Idaho PUC to reduce PURPA rates further and make it harder to acquire QF status. In short, RME used $78.50 / Mwh in the upside scenarios. By the time this project is built, if it is built, it is likely this number will be lower.

Open Market Rates

As hinted in the previous paragraph, it is important to remember that TLCC is not assured of a QF designation. What this means is that, if this project is built and fails to gain QF status, they will have to sell the power on the open market in some manner. This scenario opens up an entire range of pricing options.

The top of the open market pricing range goes to Green Power providers. This is an excellent option to anyone who qualifies. Firm "green" power sells as high as $100 /Mwh. However, this typically requires becoming a LIHI certified producer[15] and there

[14] Bear River Narrows Hydroelectric Project, FERC Project No. 12486, Draft License Application, pp. 18.

[15] The Low Impact Hydropower Institute (LIHI) is a non-profit 501(c)(3) organization dedicated to reducing the impacts of hydropower generation through the certification of hydropower projects that have avoided or reduced their environmental impacts pursuant to the Low Impact Hydropower Institute's criteria. In order to be certified by the Institute, a hydropower facility must meet criteria in the following eight areas: river flows, water quality, fish passage and protection, watershed protection, threatened and endangered species protection, cultural resource protection, recreation, and facilities recommended for removal. The criteria standards are typically based on the most recent, and most stringent, mitigation measures recommended for the dam by expert state and federal resource agencies, even if those measures aren't a requirement for operating (Emphasis added. RME). A hydropower Facility meeting all eight certification criteria will be certified by LIHI, and will be able to use this certification when marketing power to consumers. http://www.lowimpacthydro.org/about.html.

are major hurdles associated with such a designation. In particular, facilities such as the TLCC project that reduce wildlife habitat, eliminate free running streams, and compromise other firm's environmental activities, do not qualify. The fact that this project is being challenged for a variety of negative environmental impacts seems to preclude the achievement of LIHI certification.[16]

In the absence of LIHI certification, TLCC will be forced to sell to other energy marketers, or conceivably let their power float on the open market. This means prices down in the $46 per Mwh range, or even lower.

TLCC used PURPA rates in their application. In this analyst's mind, that appears so be their best option. However, it is an option that is far from certain. While it is fine to hope for the best, it is prudent to prepare for alternative outcomes. In this analysts mind, the most likely outcome is that TLCC will face prices much closer to $46, than $79.

For a discussion of the recent history of open market prices, and why $46 per Mwh is more that generous please refer to Appendix 1.

[16] Low Impact Hydropower Institute, Certification Handbook Including Materials Needed In Applying For Certification, (Updated December 2011), pp. 8. http://www.lowimpacthydro.org/existing-certification-application-program.html.

AGGREGATE PROJECT ECONOMICS

At or near the heart of every application to construct a generating plant are the figures detailing how much it costs to build and operate the plant relative to the revenue it will receive. This section broadens TLCC's financial analysis to include numbers for issues such as impacts to recreation and Pacificorp's ECC agreement. The result is that, while TLCC hopes to see profits of $1.5 million per year, it is more likely that, when impact to the environment and neighboring businesses is factored in, the project will have an aggregate economic loss as high as $2.6 million per year.

The most significant issue of this project involves the ultimate selling price of TLCC's energy. Will they achieve QF status and sell at PURPA rates? If so, what will those rates be? Alternately, if TLCC fails to achieve QF status, they face the potential of much lower open market pricing. With that in mind, two spreadsheets are presented on following pages. The first, Table 2, presents three production scenarios with PURPA pricing. The second spreadsheet, Table 3, presents two production scenarios with open market pricing.

PURPA Pricing Scenarios

Scenario 1P – TLCC's Base Case

Column 1P is the de facto base case. It presents Schiess & Associates' most recent development of the economics of the project.

Briefly, Schiess estimated that the dam would cost $24.5 million to construct. Financed for 20 years at 5 percent interest, the annual carrying cost would be $1.971 million. O&M, taxes and insurance were estimated at $420,000 per year, bringing the total annual costs of the project up to $2,391,219.

On the revenue side, Schiess projected energy sales of 50,676 aMwh at a QF rate of $78.50 per Mwh, for revenues of $4.0 million per year and a total annual profit to TLCC of $1.59 million.

Scenario 2P –Revised Factors Of Production and All External Costs Except PURPA Subsidy

This alternative builds on the Base Case above by adding 3 percent to the projects base cost of $24.6 million, bringing it up to $25.3 million. It also includes a $151,000 impact to Pacificorp's ECC program, $509,000 to fence and realign Pacificorp's road. It includes $1.5 million for wildlife habitat acquisition, $500,000 of which is netted back from TLCC's wildlife estimate. The combination of these inclusions brings the annual

cost of financing the project up from $1.971 per year, to $2.16 million per year.

In the annual cost category, RME raised the estimate of annual O&M costs from $180,000, to $1.4 million per year, to more appropriately reflect the O&M rates seen at other equivalent installations in the northwest. The combination of these changes brings the annual cost of the project up from TLCC's $2.4 million, to $4.1 million.

On the revenue side, RME reduced energy generation at TLCC from 50,676 aMwh to 43,535 aMwh to reflect that TLCC's project will have the same cfs as Oneida, but a lower head. The combination of these changes results in the project showing an annual loss of $634,781.

Scenario 3P – Scenario 2P Plus the PURPA Subsidy

Scenario 3P is the same as the preceding Scenario 2P with the addition of the $1.4 million per year that it will cost Pacificorp rate payers to buy TLCC power at PURPA rates as opposed to much lower open market rates. This additional cost increases TLCC's annual loss on the project to $2.034 million.

Table 2

TLCC, Oneida Narrows Dam, Financial Analysis with PURPA Rates

		1P		2P		3P	
		Base Case	Notes	Base Case w / Cost Adder, Omitted Costs., Median O&M, Low Rec Losses and Head Adjustment	Notes	Base Case w / Cost Adder, Omitted Costs., Median O&M, Low Rec Losses, Head Adjustment and PURPA Differential	Notes
Capital Costs							
1	Project Cost	$24,565,750	1.1	$25,302,723	2.1	$25,302,723	2.1
2	Periods	20	1.1	20	1.1	20	1.1
3	Rate	5%	1.1	5%	1.1	5%	1.1
4	Annual Cost	$1,971,219	1.1	$2,030,356	1.1	$2,030,356	1.1
5							
6	Bear River ECC			$151,000	2.4	$151,000	2.4
7	PacCorp Road Realign & Fencing			$509,000	3.0	$509,000	3.0
8	PacCorp Land Acquisition						
9							
10	Mitigation Habitat Acq Cost			$1,466,100	2.3	$1,466,100	2.3
11	Credit Mitigation Identified in DLA			-$500,000	1.2	-$500,000	1.2
12	Net Ommitted Costs			$1,626,100		$1,626,100	
13							
14	Revised Project Cost (Sum 1, 10)	$24,565,750		$26,928,823		$26,928,823	
15	Revised Annual Costs	$1,971,219		$2,160,838		$2,160,838	
Annual Costs							
16	Debt Service (Line 15)	$1,971,219		$2,160,838		$2,160,838	
17	M&O	$180,000	1.1	$1,442,624	2.5	$1,442,624	2.5
18							
19	Property Tax & license Fees	$120,000	1.1	$120,000	1.1	$120,000	1.1
20	Insurance	$120,000	1.1	$120,000	1.1	$120,000	1.1
21							
22	Total Annual Costs	$2,391,219		$3,843,462		$3,843,462	
Induced Costs							
23	Total Annual Direct Project Costs (Line 22)	$2,391,219		$3,843,462		$3,843,462	
24	Recreation Losses			$208,817	2.7	$208,817	2.7
25	PURPA differential forced on PC Customers					$1,400,150	2.8
26							
27	Total Annual Costs (Sum Lines 29-31)	$2,391,219		$4,052,279		$5,452,429	
Total Project Costs							
28	Energy Sales (aMwh)	50,676	1.1	43,535.00	3.1	43,535.00	3.1
29	**TLCC Cost ($/Mwh)(Line 32/Line 33)**	$47.19		$93.08		$125.24	
30							
31	**Scheiss Rate (PURPA Rate) ($/Mwh)**	$78.50	1.3	$78.50	1.3	$78.50	1.3
32							
33	**TLCC Annual Profit (Loss) ($/Mwh)(Line 35-Line 34)**	**$31.31**		**-$14.58**		**-$46.74**	
34	**TLCC Annual Profit (Loss)($)(Line 33*Line 36)**	**$1,586,847**		**-$634,781**		**-$2,034,931**	

Notes

1.1 Schiess & Ass. 2011 Feb Estimate.
1.2 Schiess & Ass. 2011 Feb Estimate, line 13.
1.3 Schiess & Ass. 2011 Feb Estimate, Revised 3/2/2012

2.1 RME, 3% End of Recession Adder
2.2
2.3 RME, SIWM Methodology
2.4 Habitat Enhancement Projects Funded by the ECC, 2005 - 2010, Worksheet Notes Tab, Line 30
2.5 RME, FERC Form 1 Tab, Summary Stats.
2.6 Idaho PUC, ORDER NO. 32337.
2.7 TLCC, DLA, pp 267, Min,
2.8 RME, PURPA Rate minus Open Market Rates times TLCC Mwh production
2.9 RME, Open Mkt Price Fcst.
3.0 PacifiCorp, Mark Stenberg Estimate, 3/3/2012
3.1 PacifiCorp Data, Email, Jack Kolkman, 3/1/2012.

Open Market Pricing Scenarios

Table 3 on the following page lists two scenarios with Open Market energy pricing. It takes most of the same information in Table 1, and examines the result of TLCC selling their power on the open market in the event they fail to achieve QF status.

