

IGWA'S APPLICATION FOR PERMIT 36-16976, AND RANGEN'S APPLICATION FOR PERMIT 36-17002

Prepared for

**THE IDAHO GROUND WATER APPROPRIATORS, INC
NORTH SNAKE GROUND WATER DISTRICT
MAGIC VALLEY GROUND WATER DISTRICT
SOUTHWEST IRRIGATION DISTRICT**

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September 5, 2014



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Appendix A: Exhibits numbered 2283 and 3656 submitted in Rangen delivery
call proceeding

1. PROJECT SUMMARY

Idaho Ground Water Appropriators, Inc. (IGWA) is reviewing mitigation options related to water management stemming from the Rangen, Inc. (Rangen) curtailment order. IGWA has asked that SPF Water Engineering, LLC (SPF) provide engineering and water rights analysis in support of IGWA's Application for Permit 36-16976 and in response to Rangen's Application for Permit 36-17002.

2. DESCRIPTION OF APPLICATIONS

2.1. Application for Permit No. 36-16976, "GWD Application"

Seven Ground Water Districts submitted Application for Permit No. 36-16976 (the "GWD Application") seeking to appropriate 12 cfs of water from springs and Billingsley Creek tributary to the Snake River for fish propagation and mitigation purposes. The proposed use would have a year-round season of use. The place of use is the Rangen hatchery facility. The objective is to mitigate for ground water use on the Eastern Snake Plain. The GWD Application holds an April 3, 2013, priority date.

The GWD Application was amended on February 11, 2014. Amendments include listing the screw-operated headgate on Billingsley Creek and a diversion facility adding the 7S 14E Section 31 SWNE quarter-quarter as a place of use; and updating the application narrative. These amendments were made on condition the priority date of the GWD Application not be changed¹.

The application was again amended May 27, 2014. This amendment included changing the *mitigation for irrigation* use to *mitigation* and this amendment was made on condition the priority date of the GWD Application not be changed².

2.2. Application for Permit No. 36-17002, "Rangen Application"

Rangen submitted Application for Permit no. 36-17002 (the "Rangen Application") seeking to appropriate 59 cfs of water from springs tributary to Billingsley Creek for fish propagation at the Rangen hatchery facility with a year-round season of use. The Rangen Application holds a February 3, 2014 priority date.

¹ Thomas J. Budge, February 10, 2014, Transmittal Letter Re: Amended Application for Permit No.: 36-16976.

² T.J. Budge, May 27, 2014, Letter Re: Application for Permit No. 36-16976.

2.3. Source and Point of Diversion

The GWD Application lists “springs” and “Billingsley Creek” as the source, with points of diversion to be located in the SESWNW and/or SWSWNW of Section 32. The diversion structures consist of a screw-operated headgate (the Bridge Diversion) and hydraulic pumps.

The Rangen Application lists “springs” as the source and says this application is to “secure points of diversion for water emanating from springs, seeps, talus slopes, and from The Martin-Curren Tunnel. All of these sources emanate from basalt in the spring complex and enter the headwaters of Billingsley Creek....” The Rangen Application states water will be collected in a “pipeline to the large raceways.” The existing pipeline to the large raceways diverts from Billingsley Creek; however, the Rangen Application does not list Billingsley Creek as a source.

2.4. Purpose of Use

The GWD Application seeks to use water for mitigation and fish propagation purposes. Both of these purposes are recognized beneficial uses of water in Idaho.

The Rangen Application seeks to appropriate water for fish propagation.

3. REDUCE QUANTITY OF WATER UNDER EXISTING RIGHTS

3.1. Consumptive Use

Both applications propose to use the water for fish propagation. Fish propagation is a use that Idaho Department of Water Resources (IDWR) has traditionally regarded as a non-consumptive use. While there may be some consumption of water with fish propagation, any consumptive fraction is considered de-minimus. Thus, the quantity of water available to downstream users will not be reduced due to diversion and use as proposed.

The mitigation purpose of use in the GWD Application is likewise non-consumptive, as it is a simultaneous use with fish propagation.

In the event either use is determined to be consumptive, the permit would need to be issued subject to IDWR approval of a mitigation plan to off-set such consumption. The Districts have taken actions, including recharge, conversions, and the Sandy Pipe exchange, that provide mitigation in excess of any consumption from the use of the GWD Application.

