MEMORANDUM

DATE: January 14, 2019

TO: James Cefalo

FROM: M. Rauhut, A. Grimm, P. Skaggs, E. Boe, and S. Keen

RE: Staff Review of Suez Water Idaho, Inc.'s Integrated Municipal Application Package

BACKGROUND

On May 4, 2001, United Water Idaho Inc., now Suez Water Idaho, Inc. ("Suez"), filed with the Idaho Department of Water Resources ("IDWR") a package of applications identified by the name Integrated Municipal Application Package ("IMAP"). Among other things, Suez seeks to add alternative points of diversion ("APODs") to certain water rights and permits, eliminate annual diversion volume limits from certain water rights, and identify the water rights and permits as held to meet reasonably anticipated future needs ("RAFN").

IDWR received several protests against approval of the IMAP. IDWR appointed James Cefalo ("Cefalo") to be the hearing officer in the IMAP matter. Cefalo held a handful of status conferences to confer with the parties about the IMAP. Cefalo did not hold a hearing because all the protests were eventually withdrawn, many of them conditionally.

The purpose of this review memorandum is to assist Cefalo in evaluating the IMAP record. This memorandum analyzes Suez's IMAP transfer and permit amendment applications as described by documents Suez submitted in support of the IMAP, including:

- Suez's *Master Water Plan for the Years 2015 to 2065* ("Master Water Plan")
- *Suez's 2017 Update Report on IMAP and 2065 Master Water Plan* ("2017 Update Report")
- *Suez's 2017 Supplement to the Update Report, Addressing APODs* ("2017 APODs Update Report")

The analysis is organized into three sections. The first section addresses the information Suez submitted to support the RAFN component of the IMAP proposal. The second section addresses the IMAP relative to the statutory requirements for water right transfers (Idaho Code § 42-222) and applications to amend permits (Idaho Code § 42-211). The third section describes considerations particular to elements and conditions of specific water rights and permits included in the IMAP.

RAFN REVIEW

Idaho Code § 42-222(1) states, in part:

> When the nature of use of the water right is to be changed to municipal purposes and some or all of the right will be held by a municipal provider to serve reasonably anticipated future needs, the municipal provider shall provide to the department sufficient information and documentation to establish that the applicant qualifies as a municipal provider and that the reasonably anticipated future needs, the service area and the planning horizon are consistent with the definitions and requirements specified in this chapter.

Idaho Code § 42-202B(8) states:

> "Reasonably anticipated future needs" refers to future uses of water by a municipal provider for municipal purposes within a service area which, on the basis of population and other planning data, are reasonably expected to be required within the planning horizon of each municipality within the service area not inconsistent with comprehensive land use plans approved by each municipality. Reasonably anticipated future needs shall not include uses of water within areas overlapped by conflicting comprehensive land use plans.

Accordingly, IDWR's analysis of Suez's RAFN request must address:

1) whether Suez qualifies as a municipal provider,
2) Suez's service area,
3) Suez's proposed planning horizon,
4) Suez's population projection within the planning horizon, and
5) Suez's forecasted water demand necessary to serve the changing population within a service area throughout the planning horizon.

IDWR must also analyze Suez's existing water rights portfolio and conduct a gap analysis. A gap analysis is the determination of what portion of Suez's future municipal needs can be met by its existing water rights. *See Memorandum Re: Recommendations for the Processing of Reasonably Anticipated Future Needs (RAFN) Municipal Water Rights at the Time of Application, Licensing, and Transfer* (Mar. 16, 2015) ("IDWR Recommendations for RAFN Processing") at 17.

Municipal Provider Status

Suez's submittals do not state why it qualifies as a "municipal provider" pursuant to Idaho Code § 42-202B(5).

Suez may qualify as a "municipal provider" because it is a "corporation or association holding a franchise to supply water for municipal purposes." Idaho Code § 42-202B(5)(b). Some of Suez's submittals refer to Idaho Public Utilities Commission ("IPUC") authorization, implying the existence of a franchise. For example, the April 3, 2018, Affidavit of Roger D. Dittus ("Dittus Affidavit")[1], hydrogeologist for Suez, states: "The Pink Line Map also displays SUEZ's certificated area. This is [the] geographic area that SUEZ is now authorized to serve by the [IPUC]." *Dittus Affidavit* at 2.

Alternatively, Suez may qualify as a "municipal provider" because Suez is identified by the Idaho Department of Environmental Quality as "[a] corporation which supplies water for municipal purposes through a water system regulated by the state of Idaho as a 'public water supply' as described in section 39-103(12), Idaho Code."[2] Idaho Code § 42-202B(5)(c).

IDWR should seek information from Suez to substantiate its qualification as a municipal provider for the record.

Service Area

The IMAP service area review is based on the following documents:

- Master Water Plan
- 2017 Update Report
- *United Water Integrated Municipal Application Planning Area Map* ("Planning Area Map"), Exhibit 1 to Master Water Plan

Idaho Code § 42-202B(9) defines "service area" as follows:

> 'Service area' means that area within which a municipal provider is or becomes entitled or obligated to provide water for municipal purposes. For a municipality, the service area shall correspond to its corporate limits, or other recognized boundaries, including changes therein after the permit or license is issued. The service area for a municipality may also include areas outside its corporate limits, or other recognized boundaries, that are within the municipality's established planning area if the constructed delivery system for the area shares a common water distribution system with lands located within the corporate limits. For a municipal provider that is not a municipality, the service area shall correspond to the area that it is authorized or obligated to serve, including changes therein after the permit or license is issued.

[1] Available at https://idwr.idaho.gov/files/legal/suez-water-idaho-imap/IMAP-20180403-Affidavit-of-Roger-Dittus.pdf.

[2] *See* Public Water Systems Classification List at http://www.deq.idaho.gov/water-quality/drinking-water/pws-classification-licensure/system-classifications/.

The IDWR Recommendations for RAFN Processing gives additional guidance regarding service areas, including areas overlapped by conflicting comprehensive land use plans:

> Idaho Code §42-202B (8) states, *"Reasonably anticipated future needs shall not include uses of water within areas overlapped by conflicting comprehensive land use plans."* When evaluating a proposed RAFN service area where two or more municipal providers abut one another, the applicant should research adjacent community planning areas to confirm that overlaps in competing planning areas *specific to water service* do not exist. If overlaps in comprehensive land use planning areas specific to water service do exist between two different municipal providers, the area of overlap cannot be included in the proposed RAFN service area under consideration . . . .
>
> However, the proposed RAFN service area cannot include areas where water is not provided at the time of application if the proposed RAFN service area is overlapped by adjacent land use planning boundaries, or is already included within the existing service area of a municipal water provider other than the municipal provider under consideration.

IDWR Recommendations for RAFN Processing at 6-7.

Although Idaho Code uses the term "service area," Suez uses the term "Planning Area" throughout its Master Water Plan and 2017 Update Report. The difference in terminology is discussed in the Master Water Plan as follows:

> Planning Area refers to Suez's anticipated future service area that qualifies for RAFN quantification at the end of the Planning Horizon. References to Suez's Planning Area are capitalized. The [IDWR Recommendations for RAFN Processing] does not employ the term 'planning area' but refers instead to the 'RAFN service area,' which is the same thing.

Master Water Plan at 2. Suez's "Planning Area" is based on a 50-year planning horizon for its water supply. The "Planning Area" is Suez's anticipated service area at the end of the 50-year planning horizon. The "Planning Area" extends beyond Suez's current service area into the impact areas of several incorporated communities and into unincorporated portions of Ada County. The Dittus Affidavit describes the "Planning Area's" overlap with other municipalities as follows:

> SUEZ's certificated area and planning area fall within the City of Boise's area of city impact. In addition, SUEZ's certificated area and planning area include portions of the following: (1) the City of Eagle and its area of city impact, (2) the City of Kuna and its area of city impact, (3) the City of Meridian and its area of city impact, (4) Garden City and its area of city impact, and (5) unincorporated areas of Ada County that fall within no area of city impact.

Dittus Affidavit at 3.

Suez's method for delineating its "Planning Area" raises at least four questions:

1. Is the 50-year planning horizon appropriate?

2. Does Idaho law allow municipal providers to justify RAFN on the basis of an anticipated, as opposed to current, service area?

3. Did Suez use good information to anticipate where its service area is likely to expand over the planning horizon?

4. Is the "Planning Area" consistent with the Idaho Code §42-202B(8) directive that, "[RAFN] shall not include uses of water within areas overlapped by conflicting comprehensive land use plans."

Regarding the first question, as discussed below in the "Planning Horizon" section, justifying a 50-year planning horizon requires extensive analysis. Suez's 50-year "Planning Area" cannot be valid if its 50-year planning horizon is inappropriate. This review of Suez's "Planning Area" assumes the 50-year planning horizon is appropriate. If the planning horizon is not appropriate, the "Planning Area" may need to be scaled back to reflect a shorter term.

Regarding the second question, Idaho Code § 42-222(1) directs that, when the nature of use of a water right is to be changed to municipal purposes to serve RAFN, IDWR must ensure the "service area" is "consistent with the definitions and requirements specified in this chapter." Again, the definition of "service area" in Idaho Code § 42-202B(9) states: "For a municipal provider that is not a municipality, the service area shall correspond to the area that it is authorized or obligated to serve, including changes therein after the permit or license is issued." This definition clearly anticipates that, for a non-municipal entity like Suez, the service area may change after a permit or license is issued. The definition suggests that it may be appropriate for Suez to use an anticipated, as opposed to current, service area to justify its RAFN request. However, because many of the IMAP water rights are decreed rights rather than permits and licenses, it is not clear that the opportunity to plan for an expanded service area applies to all the water rights involved.

Regarding the third question, even assuming Suez can use an anticipated service area to justify its RAFN request, Suez's IMAP materials do not explain or detail how or why Suez will become "authorized or obligated to serve" an area outside its current service area. Suez does not explain how it obtains approval for expanding its service area nor detail why Suez's service area will expand into certain areas in the future. A municipality has its "corporate limits" and "established planning area." Idaho Code § 42-202B(9). For a municipal provider that is not a municipality, what is the process for obtaining authorization or obligation to serve an area? *See Id.* IDWR should ask Suez to explain its process for obtaining authorization or obligation to serve an area.

Suez also does not describe what portion of the anticipated future water need is expected to occur in the portions of the "Planning Area" that Suez does not now serve. Is the expanded service area marginal to the overall IMAP request, or does it account for a significant share of the projected growth in demand over the planning horizon? In addition, the Planning Area Map does not show areas that are currently served by domestic wells, subdivisions that may have their own community water supplies, areas that have non-potable irrigation water (NPI)[3], or any types of non-municipal water supplies. IDWR should ask Suez for information explaining how and why it is reasonable to anticipate that its service area will expand to include all of the "Planning Area." IDWR should also ask Suez to explain what portion of its anticipated future needs over the 50-year planning horizon is attributable to Suez's current service area and what portion is attributable to the anticipated growth of its service area.

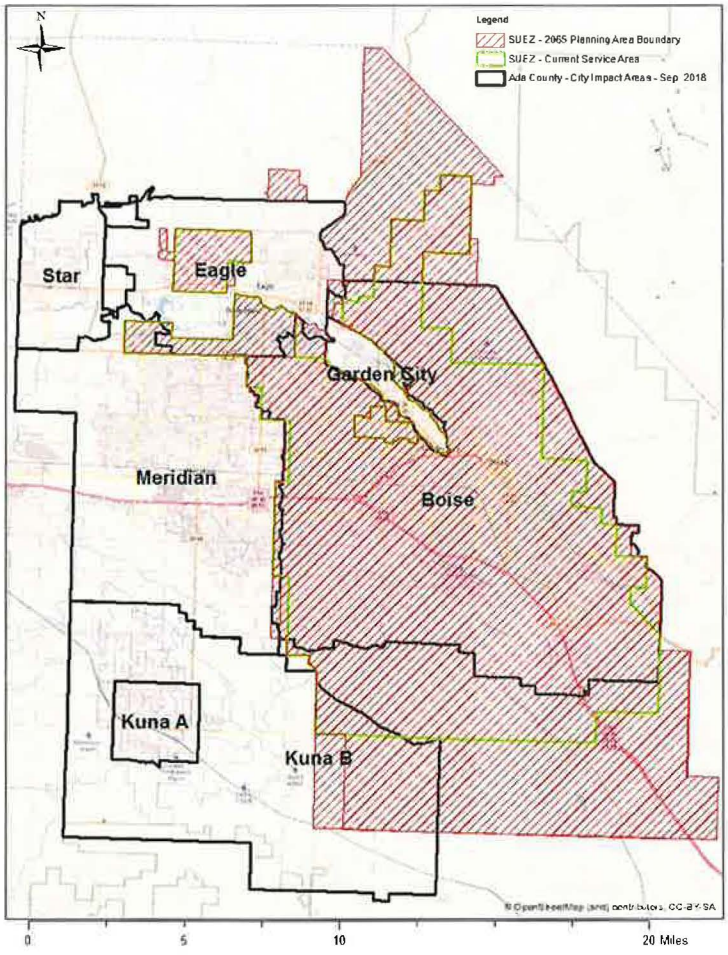


Figure 1. Suez Planning Area (red) superimposed on the Ada County City Impact Areas (black)

[3] NPI is untreated surface water delivered by irrigation districts and other entities (but not by the municipal provider) to irrigate lawns, parks, and the like within a municipal provider's service area. The Master Water Plan accounts for NPI in its water demand projection, but does not specifically discuss residences with domestic wells or other potential small community water supplies.

