BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NO. 63-33467 IN THE NAME OF THE CITY OF BOISE PUBLIC WORKS DEPARTMENT	**PRELIMINARY ORDER APPROVING APPLICATION**

This matter having come before the Idaho Department of Water Resources ("Department" or "IDWR") as an application for a permit to appropriate water, the Department finds, concludes, and orders as follows:

PROCEDURAL HISTORY

1. On January 5, 2011, the City of Boise Public Works Department ("Applicant") submitted Application for Permit No. 63-33467 ("application"). In its initial form, the application proposed the diversion of 200 cubic feet per second ("cfs") of water from the Dixie Slough, a tributary of the Boise River, and from ground water for water quality improvement. On August 28, 2013, the Applicant amended the application to remove the ground water source and the three ground water points of diversion.

2. On September 14, 2011, the Department sent the Applicant a letter requesting additional information in connection with the application to comply with Rule 40.05 of the Department's Water Appropriation Rules (IDAPA 37.03.08).[1] The Department asked the Applicant to more completely describe the proposed diverting works, to indicate whether a storage dam was contemplated, and to clarify the proposed place of use. On November 15, 2011, the Department received the Applicant's response to the request for additional information.

3. Pursuant to Idaho Code § 42-203A(1) and (2) and Rule 40.02 of the Department's Water Appropriation Rules, the Department published notice of the application in the following five newspapers to achieve local and statewide circulation:

• *Idaho Press-Tribune*	Nampa	December 15 and 22, 2011
• *Idaho Statesman*	Boise	January 5 and 12, 2012
• *The Lewiston Tribune*	Lewiston	January 5 and 12, 2012
• *The Post Register*	Idaho Falls	January 5 and 12, 2012
• *Times-News*	Twin Falls	January 5 and 12, 2012

[1] Throughout the remainder of this document, the reference to IDAPA 37.03.08 will be omitted when referring to the Department's Water Appropriation Rules.

4. The Department received timely protests against the application from the following entities:

   - City of Greenleaf ("Greenleaf")
   - Energy Resource Group LLC ("ERG")
   - G.O. Investments LLC ("GO")
   - Riverside Irrigation District

   Riverside Irrigation District withdrew its protest on May 7, 2013, after the Department issued an order agreeing to impose the following condition on any permit issued in connection with the application:

   > The source of this right is wastewater. The wasting of water may be discontinued at any time. This right remains subject to the right of the original appropriator, in good faith and in compliance with state laws governing changes in use and/or expansion of water rights, to cease wasting water, to change the place or manor [sic] of wasting it, or to recapture.

   For the sake of brevity, the Hearing Officer will refer to Greenleaf, ERG, and GO as the "Protestants" when referring to them collectively.

5. On January 3, 2013, the Department received a *Petition to Intervene* ("petition") from the Idaho Conservation League ("ICL"). The petition stated that ICL supports the application because its members have interests in protecting and restoring the Boise River. The Department notified the parties that the petition had been filed and gave them until February 8, 2013, to submit comments or motions. ERG and GO opposed ICL's petition to intervene, arguing that ICL has no direct or substantial interest in the proceeding, that ICL's participation would broaden the issues, and that ICL's interests are already being represented by the City of Boise. On April 9, 2013, after considering further arguments from both sides, the Department granted ICL's petition to intervene on the following limited basis:

   - ICL will be a party of notice.
   - ICL's participation shall be limited to local public interest issues as they are affected by the use of the proposed water sources (Dixie Drain and ground water) and the Boise River.
   - ICL may submit briefing and may submit evidence and testimony at hearing but will not be allowed to cross-examine the witnesses of other parties.
   - ICL shall be a full participant in any discovery authorized by the Hearing Officer.

6. Also on April 9, 2013, the Department issued orders setting the hearing in connection with this matter for September 11-13, 2013, and establishing a schedule for conducting discovery to prepare for the hearing.

7. On September 11-13, 2013, and November 19, 2013, the Department conducted a hearing to obtain testimony and evidence about the application. At the hearing, attorneys Erika E. Malmen and Tonn K. Petersen represented the Applicant. Attorney Bruce Smith represented Greenleaf. Attorney Dana L. Hofstetter represented ERG and GO. Attorney Marie Callaway Kellner represented ICL.

8. The following witnesses testified at the hearing:

   - Paul Woods, Environmental Division Manager for the City of Boise
   - Jeffrey Herr, P.E., from the consulting firm Brown and Caldwell
   - Charles E. Brockway, P.E., Ph.D., from Brockway Engineering
   - Justin Hayes, Program Director for the Idaho Conservation League
   - Steve Martinez, Managing Member for ERG
   - Greg Obendorf, Trustee for GO Trust
   - Richard Kelsey, P.E., Technical Director and Program Manager for the consulting firm E. W. Wells Group
   - Norman C. Young, P.E., of the consulting firm ERO Resources Corporation

9. During the hearing, at the end of the Applicant's case-in-chief, ERG and GO asked the Hearing Officer to dismiss the application pursuant to Rule 41(b) of the Idaho Rules of Civil Procedure. The Hearing Officer declined to render a judgment until all evidence had been presented.

STATEMENT OF THE ISSUES

ERG and GO allege that the application fails to meet the minimum requirements for acceptability, as set forth in Rule 35.03 of the Department's Water Appropriation Rules. ERG and GO also allege that the project proposed in the application fails to meet many of the criteria set forth in Idaho Code § 42-203A(5) for evaluating an application for permit to appropriate water.

Greenleaf did not call witnesses or otherwise present a case at the hearing. Its concerns about the application are not clear.

The Protestants do not dispute that Water Quality Improvement is a beneficial use of water.

Water Appropriation Rule 35.03 Issues

ERG and GO allege the application should not have been accepted by the Department because it is incomplete in the following ways:

- "The application does not comply with IDAPA 37.03.08.035.03.b.iv requiring the quantity of water to be listed as a rate of flow or volume of water to be stored for each purpose of use requested because all diversions and uses of water needed to construct and operate the project are not identified and quantified. The diversions and uses include:

  - Excavation of impoundments will divert and store about 160 to 200 acre feet of ground water year round.

  - Diversion from the settling pond to remove settled solids requires pumping 300 to 500 gpm from the ponds during the season of the year not identified in the application

as initially filed and subsequently amended. At times, this diversion may divert ground water into the ponds.

- Dewatering, as determined necessary to construct and operate the impoundments, will require diversion of large quantities of ground water using multiple well systems."

(Exhibit S-39, Item a)

- "The application as initially filed does not comply with IDAPA 37.03.08.035.03.b.xi requiring that the location of the points of diversion and places of use listed on the application agrees with the locations for these features on a map or plat accompanying the application. The application as subsequently amended does not comply with IDAPA 37.03.08.035.03.b.xi requiring that the location of the places of use listed on the application agrees with the locations for these features on a map or plat accompanying the application." (Exhibit S-39, Item b)

- "The application as initially filed does not comply with IDAPA 37.03.08.035.03.b.ix requiring a description of the method of diversion, the system for conveyance of water to the place of use and the system for distributing and using the water because the description for diverting and using water from Dixie Slough is incomplete and the description for diverting and using ground water is completely lacking. The application as subsequently amended does not comply with IDAPA 37.03.08.035.03.b.ix requiring a description of the method of diversion, the system for conveyance of water to the place of use and the system for distributing and using the water because the description for diverting and using water from Dixie Slough is incomplete." (Exhibit S-39, Item c)

- "The application as initially filed and subsequently amended does not comply with IDAPA 37.03.08.035.03.b.iv requiring that the volume of stored water be listed in acre feet because IDWR's "Utilization of the 24-Hour Fill Allowance for Impoundments" policy does not exempt the City's proposed use of water from needing a water right that includes a storage element (Ref. IDWR Application Processing Memorandum, dated April 18, 2013)." (Exhibit S-39, Item d)

- "The application as initially filed and subsequently amended does not comply with IDAPA 37.03.08.035.03.b.iv requiring that the volume of stored water be listed in acre feet because water diverted from Dixie Slough will be stored in the ponds after the requested season of use." (Exhibit S-39, Item e)