3.2. By-Pass of Other Diversions

My investigation shows there are no water right diversions located between the points of diversion in the GWD Application and point of return flow to Billingsley Creek. Thus, the GWD Application will not reduce the supply of water available to other diversions.

The Rangen Application purports to seek the right to divert water from the Curren Tunnel, and may also propose one or more diversion points from springs tributary to Billingsley Creek above the points of diversion proposed in the GWD Application. Thus, the Rangen Application, if approved, would reduce the flow of water available under prior rights from the Curren Tunnel and the GWD Application. However, this would be resolved by priority administration.

4. WATER SUPPLY SUFFICIENT FOR APPROPRIATION

4.1. Water Supply

Rangen Hatchery diversion records obtained from the Idaho Department of Water Resources³ for the period from March 1, 1995 to December 31, 2012 are plotted in Figure 1. I understand these diversion records include all flows diverted into the Rangen facility from Martin-Curren Tunnel, springs below the tunnel, and Billingsley Creek. Diversions during this period have ranged from 9.3 to 44 cfs. Because a portion of this flow is diverted from the Martin-Curren Tunnel and conveyed past the "Bridge Diversion"⁴ from Billingsley Creek, not all of this flow was available at the Bridge Diversion.

³ http://maps.idwr.idaho.gov/qWRAccounting/WRA_Select.aspx

⁴ Robert Hardgrove, 2014. IGWA's Application for Permit 36-16976 Bridge Diversion 60% Design Report. SPF Water Engineering, LLC., September 5, 2014.