Regarding the fourth question, Figure 1 shows the areas of impact (black outline) of the various municipalities in Ada County[4] and Suez's "Planning Area" (red hatched area). Suez is often seen as the municipal water provider for the City of Boise, but, as Figure 1 shows, Suez's certificated service area (green outline), as approved by the IPUC, and its "Planning Area," overlap areas of impact of other Ada County municipalities. The Master Water Plan (at 7) highlights these overlaps, stating:

> In the Meridian and Eagle vicinity, the western boundary of the Planning Area in the 2012 Pink Line Map precisely matches Suez's existing certificated boundary. Compared to the 2002 Pink Line Map, the biggest change in this area is the Planning Area extension north of Chinden Boulevard, which was not included within the 2002 Pink Line Map's Planning Area boundary.

The Suez "Planning Area" overlaps with the City of Eagle area of impact in multiple locations, and the border of the "Planning Area" along the area of impact for Meridian also appears to overlap. The Master Water Plan (at 8) also states:

> Where the southern boundary of the 2012 Pink Line Map's Planning Area approaches the City of Kuna, it turns north one mile east of the City's current annexations. After traveling three miles north, the boundary intersects Suez's current certificated service area western boundary all the way through and around the Cities of Meridian, Eagle, and Garden City, as described above. In other words, aside from the area extending three miles south of its existing certificated service area east of Kuna, Suez's Planning Area boundary is identical to its current certificated service area along its western boundary.

In other words, the existing Suez service area overlaps with Kuna's area of impact. The "Planning Area" extends the overlap especially towards the south.

Suez concludes that its RAFN proposal is consistent with Idaho Code § 42-202B(8) because "no areas that Suez anticipates serving are within areas overlapped by conflicting comprehensive land use plans." *Master Water Plan* at 6. The key to Suez's conclusion is Idaho Code § 42-202B(8)'s use of the phrase "comprehensive land use plan." Suez states that "the municipal governments in the Treasure Valley have established their areas of city impact so as not to overlap." *Id.* In other words, because the municipal areas of impact do not overlap, their land use plans do not overlap. Therefore, Suez concludes that, although its "Planning Area" for water delivery overlaps several municipal areas of impact, such overlap is not in violation of Idaho Code § 42-202B(8)'s directive that RAFN "shall not include uses of water within areas overlapped by conflicting comprehensive land use plans."

While Suez's water delivery proposal may not clearly violate Idaho Code § 42-202B(8)'s directive, one view of the statute's restriction could be that its purpose is to allow the land use

[4] Municipal areas of impact in Ada County shapefile available at: http://opendata.cityofboise.org.

planning process, not the water appropriation process, to determine the future pattern of municipal growth. Again, Suez has not explained how it obtains approval for expanding its service area nor has Suez detailed why its service area will expand into certain areas in the future. IDWR should require Suez to provide such information.

Planning Horizon

Idaho Code §42-202B(7) defines the "planning horizon" for a municipal provider as follows:

> 'Planning horizon' refers to the length of time that the department determines is reasonable for a municipal provider to hold water rights to meet reasonably anticipated future needs. The length of the planning horizon may vary according to the needs of the particular municipal provider.

Idaho Code §42-202B(8) states the following regarding evaluation of planning horizons:

> '[RAFN]' refers to future uses of water by a municipal provider for municipal purposes within a service area which, on the basis of population and other planning data, are reasonably expected to be required within the planning horizon of each municipality within the service area not inconsistent with comprehensive land use plans approved by each municipality.

IDWR Recommendations for RAFN Processing establishes guidance for IDWR staff to consider when determining whether a proposed planning horizon is reasonable. IDWR generally considers planning horizons between 15-20 years to be acceptable with comparatively little scrutiny in most cases. Planning horizons greater than 20 years must be supported by long-term planning documents and professionally prepared demographic studies, all of which must be consistent with customary standards of practice for water infrastructure planning and other regional planning studies. IDWR Recommendations for RAFN Processing summarizes reasonable durations of water resource related planning horizons in published reference materials (Table 1) and actual projects in the State of Idaho (Table 2). This data suggests "that planning horizons between 10 and 55 years are the standard amongst the planning profession and in the actual adoption of planning documents within the State of Idaho." *IDWR Recommendations for RAFN Processing* at 8.

The Master Water Plan and 2017 Update Report include a number of sections in support of the 50-year planning horizon as follows:

- John S. Church RAFN Forecast ("Church Forecast")

  Prepared by Suez consultant John S. Church, the Church Forecast was an updated 50-year demand forecast for Suez over the 2015 to 2065 period. Note

that this forecast was an update to the one submitted by Suez in 2003.[5] The Church Forecast appears to be based on professionally acceptable methods for long range planning.

- Dr. Don Reading Review of Church Forecast ("Reading Review")
  Prepared by Suez consultant Dr. Don Reading, the Reading Review is a peer review and critique of the Church Forecast. Comments from this review led to revisions by Mr. Church. Ultimately, the Reading Review supported the methodology and results of the Church Forecast.

- Dr. Christian Petrich Review of Church Forecast ("Petrich Review")

  Prepared by Suez consultant Dr. Christian Petrich, the Petrich Review compared results of the Church Forecast with a similar regional 2016 planning study commissioned by the Idaho Water Resource Board titled *Treasure Valley DCMI Water-Demand Projections (2015-2065)* ("DCMI Report"). Dr. Petrich found the results of the Church Forecast to be consistent with forecasts in the DCMI Report.

Overall, the above-described information in support of the proposed 50-year planning horizon sufficiently addresses the evaluation criteria outlined in the IDWR Recommendations for RAFN Processing. The proposed 50-year planning horizon is within the acceptable range of 10 to 55 years and is consistent with Suez's long-term planning documents (Master Water Plan and 2017 Update Report). Additionally, supporting information (Reading Review and Petrich Review) corroborates the conclusion that Suez's planning material submitted in support of IMAP is consistent with customary standards of practice for water infrastructure planning and other regional planning studies.

Population Projection

Idaho Code §42-202B(8) states that RAFN should be based on "population and other planning data." IDWR Recommendations for RAFN Processing outlines the following "components and considerations" regarding population projection that the applicant should address in detail:

1. Conduct a critical survey of existing contemporary population studies applicable to the local area to establish likely upper and lower boundaries for population growth.

[5] The IMAP proceeding was stayed in 2003 pending the processing of Suez's claims in the Snake River Basin Adjudication. The RAFN forecast that formed the basis of the original IMAP was based on a 50-year planning horizon between 2003 and 2053, and was 11 years old by the time IMAP was relaunched. IDWR required Suez to update its 50-year forecast. Suez's updated forecast pushed out the planning horizon to 2065.

2. Project future population using standard technical methods, such as regression, extrapolation, or cohort survival models. Extrapolation forecasts should account for geography, resource constraints, economic conditions, and other limiting factors or anticipated events, such as relocation of a commercial or industrial use.

3. Compare the results of the population projections from step 2 to the results of the critical survey from step 1 and apply professional judgement to evaluate whether the population projections are likely to occur within the planning horizon and are, therefore, reasonable.

In addition, "applicants should provide extra justification for requested growth rates in excess of 2.50% annually." *IDWR Recommendations for RAFN Processing* at 9.

The Church Forecast, Reading Review, and Petrich Review include population projection discussions as follows:

- Church Forecast – Population Projection

  The Church Forecast relied on an econometric model ("Church Econometric Model") that Mr. Church originally developed for Idaho Power Company. For IMAP, the Church Econometric Model utilized population and planning data from three governmental agencies: (1) U.S. Census Bureau, (2) U.S. Department of Labor, and (3) the Community Planning Association of Southwest Idaho (COMPASS). Input data for the Church Econometric Model (built into the Church Forecast) included population and number of households data obtained from both the U.S Census Bureau and U.S. Department of Labor data. Results from the COMPASS population and number of households forecast (2040 Communities in Motion) was used to calibrate (tune) the Church Econometric Model which projected out to 2065 (The COMPASS forecast extended to 2040). Results of the Church Econometric Model projected an annual growth rate of 1.20% over the 50-year period between 2015 and 2065.

- Reading Review – Population Projection

  The Reading Review included a lengthy discussion on the population projection component of the Church Forecast, where Dr. Reading evaluated the methods and results based on the above-described IDWR Recommendations for RAFN Processing criteria. Note that Dr. Reading also utilized IDWR's Microsoft Excel population forecasting tool for assessment purposes.[6] Ultimately, Dr. Reading found that Suez utilized appropriate standard technical methods for the

[6] *See IDWR Recommendations for RAFN Processing* at 10. The population forecasting tool is called "PopForecastTool.xlsx."

population projection and that "Suez's forecast through 2065 appears to compare reasonably well with the other contemporary forecasts."

- Petrich Review – Population Projection

  The Petrich Review also included a brief discussion on the population projection component of the Church Forecast. Dr. Petrich noted that population forecasts for Suez and SPF's DCMI Report (See Petrich Review) were both prepared by Mr. Church and, as a result, population and household projections were very similar.

Overall, information developed and submitted by Suez supports a forecasted annual population growth rate of 1.20%. The Reading Review adequately addressed the "components and considerations" for evaluating population projection set forth in the IDWR Recommendations for RAFN Processing. Further, the fact that the Church Econometric Model was also utilized in SPF's DCMI Report forecast supports its applicability to the Treasure Valley.

Water Demand

The IMAP water demand review is based on the following documents:

- Master Water Plan
- 2017 Update Report

Idaho Code § 42-202B(8) states the following with respect to water demand:

> '[RAFN]' refers to future uses of water by a municipal provider for municipal purposes within a service area which, on the basis of population and other planning data, are reasonably expected to be required within the planning horizon of each municipality within the service area not inconsistent with comprehensive land use plans approved by each municipality. [RAFN] shall not include uses of water within areas overlapped by conflicting comprehensive land use plans.

The IDWR Recommendations for RAFN Processing outlines additional guidance on pages 10-17 for IDWR staff to consider when reviewing water demand data and analyses.

The Church Forecast includes a 50-year demand forecast for the years 2015 to 2065. The 2015-2065 forecast projects lower water demand than the 2000-2050 forecast did. For example, compared to the 2003 IMAP, the new peak demand projection for the year 2050 drops from 415.7 cfs to 284 cfs. The new peak demand projection (370.87 cfs) for the year 2065 is lower by 44.83 cfs than the original projection for year 2050 (415.7 cfs). According to Suez, the reduction in its estimates can be attributed to:

- The impact of the "Great Recession" following the national economic crisis beginning in 2007.
- Improved prediction methodologies (consistent with IDWR's new guidance on RAFN forecasting).
- New and more accurate data (including 2010 Census data, extensive new data collected by the Community Planning Association of Southwest Idaho ("COMPASS"), and another decade of Suez's own production data).

Mr. Reading and Mr. Petrich also addressed Suez's forecasted water demand.

- The Reading Review generally compares Suez's forecasts with methodologies, standards, and benchmarks in the IDWR Recommendations for RAFN Processing, stating:

> Suez's population and water demand forecasts are reasonable when compared to other contemporary forecasts. The contemporary forecasts used for comparison in this Report were developed for TV CAMP, COMPASS, and the [DCMI Report]. An additional check of Suez's population projections was made using the Department's population forecasting tool referenced in the [IDWR Recommendations for RAFN Processing]. With the exception of one model form- which, as explained in the Report, is not a good predictor of future population- all of Suez's projections are lower or equal to the other forecasts derived from the Department's forecasting tool.