- "The application as initially filed and subsequently amended does not comply with IDWR's policy regarding "Permitting Requirements for Ponds" because an element is not included for ground water that will be exposed by excavation into the ground water source that will be stored year round in the pond (Ref. IDWR Application Processing)." (Exhibit S-39, Item f)

- "The application as initially filed and subsequently amended does not comply with IDAPA 37.03.08.035.03.b.vi because year-round storage of ground water is not identified

as a use for which water is sought and storage of water diverted from Dixie Slough retained after the operating season is not identified as a use of water." (Exhibit S-39, Item g)

- "The application as initially filed and subsequently amended does not comply with IDAPA 37.03.08.035.03.b.xii requiring the application be signed by the applicant listed on the application or that the signator has authority to sign the application." (Exhibit S-39, Item h)

- "The application as initially filed and subsequently amended does not comply with IDAPA 37.03.08.035.03.b.xiii requiring the application be signed by an elected official authorized to sign the application." (Exhibit S-39, Item i)

- "The application as subsequently amended does not comply with IDAPA 37.03.08.035.04.b because an amended application cannot change the source of water." (Exhibit S-39, Item j)

Idaho Code § 42-203A(5) Issues

Idaho Code § 42-203A(5) establishes the criteria the Department must use to evaluate an application for permit:

> 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.

Potential for Injury to Existing Water Right Holders

ERG and GO allege the project proposed in the application would injure other water users by affecting the hydraulic capacity of the Dixie Slough, which would impact nearby irrigation diversion structures. (Exhibit S-42, Item 2)

Sufficiency of the Water Supply

ERG and GO allege the requested diversion rate of 200 cfs "is available only about 50 percent of the time during the requested season of use." (Exhibit S-38, Item 2)

Application is Made in Good Faith and not for Delay or Speculative Purposes

ERG and GO allege the application is speculative in the following ways:

- The application seeks "to appropriate a larger quantity of water than the applicant needs within the 5-year period IDWR can allow to begin diversion and beneficial use of water under a permit." (Exhibit S-38, Item 3; see also Exhibit S-42, Item 1.a)

- The application "seeks to appropriate water for potential use in the future outside of the 5-year period IDWR can allow under a permit." (Exhibit S-38, Item 3)

- The application "seeks to appropriate water for the benefit of other unidentified municipalities not included in the project." (Exhibit S-38, Item 3; see also Exhibit S-42, Item 1.d)

- The application seeks to appropriate water "for a month prior to and after the period of the year within which the City intends to make beneficial use of water." (Exhibit S-38, Item 3)

- "The site is not well suited or practical for the proposed project." (Exhibit S-42, Items 1.b and 1.c)

Sufficiency of the Applicant's Financial Resources

The Protestants are not questioning the Applicant's ability to finance the project proposed in the application.

Local Public Interest

ERG and GO allege the project proposed in the application conflicts with the local public interest in the following ways:

- The application "proposes a diversion rate greatly in excess of the quantity needed to meet the City's phosphorous removal requirements, thereby limiting the feasibility of other projects seeking to remove phosphorous from the Dixie Slough . . . ." Limiting the feasibility of other projects would limit the potential for phosphorous to be removed from the Dixie Slough. (Exhibit S-38, Item 4, and Exhibit S-42, Item 2)

- The application seeks to "fully appropriate, at times, the entirety of the water supply in the Dixie Slough drainage including tributary ground water, thereby preventing the future appropriation of water for other uses . . . ." (Exhibit S-38, Item 4)

- "[T]he single-purpose nature of the project fails to utilize the water resource for complementary purposes, such as recreation and wildlife." (Exhibit S-38, Item 4)

- "[T]he proposed project will affect the ability of the Dixie Drain to control local groundwater levels on nearby properties." The result would be salt accumulation in nearby agricultural soils, which would render the lands unusable for agriculture. (Exhibit S-42, Item 2)

- "[T]he proposed project will affect the ability of the Dixie Drain to maintain scour velocities and control sedimentation." Excess sediment would negatively affect the hydraulic capacity of the drain. (Exhibit S-42, Item 2)

Conservation of Water Resources in Idaho

ERG and GO allege the project proposed in the application is contrary to the conservation of water resources in Idaho in the following ways:

- The application "proposes a diversion rate greatly in excess of the quantity needed to meet the City's phosphorous removal requirements, thereby limiting the feasibility of other projects seeking to remove phosphorous from the Dixie Slough . . . ." (Exhibit S-38, Item 5, and Exhibit S-42, Items 3 and 5)

- The application seeks to appropriate water "for a month prior to and after the period of the year within which the City intends to make beneficial use of water." (Exhibit S-38, Item 5)

- The application seeks to "fully appropriate, at times, the entirety of the water supply in the Dixie Slough drainage including tributary ground water, thereby preventing the future appropriation of water for other uses . . . ." (Exhibit S-38, Item 5)

- "[T]he single-purpose nature of the project fails to utilize the water resource for complementary purposes, such as recreation and wildlife." (Exhibit S-38, Item 5)

Effects on the Local Economy

The Protestants are not questioning the effects of the project proposed in the application on the local economy.

FINDINGS OF FACT

1. In December of 2009 the City of Boise purchased three parcels of land totaling 46.9 acres in Canyon County, Idaho. The parcels of land are located adjacent to the Dixie Slough within the NE¼SW¼ and SE¼NW¼, Section 36, Twp 5 North, Range 5 West, more than 25 miles northwest of the city limits of the City of Boise.

2. On January 5, 2011, the Department received the application. At that time, the elements of the water use proposed in the application were as follows:

   - Applicant: City of Boise Public Works Department
   - Sources and Points of Diversion:

     Dixie Slough SW¼SE¼NW¼, Section 36, Twp 5 North, Range 5 West
     Ground Water NW¼SE¼NW¼, Section 36, Twp 5 North, Range 5 West
     Ground Water NW¼SE¼NW¼, Section 36, Twp 5 North, Range 5 West
     Ground Water SE¼SE¼NW¼, Section 36, Twp 5 North, Range 5 West

   - Beneficial Use: Water Quality Improvement
   - Diversion Rate: 200 cfs
   - Season of Use: April 1 to October 31
   - Place of Use: NE¼SW¼ and SE¼NW¼, Section 36, Twp 5 North, Range 5 West, Canyon County

3. The applicant summarized its intended water use as follows:

   > The City plans on developing an enhanced wetland treatment system on the site to remove phosphorus, sediment, and other pollutants to help the City and potentially other cities meet their Clean Water Act obligations in a cost effective manner and provide additional benefits to the Boise River watershed.

4. Boise Public Works Water Quality Manager Robbin Finch signed the original application.

5. High concentrations of phosphorous are harmful to aquatic life because phosphorous reduces the amount of dissolved oxygen in water. (Testimony of Justin Hayes.)

6. The Applicant did not include a water storage component in its application because Dixie Slough water would not be retained in the treatment facility for any length of time and, therefore, the applicant did not think a storage component would be required. The Applicant expects the retention time of Dixie Slough water in its facility to be 3 hours, with 12 hours as an outer bound under extremely low flow circumstances. (Testimony of Paul Woods; Exhibit S-5)

7. On August 28, 2013, the Applicant amended the application to remove the ground water source and the associated points of diversion. The Applicant does not intend to divert water from wells as part of its project, nor does it intend to use ground water in any way.

8. The ponds in the proposed treatment facility will extend downward into shallow ground water to a depth of 10 to 15 feet. The ambient water table is at most four or five feet below ground surface. The Applicant plans to maintain the operating water level in its treatment facility "at or above the adjacent ambient shallow ground water elevation" so that the head from the Dixie Slough water flowing through the ponds either creates an equilibrium so that ground water is not drawn into the ponds and Dixie Slough water does not migrate outward

from the ponds into the ground water or, if any exchange occurs, it will be from the treatment facility into the shallow ground water. (Testimony of Paul Woods; Exhibit S-18)

9. Erika E. Malmen, counsel for the City of Boise, signed the amended application.

10. On October 22, 2013, the council and mayor of the City of Boise approved a resolution that Robbin Finch "was now, and at all times previously, duly authorized to sign and file Application for Permit No. 63-33467" and that the Boise City Legal Counsel "was now, and at all times previously, duly authorized to sign and file Application for Permit No. 63-33467, subsequent amendment(s). . . ."