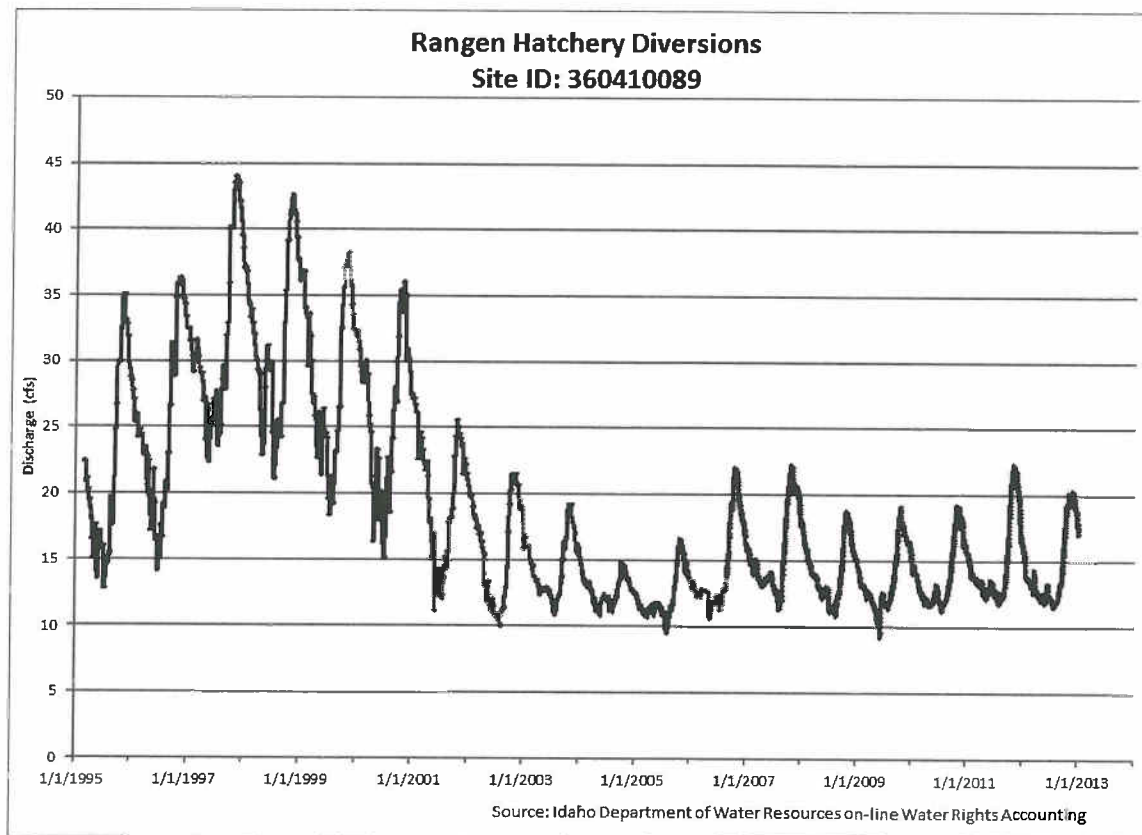


Figure 1: Rangen Hatchery Diversions

The GWD Application seeks to appropriate 12 cfs. Assuming approximately one-third of the total flow in Figure 1 is available for diversion from Martin-Curren Tunnel⁵ with the remainder available at the Bridge Diversion, the flow record depicted in Figure 1 indicates that flows during the past ten years would be sufficient to periodically fill the proposed 12 cfs appropriation.

4.2. Rangen Application

The Rangen Application proposes appropriation of 59 cfs from springs tributary to Billingsley Creek. The flow record depicted in Figure 1 indicates that during the past 18 years there has not been water available to fill the proposed 59 cfs appropriation at any time.

⁵ See Attachment A: Exhibits submitted in Rangen delivery call proceeding.

5. APPLICATION IS MADE IN GOOD FAITH AND NOT FOR DELAY OR SPECULATION

There is no indication to believe that either application is not made in good faith, or is made for delay or speculative purposes. The Districts' members are facing a curtailment order scheduled to begin January 19, 2014, and providing mitigation is essential to their continued water use. Mitigation as purpose of use has broad and varied application. The use of this water right for mitigation is consistent with the purpose of mitigation and other mitigation activities undertaken by IGWA.

The argument may be made that the Rangen Application is speculative since it seeks to appropriate far more water than has been available from the source over the last 18 years; however, this will ultimately be determined by how much water Rangen can physically divert, in priority, during the development period.

6. APPLICANT HAS SUFFICIENT FINANCIAL RESOURCES TO COMPLETE THE WORK INVOLVED.

6.1. GWD Application

The Districts are authorized by statute to develop and participate in mitigation projects on behalf of their members and have financed, developed, and implemented numerous mitigation, recharge, and related projects. The Districts' track record, combined with their statutory authority to assess their members, and lien authority to enforce the assessments, leads to the conclusion they hold sufficient resources to develop the GWD Application. A portion of the diversion facilities proposed by the GWD Application is already in place (i.e., the Bridge Diversion and associated transmission system). The remaining facilities include installing a pump system, controls, and transmission facilities that are well within the Districts capabilities and experience.⁶

⁶ Robert Hardgrove, 2014. IGWA's Application for Permit 36-16976 Bridge Diversion 60% Design Report. SPF Water Engineering, LLC., September 5, 2014.

7. APPLICATION WILL NOT CONFLICT WITH THE LOCAL PUBLIC INTEREST

The GWD Application will provide water to the Rangen facility for fish propagation and simultaneously provide mitigation so that groundwater rights that supply 157,000 acres of farmland, 11 cities, dairies, and other businesses in the Magic Valley may continue operating. Thus, approval of the GWD Application will be a tremendous benefit to the local public interest.

The Rangen Application does not appear to conflict with the local public interest, provided the GWD Application is approved with an earlier priority date.

8. APPLICATION IS NOT CONTRARY TO CONSERVATION OF WATER RESOURCES WITHIN THE STATE OF IDAHO

The GWD Application proposes non-consumptive beneficial uses using a water diversion and conveyance system that is not wasteful⁷ and is consistent with the conservation of water resources within the State of Idaho.

9. SUBORDINATION OF RIGHTS TO FUTURE APPROPRIATIONS

Both applications should contain subordination language that conditions the water right to current and future appropriations of ground water from the Eastern Snake Plain Aquifer, consistent with a recently issued license for fish propagation in Basin 36 that subordinates the right to future appropriations. License No. 36-8785 states:

“This water right shall be junior and subordinate to other rights for the use of water, other than fish propagation, wildlife, recreation, aesthetic purposes, and hydropower in the State of Idaho that are initiated later in time than the priority date of this right and shall not give rise to any claim against any future rights for the use of water, other than fish propagation, wildlife, recreation, aesthetic uses, or hydropower within the State of Idaho initiated later in time than the priority of this right.”

⁷ Robert Hardgrove, 2014. IGWA's Application for Permit 36-16976 Bridge Diversion 60% Design Report. SPF Water Engineering, LLC., September 5, 2014.