Scenario 1O – Base Case (1P) with Open Market Pricing

This scenario is identical to the TLCC's base case as presented in column 1P in the preceding spreadsheet. Again, these numbers are exactly the same as submitted by TLCC in the DLA. The difference being, that instead of PURPA sales prices, RME examined the impact of TLCC having to sell at open market rates. In the absence of PURPA rates, something more like $46.34 will be the rate TLCC will have to accept. If this occurs, instead of an annual profit of $1,586,847, TLCC will be looking at losses of $42,968 each year.

Scenario 2O – Open Market Pricing Plus All External And Revised Factors of Production

This alternative adds 3 percent to the project's base cost of $24.6 million, bringing it up to $25.3 million. It also includes a $151,000 impact to Pacificorp's ECC program, and $509,000 to fence and realign Pacificorp's road. It includes the high end $2.9 million for wildlife habitat acquisition, with $500,000 again being netted back from TLCC's wildlife estimate. The combination of these inclusions increases the annual cost of financing the project from $1.971 million per year, to $2.3 million per year.

In the annual cost category, RME again raised the estimate of annual O&M costs from $180,000, to $1.4 million per year, to more appropriately reflect the O&M rates seen at other equivalent plants in the northwest. The combination of these changes brings the annual cost of the project up from TLCC's $2.4 million, to $3.96 million.

The sole externality RME added was the $569,205 TLCC calculated for losses associated with fishermen, boaters, and other recreator's inability to pursue their traditional activities on the free running river.

On the revenue side, RME again reduced energy sales from 50,676 aMwh to 43,556 aMwh to reflect the differences in generating capabilities between Oneida dam and TLCCs project. The two projects have nearly identical water flows, but TLCC's project has a lower head, thus suggesting lower generating capabilities. RME calculated TLCC's revenue based on the same open market rate of $46.34 per Mwh. The combination of these changes results in the project showing an annual loss of $2.4 million.

Table 3

TLCC, Oneida Narrows Dam, Financial Analysis with Open Market Rates

		1O		2O	
		Base Case w/Open Market Rates	Notes	Open Market Rates w Cost Adder, Ommitted Costs, Med. O&M, Avg, Rec Losses, and Partial Head Adjustment	Notes
Capital Costs					
1	Project Cost	$24,565,750	1.1	$25,302,723	2.1
2	Periods	20	1.1	20	1.1
3	Rate	5%	1.1	5%	1.1
4	Annual Cost	$1,971,219	1.1	$2,030,356	1.1
5					
6	Bear River ECC			$151,000	2.4
7	PacCorp Road Realign & Fencing			$509,000	3.0
8	PacCorp Land Acquisition				
9					
10	Mitigation Habitat Acq Cost			$2,932,200	2.3
11	Credit Mitigation Identified in DLA			-$500,000	1.2
12	Net Ommitted Costs			$3,092,200	
13					
14	Revised Project Cost (Sum 1, 10)	$24,565,750		$28,394,923	
15	Revised Annual Costs	$1,971,219		$2,278,482	
Annual Costs					
16	Debt Service (Line 15)	$1,971,219		$2,278,482	
17	M&O	$180,000	2.5	$1,442,624	2.5
18					
19	Property Tax & license Fees	$120,000	1.1	$120,000	1.1
20	Insurance	$120,000	1.1	$120,000	1.1
21					
22	Total Annual Costs	$2,391,219		$3,961,106	
		0.73%		5.70%	
Induced Costs					
23	Total Annual Direct Project Costs (Line 22)	$2,391,219		$3,961,106	
24	Recreation Losses			$569,205	2.7
25					
26					
27	Total Annual Costs (Sum Lines 29-31)	$2,391,219		$4,530,311	
Total Project Costs					
28	Energy Sales (aMwh)	50,676	1.1	45,712	3.1
29	**TLCC Cost ($/Mwh)(Line 32/Line 33)**	$47.19		$99.11	
30					
31	**Open Market Rate) ($/Mwh)**	$46.34	2.9	$46.34	2.9
32					
33	**TLCC Annual Profit (Loss) ($/Mwh)(Line 35-Line 34)**	**-$0.85**		**-$52.77**	
34	**TLCC Annual Profit (Loss)($)(Line 33*Line 36)**	**-$42,968**		**-$2,412,081**	

Notes

1.1 Schiess & Ass. 2011 Feb Estimate.
1.2 Schiess & Ass. 2011 Feb Estimate, line 13.
1.3 Schiess & Ass. 2011 Feb Estimate, Revised 3/2/2012

2.1 RME, 3% End of Recession Adder
2.2
2.3 RME, SIWM Methodology
2.4 Habitat Enhancement Projects Funded by the ECC, 2005 - 2010, Worksheet Notes Tab, Line 30
2.5 RME, FERC Form 1 Tab, Summary Stats.
2.7 TLCC, DLA, pp 267, Midpoint.
2.8 RME, PURPA Rate minus Open Market Rates times TLCC Mwh production
2.9 RME, Open Mkt Price Fcst.
3.0 PacifiCorp, Mark Stenberg Estimate, 3/3/2012
3.1 PacifiCorp Data, Email, Jack Kolkman, 3/1/2012.

Exclusion of Revenue From the Harvest of Additional Planted Acreage

The DLA mentions expansion of the irrigation system and goes as far as presenting numbers for increased acreage and revenues from incremental crop sales.

In the course of the March 2012 water right hearing in Pocatello both the applicant and the hearing officer pressed RME as to why it is justifiable to include the cost for such things as recreation losses, but not include the revenue from additional crop acreage resulting from the expansion of the TLCC irrigation system.

The reasoning is simple. All the additional costs and externalities RME includes in this analysis are associated with items that will be impacted if TLCC constructs this project. Pacificorp's ECC and roads will be impacted. Recreators will have no choice but to go other places to boat or fish if their preference is to do so in free flowing streams. Wildlife habitat will be diminished. TLCC will face either open market pricing or PURPA pricing, neither of which is currently well defined. There is a high probability that TLCC's O&M costs will greatly exceed those stated in the DLA.

All of the events in the preceding paragraph are precipitated by the construction of the dam and filling of the reservoir, the cost, operation, and financing of which is detailed by Schiess and Associates. For these items, there may be discussion about the ultimate values, but there is no doubt that they will be affected by the construction of the project.

However, the DLA fails to include the capital, O&M, and financing costs required to construct and operate the pumping station associated with delivering additional irrigation water from the Bear River up to the various farmers' fields. If the applicant had included theses costs RME would have been obliged to include values for enhanced crop production. TLCC's failure to include costs for the pumping station means increased irrigation remains an option, not a requirement. As long as the additional irrigated acreage is only an option it is inappropriate to include its potential revenue.[17]

[17] The DLA (on pp 270) claims that the project will allow TLCC members to draw 5,000 acre feet of water during water shortages, thus preventing production losses during droughts. Using TLCC's math this equates to 2,500 acres of crops, at 2 feet of water per acre, and $94 of farm income per acre, or $235,000 per year. The assumption is that "revenue from power sales would go directly to Twin Lakes' shareholders for improvements to their irrigation delivery system. The improvements include replacing 42 miles of canal with pipeline. Expenditures for this improvement project are estimated at $48 million dollars over a 10-year period."

Two things stand out. One, the $48 million number does not include the pump station necessary to get the water up to the delivery system so, again, TLCC is talking about an incomplete system. Two, assuming the same 5% cost of capital Scheiss uses for the dam, the interest payment on the canal improvements will be $2.4 million per year. Clearly, incremental annual crop values of $235,000 do not cover interest payments of $2,400,000. Worse, even the addition of the $1.5 million upside profit from the dam to the value of additional crops, for an annual total of $1.8 million, falls more than $500,000 short of covering the interest payment.

SUMMARY

TLCC's DLA for the Bear River Narrows hydroelectric project presents a financial picture whose focus is limited to the benefits to TLCC's investors even though the project will utilize, and in several cases eliminate, neighboring public and private assets. RME broadened the financial analysis of the project to include its impact to others in the vicinity. RME also examined some of TLCC's more questionable assumptions, such as O&M expenditures, and pricing options. Based on those findings, RME developed four alternate scenarios to compare to TLCC's base case to illustrate the full impact and feasibility of the project.

Scenario 1P – Base Case

The base case financial analysis, developed by TLCC in their DLA, and presented as Scenario 1P above, concluded that the project would generate profits of $1.5 million per year.

Scenario 2P – Base Case with External Impacts and Revised Cost Estimates.

Recognizing that TLCC's project negatively impacts several public and private assets in the vicinity, and makes a couple of questionable assumptions about the project's operating costs, RME developed Scenario 2P. This scenario includes impact to Pacificorp's ECC program and costs to realign and fence their access road. It also includes the cost of acquiring replacement wildlife habitat. RME increased the estimate of annual O&M costs to more appropriately reflect the O&M rates seen at other equivalent plants in the northwest. On the revenue side, RME reduced energy generation at TLCC from 50,676 aMwh to 43,535 aMwh to reflect that, since TLCC's project will have the same cfs as Oneida, but a lower head, its generation will likely be proportionally lower.