11. In 2012 the Applicant received a permit ("NPDES permit") from the United States Environmental Protection Agency ("EPA") for the discharge from its West Boise Wastewater Treatment Facility into the Boise River. EPA issued the permit pursuant to the National Pollution Discharge Elimination System ("NPDES") program in compliance with the Clean Water Act, 33 U.S.C. § 1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4. (Exhibit S-17)

12. Water discharged from the West Boise Wastewater Treatment Facility into the Boise River is to some extent diverted for irrigation as it moves downstream in the Boise River. At the same time, irrigation return flows are carrying phosphorous and other chemicals into the Boise River. Consequently, water quality improvements implemented at the West Boise Wastewater Treatment Facility are virtually eliminated as water moves downstream in the Boise River. Therefore, water quality improvements in the lower Boise River near Parma have a greater impact on water quality in the Snake River than do improvements at or near the City of Boise. (Testimony of Justin Hayes; Exhibit S-26)

13. The permitted Total Phosphorous ("TP") standard in the NPDES permit is a monthly average of 70 micrograms per liter ("ug/L"), or 14 pounds per day ("lbs/day"), from May 1 to September 30 each year. The NPDES permit allows the Applicant to meet the TP requirements through a combination of removal of phosphorous at the West Boise Wastewater Treatment Facility and removal of phosphorous from the Dixie Slough near Parma. The removal of TP at the Dixie Slough in lieu of removal at the West Boise Wastewater Treatment Facility is termed an "offset credit." (Exhibit S-17)

14. The West Boise Wastewater Treatment Facility is authorized to discharge up to 24 million gallons per day ("mgd") into the Boise River. The Applicant's Lander Street Wastewater Treatment Facility is authorized to discharge up to 15 million gallons per day into the Boise River under a separate NPDES permit. The total for the two facilities is 39 million gallons per day. While the offset credit opportunity authorized by the NPDES permit currently applies only to the West Boise Wastewater Treatment Facility, the NPDES permit establishes a framework that may allow for coverage of the Lander Street facility also. (Testimony of Paul Woods; Exhibit S-17)

15. The offset credit provision of the NPDES permit requires that for every pound of phosphorous discharged into the Boise River in excess of 70 ug/L, the Applicant must

remove 1.5 pounds of total phosphorous from the Dixie Slough. The offset credit provision of the NPDES permit allows the Applicant to discharge up to 350 ug/L of TP into the Boise River at its West Boise Wastewater Treatment Facility. To meet the overall requirement of 70 ug/L, the Applicant must remove the difference, or 280 ug/L, at its proposed Dixie Slough facility. At a discharge of 39 million gallons per day, reaching the 280 ug/L target would require the removal of an average of 91 pounds of TP per day. However, the NPDES permit requires a 1.5:1 offset ratio. In other words, for every pound of TP that must be removed from the Dixie Slough to meet the 70 ug/L requirement, the Applicant must remove 1.5 pounds of TP. Therefore, the Applicant must be able to remove an average of 1.5 x 91, or 137 pounds of TP per day. (Testimony of Jeffrey Herr; Exhibit S-17; Exhibit S-20)

16. The Applicant must meet the final effluent limit of 70 ug/L for TP ten years from the effective date of the NPDES permit, which was May 1, 2012. However, by May 1, 2016, the proposed Dixie Slough facility must achieve a minimum average monthly TP removal of 25 lbs/day. The penalty for violation of the NPDES permit is $37,500 per day for each violation. (Testimony of Paul Woods; Exhibit S-17)

17. The NPDES permit requires the Applicant to accomplish "substantial completion of construction" by December 1, 2015. (Exhibit S-17) The Applicant interprets this requirement as meaning the facility must be fully operable by December 1, 2015. (Testimony of Paul Woods) Even though it is not required to remove more than 25 lbs/day of TP until the year 2022, the Applicant intends to remove more than 25 lbs/day during the development period of the proposed water appropriation permit (up to five years) because:

    - It must prove its ability to do so in order to receive its water right permit.
    - It must be able to meet its operability obligations by December 1, 2015.
    - It wants the longest possible learning curve before it is required by EPA to meet the maximum requirements of its NPDES permit.

    (Testimony of Paul Woods)

18. The justification for the Applicant's diversion rate request of 200 cfs has evolved over time. When initially drafting the application, the Applicant expected to need 200 cfs to meet its own TP reduction needs and the needs of other partner communities (Meridian, Nampa, and Caldwell) under a pollutant credit trading framework proposed to the EPA at that time. During the negotiations with EPA about the pollutant trading framework, the expected TP offset ratio for the Dixie Slough facility was 1:1. Despite some uncertainty about the final NPDES permit, the EPA prodded the Applicant to apply for a water right to operate the Dixie Slough facility. Ultimately, the EPA would not issue an NPDES permit for a credit trading system for multiple communities. Nevertheless, the Applicant now states that it still needs 200 cfs to meet its own obligations under the NPDES permit, in part because the offset ratio turned out to be 1.5:1 instead of the expected 1:1. (Testimony of Paul Woods; Exhibits S-03 and S-04)

19. The factors ultimately considered by the Applicant to be determinative of its need to divert 200 cfs from the Dixie Slough are listed in Exhibit S-09. Those factors are:

- Offset Ratio -- The NPDES permit requirement that 1.5 pounds of phosphorous be removed from the Dixie Slough for every pound of phosphorous in excess of 70 ug/L discharged at the West Boise Wastewater Treatment Facility.

- Offset Removal Efficiency – The Applicant believes it can reasonably achieve a TP removal efficiency of 70%. In other words it can remove 70% of the TP from the water it diverts from the Dixie Slough. The Applicant will use a chemical agent called a flocculent, likely polyaluminum chloride, which the Applicant will inject into the proposed settling ponds to bond with the phosphorous dissolved in the water. The product of the chemically bonded flocculent and phosphorous will settle by gravity to the bottom of the ponds, along with other phosphorous-laden sediment from the Dixie Slough. Once on the bottom of the ponds, this product is a sludge, sometimes called "floc sludge." The TP removal efficiency can be increased by increasing the input of flocculent. (Testimony of Richard Kelsey) However, the response to adding more flocculent is not linear. As the efficiency increases, so does the amount of flocculent needed per unit of TP. Consequently, greater and greater efficiencies require more and more flocculent. The 70 % efficiency standard applied by the Applicant in its calculations is appropriate based on the experience of its experts in the industry. Constantly applying more flocculent to achieve greater efficiencies would be cost-prohibitive. (Testimony of Paul Woods; Testimony of Jeffrey Herr; Exhibits S-53 and S-61)

- TP Concentration in the Dixie Slough – Observed daily values of TP in the Dixie Slough vary from 231 ug/L to 445 ug/L. Even though its NPDES permit establishes an average monthly limit for TP, the Applicant chose to use the lowest observed daily value of 231 ug/L in its calculations as opposed to the lowest monthly average value of 278 ug/L. The Applicant chose 231 ug/L because it expects the concentration of TP in the Dixie Slough to decline over time, thus causing the lowest monthly average value to decline. TP concentrations in the Dixie Slough do not appear to have declined from 1994 to 2012, but other efforts to reduce TP to meet Total Maximum Daily Loads ("TMDLs") in the Boise River could cause future declines. The Applicant proposes a conservative estimate to counter the likely trend. Basing the requested diversion rate on the lowest observed value provides the highest level of confidence that the Applicant will be able to meet its offset requirement. (Testimony of Paul Woods; Exhibit E-72; Exhibit S-20)

- Safety Factor – The Applicant added 25% to its flow rate estimate to account for variability inherent in the offset removal efficiency, TP concentrations, and available flow. If any of those factors diminishes, the amount of treated water must increase (when it is available) to meet the monthly average offset ratio required by the NPDES permit. For example, meeting the target TP reduction of 137 lbs/day may not require a constant diversion of the requested 200 cfs. However, if a temporary flow deficit prevents meeting the target TP reduction of 137 lbs/day, the Applicant may need to divert the requested 200 cfs to "catch up" to the average monthly requirement established in the

NPDES permit. 137 lbs/day x 1.25 = 171 lbs/day. By targeting a TP load reduction of 171 lb/day there is a higher probability that the minimum TP load reduction of 137 lb/day will be achieved on a consistent basis. A safety margin of 25% is typical. The Applicant's consultant would have preferred an even higher safety factor, but he was constrained by the 200 cfs requested in the Application. (Testimony of Jeffrey Herr; Exhibit S-04)

- Using its own arithmetic for the factors listed above, the Applicant reaches a flow rate of 195 cfs. Thus, the Applicant added rounding as an additional factor in determining its requested diversion rate.