Reading Review at Executive Summary. In other words, Mr. Reading concludes that Suez's projections are conservative when compared to other forecasts derived from the Department's forecasting tool.

- Despite differences in methodology between Suez and Mr. Petrich's forecasts, the Petrich Review and Suez's water-demand projections are consistent. *Petrich Review* at 3. The Suez 2065 water-demand projection for the Suez "Planning Area" (103,000 AF – see Table 3) is similar to SPF's Scenario 2 water-demand projection (106,000 AF). *Id.*

The Master Water Plan explains that one objective of the water demand forecast is to predict the peak day production ("Maximum Day Demand" or "MDD") that will be required to meet both customer demand (billed production: residential, commercial, public authority, and "other" sales) and non-billed production (system losses, company use, non-billed hydrant use) within the "Planning Area" at the end of the planning horizon. *Master Water Plan* at 8-9. Billed production accounts for 95% of the water produced, 99% of which is for residential and commercial sales. *Reading Review* at 16.

The Master Water Plan uses statistical modeling (regression analysis) to predict water demand. The statistical analysis relies on historic data – such as the annual number of residential and commercial customers, per capita water use, and water sales statistics – to predict water demand and customer growth for residential and commercial customer classes in the Suez "Planning Area." The data came from the Census Bureau, COMPASS, and Suez itself.

In addition, Suez predicts a decline in NPI use in its "Planning Area." This declining trend of NPI use would increase per capita demand from Suez, but was not factored in because the decline is difficult to predict. Therefore, Suez's prediction is more conservative in this regard. Suez's analysis uses a significantly lower peaking factor (1.09) than the IDWR Recommendations for RAFN Processing (1.3).

In its Master Water Plan, Suez did not address some items that could be germane to its future water demand. For example, the Master Water Plan does not consider climate change or the potential for future economic recessions in its water demand predictions.

- Climate Change

  Future climate change is not discussed as a potential variable that may affect water demand. However, temperature and precipitation variability are included in the statistical analysis. Temperature is included as a weighted average of monthly average temperatures that occurred during each bi-monthly billing period. Precipitation was also included as a variable, constructed as a weighted average of precipitation that affected each bi-monthly billing period. However, analysis of weather variability in the past may not be indicative of future climate conditions in the Treasure Valley. *DCMI Report* at 79-81.

- Future Recessions

  The Master Water Plan addresses the effects of the "Great Recession," which are significant. For example:

  - The water demand projection for the year 2065 (370.87 cfs) is lower by 44.83 cfs than the original projection for year 2050 (415.7 cfs).

  - Suez's commercial use per customer declined by nearly 19% during the Great Recession (2007-2011), which can be attributed to general commercial sector decline and the loss of some very high use customers.

  "Suez's forecast assumes a return to more normal economic conditions for the Planning Horizon." *Reading Review* at 18. Nevertheless, Suez "conservatively forecasts lower than historical growth rates-the forecasted 50-year annual

average compound growth rates for customers and water sales are below the 25 year historical averages for the Company." *Id.* at 4.

- Independent Water Systems

  There is no discussion of the potential for landowners currently outside the Suez service area but within the Suez "Planning Area" to develop independent water systems. For example, private landowners could drill their own wells, new subdivisions could establish their own drinking water supply systems, or large industries could elect to use untreated groundwater for their operations.

Overall, Suez's statistical analysis uses values that are unlikely to overstate its 2065 water demand. For example, Suez was especially conservative when it used a peaking factor of 1.09, as opposed to the peaking factor of 1.3 in the IDWR Recommendations for RAFN Processing. The items that were not considered in detail, especially potential future economic recessions, deserve more consideration in the discussion of predicted water demand, but are most likely compensated by the conservative assumptions throughout the statistical analysis.

Gap Analysis

Per Idaho Code § 42-202B(8), RAFN contemplates a gap between the amount of water that is currently available to a municipal provider and the amount of water a municipal provider reasonably anticipates it will need in the future. The IDWR Recommendations for RAFN Processing states that a gap analysis is required to determine the difference between what will be needed and what is currently available through the municipal provider's existing water right portfolio.

Suez estimates that it will need 370.87 cfs of water by the year 2065. The "Water Demand" section of this memo reviewed the adequacy of Suez's water demand forecast. Suez indicates its current water right portfolio authorizes the diversion and use of 330.58 cfs of water. Exhibit 2 along with section VI of the Master Water Plan outlines the process used to derive the total portfolio rate. Suez reports its water right portfolio includes 112 ground water rights or permits (104 decreed or licensed rights and 8 permits) and 13 surface water rights, permits, and other entitlements (9 surface water rights, 2 surface water permits, and 3 entitlements). Section VI of the Master Water Plan outlines the process used to account for combined rate limits, annual volume limits, and temporal considerations (such as season of use and priority date/delivery of rights) in calculating the rate.

For this technical review, IDWR performed a similar analysis of the Suez water right portfolio. Exhibit 2 of the Master Water Plan includes all the rights and permits currently owned by Suez.[7] Suez also included water right authorizations not in the name of Suez but available to it, namely the municipal use portion of Boise City Canal Co. right 63-20041, Anderson Ranch reservoir storage water, and Lucky Peak reservoir storage water. Attachment 1: Suez Water Right Portfolio to this memo is a table outlining the water right authorizations included in IDWR's analysis.

IDWR's review resulted in slightly different values than Suez reported in Forecast Table 7 of the Master Water Plan. The following table summarizes IDWR's conclusions:

Portfolio (ground water and surface water rights or permits)	**cfs**
1. Total "face value" or "paper" diversion rate (sum of each right)	412.86
2. Total diversion rate after combined limit adjustments	366.90
3. Total diversion rate after combined limit and volume limit adjustments	351.14
4. Total diversion rate after temporal considerations	331.14
5. Forecast for Water Demand in 2065	370.87
Gap = Difference between portfolio (#4) and RAFN (#5)	39.73

It is not clear how Suez's water rights portfolio analysis accounted for its storage water volumes in Anderson Ranch Reservoir and Lucky Peak Reservoir. IDWR did not account for the storage water in its analysis due to uncertainty as to its variability, delivery, use, season of use, and other elements. However, delivery of this volume of storage water at a year-round continuous rate yields approximately 2.00 cfs, which is less than 1% of Suez's total portfolio of water rights.

Suez did not account for other water right authorizations within its "Planning Area." For example, several water rights owned by the City of Boise authorize various uses, and several irrigation entities deliver water to the same population served by Suez. While Suez's gap analysis did not include the other water right authorizations providing water to people within the "Planning Area," Suez adjusted its water demand forecast to account for this fact. The demand forecast started with population, but was adjusted to predict Suez's residential and commercial customer water use based on historical records. For example, Reading's Review emphasizes the highest projected total water demand per Suez residential customer household of 286 gallons per day is far less than the estimation of 475 gallons per day for all households in Ada County.[8] *Master Water Plan* at 91. The predicted water demand for Suez customers (residential and commercial) is adjusted for the fact that water is delivered to this population

[7] Some of the water rights may appear in IDWR's records as being owned by United Water Idaho, a predecessor of Suez. United Water Idaho Inc. changed its name to Suez Water Idaho Inc. Water right ownership should be updated to reflect this name change.

[8] Cook, Zena, et. al. *Domestic, Commercial, Municipal, and Industrial Water Demand Assessment and Forecast in Ada and Canyon Counties, Idaho* (December 2001).

from other water right authorizations or sources, such as irrigation water from delivery entities, municipal water for public areas and parks, etc.

While the water right portfolio combined diversion rate IDWR calculated (331.14 cfs) is slightly greater than Suez's tally, the rate is within 0.17% of the rate stated by Suez (330.58 cfs). Either way, the Suez 2065 water demand forecast (370.87 cfs) exceeds the currently authorized overall water right diversion rate.

TRANSFER & PERMIT AMENDMENT REVIEW

With respect to water right transfers, Idaho Code § 42-222(1) states, in pertinent part:

> Any person, entitled to the use of water whether represented by license issued by the department of water resources, by claims to water rights by reason of diversion and application to a beneficial use as filed under the provisions of this chapter, or by decree of the court, who shall desire to change the point of diversion, place of use, period of use or nature of use of all or part of the water, under the right shall first make application to the department of water resources for approval of such change . . . 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, which in the case of a municipal provider shall be satisfied if the water right is necessary to serve reasonably anticipated future needs as provided in this chapter.

With respect to amending permits, Idaho Code § 42-211 states, in pertinent part:

> Whenever a permit has been issued pursuant to the provisions of this act, and the permit holder desires to change the place, period, or nature of the intended use, or make other substantial changes in the method of diversion or proposed use or uses of the water, he shall file an application for amendment upon forms to be furnished by the department of water resources together with the statutory fee for filing and recording same, and upon receipt thereof it shall be the duty of the department of water resources to examine same and if approval thereof would not result in the diversion and use of more water than originally permitted and if the rights of others will not be adversely

> affected thereby, the director of the department of water resources shall approve said application and return an approved copy to the permit holder.

Authority to File and Water Right Validity

Pursuant to Idaho Code § 42-222 (for transfer applications) IDWR must determine whether the applicant is "entitled to the use of water." Pursuant to Idaho Code § 42-211 (for applications to amend permits), IDWR must determine whether a "permit has been issued" and the applicant is the "permit holder."

In addition, IDWR's transfer review policy states:

> For any application for transfer, the department must determine the validity of the water rights(s), or parts thereof, proposed to be changed . . . . If the records available to the department do no establish that a right has been used within the previous, consecutive, five-year period (except as provided in (1) above or for a right held by a municipal provider for reasonably anticipated future needs pursuant to Section 42-223(2), *Idaho Code*), the applicant must be asked to provide written documentation demonstrating that the right has been used within that time period.

Memorandum Re: Transfer Processing Policies and Procedures (Dec. 21, 2009) at 22.

The IMAP proposes changes to 94 water rights confirmed by license or decree.[9] Of the 94 water rights, 91 currently authorize non-RAFN municipal use for municipalities and un-incorporated portions of Ada County. Suez's portfolio of water rights authorizes diversion of water in excess of current beneficial use. Appendix A in the Master Water Plan (at A-7 and A-8) includes annual historic water use data for 1995-2011 and forecasts water use for 2012-2065. The highest MDD on record -- 100,044,000 gallons per day or 154.8 cfs -- occurred in the year 2000. This rate is less than half the diversion rate in Suez's portfolio of water rights. The Master Water Plan (at 41) specifies that Suez's current portfolio is sufficient to cover its current demands and RAFN through the year 2058. The IMAP proceeding seeks to formally designate the unused rights or portions of rights as necessary for RAFN in accordance with the 1996 Municipal Water Rights Act. Barring any additional evidence to the contrary, the 91 non-RAFN municipal use rights are valid at least to the extent of historic beneficial use. The status of the unused rights or portions of rights will be determined through the IMAP proceeding.

Three of the 94 water rights included in the IMAP authorize non-municipal uses. Right 63-10945 authorizes irrigation of 56 acres associated with domestic use for 256 homes and fire protection). Right 63-11990 authorizes domestic use for 520 homes and fire protection use Right 63-12362 authorizes only fire protection use Review of 2017 aerial imagery confirms the

[9] See *Attachment 2: IMAP Rights* for a listing of the water rights proposed to be changed through the IMAP process.

subdivision(s) under 63-10945, 63-11990, and 63-12362 are still occupied. Suez proposes at least one of the currently authorized points of diversion for each right as an APOD in the IMAP proceeding. This indicates the wells and associated distribution systems for these water rights are currently operational and likely in use. Absent any additional information to the contrary, these three water rights appear valid.

In the water rights database, United Water Idaho, Inc., is the owner of each of the 94 water rights and the seven permits involved in the IMAP. Documentation submitted in connection with the IMAP demonstrates United Water Idaho, Inc. changed the company name to Suez Water Idaho, Inc. *Suez's Motion to Change Caption to Reflect Name Change.* IDWR does not require a notice of change in water right ownership or an assignment of permit to be filed for a name change. *Memorandum Re: Processing Notices of Change in Water Right Ownership and Associated Updates to Water Right Records* (Aug. 5, 2008) at 8-9. Suez is entitled to the use of the rights and permits and is authorized to request the changes proposed in the IMAP proceeding.