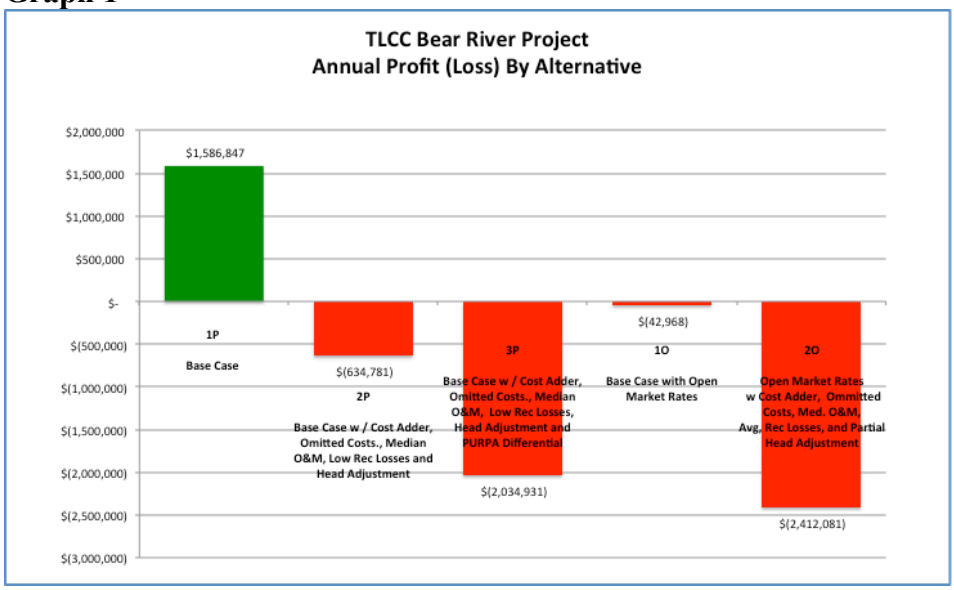
The combination of these changes results in TLCC's project showing an annual loss of $634,781.

Scenario 3P – Scenario 2P Plus the PURPA Subsidy

Scenario 3P is the same as 2P with the addition of the $1.4 million per year that it will cost Pacificorp rate payers to buy TLCC power at PURPA rates as opposed to much lower open market rates.

With the addition of this cost, TLCC's annual loss on the project is $2.034 million.

Graph 1



Scenario 1O – Base Case with Open Market Pricing

TLCC's base case is contingent on them achieving QF status and receiving PURPA rates of $78.50 / Mwh for their energy. Neither QF status nor PURPA prices of $78.50 / Mwh are assured. With that in mind, RME calculated Scenario 1O. This scenario is identical to TLCC's base but uses open market pricing of 46 /Mwh in place of the $78.50 PURPA rate. This one substitution is enough to eliminate the project's profits. At open market rates of $46, a price that errs on the high side, TLCC's project will lose $42,968 per year.

Scenario 2O – Scenario 2P with Open Market Pricing and a slightly revised Wildlife Habitat Cost

Scenario 2O is the same as Scenario 2P with the addition of the high estimate for wildlife habitat acquisition. It grants TLCC a 5% efficiency bonus on their generation calculation, and applies the open market rate for energy of $46 / Mwh.

The result is that the project will lose about $2.4 million per year.

Conclusion

The only scenario under which the TLCC project is profitable is under the narrowly defined base case, a scenario based on very optimistic cost and revenue assumptions that ignores much of the project's surrounding impacts.

If the project fails to achieve QF status and has to sell its energy on the open market, the project will suffer financial losses even if impacts on its neighbors are ignored.

When the project's full impact on its neighbors and the environment is accounted for, regardless of its pricing alternatives, the project will lose between $634,781 and $2.4 million per year.

APPENDIXES

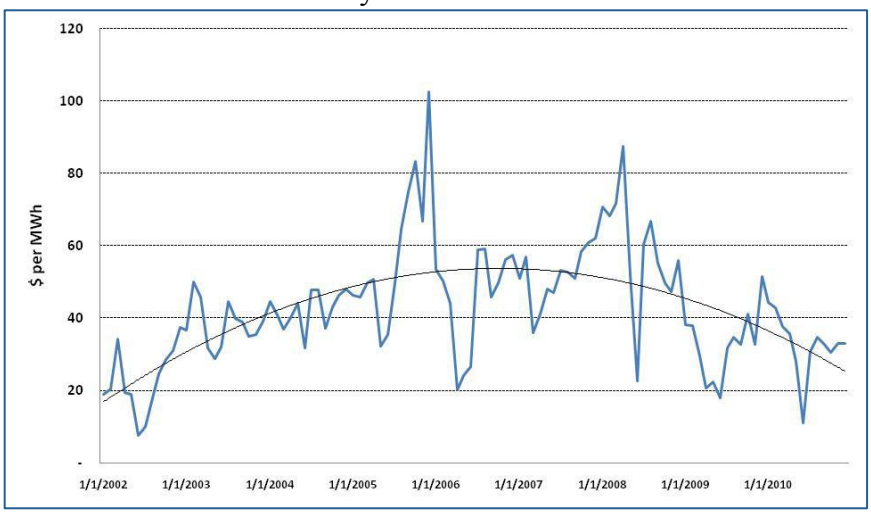
Appendix I - Rocky Mountain Econometrics (RME) Open Market Price Forecast

If the Applicant fails to obtain QF status, and decides to go forward with the project, they will be forced to sell, or negotiate for sale, in the in the presence of open market electricity prices. The following section details the recent history of western open market prices and that independent power producers need to be prepared to operate at or below $46.34 per Mwh for the foreseeable future.

All the major western utilities have recognized and begun incorporating lower open market pricing in their Integrated Resource Plans (IRP). The Applicant and all associated parties also need to recognize that revenue and avoided cost price points have retreated substantially from estimates generated as recently as 2008.

Graph 1

Historical Monthly Flat Mid-Columbia Prices[18]



The graph above comes from Avista's 2011 IRP and vividly illustrates the rapid increase of prices at the Mid Columbia Trading Hub (Mid-C) from 2002 till 2008, and the subsequent, equally rapid retreat to prices not only below $40, but also occasionally below $20.

Mid-C prices are arguably the most relevant barometer of sales/cost prices associated with the TLCC project. At the same time, Mid-C presents a problem in analyses such as this. First, Mid-C is a relatively small trading hub and trades there are not continuous. Second, prices associated with Mid-C transactions are not publicly reported. The combination of these two problems makes it difficult to track Mid-C prices and use them

[18] Avista 2011 Electric Integrated Resource Plan, Appendix, August 31,2011, pp. 290.

as a forecasting base.

NP15, the Northern California trading hub, is one of the country's larger trading hubs. It is the western market with perhaps the longest record of price trades. The prices of trades at NP15 are recorded on a continuous basis as short as 10 minutes and, of critical importance, the prices are published openly and publicly for scrutiny by one and all. For this reason RME prefers to use NP15 as the primary measure of Northwest open market electrical prices.

Also, NP15 is traditionally $4 to $15 per Mwh higher than Mid-C. This has a couple of benefits. First, it means it is possible to use NP15 as a mirror of Mid-C prices. Table 3 below presents the average price differentials of the three major Northwest trading hubs from 2006 through 2010. Second, using Mid-C prices in a context such as this provides a certain amount of analytical insurance. In other words, if a prospective power producer cannot produce power cheaper than NP15, it surely cannot produce power cheaper than Mid-C.

Table 3
Annual Average Day Ahead On Peak Prices ($/Mwh) [19] [20]

	2006	2007	2008	2009	2010	5-Year Avg
Mid-Columbia (Mid-C)	$50.18	$56.57	$65.00	$35.66	$35.90	$48.67
California-Oregon Border (COB)	$55.58	$62.14	$73.86	$38.02	$38.84	$53.70
NP15	$61.08	$66.59	$80.14	$39.29	$40.08	$57.45
Difference, NP15 Minus Mid-C	$10.90	$10.02	$15.14	$3.63	$4.18	$8.78

Based on the preceding Table 3, it is easy to see why, in 2007 and 2008, regulatory agency's were willing to set avoided cost rates in the 100 per Mwh range. Average price increases of 12 percent per year, for several years in a row, led many to believe that open market prices would hit $90 per Mwh or more, and conceivably keep going higher. However, the recession proved a lot of forecasters wrong. The economist Herbert Stein[21]

[19] Federal Energy Regulatory Commission • Market Oversight @ FERC.gov, NW, CA, pp. 5, 2011.

[20] NP15, COB, and Mid-C are, in order of magnitude, the three main open market electricity trading hubs in the Pacific Northwest. NP15 represents the Northern California market, COB represents the California Oregon Border, and Mid-C is the Mid Columbia Basin. Mid-C is the most relevant market for TLCC, but it is not publicly reported. The fact that NP15 is publicly reported on the California ISO Open Access Same-time Information System (CAISO/OASIS) site, and that it moves in near lockstep with and is slightly higher than Mid-C, makes it ideal for analyses such as these.