20. Although the Applicant's NPDES permit limits the Applicant's TP discharges from May 1 to September 30 each year, the Applicant seeks authorization to divert water from the Dixie Slough from April 1 to October 30 each year. The Applicant seeks the authority to divert in April so that is has time to ramp up and fine tune its operations so that it is operating efficiently prior to May 1. The Applicant seeks the authority to divert water in October so that it can gradually reintroduce the flow of water into the Dixie Slough between its point of diversion and its point of discharge to prevent damage to the channel. The Applicant also indicates that it just may continue operating during October. (Testimony of Paul Woods)

21. When TP concentrations are low, it would be less expensive for the Applicant to remove more TP by increasing the flow of water into the facility than by adding more flocculent. (Exhibit S-53)

22. The need for caution in the factors contributing to the calculation of the requested diversion rate (200 cfs) could be somewhat ameliorated by the ability to measure TP in the Dixie Slough in real time. If real time measurement were possible, the diversion rate could be reduced in times of high TP concentration to only what it necessary to meet the NPDES permit requirements. Similarly, if TP concentrations fall, rather than increasing the flow rate, the Applicant could increase efficiency of its operations by increasing its flocculent dosage. However, the technology does not yet exist to reliably measure TP in real time. (Testimony of Jeffrey Herr)

23. Because it will accumulate over time, the Applicant proposes to periodically remove flocculent sludge from the bottom of the settling ponds and pile it on a 10-acre portion of its land to dry. Once dry, the flocculent sediment will be trucked offsite. Approximately 34 acre-feet, or roughly 6,000 to 10,000 tons, of flocculent sediment will be generated each year. (Testimony of Paul Woods; Testimony of Richard Kelsey; Exhibits S-53 and S-20)

24. The Applicant plans to divert water from the Dixie Slough by embedding an inflatable dam across the channel. As the dam inflates, it will impede the flow of water down the Dixie Slough, and the water will flow into the Applicant's diversion channel located upstream of the inflatable dam. The amount of water diverted will be controlled by inflating or deflating the dam. Use of the inflatable dam will increase the upstream water level about 6 inches for some distance, although it has not been surveyed yet. (Testimony of Dr. Charles Brockway)

25. The United States Geological Survey (USGS) maintains a gaging station on the Dixie Slough about 1/3-mile downstream from the Applicant's proposed place of use. The flow of water in the Dixie Slough is not uniform. It exceeds the requested 200 cfs approximately 50% of the time from May through September, and the average monthly discharge exceeds 200 cfs for the months of May through September. (Testimony of Paul Woods; Testimony of Dr. Charles Brockway; Testimony of Norman C. Young; Exhibit S-18)

26. One water right for 0.19 cfs is diverted from the Dixie Slough downstream from the Applicant's proposed outflow. The rate of 0.19 cfs is less than 1.0% of the average May – September discharge of the Dixie Slough.

27. No water rights are diverted downstream from the Applicant's proposed point of diversion and upstream from the outflow, which is approximately 600 feet downstream from the proposed point of diversion. (Testimony of Dr. Charles Brockway; Exhibit S-18)

28. The Applicant's proposed water use will have no effect on water rights diverted upstream from its intended point of diversion, with one possible exception. Less than ¼-mile upstream from the Applicant's proposed point of diversion, the Estate of Tina Iest diverts water from the Dixie Slough pursuant to Claim No. 63-5179 filed in the Snake River Basin Adjudication for irrigation of lands northwest of the Applicant's proposed place of use. The Applicant proposes to construct its diverting works so that it will not interfere with diversions of Dixie Slough water into the Iest Ditch. (Testimony of Paul Woods) Actually, the Applicant's proposed project will likely benefit the users of the Iest Ditch by slightly raising the water level in the Dixie Slough and making it easier to divert water into the Iest Ditch. (Testimony of Dr. Charles Brockway.)

29. The Dixie Slough is a natural water feature altered to function as a drain because irrigation with water from the Boise River was causing the surrounding land to become waterlogged, i.e. the water table was rising to ground surface. The Dixie Slough now allows salt laden irrigation water to leach through the soil and to drain away. (Testimony of Dr. Charles Brockway; Exhibit S-18) If not for this function of the Dixie Slough, the local water table could rise, causing salt to build up in the local soil and reducing its usefulness as agricultural land. ERG and GO are concerned that operation of the Applicant's proposed water treatment project will cause local ground water levels to rise. If it were operated in such a way that the water level in the Applicant's proposed settlement ponds were significantly higher than the water table, the differential head would cause water diverted from the Dixie Slough to flow back into the ground water, raising the water table. (Testimony of Richard Kelsey) However, the Applicants have anticipated this potential. If the water level in the pond were higher than the surrounding ground water level by half a foot, the effect would be to raise the water table by about 0.02 feet 1/4-mile away, which would have no impact on local agriculture. Therefore, the applicant plans to avoid raising the local water table significantly by managing its water level to stay within half a foot of the local water table. (Testimony of Dr. Charles Brockway; Exhibit S-18)

30. The water surface gradient of the Dixie Slough is very flat -- approximately one foot per mile. ERG and GO are also concerned that the Applicant's proposed diversion means will

raise the water surface elevation in the Dixie Slough at the point of diversion, reducing the velocity of flow in the Dixie Slough. If the velocity were to fall below two feet per second, the sediment load in the Dixie Slough would begin to deposit in the bed of the slough, causing plugging problems. If the carrying capacity of the Dixie Slough were sufficiently diminished, local ground water levels could rise, causing salinization and impairing the ability of local landowners to farm their land. ERG and GO point to the existence of an island about 200 feet upstream from the Applicant's proposed point of diversion as evidence that sediment deposition is already occurring in the existing channel. They believe that a slight change in gradient could upset an already tenuous balance in the ability of the Dixie Slough to transport sediment. (Testimony of Greg Obendorf; Testimony of Richard Kelsey) However, the island has remained roughly the same size and shape for a period of years, indicating that sediment deposition is not an ongoing problem at that location in the Dixie Slough. (Testimony of Jeffrey Herr) The water surface elevation difference in the Dixie Slough from the Applicant's proposed diversion point to its expected discharge point back into the Dixie Slough approximately 600 feet downstream is 2.5 feet to 3.0 feet. (Testimony of Jeffrey Herr) Intake structures can be designed and constructed to pass 200 cfs of water at 2.5 to 3.0 feet of differential head without pumping. (Testimony of Dr. Charles Brockway) Pumping water from the Dixie Slough would be cost prohibitive for the Applicant. (Testimony of Paul Woods)

The Applicant will address the potential sedimentation problems in the Dixie Slough by constructing its diversion works and TP removal facility to maintain sufficient velocity of flow to cause the sediment-laden water to move into the constructed facility. The sediment will settle out there, to some extent, rather than in the channel of the Dixie Slough. The sediment basins in the facility will be designed and constructed to receive the roughly 32 tons of sediment that may accumulate annually in the proposed facility. If the project development and operation does cause increased sedimentation in the Dixie Slough, or if a storm event causes the sediment load to drastically increase temporarily, the Applicant could employ engineering solutions, such as:

- Temporarily deflating the proposed diversion dam and allowing the flow of water in the Dixie Slough to scour the channel and pass the sediment downstream.