As for the seven permits proposed to be amended as part of the IMAP, proof of beneficial use has been submitted for each of them, and IDWR has completed or nearly completed a beneficial use field report for each.[10] The beneficial use field reports support issuance of a water right license in connection with each of the seven permits. However, IDWR cannot issue a water right license for a permit with a pending application for amendment. Therefore, before IDWR can issue water right licenses for the development that occurred in connection with the permits, the proposed IMAP amendments must be approved, approved in part or conditionally, or denied pursuant to Idaho Code § 42-211.

Enlargement

Pursuant to Idaho Code §§ 42-222 (for transfer applications) and 42-211 (for applications to amend permits), IDWR must determine whether the proposed change will result in enlargement of the original rights.

The IMAP proposes that water rights currently authorizing municipal use will retain their existing diversion rate limits, with the exception of those rights with annual volume limits or combined use limits. *2017 Update Report* at 35. Suez desires to eliminate annual volume limits and combined use limits from all water rights that have them. To achieve this, the IMAP proposes reducing the authorized diversion rates on water rights bearing annual diversion volume limits or combined use limits, to the point that the limits could not be exceeded if the rights were diverted continuously all year. *Id.* at 5 and 35. The diversion rate reductions are intended to eliminate enlargement concerns that would otherwise arise from the elimination of annual volume limits and combined use limits.

[10] See *Attachment 2: IMAP Rights* for a listing of the permits proposed to be amended through the IMAP process.

Another enlargement concern arises from the inclusion of Rights 63-10945, 63-11990, and 63-12362 in the IMAP even though they were not licensed for municipal purposes. When water is diverted and used pursuant to a water right, the unconsumed portion of the water returns to the original source or another water source and is available for use by others. Allowing the water right to be changed so that more of the water is consumed through evaporation or transpiration is an enlargement of the use, and could cause injury by reducing the water available for use by other water right holders. To prevent enlargement of use and the resulting potential injury, IDWR restricts change-in-nature-of-use transfers to the volume of water consumptively used prior to the transfer.

IDWR considers municipal water use to be fully consumptive. The components of municipal use – industrial, commercial, domestic, irrigation of parks and open space, etc. – include uses that are fully consumptive or could be fully consumptive. Municipal water providers typically do not guarantee that the mix of water uses within their municipal umbrella will not be fully consumptive in the future. Moreover, holders of municipal water rights can increase the consumption of water under their rights over time as the community's needs and land use patterns change. Therefore, IDWR assumes that the water diverted and used for municipal purposes will be fully consumed.

To prevent enlargement and the resulting potential injury to other water right holders, a change-in-nature-of-use evaluation must be completed for Rights 63-10945, 63-11990, and 63-12362 to determine if there is historic consumptive use that can be converted to municipal use. Suez should submit the information necessary to complete the consumptive use analysis for Rights 63-10945, 63-11990, and 63-12362. The consumptive use analysis must account for the following factors:

- Right 63-11990 includes a condition requiring the continued use of surface water shares, to the extent water is available, for irrigation of lawns and gardens in connection with the authorized domestic use. Irrigation is typically the most consumptive component of subdivision water use. If a significant portion of the irrigation water for the subdivision was accomplished with surface water, the consumptive use volume available for transfer to municipal use may be limited.

- To prevent enlargement, IDWR should not change the fire protection use specifically identified on Rights 63-10945, 63-11990, and 63-12362, to municipal use. Fire protection use is an occasional use of water authorized only to fight active fires, whereas municipal use is an ongoing use. Changing a fire protection use to municipal use would allow the annual volumes of water diverted under the water rights to be enlarged because water is rarely diverted to fight a fire, whereas water is diverted for municipal purposes throughout the entire year.

To be consistent with Suez's desire to remove annual volume limits, if the proposed change in nature of use for Rights 63-10945 and 63-11990 is approved, their diversion rates for municipal

use should be restricted to the rates that would produce their current annual consumptive use volumes if pumping occurred continuously all year.

The seven permits in the IMAP also require evaluation for enlargement. Currently, none of the permits is for RAFN. IMAP proposes converting the permits to RAFN. IDWR's policy concerning the conversion of a non-RAFN permit to RAFN is: "[A] permit issued to a municipal provider that does not provide for RAFN cannot be later amended to gain the benefit of a RAFN permit." *IDWR Recommendations for RAFN Processing* at 18. The policy seems to emanate from a concern that converting a permit from non-RAFN to RAFN with a planning horizon longer than the originally authorized non-RAFN development period (and any extensions granted pursuant to Idaho Code § 42-204) would result in enlargement of the development opportunity authorized by the permit. Whether converting a permit from non-RAFN to RAFN constitutes enlargement should be vetted through the IMAP process.

Injury

Pursuant to Idaho Code §§ 42-222 (for transfer applications) and 42-211 (for applications to amend permits), IDWR must determine whether the proposed change will injure any other rights.

Suez proposes to describe and authorize the use of 80 alternative points of diversion ("APODs") on each of 101 ground water rights (94 water rights and 7 permits). *2017 Update Report* at 4. The 80 proposed APODs are existing ground water wells. Each of the 80 wells is an authorized point of diversion for at least one water right. Diversion from two of the wells (Cassia #2 and Maple Hills #2) is currently authorized only by rights not included in the IMAP proceeding. *2017 APODs Update Report* at 5-6. Several, but not all, rights included in the IMAP proceeding already authorize diversions from multiple APODs in different sets of 12, 42, and 43 APODs. *Id.* at 4. The addition of APODs to all the rights as part of a single combined system would increase the rate of diversion that could occur from any single point of diversion. Such a change raises concerns about injury to other rights through local well interference. Consistent with IDWR policy, if the proposed changes are approved, a condition should be applied to each right or permit to identify the originally authorized points of diversion for each right prior to transfer for future administration between points of diversion and hydraulically connected surface sources. *Transfer Processing No. 24: Transfer Processing Policies & Procedures, December 21, 2009,* at 24.

In the Boise River drainage, surface water upstream from the Star Bridge is not available for appropriation unless the applicant mitigates or avoids injury to senior water rights. *Amended Moratorium Order in the Matter of Applications for Permits for the Diversion and Use of Surface and Ground Water Within the Boise River Drainage Area* at 3. IDWR also restricts new appropriations of ground water shallower than 200 feet below ground surface in an area where such ground water is presumed to be tributary to the Boise River upstream from Star Bridge. *Amended Application Processing Memorandum No. 59* at 1-2. Some Suez permits developed within the area where ground water is tributary to the Boise River upstream from Star Bridge

include a condition specifying the depth from land surface to the water bearing zone being appropriated. If the IMAP changes are approved, IDWR should condition the permits to prevent increased pumping from the shallow (< 200 feet below ground surface) ground water tributary to the Boise River upstream from Star Bridge. For more detailed discussion of this point, see the "Considerations for Specific Water Rights and Permits" section below.

In addition, IDWR should condition Suez's water rights with points of diversion located within the Boise Front Low-Temperature Geothermal Resource Ground Water Management Area to specifically exclude diversion and use of water with a temperature greater than 85 degrees Fahrenheit and prevent the increased pumping of cold (< 85 degrees Fahrenheit) water deeper than 300 ft that may impact the low temperature geothermal ("LTG") resource. See the *Final Order Extending Moratorium in the Matter of the Boise Front Low Temperature Geothermal Resource Ground Water Management Area*, the *Order Establishing a Ground Water Management Area in the Matter of the Boise Front Low Temperature Geothermal Resource Ground Water Management Area,* and the *Management Policy for the Boise Front Ground Water Management Area.* For more detailed discussion of this point, see the "Considerations for Specific Water Rights and Permits" section below.

Conservation of Water Resources

Pursuant to Idaho Code § Section 42-222, for any application for transfer, IDWR must consider whether the proposed use of water is consistent with the conservation of water resources within the State of Idaho.

IDWR generally interprets "conservation" in terms of efficient use. Suez's standard practice is to deploy meters to measure the volume of water used by each customer and to charge by volume. It has been generally established that metering and charging by volume affects per capita water consumption. *Transfer Processing No. 24: Transfer Processing Policies & Procedures, December 21, 2009,* at 12. Thus, Suez's business model – sale of water by volume – results in some economic incentive for its customers to use water with reasonable efficiency. However, Suez sells water for profit. Thus, the customer's incentive to conserve may be somewhat offset by Suez's incentive to sell. As Table 15 of the *DCMI Report* shows, Suez's customers use more water on a per capita basis than users in some other Treasure Valley municipal water systems. *DCMI Report* at 72.

Another conservation of water resources consideration is IDWR's practice of requiring the use of surface water, where it is available, in lieu of ground water use. The strong public policy in favor of using surface water first is stated in Idaho Code § 67-6537. Normally IDWR would preserve the status quo with regard to surface water use by restricting ground water rights changed to municipal purposes from replacing existing surface water use. IDWR's practice was recently affirmed in the *Order Addressing Exception and Amending Transfer Approval* in the Matter of Application for Transfer No. 79778 in the Name of City of Meridian. Nevertheless, Suez argued in a status conference for the IMAP that the decision whether to use surface water or ground water is made by its customers, not by Suez, and that any such limitation would

unfairly hold Suez accountable for its customers' choices. Given the strong public policy in favor of surface water first, IDWR should not abandon its practice.

Idaho Code § 42-211 does not list the conservation of water resources in Idaho as a criterion for evaluating applications to amend permits.

Local Public Interest

Pursuant to Idaho Code § 42-222, IDWR must consider whether the proposed change is in the local public interest. 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 1986.

Generally, it is in the local public interest for a municipal provider to plan to meet the water needs of its customers now and in the future. However, the potential for a water resource to accomplish an alternative benefit is an appropriate component of the public interest review criterion. For the IMAP, the main local public interest consideration is the extent to which it is reasonable for Suez to hold water rights to meet unrealized future needs, as opposed to limiting Suez's water rights to what is necessary to meet immediate or near-term needs. Conferring RAFN status on some of Suez's ground water rights may prevent allocation of the ground water to alternative beneficial uses now and in the future. The entire RAFN analysis addresses this main public interest consideration.

Idaho Code § 42-211 does not list the local public interest as a criterion for evaluating applications to amend permits.

Beneficial Use

Idaho Code § 42-222(1) states that the new use proposed in a transfer must be a "beneficial use." It further states that "in the case of a municipal provider" the beneficial use requirement "shall be satisfied if the water right is necessary to serve [RAFN]." The "Gap Analysis" section in this memorandum addresses whether and to what degree Suez's water rights are necessary for RAFN.

Idaho Code § 42-211 does not list beneficial use as a criterion for evaluating applications to amend permits. However, Idaho Code § 42-204 states that IDWR may grant permits "which contemplate the application of water to a beneficial use."

CONSIDERATIONS FOR SPECIFIC WATER RIGHTS AND PERMITS

The purpose of this section is to summarize the proposed changes to the water rights and permits in IMAP and highlight items pertaining to specific water rights. The analysis focuses on

review of the existing nature of use, quantity, and conditions in comparison to the applicant's requested changes to the records.

Suez submitted various amendments to the IMAP applications between 2001 and 2012. As part of the 2012 relaunch effort, in February 2013 Suez submitted two tables and a map[11] ("2013 Further Submission") summarizing the proposed changes to the permits and water rights included in the IMAP. The 2013 Further Submission is the most current description of the proposed changes to the rights involved in IMAP, with a few exceptions. In March 2013, Suez removed Rights 63-31797, 63-31798, and 63-31879 from the IMAP proceeding.[12] In November 2017, Suez removed Rights 63-2892 and 63-12055 from the IMAP proceeding.[13] In 2018, Michael Lawrence, attorney for Suez, emailed IDWR a table[14] listing the rights currently in IMAP and the current list of APODs. The list of APODs provided via email includes the "Sherman Oaks" well, which should be excluded per the 2017 APODs Update Report. IDWR should ask Suez to confirm 80 instead of 81 APODs are proposed.

Suez summarizes the purpose of IMAP in its 2017 Update Report and 2017 APODs Update Report. To paraphrase, Suez wants to accomplish three main objectives:

1. Authorize 80 ground water APODs on 94 water rights and 7 permits.

2. Secure forfeiture protection by converting 94 water rights and 7 permits to RAFN purposes.

3. Change the elements on 94 water rights and 7 permits so they all are for municipal use with year round season of use, no volume limitations, and no combined use limitations.