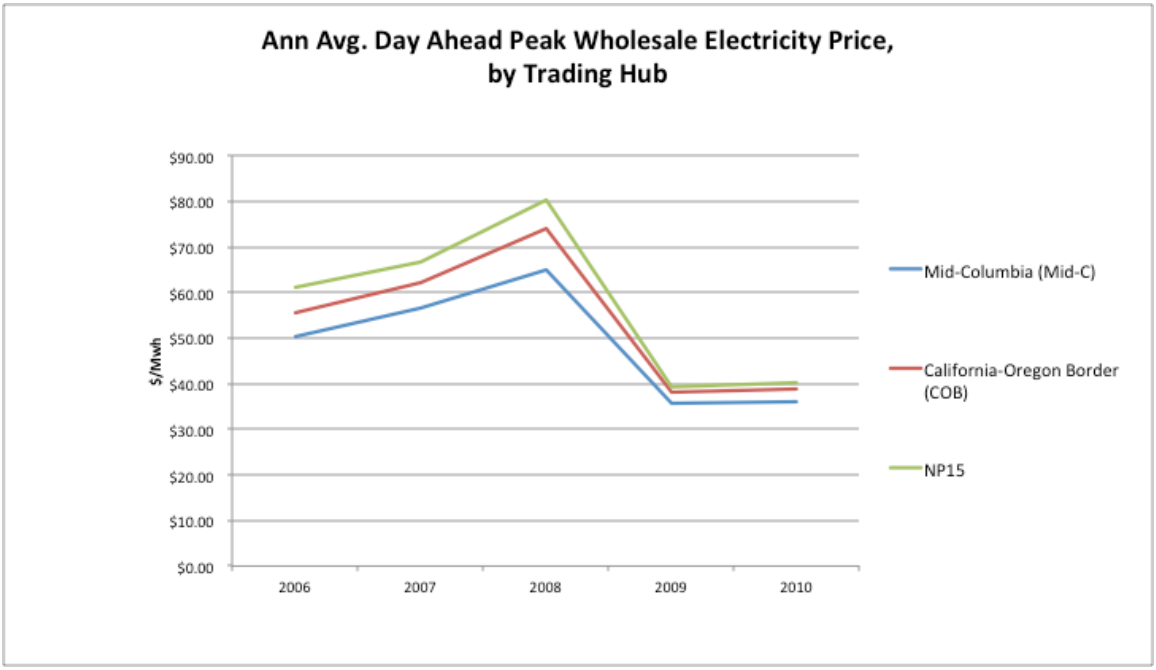
[21] Herbert Stein (August 27, 1916 – September 8, 1999) was a senior fellow at the American Enterprise Institute and was on the board of contributors of The Wall Street Journal. He was chairman of the Council of Economic Advisers under President Nixon and President Ford. From 1974 until 1984, he was the A. Willis Robertson Professor of Economics at the University of Virginia.

is famous for saying that, "If something cannot go on forever, it will stop." Annual increases in prices in the 10 and 20 percent range, such as were seen in 2007 and 2008, mean that prices will double every 4 to 7 years. Rates of increase of those magnitudes are not normally considered to be sustainable in the long run.

Stein's Law prevailed and the unsustainable increases in prices stopped. In 2009 prices at Mid-C returned to sub $36 per Mwh levels where they remain today. NP15 prices dropped by a full 50 percent, from the low $80 per Mwh range to roughly $40 per Mwh, prices that also still prevail.

The following Graph 2 presents the data in Table 3 in a visual format to emphasize the manner in which all the major west and northwest open market electricity prices move in near lockstep, with NP15 always higher than Mid-C by a range of $3.63 to $15.14 per Mwh.

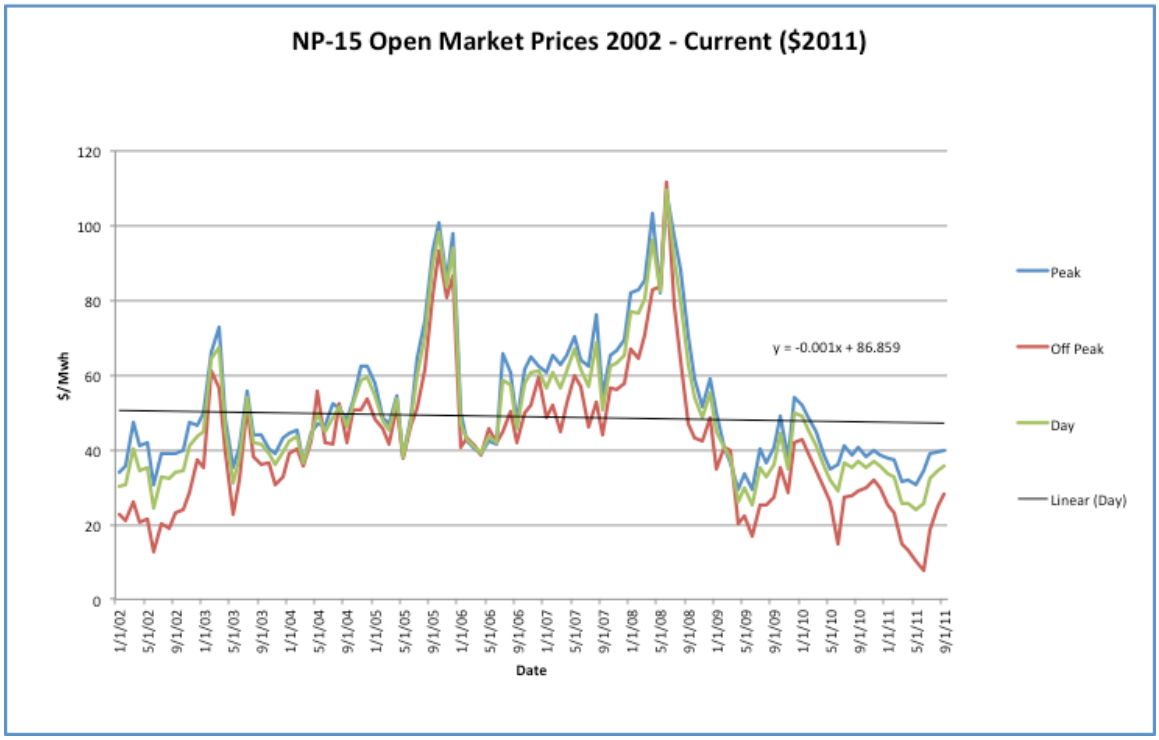
Graph 2 - Annual Average Day Ahead On Peak Prices ($/Mwh) [22]



As this is being written the average for the most recent year at NP15 was only $31.48 per Mwh.[23] In fact, for much of the last two years NP15 prices have been less than half the Applicant's QF price estimate.

[22] Federal Energy Regulatory Commission • Market Oversight @ FERC.gov, NW, CA, pp. 5, 2011.
[23] Source: CAISO/OASIS, http://oasis.caiso.com.

Graph 3



If we take the average for the last ten years, in constant (2011) dollars, the average is only $48.84 per Mwh at NP15.

It gets worse. The 10-year trend continues to be down, not up.

Additional questions on open market wholesale electricity price trends include: How long will the downward trend continue? How long will prices stay at the currently low levels?

First, the trend is real. While prices from 2002 through mid-2008 were definitely increasing at all the western trading hubs it is important to remember that over that same time span the economy was running at full speed toward a crash. The crash happened in the latter half of 2008. Following the crash, demand dropped more than 75 percent from the super-heated pre-bubble highs of $101 per Mwh at NP15 in June of 2008 to $25 per Mwh in June of 2009.

It is interesting that instead of hitting bottom in 2009 and starting back up, prices since 2009 have continued on a downward path. In May of this year average prices at NP15 were even lower, dropping to 23.90 (in 2011 dollars) per Mwh. They subsequently

recovered slightly in the latter part of 2011 and early 2012, but there is no sign of a major rebound.

Part of the downward pressure on prices is undoubtedly associated with recession related reduction in demand. That said, the recession has officially been over for more than a year[24] with no visible reciprocal demand driven increase in prices.

The recession, which began more than three years ago, reduced the aggregate demand for electricity. In that context, capacity increases over the past few years outpaced increases in demand and put the western market further into a surplus condition than was previously the case. The combination of these two simultaneous events continues to put downward pressure on open market prices.

Critics maintain that quantity demanded will return to pre-2008 levels at some point and higher prices will return. That is undoubtedly true, but it begs the question, when? If history is an example, it may be a very long time. The great depression started in 1929. As measured by the Gross Domestic Product (GDP), it was about 7 years before the US economy returned to 1929 levels and 10 years before there was sustained growth.[25] As measured by the Dow Jones Industrial Average, economic activity did not return to 1929 levels until 1954, a period of 25 years![26]

One would hope that we are smarter now, and that we will not waste a decade before getting our economic house back in order as was done in the last century. That said, it is a little over four years since the most recent recession began. Clear signs of substantive policy changes and resultant economic vitality remain elusive. While abhorrent to contemplate, one has to admit the very real possibility that it will take another six to 10 years for the economy to return to 2008 levels on all fronts, a concept reinforced by Federal Reserve Chairman Ben Bernanke in recent speeches.[27].[28]

One may also observe that the substantial, continuing investment in wind energy, and to a lesser extent solar energy, is having a significant impact on open market prices. The

[24] Bureau of Economic Analysis, http://www.bea.gov/iTable/,Table 1.1.3., Real Gross Domestic Product, Quantity Indexes,[Index numbers, 2005=100] Seasonally adjusted,

[25] Bureau of Economic Analysis, http://www.bea.gov/iTable/,Table 1.1.3., Real Gross Domestic Product, Quantity Indexes,[Index numbers, 2005=100] Seasonally adjusted,

[26] http://finance.yahoo.com

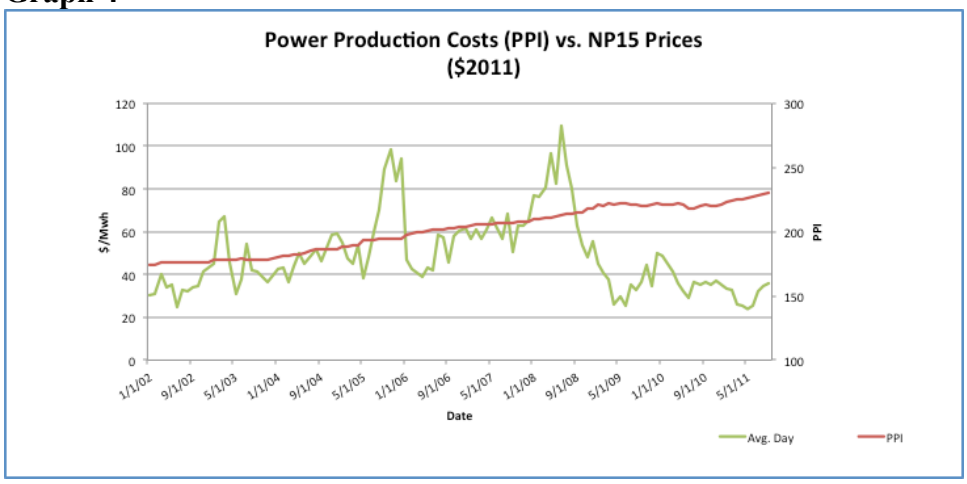
[27] Chairman Ben S. Bernanke, Speech, Economic Club of Minnesota Luncheon, Minneapolis, Minnesota September 8, 2011, http://www.federalreserve.gov/newsevents/speech/bernanke201...
The U.S. Economic Outlook