- Physically removing any sediment buildup in the channel.

- Modifying the Dixie Slough channel to introduce flow characteristics that would protect the Iest Ditch diversion and the Applicant's diversion from sediment buildup.

(Testimony of Jeffrey Herr)

31. On July 18, 2012, protestant ERG applied for its own permit to appropriate water from the Dixie Slough for water quality improvement purposes. ERG anticipates EPA will eventually allow private industry to help municipalities, irrigation districts, and other entities meet water quality obligations through offset credits. ERG currently has no customers for its offset credit plan because the opportunity is not yet proven. (Testimony of Steve Martinez)

32. Because the proposed settling ponds will extend below the ambient ground water table, the ponds will fill with ground water. The ponds will stay full of ground water all year, including during the part of the year that water from the Dixie Slough is not being diverted into the settling ponds. It also is likely that ground water will flow into the ponds to fill the void caused by the removal of flocculent sludge each year. (Testimony of Richard Kelsey)

33. The Applicant considered other phosphorous removal systems for its Dixie Slough project. Other possible choices included an emergent marsh system and extended wet detention. These other options were not chosen because they require more land than the Applicant has available and because they rely on biological processes, not controlled chemical processes, to reach the result. Relying on a biological process is much less predictable than relying on the chemical process of a coagulant system, such as the one proposed by the Applicant. Coagulant systems have been employed elsewhere in the United States for removal of phosphorous. (Testimony of Jeffrey Herr; Exhibit S-20)

34. The Applicant has an account of money dedicated to meet the needs of the facility. The Applicant has projected its financial needs over ten years, and it will not exceed the minimum balance in its account. The Applicant also has bonding and taxing authority. (Testimony of Paul Woods)

CONCLUSIONS OF LAW

Requirement to File an Application

1. Pursuant to Idaho Code § 42-201(2), the Applicant must have a valid water right to divert and use water from a natural watercourse. The Dixie Slough is a natural watercourse. Therefore, the Applicant must have a water right to divert water from the Dixie Slough.

2. Pursuant to Idaho Code § 42-202 and Rule 35.01.a of the Water Appropriation Rules, the Applicant is required to make application to the Department for a water right prior to commencing construction of the works necessary to divert and use the public waters of the State of Idaho.

Requirements of an Acceptable Application

3. The requirements for an acceptable application are stated in Rule 35.03 of the Water Appropriation Rules. ERG and GO allege a number of ways in which the Applicant has not complied with the requirements of Rule 35.03. The purpose of Rule 35.03 is to ensure that the Department and the public have sufficient information to make judgments and decisions about the potential impacts of the projects proposed in applications to appropriate water. Because it can be difficult for an applicant to get its application just right, Water Appropriation Rules 35.01.d-e anticipate an iterative process to complete an application. Applications deemed by the Department to not meet the minimum requirements are to be returned to the Applicant for completion. Applications deemed by the Department to meet the minimum requirements but to need further clarification can be augmented via correspondence and by conducting a hearing. As stated in Rule 35.01.d, "The acceptability

of applications requiring clarification or corrections shall be determined by the director." Because of the role of the Department in evaluating an application, the content of an application is often to some extent the result of collaboration between the applicant and the Department.

In sum, the important factor in the acceptability of an application is not whether the application is in a form that can be permitted without modification, but whether the application conveys the intent of the applicant in sufficient detail that it can be evaluated for compliance with the criteria against which it must be measured. In this case, the information needed to evaluate the application was submitted through a combination of the original application, the Applicant's response to the Department's questions about the application, the amended application, and the hearing.

4. ERG and GO allege the application does not comply with IDAPA 37.03.08.035.03.b.xi because the application does not agree with the locations of the proposed points of diversion and proposed places of use on a map or plat accompanying the application. For the points of diversion, ERG and GO allege that points of diversion displayed on the Applicant's map are not displayed in Item 3 of the application form because excavated ponds on the map extend into the NE¼SE¼NW¼ of Section 36 and the SW¼NE¼ of Section 36, neither of which are listed on the application. However, the amended application does not seek to divert ground water. Therefore, the locations of the ponds need not be listed as proposed points of diversion.

   As for the alleged place of use discrepancy, ERG and GO indicate that the application lists the place of use as being partly in the NE¼SW¼ of Section 36, but the map that is their focus does not show any portion the place of use in the NE¼SW¼ of Section 36. The applicant provided three spatial images to comply with the map requirement of IDAPA 37.03.08.035.03.b.xi. The one that is the focus of ERG and GO is a copy of a USGS topographic map on which the 40-acre and 10-acre subdivisions of the PLSS have been estimated with hand-drawn lines. The second is an aerial image of the proposed project site. The third is a project concept diagram. Using all three of those items together and comparing them to its Geographic Information System (GIS)[2] depictions of the proposed project site, the Department could clearly discern where within the NE¼SW¼ of Section 36 the proposed use is intended occur. Moreover, the portion of the place of use in the NE¼SW¼ of Section 36 will be used for drying the flocculent sludge. It is not where the beneficial use, removal of TP from Dixie Slough water, will be occurring. Therefore, it need not be included in the place of use. In fact, the Applicant suggests in its November 2011 response to the Department's request for additional information that the "Floc dewatering area" should be removed as a place of use. An analogy can be drawn with an irrigated crop. The water right place of use is where the water is applied and where the crop grows, not where it is transported after harvest, even though the weight of the produce is partly water resulting from the irrigation practice.

   The allegations of ERG and GO concerning IDAPA 37.03.08.035.03.b.xi are unfounded.

[2] The Department enters all water right filings into a Geographical Information System (GIS) database so that it can compare them to each other spatially and to other physical and political characteristics of the landscape.

5. ERG and GO allege the application does not comply with IDAPA 37.03.08.035.03.b.ix requiring a description of the method of diversion, the system for conveyance of water to the place of use and the system for distributing and using the water. They assert the description for diverting and using water from Dixie Slough is incomplete and the description for diverting and using ground water is completely lacking. The application contains a brief description of the proposed surface water (Dixie Slough) diversion system in Item 6. The Applicant augmented that description in satisfactory detail in its November 2011 response to the Department's request for additional information. As for ground water, the Applicant amended its application to remove ground water as a proposed water source. Therefore, there is no need to describe a system for diverting and conveying ground water.

   The allegations of ERG and GO concerning IDAPA 37.03.08.035.03.b.ix are unfounded.

6. Of considerable importance in this matter is whether the Applicant should have included a storage component among the water uses listed on the application. ERG and GO allege the application violates the requirements of IDAPA 37.03.08.035.03.b.iv in a number of ways because it does not include a storage component for either surface water from the Dixie Slough or for ground water. The Hearing Officer will first address whether it is necessary to describe storage of Dixie Slough water and then address whether it is necessary to list ground water as a source and describe storage of ground water.

   Neither Title 42, *Idaho Code*, nor the Water Appropriation Rules defines what is meant by the terms "storage" and "impoundment." Department staff members have for many decades employed a rule of thumb that the capture of a volume of water for longer than a 24-hour period is storage. The Applicant did not include a storage component for surface water on the application because it intends for the retention time of Dixie Slough water in its system of artificial wetlands and settling ponds to be no more that twelve hours. If diverted continuously for 24 hours, the requested diversion rate of 200 cfs results in a diverted volume of approximately 397 acre-feet of water. The total size of the proposed settlement basins is apparently not yet determined, but all indications are that they would contain less than 397 acre-feet of water. Therefore, under the rule of thumb, the proposal would not constitute storage of surface water. In 2013, more than a year after the Applicant filed the application, the Department issued a policy memorandum called *Utilization of the 24-Hour Fill Allowance for Impoundments*. The policy does not exempt the Applicant's proposed use of water from needing a water right that includes a storage element.[3] However, the memorandum contains language indicating that it is not intended to be applied retroactively. Therefore, the Department will not apply it to an application filed when the 24-hour rule of thumb was more broadly applied among many Department staff members. A surface water storage component is not necessary for the application.