Shelley Keen drafted proposed conditions that, from IDWR's perspective, may be added to each IMAP water right or permit as a result of the IMAP process ("Keen Memo").[15] The Keen Memo suggests conditions for all water rights within IMAP. A second source of proposed approval conditions are the stipulations of IMAP parties in conditional protest withdrawals. Additionally,

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[11] United Water Idaho Inc., *United Water's Further Submission in Compliance with the Director's January 11, 2013 Order* (13 February 2013) ("2013 Further Submission").

[12] United Water Idaho Inc., *United Water's Notice of Withdrawal of Water Right Nos. 63-31797, 63-31798, and 63-3187* (26 March 2013).

[13] Suez Water Idaho Inc., *Suez's Notice of Withdrawal of Water Right Nos. 63-2829 and 63-12055* (28 November 2017). AND Suez Water Idaho Inc., *Suez's Notice of Withdrawal of Water Right Nos. 63-2829 and 63-12055 (Corrected)* (1 December 2017).

[14] Michael P. Lawrence, *RE: Draft Order for IMAP* (28 September 2018) (email to James Cefalo, Hearing Officer).

[15] Keen, Shelley. Idaho Department of Water Resources. *Proposed Conditions of Approval Memo to IMAP Participants & Hearing Officer Cefalo* (29 June 2018).

many of the water rights included in the IMAP present unique sets of facts requiring careful analysis relative to the IMAP objectives. The remaining portion of this analysis summarizes items for special consideration on specific water rights or permits or groups of water rights or permits and actions or conditions that may be necessary if the IMAP is approved.

- The Keen Memo suggests that all the IMAP water rights and permits should receive standard condition number 01Q, which requires measurement and reporting upon future notification. IDWR is authorized to require installation of measuring devices. *Idaho Code § 42-701*. There is no water district administering ground water rights in the area of the IMAP APOD wells. Nevertheless, Rights 63-2500, 63-2874, 63-7067, 63-11467, 63-12334, 63-12192, and 63-19456 already have existing conditions requiring installation and ongoing maintenance of measuring devices. Given that these water rights already contain measuring device requirements and that Suez is seeking consistency among its water rights, all IMAP water rights and permits should be conditioned to require installation and maintenance of measuring devices.

- 53 of the 80 proposed APODs are within the Boise Front GWMA/Boise Front Moratorium Area. The moratorium limits the development of new water rights for the use of the LTG resource in this area. Several Suez ground water rights currently authorize at least one of these 53 wells as their original point of diversion. Permit 63-12310 is the only right in the IMAP proceeding with standard condition 073, which prohibits the use of water greater than 85°F. To avoid injury to LTG water users within the restricted area, IDWR should include standard condition 073 on all the IMAP rights and permits, unless the right or permit historically diverted LTG water. Also, IDWR should consider limiting the use of cold water (< 85 degrees Fahrenheit) below 300 ft, the additional use of which may impact the LTG resource. If the right or permit historically diverted LTG water, a condition like 073 should be crafted to prevent Suez from increasing its use of the LTG resource. Note also that Idaho Code § 42-202B(6) states that municipal purposes excludes "use of water from geothermal sources for heating." As a first step, it may be necessary to require Suez to submit information about which of its wells, if any, results in diversion of the LTG resource and which wells divert water from deeper than 300 ft in the Boise Front GWMA.

- Suez requests volume limitation removal via reduction of the diversion rate for rights; 63-3411, 63-3457, 63-7979, 63-7998, 63-8011, 63-8248, 63-8385, 63-8405, 63-8635, 63-9384, 63-10150, 63-10391, 63-10945, 63-11090A, 63-11467, 63-11990, 63-12334, and permit 63-11878. Suez also requests removal of combined limit conditions on rights 63-3457, 63-4395, 63-7641, 63-8385, 63-8405, 63-10150, 63-10945, and 63-11558. Suez proposes removing combined limits by assigning the rate and/or volume to the most senior right. For Rights 63-8385 and 63-10150, this process results in a diversion rate of 0 cfs, rendering

them useless. IDWR should require Suez to state whether it intends to abandon Rights 63-8385 and 63-10150. Attachment 2: IMAP Rights table summarizes the rights proposed diversion rates after removal of volumes and combined use limitations.

- Suez requests the removal of combined use limits on Rights 63-11558 and 63-12363. Right 63-12363 is not included in the IMAP, possibly because it is limited to Fire Protection purposes. In order to modify Right 63-12363 as requested, Suez needs to include this right in the IMAP proceeding as an associated water right or submit a separate transfer application to IDWR. However, Suez's proposal for eliminating combined use limits would result in a diversion rate reduction for Right 63-12363, which IDWR would not usually do to an associated right. IDWR should consult Suez regarding its intent for Right 63-12363. See Note 13 of Attachment 2: IMAP Rights table for further information regarding this proposal and combined limit.

- As noted in the enlargement analysis above, Suez requests a nature of use change for Rights 63-10945, 63-11990, and 63-12362. Limited information is currently available regarding the historic extent of consumptive use associated with the rights, especially Right 63-11990. See Note 4, 6, and 7 in Attachment 2: IMAP Rights table for additional considerations regarding changes proposed to these rights. This table also shows the rights' proposed post-transfer rates and beneficial uses based on the information currently available and IDWR policy. These rates and beneficial uses differ from those proposed by the applicant per the 2013 Further Submission.

- If the Fire Protection use remains on Rights 63-10945, 63-11990, and 63-12362, standard condition 077 (stating fire protection use is restricted to fighting or repelling an existing fire) should be included on the rights.

- The IMAP proposes to change the diversion rate, volume, and/or nature of use for the following rights: 63-3411, 63-3457, 63-4395, 63-7979, 63-7998, 63-8011, 63-8248, 63-8405, 63-8635, 63-9384, 63-10391, 63-10945, 63-11090A, 63-11467, 63-11990, 63-12334, and for permit 63-11878.[16] IDWR standard condition 205 should be added to these rights confirming that the changes to the elements of the rights was intended. Condition 205 states: "The approval of this transfer redefines all of the elements of this water right, and the new use of water authorized by this approval shall constitute the full extent of the right."

- Right 63-10945 has a condition stating, "The right holder shall provide streamflow augmentation water or other action determined to be appropriate to protect prior surface water or ground water rights. Such streamflow

[16] This list of rights does not include rights likely rendered obsolete (63-8385 and 63-10150) as mentioned above.

augmentation or other action will be required only upon a determination of need and applicability by the Director." The condition is vague and should be removed from the right.

- Right 63-11090A has a condition stating well(s) previously used for the right shall be properly abandoned. IDWR should consider whether the applicant is in compliance with this condition and if the condition can be removed.

- Rights 63-10386, 63-10688, and 63-11232 currently authorize a single point of diversion. Their unique diversion points are not included in the 80 APODs proposed in the IMAP proceeding. Right 63-11467 and permit 63-11878 currently authorize two points of diversion, only one of which is included in the 80 APODs proposed in the IMAP proceeding. IDWR should contemplate how to address this with regard to inclusion of a standard APOD condition stating the original point of diversion for administration purposes.

- IDWR practice is to include standard condition T19 on Snake River Basin Adjudication ("SRBA") decreed rights. Condition T19 states that the right is subject to the general provisions of the SRBA *Final Unified Decree*. Condition T19 should be included on SRBA decreed rights.

IDWR has completed or nearly completed beneficial use field reports and draft licenses for Permits 63-11878, 63-12140, and 63-12310. For these three permits, the elements (including approval conditions) in the draft licenses should form the basis for any IMAP approval of the amendments proposed for the permits.

IDWR is not likely to have draft licenses for permits 63-12192, 63-12452, 63-12464, and 63-12516 completed before issuing a decision on the IMAP. For these four permits, IDWR should carry forward the permitted quantities and special conditions so that they can be evaluated in the beneficial use examination and licensing process. Some of the permit conditions address issues arising from the development and use of a specific point of diversion. In those instances, if the permitted point of diversion is proposed to be one of the APODs for all the IMAP rights and permits, these permit conditions should be applied as follows:

- Permit 63-12192 currently has a condition stating the right holder should ensure use of the permit does not result in a prior right's well exceeding a reasonable pumping level without compensation or mitigation. Additionally, this permit is conditioned to require collection and future reporting of ground water level and production data. Any IMAP approval should address whether these requirements should be carried forward on permit 63-12192 or on all rights and permits authorized to use this permit's points of diversion.

- Permit 63-12452 is conditioned to require monitoring of water levels in the production well and nearby domestic wells. Additionally, this permit has a condition requiring the owner to report water diversions and water levels from the production well. IDWR should consider whether to include these conditions on all permits and rights that authorize use of these points of diversion as part of the IMAP approval.

- Permit 63-12464 has standard condition 120, which authorizes IDWR to require the right holder to off-set its depletions to the Lower Snake River flows when needed for salmon migration purposes. IDWR practice is to retain a version of the condition (standard condition 103) when licensing a permit previously conditioned in this manner.

- Permit 63-12464 is conditioned to clarify that the water right permit does not authorize the construction of any new well, or the deepening or enlargement of any existing well. IDWR practice is to remove this condition at licensing.

- Permits 63-12452, 63-12464, and 63-12516 currently have a condition limiting the water-bearing zone ("WBZ") from which water can be diverted under the water rights. The points of diversion for all three of these permits are within the area where IDWR would normally keep the WBZ condition when licensing permits. To avoid injury to senior Boise River water rights, IDWR should restrict the points of diversion for these permits to the established water bearing zones. The restriction should be placed on all the IMAP rights if the points of diversion developed for these permits will be included among the APODs on all the IMAP rights and permits. If the water bearing zones actually developed have not yet been recorded by IDWR in a beneficial use field report, IDWR may need to seek the information from Suez.

SUMMARY OF ADDITIONAL INFORMATION TO BE REQUESTED FROM SUEZ

The following is a recap of the items IDWR should ask Suez to substantiate or clarify. The page numbers refer to the location in this memorandum where the item is discussed in detail.

- IDWR should seek information from Suez to substantiate its qualification as a municipal provider for the record. Page 3.

- IDWR should ask Suez to explain its process for obtaining authorization or obligation to serve an area. Page 5.

- IDWR should ask Suez for information explaining how and why it is reasonable to anticipate that its service area will expand to include all of the "Planning Area." Page 6.

- IDWR should also ask Suez to explain what portion of its anticipated future needs over the 50-year planning horizon is attributable to Suez's current service area and what portion is attributable to the anticipated growth of its service area. Page 6.

- IDWR should ask Suez how it obtains approval for expanding its service area and why its service area will expand into certain areas in the future. Page 7.

- IDWR should ask Suez to submit the information necessary to complete the consumptive use analysis for the nature of use changes proposed for Rights 63-10945, 63-11990, and 63-12362. Page 19.

- IDWR should ask Suez to confirm 80 instead of 81 APODs are proposed. Page 23.

- IDWR should ask Suez which of its wells, if any, results in diversion of the LTG resource and which wells, if any, divert water from deeper than 300 ft in the Boise Front GWMA. Page 24.

- IDWR should ask Suez if it intends to abandon Rights 63-8385 and 63-10150. Pages 24-25.

- IDWR should ask Suez its intent regarding Right 63-12363 in relation to removal of the combined limit with 63-11558. Page 25.

- If the water bearing zones actually developed have not yet been recorded by IDWR in a beneficial use field report, IDWR may need to seek the information from Suez. Page 27.