[28] The author is aware that 2011 GDP as measured in constant dollars now exceeds the GDP of 2008. So, technically, the economy is back to pre-recession levels. That said, outside of a few select industries economic activity is sluggish. In most of the country, unemployment rates remain at eight percent or greater, nearly twice the 2007 rate. And, per capita GDP is still about $1,000 below 2007 levels. Clearly, the recovery, such as it is, has failed to reach large portions of the economy.

average cost of wind energy is not much different than many other conventional energy sources. In fact, it may be slightly more costly from a startup situation. However, from a marginal cost standpoint, that is, from an open market price standpoint, wind power is much less costly than thermal energy alternatives such as coal and natural gas. Coal and gas fired plants have to pay fuel costs for every KWh produced. Wind and solar power, like hydropower, benefit from the fuel being essentially free. As a result, both wind and hydropower, regardless of their average costs of generation, tend to be the go-to power sources, the least cost power sources traded on the markets. That means as more and more wind and solar is added to the resource stack, the open market price for power will trend ever lower.

Further up the resource stack, we find the thermal resources. Increasingly this means natural gas fired power plants. Here too, things have been changing in a manner that point to lower open market energy prices, or at least slower growth in energy prices for many years to come. By that I mean the ever-expanding reserves of natural gas. It would be unrealistic to pretend that current developments in the extraction of natural gas do not have detractors. At the same time throughout the country and the region, from the tar sands of Southern Canada, to Southern Idaho and elsewhere, there is now talk of gas reserves where only a few years ago there were none. All of this leads to lower open market prices for electricity, both now and for the foreseeable future, than anyone could have imagined in 2008.

Graph 4[29]



[29] Bureau of Labor Statistics, http://www.bls.gov/ppi/, Series ID, PCU22111-22111, and RME 2011.

To summarize, a heightened sense of the need to conserve, the addition of low marginal-cost resources, and the expanding development of additional reserves of relatively low cost, low emission natural gas, all point to low open market electricity prices for the foreseeable future.[30]

Increasing demand levels, the primary offset that leads to increasing real prices, not only has not yet arrived, but it may be years in returning to pre-2008 levels. And even then, renewed higher demand levels will face a different, lower cost, resource stack than existed in 2007 -2008. The constant dollar (in 20011 dollars) ten-year average of 48.84 per Mwh at NP15, adjusted downward $2.5 per Mwh to partially accommodate the lower Mid-C prices to $46.34 as detailed above is more than generous in this context.

The reason this is important for TLCC is that, as Graph 4 above illustrates, the cost of constructing plants has been maintaining a largely uninterrupted upward path while the open market price of energy has retreated by 50 percent or more. And prices show no sign of jumping back up to pre-recession levels. In the absence of a major jump back up to 2007 - 2008 open market price levels, we have to conclude that TLCC will face very tough market prices for years to come.

[30] Avista reached a similar conclusion in their most recent IRP, stating, "Major changes from the 2009 plan include reduced amounts of wind generation and the introduction of natural gas-fired peaking resources. The plan includes less wind because of lower expected retail loads resulting from the present economic downturn and increased conservation acquisition. Expected wind generation needs are lower due to a modest change in the modeling method used to represent annual variability from RPS-qualifying resources. The selection of gas-fired peaking resources resulted from a lower natural gas price forecast, lower retail loads, and the need for more flexible generation resources to manage the variability associated with renewable generation." Avista 2011 Electric Integrated Resource Plan, 8/31/2011, pp. 8-1.

Appendix II – O&M Survey

FERC Form 1, Hydro Plant Operation Cost Comparison

	1	2	3	4	5	6	7	8	9	10	11	12
	Avista Hydro	FERC Form 1, Avista, 2010, Q4							PacifiCorp H	FERC Form 1, Avista, 2009, Q4		
	2545	2545	2545	2545	2058	2058	2545	0	2082	2082	1927	20
	Monroe Street	Upper Falls	NIne Mile Fall	Post Falls	Cabinet Gorge	Noxon Rapids	Long Lake	Little Falls	Copco No. 1	Copco No. 2	Fish Creek	Grace
	FERC Licensed Pro	FERC License	FERC License	FERC License	FERC License	FERC Licensed	FERC License	FERC Licensed Project No.	FERC License	FERC License	FERC License	FERC License
	(b)	(c)	(b)	(c)	(d)	(e)	(f)	(d)	(b)	(c)	(b)	(c)
1 Kind of Plant (Run-of-River or Storage)	Run-of-River	Run-of-River	Run-of-River	Storage	Storage	Storage	Storage	Run-of-River	Storage	Run-of-River	Run-of River	Storage
2 Plant Construction type (Conventional or Outdoor)	Conventional	Conventional	Conventional	Conventional	Outdoor	Outdoor	Conventional	Conventional	Conventional	Conventional	Outdoor	Conventional
3 Year Originally Constructed	1890	1922	1908	1906	1952	1959	1915	1910	1918	1925	1952	1908
4 Year Last Unit was Installed	1992	1922	1994	1980	1953	1977	1924	1911	1922	1925	1952	1923
5 Total installed cap (Gen name plate Rating in MW)	14.8	10.2	26.4	14.8	265	480.6	70	32	20	27	11	33
6 Net Peak Demand on Plant-Megawatts (60 minutes)	16	15	23	18	261	545	90	37	24	29	10	31
7 Plant Hours Connect to Load	8,626	8,435	8,696	8,760	8,758	6,686	7,028	7,015	5,831	5,555	4,222	7,576
8 Net Plant Capability (in megawatts)												
9 (a) Under Most Favorable Oper Conditions	15	10	18	18	255	562	87	35	28	34	10	33
10 (b) Under the Most Adverse Oper Conditions	14	10	18	14	134	262	60	26	28	34	10	33
11 Average Number of Employees	1	1	2	2	11	12	5	5	1	2	1	3
12 Net Generation, Exclusive of Plant Use - Kwh	105,901,000	71,163,000	101,430,000	90,272,000	941,484,000	1,503,127,000	479,748,000	200,463,000	79,739,000	97,920,000	33,450,000	59,082,000
13 Cost of Plant												
14 Land and Land Rights	0	1,081,854	33,429	3,076,554	10,573,152	35,831,527	1,597,959	4,325,371	180,375	20,914	0	62,169
15 Structures and Improvements	8,443,779	584,216	3,943,110	1,345,554	10,670,126	13,934,921	2,194,764	1,184,974	1,600,534	2,191,526	825,661	1,618,231
16 Reservoirs, Dams, and Waterways	8,047,296	7,126,169	13,350,064	6,317,496	31,133,950	32,298,217	16,637,951	5,065,501	2,644,597	2,954,724	12,685,388	9,208,496
17 Equipment Costs	12,743,784	5,561,235	12,560,784	3,171,979	45,523,191	92,841,623	12,176,179	6,142,651	5,151,002	10,337,560	1,336,038	4,231,900
18 Roads, Railroads, and Bridges	50,448	0	625,181	0	1,098,564	225,369	0	0	105442	479588	519399	97073
19 Asset Retirement Costs	0	0	0	0	0	0	0	0	0	0	0	0
20 TOTAL cost (Total of 14 thru 19)	29,285,307	14,353,474	30,512,568	13,911,583	98,998,983	175,131,657	32,606,853	16,718,497	9,681,950	15,984,312	15,366,486	15,217,869
21 Cost per KW of Installed Capacity (line 20 / 5)	1,978.74	1,407.20	1,155.78	939.9718	373.5811	364.4021	465.8122	522.453	484.0975	592.0116	1396.9533	461.1475
22 Production Expenses												
23 Operation Supervision and Engineering	31	7	350	20,124	102,869	115,030	11,187	241	153358	218208	83758	260547
24 Water for Power	0	0	0	0	0	0	0	0	620	837	8998	1023
25 Hydraulic Expenses	391	0	9,635	0	1,164	6,210	9,270	8,977	1,116	1,507	46,907	83,641
26 Electric Expenses	492,429	502,096	616,984	598,189	1,044,638	1,192,827	626,390	598,139	0	0	0	0
27 Misc Hydraulic Power Generation Expenses	17,848	37,301	33,207	37,566	128,782	280,202	75,344	47,518	437,081	451,712	199,249	1,332,068
28 Rents	0	0	0	0	111	0	0	721,398	3,338	4,579	4,462	927
29 Maintenance Supervision and Engineering	1,573	11,672	17,070	15,647	26,904	55,878	13,852	18,331	0	0	106	0
30 Maintenance of Structures	2,150	11,935	38,766	15,202	127,897	232,209	39,984	54,553	6,840	16,169	16,725	14,694
31 Maintenance of Reservoirs, Dams, and Waterways	99,293	50,642	68,735	395,688	95,711	451,694	48,350	24,029	73,118	149,902	25,340	126,159
32 Maintenance of Electric Plant	76,018	50,104	102,820	76,479	424,579	411,518	182,349	246,604	35,154	94,747	11,557	41,959
33 Maintenance of Misc Hydraulic Plant	13,608	4,061	4,710	10,023	11,474	-50,770	13,265	4,827	32,337	34,939	37,150	110,935
34 Total Production Expenses (total 23 thru 33)	703,341	667,818	892,277	1,168,918	1,964,129	2,694,798	1,019,991	1,724,617	742,962	972,600	434,252	1,971,953
35 Expenses per net KWh	0.0066	0.0094	0.0088	0.0129	0.0021	0.0018	0.0021	0.0086	0.0093	0.0099	0.013	0.0334
M& Operating Expense as % of Plant Cost	2.40%	4.65%	2.92%	8.40%	1.98%	1.54%	3.13%	10.32%	7.67%	6.08%	2.83%	12.96%
TLCC Cap Cost	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750
TLCC O&M at these O&M Rates	$589,992	$1,142,960	$718,375	$2,064,132	$487,382	$378,000	$768,453	$2,534,110	$1,885,097	$1,494,756	$694,220	$3,183,265
	2.40%	4.65%		8.40%							2.83%	
	$24,565,750	$24,565,750		$24,565,750							$24,565,750	
	$589,992	$1,142,960		$2,064,132							$694,220	
	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036
	54%	38%	40%	28%	169%	197%	169%	41%	38%	36%	27%	11%