   The Applicant did not include a storage component for ground water on the application because it does not want or intend to employ ground water in its proposed beneficial use, the

[3] "As a general rule, it is not appropriate to use the 24-hour fill allowance for off-stream impoundments where the impoundment represents the end use of the water such as aesthetics, recreation and or wildlife uses. Such impoundments, which may include wide meanders and/or pools within the conveyance channel, must include a storage component as part of the water right authorizing the use." (IDWR Application Processing Memorandum No. 73, page 4.)

removal of TP from surface water flowing in the Dixie Slough. Nevertheless, ground water diversion and removal will be necessary during construction of the proposed settlement ponds, and the completed ponds will surely fill with ground water infiltrating through the seepage face. The Applicant intends to divert water from the Dixie Slough to fill the treatment facility in such a way that the head differential keeps additional ground water from moving into the ponds. However, the initial filling of the ponds with ground water is a diversion and storage action that must be accounted for. The Department's policy memo[4] on this subject, issued in 2003, states:

> Excavation or other activities, incidental to the purposes of an activity, can create ponds or enlarge existing ponds resulting in the impoundment of water which the developer or owner does not intend to beneficially use and does not intend to defend their continued access to this water against subsequent appropriators. Even so, in accordance with Section 42-201, Idaho Code, a water right is needed for such incidental ponds or timely action must be taken to avoid impounding water.

The same policy memo also states:

> Based upon the concepts in the Department's interim industrial waste water policy (see Application Processing Memo No. 61 dated September 27, 1996), a water right permit is not needed to construct and use a pond that is necessary to comply with water quality standards and treatment requirements for a beneficial use that already has a water right. The policy does not include a restriction on pond size.

This paragraph is intended to apply to waste water that has been diverted pursuant to a valid water right, used, and contaminated and that must be stored and/or fully consumed to prevent its discharge into the natural environment. It is not intended for the simple retention of ambient ground water, such as will occur in connection with the Applicant's proposed project. Therefore, even though water quality improvement is the benefit intended by the Applicant, a water right is required for the incidental storage of ground water that will occur.

Idaho Code § 42-228 states, in pertinent part:

> The excavation and opening of wells and withdrawal of water therefrom for the sole purpose of improving or preserving the utility of land by draining them shall not be forbidden or governed by this act.

For the Applicant's proposed project, the pumping of ground water during construction of the ponds equates to an effort to preserve the utility of the land, and it is not appropriate to address it with a permanent water right. If the Applicant injures another water user during this activity, the other water user can seek injunctive relief through the courts. However, the filling and long-term maintenance of ponds filled with ground water does require a water right.

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[4] IDWR Application Processing Memorandum No. 67, *Permitting Requirements for Ponds*, February 28, 2003.

The Department is left with a dilemma concerning the lack of a ground water storage component on the Application. The Applicant originally listed ground water on the application but removed it after it had become controversial. The conclusion that must be drawn from the Applicant's action to amend the application is that it had considered its options and made an informed choice.

The lack of a ground water storage component is not a fatal flaw in this application, which seeks the appropriation of water from the Dixie Slough. For the Dixie Slough component, the application will not require a storage volume, and it is therefore not inconsistent with the requirements of IDAPA 37.03.08.035.03.b.iv

For the ground water component of the Applicant's proposed development, the Applicant must provide for the storage use by separate means, such as another application for permit, an application to transfer an existing ground water right, or a rental of ground water from the Water Supply Bank.

7. ERG and GO allege the application does not comply with IDAPA 37.03.08.035.03.b.xii requiring the application be signed by the applicant listed on the application or that the signator has authority to sign the application. For applications submitted by municipalities, the authenticity of the signature must be evaluated according to 37.03.08.035.03.b.xiii, not 37.03.08.035.03.b.xii.

   ERG and GO also allege the application does not comply with IDAPA 37.03.08.035.03.b.xiii because the application was not signed by an elected official. The rule provides for signature by an elected official "or an individual authorized by the organization to sign the application." The Department reviewed and accepted the application when it was filed. Therefore, it must have had no reason to doubt that Robbin Finch, the Water Quality Manager for the Boise Public Works Department, had authority to sign the application. The October 22, 2013, resolution of the Boise City Council makes it clear that it intended for the application to be filed, that Robbin Finch was authorized by the Applicant to sign the application, and that legal counsel, including Erika Malmen, was authorized by the Applicant to sign the amended application. The application is consistent with the requirements of IDAPA 37.03.08.035.03.b.xiii.

8. ERG and GO allege the application does not comply with IDAPA 37.03.08.035.04.b because an amended application cannot change the source of water. The original application included two sources of water, ground water and the Dixie Slough. The amended application removed the proposed source of ground water. Removal of one of two proposed sources of water is not a change in source. The application, as amended, does not violate IDAPA 37.03.08.035.04.b.

Criteria for Evaluating an Application

9. Idaho Code § 42-203A(5), quoted above in this order, lists the criteria the Department must consider when evaluating an application to appropriate water as:

- Potential for injury to existing water right holders.
- Sufficiency of the water supply.
- Application is made in good faith and not for delay or speculative purposes.
- Sufficiency of the applicant's financial resources.
- Local public interest.
- Conservation of water resources in Idaho.
- Effects on the local economy.

12. Idaho Code § 42-202B(3) defines 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.

13. Pursuant to Rule 40.04.c of the Department's Water Appropriation Rules, the applicant bears the ultimate burden of persuasion regarding all the factors set forth in Idaho Code § 42-203A.

14. The criteria in Idaho Code § 42-203A(5) shall be evaluated as described in Rule 45 of the Water Appropriation Rules.

Potential for Injury to Existing Water Right Holders

15. Rule 45.01.a of the Water Appropriation Rules establishes three criteria for determining whether the proposed use will reduce the quantity of water under existing water rights.

    i. The 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.

    ii. The holder of an existing water right will be forced to an unreasonable effort or expense to divert his existing water right. Protection of existing groundwater rights are subject to reasonable pumping level provisions of Section 42-226, Idaho Code; or

    iii. The quality of the water available to the holder of an existing water right is made unusable for the purposes of the existing user's right, and the water cannot be restored to usable quality without unreasonable effort or expense.

16. There are no water rights diverted from the Dixie Slough between the Applicant's proposed point of diversion and its return point. As for rights diverted downstream from the proposed return point on the Dixie Slough, there is only one right, 63-4594. The Applicant's proposed water use will not injure Right 63-4594 because the flow of the Dixie Slough at all times far exceeds the diversion rate of Right 63-4594 at its point of diversion and because depletions to the Dixie Slough caused by the Applicant's proposed use will be insignificant.

17. The Applicant's proposed project will not reduce the quantity of water available to existing water rights diverting upstream from the Applicant's proposed point of diversion, nor will it interfere with the ability of upstream water users to divert water. The ERG and GO allege

that Right 63-5179, which is diverted via the Iest Ditch just upstream from the Applicant's proposed point of diversion, could be injured by increased siltation in the channel of the slough or the Iest Ditch itself. The more likely scenario is that the Applicant's diversion works will benefit the Iest Ditch by slightly raising the water surface elevation and making it easier to divert water down the Iest Ditch.

18. The Applicant's proposed project will not reduce the supply of water available to existing ground water rights. The water table in the area is within a few feet of ground surface, and the Applicant's proposed project will not change this circumstance.

19. The Applicant met its burden of persuasion regarding injury to existing water rights.

Sufficiency of the Water Supply

20. Rule 45.01.b of the Water Appropriation Rules establishes:

> [T]he 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 (direct benefits to applicant must exceed direct costs to applicant), unless there are noneconomic factors that justify application approval.