Attachment 1: Suez Water Right Portfolio

Basin	Sequence	Suffix	Process	Basis	Status	Draft	RightID	Priority Date	Diversion Rate	Combined Limits	CFS Reduced for Combo Limit and/or volume removal from face	CFS limit after Vol on face removed (assumes 1/1 to 12/31 season of use)	Source List	Water Use List	Current Owner	Total Acres	Acre Limit	Volume
	2	2339	Water Right	Decreed	Active	N	589691	12/7/1964	11.000		11.000	11.000	SNAKE RIVER	IRRIGATION	UNITED WATER IDAHO INC	610.0		2,745.0
	2	2341	Water Right	Decreed	Active	N	589727	12/28/1964	12.520	2-2341, 2-2358, + 2-2420 = 35.21 cfs w/ 63-31871 = 35.21	0.000	0.000	SNAKE RIVER	IRRIGATION	UNITED WATER IDAHO INC	626.0		2,817.0
	2	2358	Water Right	Decreed	Active	N	589724	7/28/1964	14.500	2-2341, 2-2358, + 2-2420 = 35.21 cfs w/ 63-31871 = 35.21	0.000	0.000	SNAKE RIVER	IRRIGATION	UNITED WATER IDAHO INC	725.0		3,262.5
	2	2420	Water Right	Decreed	Active	N	589729	12/31/1963	14.080	2-2341, 2-2358, + 2-2420 = 35.21 cfs w/ 63-31871 = 35.21	0.000	0.000	SNAKE RIVER	IRRIGATION	UNITED WATER IDAHO INC	704.0		3,168.0
	63	169 F	Water Right	Decreed	Active	N	573921	6/1/1868	0.810		0.810	0.810	BOISE RIVER	MUNICIPAL	UNITED WATER IDAHO INC			199.0
	63	243 E	Water Right	Decreed	Active	N	573924	5/1/1889	3.300		3.300	3.300	BOISE RIVER	MUNICIPAL	UNITED WATER IDAHO INC			682.0
	63	243 H	Water Right	Decreed	Active	N	573925	5/1/1889	0.930		0.930	0.930	BOISE RIVER	MUNICIPAL	UNITED WATER IDAHO INC			172.0
	63	2500	Water Right	Decreed	Active	N	625848	8/30/1934	0.800		0.800	0.800	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2506	Water Right	Decreed	Active	N	626346	6/5/1935	1.660		1.660	1.660	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2576	Water Right	Decreed	Active	N	626359	4/26/1938	1.900		1.900	1.900	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2595	Water Right	Decreed	Active	N	626372	8/31/1966	1.340		1.340	1.340	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2605	Water Right	Decreed	Active	N	626373	7/2/1943	0.900		0.900	0.900	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2668	Water Right	Decreed	Active	N	626380	7/15/1947	2.140		2.140	2.140	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2703	Water Right	Decreed	Active	N	626382	6/23/1948	5.000		5.000	5.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2808	Water Right	Decreed	Active	N	626383	4/3/1950	3.100		3.100	3.100	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2874	Water Right	Decreed	Active	N	626387	8/18/1951	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2892	Water Right	Decreed	Active	N	626320	2/7/1952	6.180		6.180	6.180	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2915	Water Right	Decreed	Active	N	626315	11/17/1952	2.000	63-2915 + 63-3239 = 1332.0	1.420	1.420	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			1,031.4
	63	2954	Water Right	Decreed	Active	N	626389	8/27/1953	0.900		0.900	0.900	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2956	Water Right	Decreed	Active	N	626407	8/27/1953	0.560		0.560	0.560	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	2989	Water Right	Decreed	Active	N	626409	6/2/1954	1.000		1.000	1.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3064	Water Right	Decreed	Active	N	626411	10/31/1955	1.220		1.220	1.220	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3073	Water Right	Decreed	Active	N	626412	1/4/1956	2.000		2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3105	Water Right	Decreed	Active	N	626421	12/19/1956	2.000		2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3112	Water Right	Decreed	Active	N	626425	9/11/1957	1.440		1.440	1.440	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3128	Water Right	Decreed	Active	N	626427	4/24/1958	4.440		4.440	4.440	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3164	Water Right	Decreed	Active	N	626432	8/5/1959	1.730		1.730	1.730	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3172	Water Right	Decreed	Active	N	626437	10/14/1959	2.220		2.220	2.220	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3202	Water Right	Decreed	Active	N	626440	6/8/1960	2.890		2.890	2.890	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3239	Water Right	Decreed	Active	N	626444	6/22/1961	2.800	63-2915 + 63-3239 = 1332.0	0.420	0.420	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			1,197.0
	63	3291	Water Right	Decreed	Active	N	626447	5/21/1962	2.400		2.400	2.400	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3292	Water Right	Decreed	Active	N	626452	5/21/1962	2.260		2.260	2.260	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3293	Water Right	Decreed	Active	N	626457	5/21/1962	3.560		3.560	3.560	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3295	Water Right	Decreed	Active	N	626460	5/24/1962	3.240		3.240	3.240	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3411	Water Right	Decreed	Active	N	626461	6/17/1964	1.500		1.500	0.250	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			178.0
	63	3448	Water Right	Decreed	Active	N	626465	4/27/1965	4.900		4.900	4.900	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3457	Water Right	Decreed	Active	N	626474	7/14/1965	1.670	63-3457 + 63-10945 = 3.10	1.670	0.230	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			168.0
	63	3494	Water Right	Decreed	Active	N	626477	3/8/1966	6.440		6.440	6.440	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	3562	Water Right	Decreed	Active	N	626483	11/7/1966	1.470		1.470	1.470	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	4015	Water Right	Decreed	Active	N	626509	10/17/1960	2.000		2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	4395	Water Right	Decreed	Active	N	574126	6/1/1950	0.560	63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	0.560	0.330	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	4414	Water Right	Decreed	Active	N	626513	7/1/1943	1.110		1.110	1.110	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			

Attachment 1: Suez Water Right Portfolio

Basin	Sequence	Suffix	Process	Basis	Status	Draft	RightID	Priority Date	Diversion Rate	Combined Limits	CFS Reduced for Combo Limit and/or volume removal from face	CFS limit after Vol on face removed (assumes 1/1 to 12/31 season of use)	Source List	Water Use List	Current Owner	Total Acres	Acre Limit	Volume
	63	4424	Water Right	Decreed	Active	N	626527	7/1/1943	1.330		1.330	1.330	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	4752	Water Right	Decreed	Active	N	626534	7/1/1947	1.110		1.110	1.110	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7066	Water Right	Decreed	Active	N	626535	2/28/1968	5.800		5.800	5.800	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7067	Water Right	Decreed	Active	N	626555	2/28/1968	2.840		2.840	2.840	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7204	Water Right	Decreed	Active	N	626557	3/13/1969	1.820		1.820	1.820	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7282	Water Right	Decreed	Active	N	626566	12/2/1969	4.120		4.120	4.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7348	Water Right	Decreed	Active	N	626572	7/14/1970	6.600		6.600	6.600	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7479	Water Right	Decreed	Active	N	626575	8/20/1971	7.000		7.000	7.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7577	Water Right	Decreed	Active	N	626580	4/6/1972	2.010		2.010	2.010	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7589	Water Right	Decreed	Active	N	626587	4/20/1972	4.400		4.400	4.400	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7641	Water Right	Decreed	Active	N	574159	8/17/1972	2.000	63-7641 + 63-8405 = 3.12 cfs	2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7658	Water Right	Decreed	Active	N	626592	1/8/1973	1.060		1.060	1.060	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7896	Water Right	Decreed	Active	N	626685	11/13/1973	0.250		0.250	0.250	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	7979	Water Right	Decreed	Active	N	626689	5/13/1974	2.000		2.000	1.750	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			1,268.0
	63	7998	Water Right	Decreed	Active	N	626694	6/25/1974	1.270		1.270	0.910	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			658.0
	63	8011	Water Right	Decreed	Active	N	626706	7/18/1974	3.000		3.000	0.380	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			276.0
	63	8059	Water Right	Decreed	Active	N	626596	11/12/1974	0.570		0.570	0.570	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	8236	Water Right	Decreed	Active	N	626600	11/28/1975	3.630		3.630	3.630	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	8248	Water Right	Decreed	Active	N	626707	1/2/1976	1.570		1.570	1.160	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			843.3
	63	8265	Water Right	Decreed	Active	N	626709	2/23/1976	2.370		2.370	2.370	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	8385	Water Right	Decreed	Active	N	626603	11/6/1977	0.490	63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	0.240	0.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			182.4
	63	8405	Water Right	Decreed	Active	N	626710	1/12/1977	2.000	63-7641 + 63-8405 = 3.12 cfs	1.120	1.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			1,320.0
	63	8432	Water Right	Decreed	Active	N	626608	2/10/1977	1.780		1.780	1.780	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	8635	Water Right	Decreed	Active	N	626810	8/17/1983	0.890		0.890	0.150	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			106.2
	63	8990	Water Right	Decreed	Active	N	626615	7/19/1977	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9087	Water Right	Decreed	Active	N	626813	11/25/1977	3.400		3.400	3.400	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9106	Water Right	Decreed	Active	N	626817	1/23/1978	1.120		1.120	1.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9147	Water Right	Decreed	Active	N	626616	6/6/1978	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9198	Water Right	Decreed	Active	N	626819	1/2/1979	2.450		2.450	2.450	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9199	Water Right	Decreed	Active	N	626829	1/3/1979	3.120		3.120	3.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9204	Water Right	Decreed	Active	N	626620	1/9/1979	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9205	Water Right	Decreed	Active	N	626631	1/9/1979	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9219	Water Right	Decreed	Active	N	626632	3/20/1979	2.230		2.230	2.230	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9223	Water Right	Decreed	Active	N	626634	4/3/1979	4.230		4.230	4.230	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9384	Water Right	Decreed	Active	N	626832	5/27/1980	1.000		1.000	0.580	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			420.0
	63	9671	Water Right	Decreed	Active	N	626643	2/25/1981	2.120		2.120	2.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	9855	Water Right	Decreed	Active	N	626645	12/23/1981	3.340		3.340	3.340	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10150	Water Right	Decreed	Active	N	574181	7/1/1983	0.480	63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	0.000	0.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			56.1
	63	10386	Water Right	Decreed	Active	N	574182	9/19/1986	1.110		1.110	1.110	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10391	Water Right	Decreed	Active	N	626833	11/14/1986	0.300		0.300	0.090	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			62.4
	63	10405	Water Right	Decreed	Active	N	574184	3/17/1987	1.560		1.560	1.560	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10569	Water Right	License	Active	N	58102	2/5/1988	1.780		1.780	1.780	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10688	Water Right	License	Active	N	99977	8/15/1988	2.000		2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10862	Water Right	License	Active	N	14817	7/18/1989	1.440		1.440	1.440	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	10945	Water Right	License	Active	N	551638	10/29/1989	1.720	63-3457 + 63-10945 = 3.10	1.430	0.260	GROUND WATER	DOMESTIC, FIRE PROTECTION, IRRIGATION	UNITED WATER IDAHO INC	71.0	53.0	393.0
	63	11034	Water Right	License	Active	N	99998	10/22/1989	2.740		2.740	2.740	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11068	Water Right	License	Active	N	99999	11/17/1989	2.790		2.790	2.790	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			

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	63	11090 A	Water Right	License	Active	N	104844	1/21/1990	1.730		1.730	0.520	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			376.4
	63	11118	Water Right	License	Active	N	16319	2/1/1990	2.780		2.780	2.780	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11232	Water Right	License	Active	N	58723	2/12/1990	2.830		2.830	2.830	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11384	Water Right	License	Active	N	100009	8/7/1990	3.120		3.120	3.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11385	Water Right	License	Active	N	100010	8/7/1990	2.580		2.580	2.580	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11467	Water Right	License	Active	N	551645	2/21/1991	2.270		2.270	0.720	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			520.0
	63	11558	Water Right	License	Active	N	590659	6/24/1991	2.670	63-11558 + 63-12363 = 5.50 cfs from Fisk Well only.	2.67	2.67	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11878	Water Right	License	Active	Y	686767	6/15/1992	0.990		0.990	0.260	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			190.5
	63	11950	Water Right	License	Active	N	16415	10/14/1992	2.300		2.300	2.300	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11951	Water Right	License	Active	N	16511	10/14/1992	0.850		0.850	0.850	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	11990	Water Right	License	Active	N	101617	1/27/1993	1.800		1.800	0.860	GROUND WATER	DOMESTIC, FIRE PROTECTION	UNITED WATER IDAHO INC			624.0
	63	12043	Water Right	License	Active	N	547770	7/23/1993	4.460		4.460	4.460	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12055	Water Right	License	Active	Y	673280	9/8/1993	24.800		24.800	24.800	BOISE RIVER	MUNICIPAL				
	63	12138	Water Right	License	Active	N	548263	8/19/1994	3.900		3.900	3.900	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12139	Water Right	License	Active	N	554194	8/19/1994	3.200		3.200	3.200	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12140	Water Right	License	Active	Y	685851	10/19/1994	1.720		1.720	1.720	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12192	Water Permit		Active	N	100348	8/6/2002	5.000		5.000	5.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12310	Water Right	License	Active	Y	685852	8/29/2001	1.740		1.740	1.740	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12334	Water Right	License	Active	N	551654	3/28/1995	0.380		0.380	0.060	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			42.0
	63	12362	Water Right	License	Active	N	551657	9/30/1996	2.220		2.220	2.220	GROUND WATER	FIRE PROTECTION	UNITED WATER IDAHO INC			
	63	12363	Water Right	License	Active	N	590655	9/9/1996	4.500	63-11558 + 63-12363 = 5.50 cfs from Fisk Well only.	4.500	2.83	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12452	Water Permit		Active	N	22693	4/15/1998	4.500		4.500	4.500	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12464	Water Permit		Active	N	109719	7/13/1998	0.300		0.300	0.300	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	12516	Water Permit		Active	N	110311	4/13/1999	4.000		4.000	4.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	19456	Water Right	Decreed	Active	N	626650	3/31/1953	1.600		1.600	1.600	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31406	Water Permit		Active	N	577077	1/18/2002	2.000		2.000	2.000	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31409	Water Permit		Active	N	559840	11/16/2001	20.000		20.000	20.000	BOISE RIVER	GROUND WATER RECHARGE, MUNICIPAL	UNITED WATER IDAHO INC			
	63	31797	Water Right	Decreed	Active	N	626324	6/1/1895	2.630		2.630	2.630	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31798	Water Right	Decreed	Active	N	626337	6/1/1899	1.550		1.550	1.550	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31856	Water Right	Decreed	Active	N	600624	6/2/1890	2.120		2.120	2.120	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31857	Water Right	Decreed	Active	N	626312	7/21/1928	2.480		2.480	2.480	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	31871	Water Right	License	Active	N	576537	12/31/1963	35.210	2-2341, 2-2358, + 2-2420 = 35.21 cfs w/ 63-31871 = 35.21	35.210	35.210	BOISE RIVER	IRRIGATION	UNITED WATER IDAHO INC			9,247.5
	63	31879	Water Right	Decreed	Active	N	626342	12/31/1910	4.640		4.640	4.640	GROUND WATER	MUNICIPAL	UNITED WATER IDAHO INC			
	63	20041	Water Right	Decreed	Active	N	578767	6/1/1866	0.680		0.68	0.68	BOISE RIVER	MUNICIPAL	BOISE CITY CANAL CO (Only Municipal portion of WR)	6.0	46.4	
	Anderson Ranch												BOISE RIVER					1,000.0
	Lucky Peak												BOISE RIVER					1,100.0
									412.860		366.900	351.140						