FERC Form 1, Hydro Plant Operation Cost Comparison

	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	1927	935	1927	20	0	1927	1927	2420	2082	2082	1927	1927	20	2630
	Lemolo No. 2 FERC License (b)	Merwin FERC License (c)	Slide Creek FERC License (b)	Soda FERC License (c)	Olmsted FERC License (b)	Clearwater No FERC License (d)	Clearwater No FERC License (e)	Cutler FERC License (f)	Iron Gate FERC License (d)	JC Boyle FERC License (e)	Lemolo No. 1 FERC License (f)	Toketee FERC License (d)	Oneida FERC License (e)	Prospect No. 2 FERC License (f)
1 Kind of Plant (Run-of-River or Storage)	Run-of River	Storage (Re-R	Run-of-River	Storage	Run-of-River	Run-of-River	Run-of-River	Storage	Storage	Storage	Storage	Storage	Storage	Run-of River
2 Plant Construction type (Conventional or Outdoor)	Outdoor	Conventional	Outdoor	Conventional	Conventional	Outdoor	Outdoor	Conventional	Outdoor	Outdoor	Outdoor	Conventional	Conventional	Conventional
3 Year Originally Constructed	1956	1931	1951	1924	1904	1953	1953	1927	1962	1958	1955	1949	1915	1928
4 Year Last Unit was Installed	1956	1958	1951	1924	1922	1953	1953	1927	1962	1958	1955	1950	1920	1928
5 Total installed cap (Gen name plate Rating in MW)	33	136	18	14	10.3	15	26	30	18	97.98	31.99	42.5	30	32
6 Net Peak Demand on Plant-Megawatts (60 minutes)	34	148	18	9	10	13	17	29	18	79	30	44	19	36
7 Plant Hours Connect to Load	4,468	8,670	7,892	6,319	7,162	7,978	8,294	5,401	8,631	6,103	8,148	6,103	8,744	8,609
8 Net Plant Capability (in megawatts)														
9 (a) Under Most Favorable Oper Conditions	34	151	18	14	10	18	31	29	19	83	32	45	28	36
10 (b) Under the Most Adverse Oper Conditions	34	151	18	14	10	18	31	29	19	83	32	45	28	36
11 Average Number of Employees	1	2	1	2	4	1	1	3	1	2	1	1	2	1
12 Net Generation, Exclusive of Plant Use - Kwh	89,595,000	452,443,000	80,364,000	11,824,000	25,606,000	35,759,000	41,993,000	88,528,000	112,647,000	222,073,000	127,486,000	213,049,000	33,079,000	226,390,000
13 Cost of Plant														
14 Land and Land Rights	0	1,086,417	0	511,675	0	0	0	3,505,129	341,706	26,277	0	0	36,698	105,168
15 Structures and Improvements	3,283,342	36,685,802	1,802,822	672,316	369,124	1,191,014	1,625,933	3,891,430	4,610,225	2,439,780	1,792,374	2,210,838	1,407,894	2,778,308
16 Reservoirs, Dams, and Waterways	23,240,294	10,004,954	5,640,915	5,763,324	529,217	4,428,345	14,775,194	6,645,544	12,930,242	14,564,782	9,130,690	8,352,148	5,088,376	24,751,241
17 Equipment Costs	11,398,052	15,980,829	1,365,431	2,203,022	31,914	1,189,202	1,518,619	14,548,820	2,248,775	15,041,090	6,083,729	3,266,170	5,155,612	3,600,442
18 Roads, Railroads, and Bridges	1649779	2092829	16778	0	12641	39142	250151	572059	1076116	886710	475419	257079	511059	267572
19 Asset Retirement Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 TOTAL cost (Total of 14 thru 19)	39,571,467	65,850,831	8,825,946	9,150,337	942,896	6,847,703	18,169,897	29,162,982	21,207,064	32,958,639	17,482,212	14,086,235	12,199,639	31,502,731
21 Cost per KW of Installed Capacity (line 20 / 5)	1199.1354	484.1973	490.3303	653.5955	91.5433	456.5135	698.8422	972.0994	1178.1702	336.3813	546.4899	331.4408	406.6546	984.4603
22 Production Expenses														
23 Operation Supervision and Engineering	189650	1257788	103850	120563	81619	91907	153750	246334	147737	440944	226707	255174	233533	681049
24 Water for Power	26994	24183	14724	434	319	12270	21268	930	558	3038	26167	34765	930	992
25 Hydraulic Expenses	140,720	526,728	76,756	35,484	24,079	63,963	110,870	70,134	1,004	5,467	136,413	181,230	76,037	1,786
26 Electric Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Misc Hydraulic Power Generation Expenses	986,647	1,019,052	283,168	426,089	262,859	226,354	448,115	602,597	326,255	601,583	507,872	635,548	724,713	477,821
28 Rents	13,386	2,547	7,301	393	93	6,084	10,546	271	3,004	1,044	12,976	17,239	843	4,901
29 Maintenance Supervision and Engineering	319	0	174	0	0	145	251	0	0	0	309	410	0	0
30 Maintenance of Structures	57,576	40,600	29,830	12,656	56	26,586	39,112	1,657	556,758	40,519	52,907	66,111	12,434	24,529
31 Maintenance of Reservoirs, Dams, and Waterways	58,319	77,178	26,328	35,568	15,301	53,258	46,591	26,712	55,282	107,365	96,662	79,265	448	199,281
32 Maintenance of Electric Plant	10,923	74,003	45,354	22,829	14,177	45,771	10,370	8,623	64,257	24,874	24,844	92,992	82,888	5,884
33 Maintenance of Misc Hydraulic Plant	102,013	270,282	56,716	31,185	86,547	46,370	80,374	174,227	23,292	62,966	98,891	132,171	72,184	77,569
34 Total Production Expenses (total 23 thru 33)	1,586,547	3,292,361	644,201	685,201	485,050	572,708	921,247	1,131,485	1,178,147	1,287,800	1,183,748	1,494,905	1,204,010	1,473,812
35 Expenses per net KWh	0.0177	0.0073	0.008	0.058	0.0189	0.016	0.0219	0.0128	0.0105	0.0058	0.0093	0.007	0.0364	0.0065
M& Operating Expense as % of Plant Cost	4.01%	5.00%	7.30%	7.49%	51.44%	8.36%	5.07%	3.88%	5.56%	3.91%	6.77%	10.61%	9.87%	4.68%
TLCC Cap Cost	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750
TLCC O&M at these O&M Rates	$984,920	$1,228,220	$1,793,041	$1,839,547	$12,637,255	$2,054,558	$1,245,528	$953,118	$1,364,737	$959,863	$1,663,385	$2,607,046	$2,424,449	$1,149,275
			7.30%	7.49%		8.36%			5.56%					
			$24,565,750	$24,565,750		$24,565,750			$24,565,750					
			$1,793,041	$1,839,547		$2,054,558			$1,364,737					
	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036
	20%	49%	44%	6%	19%	22%	16%	28%	34%	61%	38%	51%	10%	55%