21. The requested diversion rate of 200 cfs is available from the Dixie Slough during the proposed season of use about 50% of the time. For the months of May through September, the average monthly flow exceeds 200 cfs in each month. To achieve the TP offset requirements of the NPDES permit, the Applicant will not need the entire authorized diversion rate all of the time. Rather, the requested diversion rate will be used, when available, to make up for low flow periods so that the required monthly average TP reduction can be accomplished. Thus, the requested rate is present often enough for the proposed beneficial use to be accomplished.

22. The Applicant met its burden of persuasion regarding the sufficiency of the water supply for the proposed use.

Application is Made in Good Faith and not for Delay or Speculative Purposes

23. Rule 45.01.c of the Water Appropriation Rules establishes three criteria for determining whether the application was made in good faith:

    i. The applicant shall have legal access to the property necessary to construct and operate the proposed project, has the authority to exercise eminent domain authority to obtain such access, or in the instance of a project diverting water from or conveying water across land in state or federal ownership, has filed all applications for a right-of-way. Approval of applications involving Desert Land Entry or Carey Act filings will not be issued until the United States Department of Interior, Bureau of Land Management has issued a notice classifying the lands suitable for entry; and

ii. The applicant is in the process of obtaining other permits needed to construct and operate the project; and

iii. There are no obvious impediments that prevent the successful completion of the project.

24. The issuance of the NPDES permit proves the Applicant's proposed project is real and necessary.

25. The Applicant owns the property on which its proposed project is to be built, and therefore it has legal access to construct and operate the project.

26. ERG and GO allege that because the NPDES permit requires the removal of only 25 lbs/day of TP until 2022, the Applicant should have to wait until 2022 to appropriate more water than needed to meet the immediate requirement. To bolster this argument, ERG and GO dwell on the fact that if it receives the requested permit, the Applicant must submit proof of beneficial use within five years, which is well in advance of the year 2022. However, when it comes to cleaning up TP from the Boise River, more is better. ERG and GO assert that it is a basic tenet of Idaho water law that: "You only get what you need." (Energy Resource Group LLC and G.O. Investments Idaho, LLC's Closing Statement) Actually, water rights are based on the amount of water needed *to accomplish a beneficial use*. If more beneficial use can be accomplished with more water, then the additional amount of water may be appropriated. The Applicant's NPDES permit is a minimum standard, not a maximum limit. If the Applicant is willing and able to address the TP above its immediate minimum requirement within five years in order to demonstrate to the EPA its ability to do so and to acquire a water right for the amount of water needed to do so, then it should be allowed to do so.

27. ERG and GO allege the application is speculative because the amount of water sought is based on the needs of municipalities that are no longer part of the proposed project. When the application was submitted to the Department, the diversion rate requested on the application clearly was intended for more municipalities than just the Applicant. However, at that time the application was not based on a TP offset ratio of 1.5:1. When the EPA determined that the Applicant could not include the other municipalities in its NPDES permit, it also raised the performance bar for the Applicant by establishing the 1.5:1 offset ratio. The higher offset ratio essentially offset the removal of other municipalities from the project. The rationale for the Applicant's request was not changed on the Applicant's whim. Rather, the EPA imposed a change in rationale on the Applicant. Therefore, although the rationale for the Applicant's request changed during pendency of the application, the Applicant submitted the application in good faith and the change in rationale behind the requested application was also in good faith.

28. ERG and GO allege the Applicant's request for a longer season of use than required by the NPDES permit is speculative. Gradually bringing its facility online allows the Applicant to collect data and adjust its operations so that it is operating efficiently by the May 1 annual start date required in the NPDES permit. Therefore, it is not speculative for the Applicant to begin diverting water and removing TP up to a month prior to May 1. As for the proposed

diversion and use of water during the whole month of October, the Applicant's argument is not very compelling. The Applicant asserts that reintroducing water to the Dixie Slough channel between the point of diversion and the point of discharge must happen gradually to prevent damage to the channel. This argument has some merit, but not enough to justify a month of additional operation. The Applicant should need no more than half a month to ramp down its operations and to resume the full flow of the Dixie Slough in its channel past the facility. Therefore, the season of use should not extend beyond October 15 each year.

29. ERG and GO also allege the application is speculative because the site chosen for the proposed project is not suitable for the project. In other words, they allege that the characteristics of the proposed site make for obvious impediments to the completion of the project. ERG and GO's allegations about the unsuitability of the proposed site are addressed in the headings Potential for Injury to Existing Water Right Holders, Sufficiency of the Water Supply, and Local Public Interest. Based on the analyses and conclusions in those sub-sections of these conclusions, there are no obvious insurmountable impediments to the completion of the Applicant's proposed project.

30. The Applicant met its burden of persuasion regarding whether the application was made in good faith or for delay or speculative purposes. That being said, the Department should remind the Applicant that in order to establish and maintain a water right, it must achieve ***and sustain*** the beneficial use of the permitted diversion rate within five years. If the project is completed timely, the water right license will be issued with a diversion rate limit and annual diversion volume limit. Neither will exceed what was actually beneficially used during the authorized development period. Diverting at the permitted rate for a brief test period, then reverting to the diversion rate necessary to meet 25 lbs/day will not be sufficient to establish the annual diversion volume needed to meet the ultimate (2022) requirements of the NPDES permit.

Sufficiency of the Applicant's Financial Resources

31. The sufficiency of the Applicant's financial resources is not in dispute. The Applicant has the financial resources to complete and operate the proposed project.

Local Public Interest

32. Idaho Code § 42-202B(3) defines "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 water use on the public water resource." The current definition of local public interest was adopted in 2003 and supersedes the evaluation criteria set forth in Rule 45.01.e of the Water Appropriation Rules which dates from 1993.

33. Improving the environmental health of the lower Boise River, as the Applicant's proposed project would do, is in the local public interest.

34. ERG and GO allege that the application "proposes a diversion rate greatly in excess of the quantity needed to meet the City's phosphorous removal requirements, thereby limiting the

feasibility of other projects seeking to remove phosphorous from the Dixie Slough . . . ." They further allege that limiting the feasibility of other projects would limit the potential for phosphorous to be removed from the Dixie Slough. This argument, in its essence, is that others besides the Applicant are entitled to a share of the phosphorous pollution in the Dixie Slough. Pollution is not a natural resource to be allocated among appropriators who will put it to some beneficial use. It is in the public interest for as much phosphorous as possible to be removed by the first project on the scene. Therefore, the scope of the Applicant's project should not be limited so that other yet-to-be-proven projects may have some opportunity.

35. ERG and GO allege that the application seeks to "fully appropriate, at times, the entirety of the water supply in the Dixie Slough drainage including tributary ground water, thereby preventing the future appropriation of water for other uses . . . ." The potential for a water resource to accomplish an alternative benefit is an appropriate component of the public interest review criterion. In this instance, ERG and GO did not provide a compelling alternative vision for the water in the Dixie Slough, including tributary ground water, other than the potential for them or someone else to do the same thing proposed by the Applicant. Nevertheless, using up the phosphorous-laden water in the Dixie Slough for a consumptive beneficial use could be a more reliable way to remove the phosphorous than the proposed taxpayer funded cleanup project is. The Applicant should not be allowed to close the door completely on this possibility. Therefore, the proposed appropriation should be subordinate to future upstream consumptive water uses. The proposed appropriation should have priority over non-consumptive uses that would remove water from the Dixie Slough without removing the TP and over other projects to remove TP from the Dixie Slough.

36. ERG and GO are concerned that "the single-purpose nature of the project fails to utilize the water resource for complementary purposes, such as recreation and wildlife." There is no requirement in statute or rule that water be appropriated for multiple purposes. Moreover, the Applicant's proposed project hardly consumes any water and, therefore, does not preclude someone else from putting the treated water to a different beneficial use. The argument by ERG and GO has no merit.

37. ERG and GO are concerned that "the proposed project will affect the ability of the Dixie Drain to control local groundwater levels on nearby properties." However, the Applicant has studied this potential and shown that it can and will both design its project and implement other measures to ensure that its project does not impair or reduce the drainage function of the Dixie Slough. As long as this drainage function is not impaired or reduced, the Dixie Slough will continue to control ground water levels on adjoining and nearby properties.