RED Draft License to be used for quantity in portfolio
BLUE Permit to be used for quantity in portfolio
Yellow Highlight Not in IMAP

Attachment 2: IMAP Rights

Basin	Sequence	Suffix	Process	Basis	Status	RightID	Priority Date	Water Use (Before IMAP)	Water Use (After IMAP*)	Diversion Rate (Before IMAP)	Municipal Use Diversion Rate (After IMAP*)	Volume Removed By IMAP*	Total Acres Removed by IMAP*	Acre Limit Removed by IMAP*	Combined Limits Removed by IMAP*	Place of Use (Before IMAP)	Place of Use (After IMAP*)	Season of Use (Before IMAP)	Season of Use (After IMAP*)	Source List	Current Owner	NOTES
Water Rights (Licensed or Decreed):																						
63	2500		Water Right	Decreed	Active	625848	8/30/1934	MUNICIPAL	MUNICIPAL (RAFN)	0.80	0.80					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2506		Water Right	Decreed	Active	626346	6/5/1935	MUNICIPAL	MUNICIPAL (RAFN)	1.66	1.66					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2576		Water Right	Decreed	Active	626359	4/26/1938	MUNICIPAL	MUNICIPAL (RAFN)	1.90	1.90					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2595		Water Right	Decreed	Active	626372	8/31/1966	MUNICIPAL	MUNICIPAL (RAFN)	1.34	1.34					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2605		Water Right	Decreed	Active	626373	7/2/1943	MUNICIPAL	MUNICIPAL (RAFN)	0.90	0.90					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2668		Water Right	Decreed	Active	626380	7/15/1947	MUNICIPAL	MUNICIPAL (RAFN)	2.14	2.14					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2703		Water Right	Decreed	Active	626382	6/23/1948	MUNICIPAL	MUNICIPAL (RAFN)	5.00	5.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2808		Water Right	Decreed	Active	626383	4/3/1950	MUNICIPAL	MUNICIPAL (RAFN)	3.10	3.10					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2874		Water Right	Decreed	Active	626387	8/18/1951	MUNICIPAL	MUNICIPAL (RAFN)	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2954		Water Right	Decreed	Active	626389	8/27/1953	MUNICIPAL	MUNICIPAL (RAFN)	0.90	0.90					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2956		Water Right	Decreed	Active	626407	8/27/1953	MUNICIPAL	MUNICIPAL (RAFN)	0.56	0.56					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	2989		Water Right	Decreed	Active	626409	6/2/1954	MUNICIPAL	MUNICIPAL (RAFN)	1.00	1.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3064		Water Right	Decreed	Active	626411	10/31/1955	MUNICIPAL	MUNICIPAL (RAFN)	1.22	1.22					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3073		Water Right	Decreed	Active	626412	1/4/1956	MUNICIPAL	MUNICIPAL (RAFN)	2.00	2.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3105		Water Right	Decreed	Active	626421	12/19/1956	MUNICIPAL	MUNICIPAL (RAFN)	2.00	2.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3112		Water Right	Decreed	Active	626425	9/11/1957	MUNICIPAL	MUNICIPAL (RAFN)	1.44	1.44					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3128		Water Right	Decreed	Active	626427	4/24/1958	MUNICIPAL	MUNICIPAL (RAFN)	4.44	4.44					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3164		Water Right	Decreed	Active	626432	8/5/1959	MUNICIPAL	MUNICIPAL (RAFN)	1.73	1.73					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3172		Water Right	Decreed	Active	626437	10/14/1959	MUNICIPAL	MUNICIPAL (RAFN)	2.22	2.22					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3202		Water Right	Decreed	Active	626440	6/8/1960	MUNICIPAL	MUNICIPAL (RAFN)	2.89	2.89					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3291		Water Right	Decreed	Active	626447	5/21/1962	MUNICIPAL	MUNICIPAL (RAFN)	2.40	2.40					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3292		Water Right	Decreed	Active	626452	5/21/1962	MUNICIPAL	MUNICIPAL (RAFN)	2.26	2.26					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3293		Water Right	Decreed	Active	626457	5/21/1962	MUNICIPAL	MUNICIPAL (RAFN)	3.56	3.56					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3295		Water Right	Decreed	Active	626460	5/24/1962	MUNICIPAL	MUNICIPAL (RAFN)	3.24	3.24					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3411		Water Right	Decreed	Active	626461	6/17/1964	MUNICIPAL	MUNICIPAL (RAFN)	1.50	0.25	178.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3448		Water Right	Decreed	Active	626465	4/27/1965	MUNICIPAL	MUNICIPAL (RAFN)	4.90	4.90					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3457		Water Right	Decreed	Active	626474	7/14/1965	MUNICIPAL	MUNICIPAL (RAFN)	1.67	0.23	168.0			63-3457 + 63-10945 = 3.10	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	1
63	3494		Water Right	Decreed	Active	626477	3/8/1966	MUNICIPAL	MUNICIPAL (RAFN)	6.44	6.44					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	3562		Water Right	Decreed	Active	626483	11/7/1966	MUNICIPAL	MUNICIPAL (RAFN)	1.47	1.47					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	4015		Water Right	Decreed	Active	626509	10/17/1960	MUNICIPAL	MUNICIPAL (RAFN)	2.00	2.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	4395		Water Right	Decreed	Active	574126	6/1/1950	MUNICIPAL	MUNICIPAL (RAFN)	0.56	0.33				63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	4414		Water Right	Decreed	Active	626513	7/1/1943	MUNICIPAL	MUNICIPAL (RAFN)	1.11	1.11					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	4424		Water Right	Decreed	Active	626527	7/1/1943	MUNICIPAL	MUNICIPAL (RAFN)	1.33	1.33					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	4752		Water Right	Decreed	Active	626534	7/1/1947	MUNICIPAL	MUNICIPAL (RAFN)	1.11	1.11					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7067		Water Right	Decreed	Active	626555	2/28/1968	MUNICIPAL	MUNICIPAL (RAFN)	2.84	2.84					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7204		Water Right	Decreed	Active	626557	3/13/1969	MUNICIPAL	MUNICIPAL (RAFN)	1.82	1.82					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7282		Water Right	Decreed	Active	626566	12/2/1969	MUNICIPAL	MUNICIPAL (RAFN)	4.12	4.12					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7348		Water Right	Decreed	Active	626572	7/14/1970	MUNICIPAL	MUNICIPAL (RAFN)	6.60	6.60					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7479		Water Right	Decreed	Active	626575	8/20/1971	MUNICIPAL	MUNICIPAL (RAFN)	7.00	7.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7577		Water Right	Decreed	Active	626580	4/6/1972	MUNICIPAL	MUNICIPAL (RAFN)	2.01	2.01					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7589		Water Right	Decreed	Active	626587	4/20/1972	MUNICIPAL	MUNICIPAL (RAFN)	4.40	4.40					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7641		Water Right	Decreed	Active	574159	8/17/1972	MUNICIPAL	MUNICIPAL (RAFN)	2.00	2.00				63-7641 + 63-8405 = 3.12 cfs	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	2
63	7658		Water Right	Decreed	Active	626592	1/8/1973	MUNICIPAL	MUNICIPAL (RAFN)	1.06	1.06					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7896		Water Right	Decreed	Active	626685	11/13/1973	MUNICIPAL	MUNICIPAL (RAFN)	0.25	0.25					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7979		Water Right	Decreed	Active	626689	5/13/1974	MUNICIPAL	MUNICIPAL (RAFN)	2.00	1.75	1,268.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	7998		Water Right	Decreed	Active	626694	6/25/1974	MUNICIPAL	MUNICIPAL (RAFN)	1.27	0.91	658.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8011		Water Right	Decreed	Active	626706	7/18/1974	MUNICIPAL	MUNICIPAL (RAFN)	3.00	0.38	276.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8059		Water Right	Decreed	Active	626596	11/12/1974	MUNICIPAL	MUNICIPAL (RAFN)	0.57	0.57					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8236		Water Right	Decreed	Active	626600	11/28/1975	MUNICIPAL	MUNICIPAL (RAFN)	3.63	3.63					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8248		Water Right	Decreed	Active	626707	1/2/1976	MUNICIPAL	MUNICIPAL (RAFN)	1.57	1.17	843.3				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8265		Water Right	Decreed	Active	626709	2/23/1976	MUNICIPAL	MUNICIPAL (RAFN)	2.37	2.37						UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8385		Water Right	Decreed	Active	626603	11/6/1977	MUNICIPAL	MUNICIPAL (RAFN)	0.49	0.00	182.4			63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8405		Water Right	Decreed	Active	626710	1/12/1977	MUNICIPAL	MUNICIPAL (RAFN)	2.00	1.12	1,320.0			63-7641 + 63-8405 = 3.12 cfs	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	3
63	8432		Water Right	Decreed	Active	626608	2/10/1977	MUNICIPAL	MUNICIPAL (RAFN)	1.78	1.78					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8635		Water Right	Decreed	Active	626810	8/17/1983	MUNICIPAL	MUNICIPAL (RAFN)	0.89	0.15	106.2				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	8990		Water Right	Decreed	Active	626615	7/19/1977	MUNICIPAL	MUNICIPAL (RAFN)	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9087		Water Right	Decreed	Active	626813	11/25/1977	MUNICIPAL	MUNICIPAL (RAFN)	3.40	3.40					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9106		Water Right	Decreed	Active	626817	1/23/1978	MUNICIPAL	MUNICIPAL (RAFN)	1.12	1.12					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9147		Water Right	Decreed	Active	626616	6/6/1978	MUNICIPAL	MUNICIPAL (RAFN)	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9198		Water Right	Decreed	Active	626819	1/2/1979	MUNICIPAL	MUNICIPAL (RAFN)	2.45	2.45					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9199		Water Right	Decreed	Active	626829	1/3/1979	MUNICIPAL	MUNICIPAL (RAFN)	3.12	3.12					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9204		Water Right	Decreed	Active	626620	1/9/1979	MUNICIPAL	MUNICIPAL (RAFN)	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9205		Water Right	Decreed	Active	626631	1/9/1979	MUNICIPAL	MUNICIPAL (RAFN)	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9219		Water Right	Decreed	Active	626632	3/20/1979	MUNICIPAL	MUNICIPAL (RAFN)	2.23	2.23					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9223		Water Right	Decreed	Active	626634	4/3/1979	MUNICIPAL	MUNICIPAL (RAFN)	4.23	4.23					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9384		Water Right	Decreed	Active	626832	5/27/1980	MUNICIPAL	MUNICIPAL (RAFN)	1.00	0.58	420.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9671		Water Right	Decreed	Active	626643	2/25/1981	MUNICIPAL	MUNICIPAL (RAFN)	2.12	2.12					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	9855		Water Right	Decreed	Active	626645	12/23/1981	MUNICIPAL	MUNICIPAL (RAFN)	3.34	3.34					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	