FERC Form 1, Hydro Plant Operation Cost Comparison

		27	28	29	30	31	32	33	34	35	36	37	38
		Idaho Power FERC Form 1, Avista, 2010, Q4											
		1927	2111	2071	2736	1975	1971	2726	2777	2778	1971	2848	1971
		Soda Springs	Swift No. 1	Yale	American Fall	Bliss	Hells Canyon	Malad	Upper Salmon	Shoshone Falls	Brownlee	Cascade	Oxbow
		FERC License	FERC License	FERC Licensed Project No.	FERC License	FERC License	FERC Licensed I	FERC Licensed I	FERC Licensed I	FERC Licensed I	FERC Licensed I	FERC License	FERC License
		(d)	(e)	(f)	(b)	(c)	(b)	(c)	(b)	(c)	(d)	(e)	(f)
1	Kind of Plant (Run-of-River or Storage)	Storage (Re-R	Storage	Storage	Run-of-River	Run-of-River	Storage	Run-of-River	Run-of-River	Run-of-River	Storage	Run-of-River	Storage
2	Plant Construction type (Conventional or Outdoor)	Outdoor	Conventional	Conventional	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Conventional	Outdoor	Outdoor	Outdoor
3	Year Originally Constructed	1952	1958	1953	1978	1949	1967	1948	1937	1907	1958	1983	1961
4	Year Last Unit was Installed	1952	1958	1953	1978	1950	1967	1948	1947	1921	1980	1984	1961
5	Total installed cap (Gen name plate Rating in MW)	11	240	134	92.3	75	391.5	21.77	34.5	12.5	585.4	12.42	190
6	Net Peak Demand on Plant-Megawatts (60 minutes)	12	248	163	102	55	437	24	37	14	654	14	217
7	Plant Hours Connect to Load	7,802	5,598	5,476	7,107	8,742	8,757	8,760	8,760	8,760	8,760	8,748	8,760
8	Net Plant Capability (in megawatts)												
9	(a) Under Most Favorable Oper Conditions	12	264	164	110	76	445	25	39	14	747	15	221
10	(b) Under the Most Adverse Oper Conditions	12	263	164	0	1	137	21	32	11	220	1	202
11	Average Number of Employees	1	2	2	4	5	5	1	4	2	7	2	7
12	Net Generation, Exclusive of Plant Use - Kwh	51,112,000	591,615,000	540,238,000	318,627,000	336,360,000	1,891,439,000	168,373,000	231,656,000	91,679,000	2,247,125,000	35,781,000	975,054,000
13	Cost of Plant												
14	Land and Land Rights	0	7,813,808	3,299,822	875,318	768,358	1,877,301	205,376	202,399	313,328	17,382,696	82,142	1,210,187
15	Structures and Improvements	1,127,558	8,891,329	6,822,963	11,807,207	1,039,561	2,586,648	2,764,626	1,994,322	1,207,557	31,430,623	7,364,154	9,959,405
16	Reservoirs, Dams, and Waterways	13,607,662	41,176,239	27,333,548	4,293,075	8,426,020	52,700,383	6,199,398	5,569,171	512,402	67,073,285	3,145,630	30,375,714
17	Equipment Costs	2,192,253	16,092,927	14,887,463	31,623,196	7,275,185	16,623,664	4,026,866	7,876,561	4,503,350	55,537,342	12,720,572	15,821,605
18	Roads, Railroads, and Bridges	56124	1004508	1395512	839276	486477	819192	304683	29359	51383	518444	122668	565842
19	Asset Retirement Costs	0	0	0	0	0	0	0	0	0	0	0	0
20	TOTAL cost (Total of 14 thru 19)	16,983,597	74,978,811	53,739,308	49,438,072	17,995,601	74,607,188	13,500,949	15,671,812	6,588,020	171,942,390	23,435,166	57,932,753
21	Cost per KW of Installed Capacity (line 20 / 5)	1543.9634	312.4117	401.0396	535.6237	239.9413	190.5675	620.163	454.2554	527.0416	293.7178	1886.8894	304.9092
22	Production Expenses												
23	Operation Supervision and Engineering	72971	2156956	1229924	181953	767875	470231	99640	377506	242269	560039	233028	337517
24	Water for Power	8998	42676	23828	1802201	605976	291454	561246	293497	171034	375486	176347	204837
25	Hydraulic Expenses	46,907	1,218,758	518,982	87,770	701,681	445,316	70,876	520,922	188,087	486,157	252,049	273,408
26	Electric Expenses	0	0	0	48,195	47,683	222,194	68,526	69,795	30,619	282,589	127,312	165,985
27	Misc Hydraulic Power Generation Expenses	223,871	1,371,561	877,628	199,795	236,503	267,685	66,157	192,391	111,877	356,325	163,873	216,071
28	Rents	4,462	70,294	2,509	1,191	24,639	42,439	454	1,536	1,094	152,023	939	25,667
29	Maintenance Supervision and Engineering	106	0	0	132,447	108,083	350,627	39,054	137,152	26,133	342,659	98,719	242,954
30	Maintenance of Structures	24,328	49,185	22,972	119,958	63,687	66,739	9,407	114,586	11,296	117,473	63,250	274,773
31	Maintenance of Reservoirs, Dams, and Waterways	42,934	18,508	30,505	2,082	194,224	312,624	87,100	369,513	10,858	80,635	12,206	18,127
32	Maintenance of Electric Plant	31,664	136,150	272,602	537,112	246,929	208,451	34,689	151,797	37,622	330,984	133,996	135,201
33	Maintenance of Misc Hydraulic Plant	34,502	462,509	274,062	111,886	133,441	568,289	73,785	157,531	50,272	547,435	114,511	344,268
34	Total Production Expenses (total 23 thru 33)	490,743	5,526,597	3,253,012	3,224,590	3,130,721	3,246,049	1,110,934	2,386,226	881,161	3,631,805	1,376,230	2,238,808
35	Expenses per net KWh	0.0096	0.0093	0.006	0.0101	0.0093	0.0017	0.0066	0.0103	0.0096	0.0016	0.0385	0.0023
	M& Operating Expense as % of Plant Cost	2.89%	7.37%	6.05%	6.52%	17.40%	4.35%	8.23%	15.23%	13.38%	2.11%	5.87%	3.86%
	TLCC Cap Cost	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750
	TLCC O&M at these O&M Rates	$709,830	$1,810,712	$1,487,043	$1,602,297	$4,273,739	$1,068,820	$2,021,408	$3,740,437	$3,285,719	$518,883	$1,442,624	$949,342
		2.89%								13.38%		5.87%	
		$24,565,750								$24,565,750		$24,565,750	
		$709,830								$3,285,719		$1,442,624	
		0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036	0.0036
		37%	38%	59%	35%	38%	209%	54%	34%	37%	222%	9%	154%

FERC Form 1, Hydro Plant Operation Cost Comparison

		39	40	41	42	43					
							Average	Min	Max	St Dev	Median
		2055	503	18	2061	2899					
		C J Strike FERC License (d)	Swan Falls FERC License (e)	Twin Falls FERC License (f)	Lower Salmon FERC License (e)	Milner FERC Licensed Project No. (f)					
1	Kind of Plant (Run-of-River or Storage)	Run-of-River	Run-of-River	Run-of-River	Run-of-River	Run-of-River					
2	Plant Construction type (Conventional or Outdoor)	Outdoor	Conventional	Conventional	Outdoor	Conventional					
3	Year Originally Constructed	1952	1910	1935	1949	1992					
4	Year Last Unit was Installed	1952	1994	1995	1949	1992					
5	Total installed cap (Gen name plate Rating in MW)	82.8	25	52.74	60	59.45	84	10	585	128	32
6	Net Peak Demand on Plant-Megawatts (60 minutes)	86	23	46	43	42	89	9	654	143	31
7	Plant Hours Connect to Load	8,760	8,760	8,744	8,760	8,760	7,663	4,222	8,760	1,366	8,435
8	Net Plant Capability (in megawatts)										
9	(a) Under Most Favorable Oper Conditions	91	24	53	64	61	95	10	747	153	34
10	(b) Under the Most Adverse Oper Conditions	84	14	50	60	1	57	-	263	71	29
11	Average Number of Employees	5	3	5	7	2	3	1	12	3	2
12	Net Generation, Exclusive of Plant Use - Kwh	423,822,000	124,623,000	115,370,000	225,212,000	91,701,000	325,218,651	11,824,000	2,247,125,000	491,027,768	115,370,000
13	Cost of Plant										
14	Land and Land Rights	5,450,975	51,675	255,499	424,428	138,100	2,389,483	-	35,831,527	6,184,824	205,376
15	Structures and Improvements	9,143,199	25,478,938	10,808,047	2,805,900	10,340,105	6,020,250	369,124	36,685,802	7,977,580	2,586,648
16	Reservoirs, Dams, and Waterways	10,437,875	13,856,887	7,908,870	6,831,204	17,179,601	14,184,700	512,402	67,073,285	13,902,541	9,130,690
17	Equipment Costs	9,697,355	30,342,755	20,597,667	7,907,638	27,676,057	13,507,258	31,914	92,841,623	17,008,540	7,907,638
18	Roads, Railroads, and Bridges	248183	835946	1917603	88693	501877	490,562	-	2,092,829	531,294	304,683
19	Asset Retirement Costs	0	0	0	0	0	-	-	-	-	-
20	TOTAL cost (Total of 14 thru 19)	34,977,587	70,566,201	41,487,686	18,057,863	55,835,740	36,592,253	942,896	175,131,657	37,846,137	21,207,064
21	Cost per KW of Installed Capacity (line 20 / 5)	422.4346	2822.648	786.6455	300.9644	939.205	734	92	2,823	554	522
22	Production Expenses										
23	Operation Supervision and Engineering	1027331	254735	213710	393812	199377	325,935	7	2,156,956	415,886	213,710
24	Water for Power	753948	180782	167496	289420	1449135	176,219	-	1,802,201	372,532	14,724
25	Hydraulic Expenses	971,545	166,121	132,309	337,020	76,017	188,684	-	1,218,758	272,213	76,037
26	Electric Expenses	50,321	40,466	42,866	225,890	45,843	166,046	-	1,192,827	291,097	30,619
27	Misc Hydraulic Power Generation Expenses	382,733	116,381	168,313	201,812	194,523	371,024	17,848	1,371,561	331,990	262,859
28	Rents	104,526	26,232	7,801	9,618	8,272	30,213	-	721,398	111,813	3,338
29	Maintenance Supervision and Engineering	204,871	85,180	40,387	73,712	55,974	48,853	-	350,627	87,453	1,573
30	Maintenance of Structures	79,707	66,145	35,430	71,873	29,103	64,148	56	556,758	95,053	39,112
31	Maintenance of Reservoirs, Dams, and Waterways	124,754	40,504	4,952	25,394	15,643	90,158	448	451,694	106,881	53,258
32	Maintenance of Electric Plant	639,809	161,351	92,946	229,180	145,523	135,062	5,884	639,809	146,678	82,888
33	Maintenance of Misc Hydraulic Plant	335,250	220,455	104,233	95,178	61,859	121,647	(50,770)	568,289	142,453	77,569
34	Total Production Expenses (total 23 thru 33)	4,674,795	1,358,352	1,010,443	1,952,909	2,281,269	1,717,989	434,252	5,526,597	1,172,886	1,287,800
35	Expenses per net KWh	0.011	0.0109	0.0088	0.0087	0.0249	0	0	0	0	0
							Average	Min	Max	St Dev	Median
	M& Operating Expense as % of Plant Cost	13.37%	1.92%	2.44%	10.81%	4.09%	7.55%	1.54%	51.44%	7.86%	5.87%
	TLCC Cap Cost	$24,565,750	$24,565,750	$24,565,750	$24,565,750	$24,565,750					
	TLCC O&M at these O&M Rates	$3,283,241	$472,874	$598,305	$2,656,719	$1,003,678	$ 1,855,148	$ 378,000	$ 12,637,255	$ 1,931,960	$ 1,442,624
							6.28%	2.40%	13.38%	3.22%	5.87%
		0.0036	0.0036	0.0036	0.0036	0.0036					
		32%	33%	40%	41%	14%	56%	6%	222%	56%	38%