38. ERG and GO allege that "the proposed project will affect the ability of the Dixie Drain to maintain scour velocities and control sedimentation." The Applicant is aware of this possibility, and it will address it in the design, implementation, and operation of its proposed project. The 2.5 feet to 3.0 feet of head from the Applicant's point of diversion to its point of return is sufficient to divert the proposed 200 cfs with sufficient velocity to carry the sediment load of the Dixie Slough into the proposed facility, where much of it will settle out. If sedimentation does occur, the Applicant can implement a variety of engineering solutions

to alleviate any problems that would affect the functioning of the drain and impact local landowners.

39. The Applicant met its burden of persuasion regarding the local public interest.

Conservation of Water Resources in Idaho

40. The Idaho legislature implemented the conservation of water resources requirement for water appropriations in 1990. The Department's Application Processing Memorandum No. 48, which addressed the requirement, states:

> The term "conservation" is not defined in the legislative intent or in the amendment. . . . Due to lack of stated legislative intent, the department will apply the criterion in terms of efficiency as is generally suggested by the term.

The requirement has been interpreted by the Department to require standards of water use efficiency so that the proposed beneficial use is accomplished while preserving as much water as possible for other benefits.

The allegations of ERG and GO will be evaluated according to this interpretation to the extent possible. Thus, the question for this criterion is not whether the proposed water quality treatment is a beneficial use, but whether the requested amount of water exceeds what is needed to accomplish the beneficial use.

41. ERG and GO state that the application "proposes a diversion rate greatly in excess of the quantity needed to meet the City's phosphorous removal requirements, thereby limiting the feasibility of other projects seeking to remove phosphorous from the Dixie Slough . . . ." The Applicant's request for a diversion rate of 200 cfs accounts for three variable factors – the flow of water in the Dixie Slough, the concentration of TP in the Dixie Slough, and the efficiency of the measures taken to remove TP from the water. Under ideal conditions, the Applicant will accomplish the NPDES permit's TP offset requirements with a flow rate less than the requested 200 cfs. However, if the any of the three variable factors diminishes, the others must increase to achieve the desired result. The Applicant has no control over the concentration of TP in the Dixie Slough. In fact, it reasonably expects the concentration to diminish over time as other phosphorous control measures are implemented by others to comply with EPA requirements. Of the other two factors, efficiency is the more costly to manipulate. Increasing efficiency requires using more of the expensive flocculent to bond with the TP in the water. The least expensive of the three factors for the Applicant to manipulate is the amount of water it diverts from the Dixie Slough. In order to meet the average monthly requirements of the NPDES permit, the Applicant seeks authorization to divert and treat up to 200 cfs to overcome those periods when the flows in the Dixie Slough are low, when the TP concentrations in the Dixie Slough are low, when its efficiencies are low, or some low combination of the three exists. For this reason the Applicant added a 25% "safety factor" to its calculated flow need and rounded up an additional 5 cfs. The greater the safety factor, the more likely it is that the Applicant will meet its NPDES permit requirements. The cost of not meeting the NPDES permit requirements could be enormous

for the Applicant, starting with a potential penalty of $37,500 per day and extending up to the comparatively expensive construction costs that may be associated with upgrades to its existing wastewater treatment facilities. Because the potential costs of failure are so great, the size of the safety factor is justified.

42. ERG and GO allege the application seeks to "fully appropriate, at times, the entirety of the water supply in the Dixie Slough drainage including tributary ground water, thereby preventing the future appropriation of water for other uses . . . ." As discussed immediately above, the Applicant has shown that diverting the full amount of the flow of the Dixie Slough at times is appropriate to achieve the NPDES requirement. Whether it is appropriate to prevent the future appropriation of water for other purposes is discussed in the Local Public Interest section of this portion of this order.

43. ERG and GO allege the application seeks to appropriate water "for a month prior to and after the period of the year within which the City intends to make beneficial use of water." Starting the season of use on April 1 is justified for the purposes of annually calibrating the TP removal process and achieving the greatest efficiency possible by May 1, as discussed above in this order. Ending the season of use a full month after the NPDES permit requirements cease is not justified, as discussed above in this order.

44. ERG and GO allege that the "single-purpose nature of the project fails to utilize the water resource for complementary purposes, such as recreation and wildlife." ERG and GO are asserting that it is more beneficial, and therefore more efficient, to use water for multiple purposes instead of for a single purpose. There is no requirement in statute or rule that an applicant must seek to use water for as many beneficial purposes as possible. In this case, the Applicant is singularly focused on meeting the requirements of its NPDES permit. The appropriate conservation standard is whether the proposed quantity of water is needed for the purpose proposed. As discussed above, the quantity proposed is appropriate for the proposed purpose.

45. The Applicant met its burden of persuasion regarding the conservation of water resources in Idaho.

Effects on the Local Economy

46. This criterion applies only to "out-of-basin" appropriations; it does not apply in this case.

ORDER

IT IS HEREBY ORDERED that Application for Permit No. 63-33467 in the name of the City of Boise Public Works Department is APPROVED with the following changes to the elements of the proposed use:

- The place of use for this right shall not include the NE¼SW¼ of Section 36, Township 5 North, Range 5 West, B.M.

- The Season of Use shall be April 1 to October 15.

IT IS FURTHER HEREBY ORDERED that the following conditions shall apply to the approval of Application for Permit No. 63-33467:

1. Proof of application of water to beneficial use shall be submitted no sooner than October 1, 2018, and received no later than the beneficial use due date of March 1, 2019.

2. This right shall be subject to all prior water rights.

3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which the permit holder had no control.

4. Water Quality Improvement is for the removal of phosphorous from the water flowing in the Dixie Slough.

5. This right does not grant any right-of-way or easement across the land of another.

6. This right does not authorize the diversion and storage of ground water. The ground water component of the water quality improvement appropriation authorized by this right shall be established by other means.

7. The source of this right is wastewater. The wasting of water may be discontinued at any time. This right remains subject to the right of the original appropriator, in good faith and in compliance with state laws governing changes in use and/or expansion of water rights, to cease wasting water, to change the place or manner of wasting it, or to recapture.

8. The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

9. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 63.

10. Prior to diversion of water under this right, the right holder shall install and maintain a measuring device and lockable controlling works of a type acceptable to the Department as part of the diverting works.

11. This right shall be junior and subordinate to future water rights authorizing the diversion and use of water from the Dixie Slough and its tributaries, including ground water, for

consumptive uses. This right shall not be subordinate to future water rights for similar water quality improvement purposes, to water rights for non-consumptive uses such as wildlife, recreation and/or aesthetics, and to water rights for hydropower.

Dated this 13th day of February, 2014.

Shelley W. Keen
Hearing Officer

CERTIFICATE OF SERVICE

I hereby certify that on February 14, 2014, I mailed a true and correct copy, postage prepaid, of the foregoing PRELIMINARY ORDER APPROVING APPLICATION to the person(s) listed below:

RE: APPLICATION FOR PERMIT 63-33467

PERKINS COIE LLP
ATTN: ERIKA MALMEN, ROBERT MAYNARD & TONN K PETERSEN
1111 W JEFFERSON STE 500
PO BOX 737
BOISE ID 83701

CITY OF GREENLEAF
MOORE SMITH BUXTON & TURCKE CHTD
ATTN: BRUCE SMITH & SUSAN BUXTON
9501 W BANNOCK ST STE 520
BOISE ID 83702

GO INVESTMENTS LLC
ENERGY RESOURCE GROUP LLC
C/O HOFSTETTER LAW
608 W FRANKLIN ST
BOISE ID 83702

IDAHO CONSERVATION LEAGUE
ATTN: BRYAN HURLBUTT
PO BOX 1612
BOISE ID 83701

IDAHO CONSERVATION LEAGUE
ATTN: MARIE CALLAWAY KELLNER
PO BOX 844
BOISE ID 83701

Jean Hersley

Jean Hersley
Technical Records Specialist II

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.