Attachment 2: IMAP Rights

Basin	Sequence	Suffix	Process	Basis	Status	RightID	Priority Date	Water Use (Before IMAP)	Water Use (After IMAP*)	Diversion Rate (Before IMAP)	Municipal Use Diversion Rate (After IMAP*)	Volume Removed By IMAP*	Total Acres Removed by IMAP*	Acre Limit Removed by IMAP*	Combined Limits Removed by IMAP*	Place of Use (Before IMAP)	Place of Use (After IMAP*)	Season of Use (Before IMAP)	Season of Use (After IMAP*)	Source List	Current Owner	NOTES
63	10150		Water Right	Decreed	Active	574181	7/1/1983	MUNICIPAL	MUNICIPAL (RAFN)	0.48	0.00	56.1			63-4395, 63-8385, + 63-10150 = 0.80 cfs + 240.3 af	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10386		Water Right	Decreed	Active	574182	9/19/1986	MUNICIPAL	MUNICIPAL (RAFN)	1.11	1.11					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10391		Water Right	Decreed	Active	626833	11/14/1986	MUNICIPAL	MUNICIPAL (RAFN)	0.30	0.09	62.4				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10405		Water Right	Decreed	Active	574184	3/17/1987	MUNICIPAL	MUNICIPAL (RAFN)	1.56	1.56					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10569		Water Right	License	Active	58102	2/5/1988	MUNICIPAL	MUNICIPAL (RAFN)	1.78	1.78					Boise City Limits	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10688		Water Right	License	Active	99977	8/15/1988	MUNICIPAL	MUNICIPAL (RAFN)	2.00	2.00					Boise City Limits + surrounding service area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10862		Water Right	License	Active	14817	7/18/1989	MUNICIPAL	MUNICIPAL (RAFN)	1.44	1.44					Boise City Limits + surrounding service area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	10945		Water Right	License	Active	551638	10/29/1989	DOMESTIC, FIRE PROTECTION, IRRIGATION	MUNICIPAL (RAFN), FIRE PROTECTION	1.72	0.11	393.0	71.0	53.0	63-3457 + 63-10945 = 3.10	T3N, R2E, Sec 24 L2(SENE). T3N, R3E, Sec 19 NWNE, NENW, L2(SWNW), SENW, NESW, + L3(NWSW).	UWID Service Area	1/1-12/31 & 3/1-11/15	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	4
63	11034		Water Right	License	Active	99998	10/22/1989	MUNICIPAL	MUNICIPAL (RAFN)	2.74	2.74					Boise Water Corporation Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11068		Water Right	License	Active	99999	11/17/1989	MUNICIPAL	MUNICIPAL (RAFN)	2.79	2.79					Boise Water Corporation Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11090	A	Water Right	License	Active	104844	1/21/1990	MUNICIPAL	MUNICIPAL (RAFN)	1.73	0.52	376.4				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11118		Water Right	License	Active	16319	2/1/1990	MUNICIPAL	MUNICIPAL (RAFN)	2.78	2.78					Boise City Limits + Boise Water Corporation Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11232		Water Right	License	Active	58723	2/12/1990	MUNICIPAL	MUNICIPAL (RAFN)	2.83	2.83					Boise City Limits	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11384		Water Right	License	Active	100009	8/7/1990	MUNICIPAL	MUNICIPAL (RAFN)	3.12	3.12					Boise City Limits + surrounding service area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11385		Water Right	License	Active	100010	8/7/1990	MUNICIPAL	MUNICIPAL (RAFN)	2.58	2.58					Boise Water Corporation Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11467		Water Right	License	Active	551645	2/21/1991	MUNICIPAL	MUNICIPAL (RAFN)	2.27	0.72	520.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11558		Water Right	License	Active	590659	6/24/1991	MUNICIPAL	MUNICIPAL (RAFN)	2.67	2.67				63-11558 + 63-12363 = 5.50 cfs from Fisk Well only.	Boise City Limits + surrounding service area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	5
63	11950		Water Right	License	Active	16415	10/14/1992	MUNICIPAL	MUNICIPAL (RAFN)	2.30	2.30					Boise City Limits + UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11951		Water Right	License	Active	16511	10/14/1992	MUNICIPAL	MUNICIPAL (RAFN)	0.85	0.85					Boise City Limits + UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	11990		Water Right	License	Active	101617	1/27/1993	DOMESTIC, FIRE PROTECTION	MUNICIPAL (RAFN), FIRE PROTECTION	1.80	0.00	624.0				T3N, R1E, Sec 15 NW1/4. T3N, R1E, Sec 16 NE1/4.	UWID Service Area		1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	6
63	12043		Water Right	License	Active	547770	7/23/1993	MUNICIPAL	MUNICIPAL (RAFN)	4.46	4.46					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	12138		Water Right	License	Active	548263	8/19/1994	MUNICIPAL	MUNICIPAL (RAFN)	3.90	3.90					Boise City Limits + UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	12139		Water Right	License	Active	554194	8/19/1994	MUNICIPAL	MUNICIPAL (RAFN)	3.20	3.20					Boise City Limits + UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	12334		Water Right	License	Active	551654	3/28/1995	MUNICIPAL	MUNICIPAL (RAFN)	0.38	0.06	42.0				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
63	12362		Water Right	License	Active	551657	9/30/1996	FIRE PROTECTION	FIRE PROTECTION	2.22	0.00					T4N, R1W, Sec 24 SWSE	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	7
63	19456		Water Right	Decreed	Active	626650	3/31/1953	MUNICIPAL	MUNICIPAL (RAFN)	1.60	1.60					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	
TOTAL:											201.60											

Attachment 2: IMAP Rights

Basin	Sequence	Suffix	Process	Basis	Status	RightID	Priority Date	Water Use (Before IMAP)	Water Use (After IMAP*)	Diversion Rate (Before IMAP)	Municipal Use Diversion Rate (After IMAP*)	Volume Removed By IMAP*	Total Acres Removed by IMAP*	Acre Limit Removed by IMAP*	Combined Limits Removed by IMAP*	Place of Use (Before IMAP)	Place of Use (After IMAP*)	Season of Use (Before IMAP)	Season of Use (After IMAP*)	Source List	Current Owner	NOTES
PERMITS:																						
63	11878		Water Permit		Active	109456	6/15/1992	MUNICIPAL	MUNICIPAL	0.99	0.26	190.5				UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	8
63	12140		Water Permit		Active	110062	10/19/1994	MUNICIPAL	MUNICIPAL	3.50	1.72					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	9
63	12192		Water Permit		Active	100348	8/6/2002	MUNICIPAL	MUNICIPAL	5.00	5.00					Area certified by IPUC	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	10
63	12310		Water Permit		Active	6637	8/29/2001	MUNICIPAL	MUNICIPAL	3.00	1.74					UWID Service Area around Boise	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	11
63	12452		Water Permit		Active	22693	4/15/1998	MUNICIPAL	MUNICIPAL	4.50	4.50					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	12
63	12464		Water Permit		Active	109719	7/13/1998	MUNICIPAL	MUNICIPAL	0.30	0.30					Barber Water Corp Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	12
63	12516		Water Permit		Active	110311	4/13/1999	MUNICIPAL	MUNICIPAL	4.00	4.00					UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	12
TOTAL:											17.52											
ASSOCIATED RIGHTS:																						
63	12363		Water Right	License	Active	590655	9/9/1996	MUNICIPAL	MUNICIPAL	4.50	2.83				63-11558 + 63-12363 = 5.50 cfs from Fisk Well only.	UWID Service Area	UWID Service Area	1/1-12/31	1/1-12/31	GROUND WATER	UNITED WATER IDAHO INC	13

NOTES:

* Proposed for Hearing Office consideration 10/5/2018

1 Volume limiting factor for recommended rate. After NOU change on 63-10945, 0.23 cfs (63-3457) + 0.11 cfs (63-10945) < 3.10 cfs historic combined rate limit.

2 2.00 cfs requested on 63-7641. Leaves maximum of 1.12 cfs for 63-8405 to account for combined limit of 63-7641 + 63-8405 = 3.12 cfs limit.

3 Volume limit results in rate of 1.82 cfs. However, when remove 2.00 cfs for 63-7641 from 63-7641+63-8405 = 3.12 cfs combined limit, left with 1.12 cfs for 63-8405 < 1.82 cfs.

4 0.11 rate contemplates NOU change analysis limted to 81.4 af based on historic consumptive use for non-fire protection uses. See Pam Skaggs IMAP Transfer-Rights Change in Nature of Use to Municipal spreadsheet. After NOU change on 63-10945, 0.23 cfs (63-3457) + 0.11 cfs (63-10945) < 3.10 cfs historic combined rate limit. IDWR policy indicates Fire Protection use can not be changed to different beneficial use such as municipal (enlargement of essentially non-consumptive use). Recommend hearing officer consider retaining Fire Protection as beneficial use on right.

5 Limit diversion from specific well only POD of 63-11558, but right 63-12363 has one additional POD. 63-12363 not in IMAP only reduce if added as associated right. Can reduce face of 63-11558 to 1.0 cfs ok to remove limit OR if add 63-12363 as associated right can leave 63-11558 as 2.67 cfs then reduce face of 63-12363 to 2.83 cfs as applicant proposes.

6 NOU change evaluation requires additional information from applicant to determine historic consumptive domestic use (supplemental irrigation of lawns) before transferrable volume can be determined. This volume likely to be limiting factor on rate rather than 624 af volume limit currently on the face of right (624 af = 0.86 cfs in 24 hr 365 day period). No value input in table until sufficent information presented for NOU change evaluation. IDWR policy indicates Fire Protection use can not be changed to different beneficial use such as municipal (enlargement of essentially non-consumptive use). Recommend hearing officer consider retaining Fire Protection as beneficial use on right.

7 IDWR policy indicates Fire Protection use can not be changed to different beneficial use such as municipal (enlargement of essentially non-consumptive use). Recommend hearing officer consider retaining Fire Protection as beneficial use on right.

8 Draft license created for this pre-1996 Municipal Water Rights Act permit. Recommend hearing officer consider limiting permit amendment approval to consider beneficial use confirmed via beneficial use exam. Draft license recommends 0.99 cfs + 190.5 af vol. 190.5 af converted to 24 hr 365 day rate = 0.26 cfs. 5/30/18 Given's Pursley letter indicates acceptance of license being drafted for well pump capacity.

9 Draft license created for this pre-1996 Municipal Water Rights Act permit. Recommend hearing officer consider limiting permit amendment approval to consider beneficial use confirmed via beneficial use exam. Draft licese recommends 1.72 cfs and no volume limit. 5/30/18 Given's Pursley letter indicates acceptance of license being drafted for well pump capacity.

10 Beneficial use field exam recommended rate 2.74 cfs. Applicant does not agree with IDWRs initial license recommendations for this post-1996 Municipal Water Rights Act permit per the 5/30/18 Givens Pursley letter. Recommend hearing officer issue permit amendment approval without consideration of beneficial use examinations considering the permit amendment application was submitted prior to proof of beneficial use.

11 Draft license created for this pre-1996 Municipal Water Rights Act permit. Recommend hearing officer consider limiting permit amendment approval to consider beneficial use confirmed via beneficial use exam. Draft license recommends 1.74 cfs and no volume limit. 5/30/18 Given's Pursley letter indicates acceptance of license being drafted for well pump capacity.

12 Applicant does not agree with IDWRs initial license recommendations for this post-1996 Municipal Water Rights Act permit per the 5/30/18 Givens Pursley letter. Recommend hearing officer issue permit amendment approval without consideration of beneficial use examinations considering the permit amendment application was submitted prior to proof of beneficial use.

13 Limit diversion from specific well only POD of 63-11558, but right 63-12363 has one additional POD. 63-12363 not in IMAP only reduce if added as associated right. Can reduce face of 63-11558 to 1.0 cfs ok to remove limit OR if add 63-12363 as associated right can leave 63-11558 as 2.67 cfs then reduce face of 63-12363 to 2.83 cfs as applicant proposes.