Appendix III – Pacificorp ECC Agreement Projects

Habitat Enhancement Projects Funded by the Bear River Environmental Coordination Committee 2005 - 2010			
Project Name	**ECC Sponsor**	**Project Description**	**ECC Funding Amount**
2005			
Cub River	Colyer, Trout Unlimited	Retrofit irrigation diversion for fish passage	$55,000.00
Cottonwood Creek	Davies, PacifiCorp	Retrofit irrigation diversion for fish passage and screening	$45,000.00
Williams Creek	Van Every, Idaho Dept. of Environmental Quality Stenberg, PacifiCorp	Irrigation ditch piping and screening	$25,000.00
McGregor Fencing	Davies, PacifiCorp	Install riparian fencing on Bear River	$4,000.00
Skinner Creek	Capurso, Forest Service	Move feedlot off creek and stream reclamation	$46,000.00
2006			
Kackley Springs Restoration Feasibility Evaluation and Site Plan	Stenberg, PacifiCorp	Develop a plan for reclamation of spring	$10,000.00
Ovid Irrigation Diversion	Colyer, Trout Unlimited	Retrofit irrigation diversion for fish passage and screening	$11,000.00
Alleman Lower Diversions Screening and Bypass	Capurso, Forest Service	Retrofit irrigation diversion for fish passage and screening	$30,000.00
Cub River Phase II - Screening	Colyer, Trout Unlimited	Retrofit irrigation diversion for fish screening	$47,000.00
Nounan Road Crossing of Skinner Creek	Capurso, Forest Service	Culvert replacement and stream reclamation	$25,000.00
Liberty Creek Diversions Screen and Weir		Retrofit irrigation diversion for fish passage and screening	$16,000.00
Cove Bypass Reach Fencing	Stenberg, PacifiCorp	Install riparian fencing on several parcels along Bear River	$5,000.00
2007			
Laurie Harris Spring	Davies, PacifiCorp	Winter feedlot relocation; alternate water source, stream reclamation, grazing removal on spring system	$20,000.00
Trout Creek Restoration (Vegetation Planning)	Stenberg/ Davies, PacifiCorp	Plan for Trout Creek reclamation	$3,500.00

Habitat Enhancement Projects Funded by the Bear River Environmental Coordination Committee 2005 - 2010			
Project Name	**ECC Sponsor**	**Project Description**	**ECC Funding Amount**
Whiskey Creek/Trout Creek Reclamation	Stenberg, PacifiCorp	Stream reclamation includes re-route to historic channel, planting, fisheries habitat enhancement, etc.	$40,000.00
Bunderson	Colyer, Trout Unlimited	Relocate calving barn; fence stream to exclude grazing.	$25,000.00
Mathews Bear River Restoration (two phases)	Stenberg, PacifiCorp	Bear River bank stabilization and riparian fencing with grazing exclusion	$80,000.00
Georgetown Creek Enhancement	Capurso, Forest Service	Develop plan to retrofit diversion for fish passage and screening	$24,000.00
Eightmile Road and Trail Closure	Capurso, Forest Service	Close/obliterate trails and roads (4.05 miles), realign trails (0.25 miles), reconstruct trails and define four dispersed recreation sites out of the riparian areas within Eightmile Creek watershed	$14,500.00
Midland Trail Renovation	Capurso, Forest Service	Realign several sections of trail, improve drainage structures and improve the stream crossing (i.e. construct bridges) on the Midland Trail (#309)	$5,000.00
North Canyon Riparian Protection	Capurso, Forest Service	Improve watershed by restricting motorized access on 1 acre of riparian habitat in three locations	$1,500.00
2008			
Bailey Creek Culvert	Stenberg, PacifiCorp	Culvert replacement to remove aquatic barrier.	$25,000.00
Cub River Irrigation Upper Diversion	Colyer, Trout Unlimited	Retrofit irrigation diversion for fish passage and screening	$45,000.00
Screen Tender	Colyer, Teuscher, Capurso Trout Unlimited, Idaho Dept. of Fish and Game and Forest Service	Hire seasonal screen tender	$14,000.00
Stauffer Creek	Teuscher, Idaho Dept. of Fish and Game	Install riparian fencing and bottomless culverts and harden stream crossing	$40,000.00
Black Canyon Turner Bridge Cleanup	Van Every, Idaho Dept. of Environmental Quality	Remove debris from Bear River below Turner Bridge	$5,740.00
Harris Completion	Davies, PacifiCorp	See previous Harris description- new request based on NRCS scope bid estimate.	$15,500.00

Habitat Enhancement Projects Funded by the Bear River Environmental Coordination Committee 2005 - 2010			
Project Name	**ECC Sponsor**	**Project Description**	**ECC Funding Amount**
2009			
Kackley Springs Reroute	Stenberg, PacifiCorp	Redirect current spring flow to a longer route through Kackley property. Rebuild and remove dikes and other water control structures and create new stream channel on PacifiCorp lands.	$9,000
Cub River Upper Fish Screen	Colyer, Trout Unlimited	Install a fish screen at the uppermost irrigation diversion on the Cub River.	$40,000
Aquatic Nuisance Species Signage	Berglund, Bureau of Land Management	Install interpretive signage at high use boating and fishing areas along the Bear River that are infected with aquatic invasive species, including New Zealand mudsnail and whirling disease.	$3,000
Keetch Fish Screen	Colyer, Trout Unlimited	Convert 198 acres of cropland from flood irrigation to sprinkler. Includes 3400-ft conveyance pipe, sprinkler system, pumping plant, and water control structure.	$7,500
Bailey Creek/Midnight Mountain Fencing	Teuscher, Idaho Dept. of Fish and Game	Scout troop(s) to build riparian fencing along sensitive streams.	$5,000
Battle and Mink Creek	Colyer, Trout Unlimited	Relocate six corrals from the Battle and Mink Creek watersheds.	$46,000
Anderson Eight-Mile	Colyer, Trout Unlimited	Replace an irrigation diversion with one better suited for fish passage and that will prevent fish from swimming down the irrigation ditch. Install conveyance and gated pipe.	$27,804
Ovid and Cub Fish Screen Repair	Colyer, Trout Unlimited	Provide funding for repair to fish screens on projects previously funded by the ECC at an irrigation diversion at Ovid and on the Cub River.	$10,675
Oneida Fish Passage Design (Phase One)	Capurso, Forest Service; Stenberg, PacifiCorp and others	Design an upstream fish passage facility for Oneida Narrows Dam to reconnect Bonneville cutthroat trout (BCT) stronghold populations upstream and downstream of the reservoir.	$73,000

Habitat Enhancement Projects Funded by the Bear River Environmental Coordination Committee 2005 - 2010			
Project Name	**ECC Sponsor**	**Project Description**	**ECC Funding Amount**
2010			
Alleman Dam Removal	Capurso, Forest Service	Remove an irrigation diversion dam on Alleman property on Georgetown Creek, establish a single point of diversion, restore riparian area, and exclude cattle.	$45,000
Bunderson, Roy Irrigation Structure	Colyer, Trout Unlimited	Install a fish ladder on irrigation structure on Paris Creek to allow passage of BCT.	$25,000
Bunderson, Max Irrigation Structure Fish Bypass	Colyer, Trout Unlimited	Replace wooden irrigation diversion on Paris Creek with rock drop structures to allow fish passage and install fish screen on irrigation ditch.	$30,000
Whiskey Creek Habitat Restoration	Teuscher, Idaho Dept. of Fish and Game	Improve habitat for BCT in Whiskey Creek by narrowing stream channel and planting riparian vegetation.	$30,000
Georgetown Fish Ladder	Capurso, Forest Service	Allocate additional funding for recently constructed Georgetown Hydro fish ladder to address cost over-runs.	$10,000
Screen Tender	Teuscher, Idaho Department of Fish and Game	Allocate funding for an Idaho Department of Fish and Game employee to monitor and maintain fish screens.	$12,000
Oneida Narrows Riparian Protection	Berglund, Bureau of Land Management	Exclude cattle from the Oneida Narrows boater take-out on the Bear River by installing a fence and cattleguard and providing an alternative water source for cattle.	$15,000
Alexander Shrub Planting	Stenberg, PacifiCorp	Continue native shrub planting in Alexander Reservoir shoreline buffer.	$7,000
Cub River Fish Tracking	Colyer, Trout Unlimited	Install radiotelemetry tags in 40 BCT to identify migration extent and spawning locations within the Cub River and to determine whether Cub River BCT use the Bear River for overwintering habitat.	$5,000
Kackley Springs Fish Trap	Stenberg, PacifiCorp	Design, build and install a structure to exclude nonnative fish from Kackley Spring.	$20,000
Kackley Springs Consultation	Stenberg, PacifiCorp	Engage an aquatic ecosystem restoration specialist to review progress at Kackley Springs and provide recommendations.	$1,020.00

Document Content(s)