This condition is also consistent with other non-consumptive rights developed for wildlife, recreation and aesthetic uses in the Boise and Payette River Basins⁸.

⁸ See Permit Nos. 63-33507, 63-32911, 63-32467, 63-32459, 63-32238, 65-23246 and 65-23105.

APPENDIX A
EXHIBITS NUMBERED 2283 AND 3656 SUBMITTED IN
RANGEN DELIVERY CALL PROCEEDING

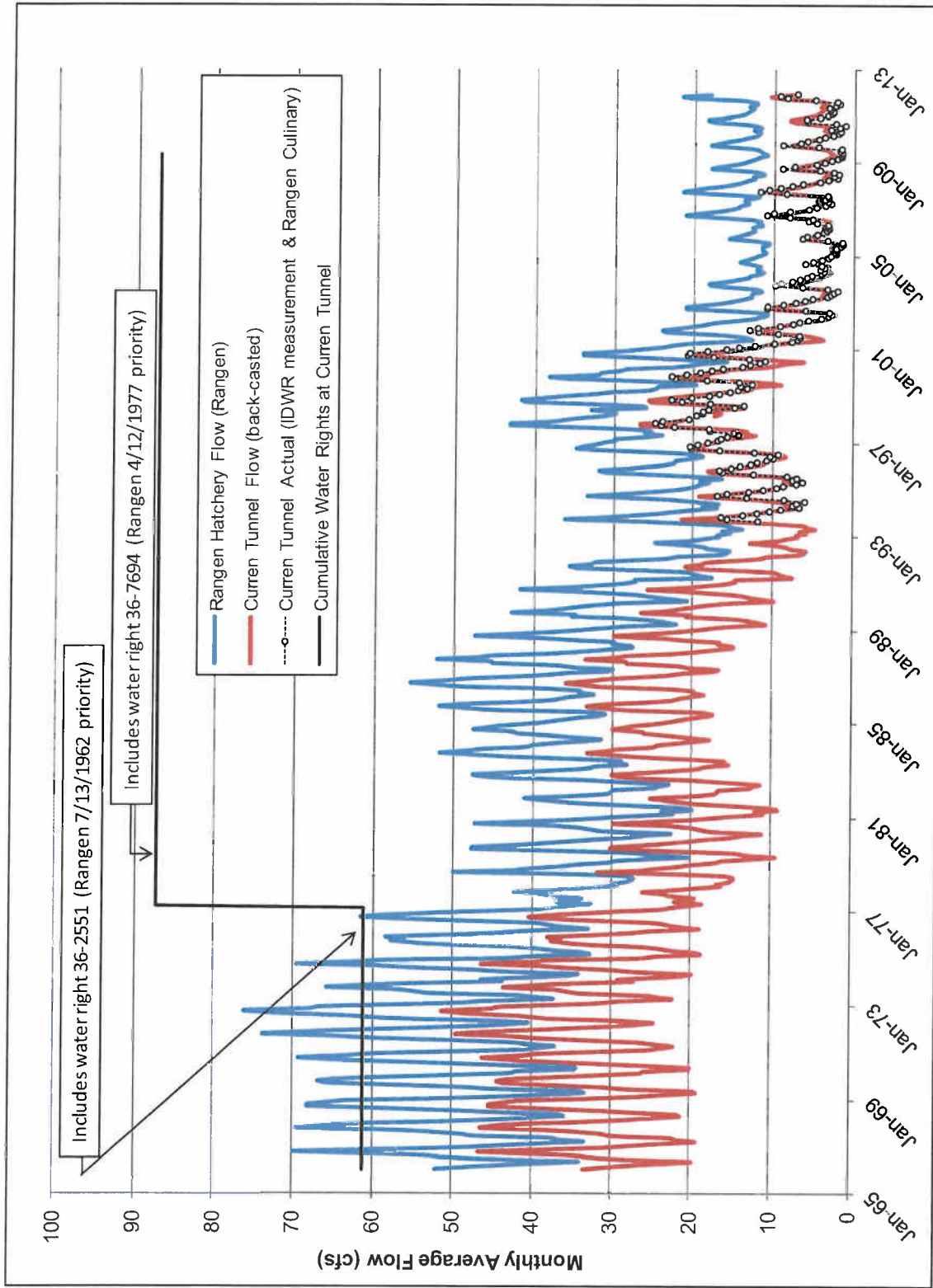
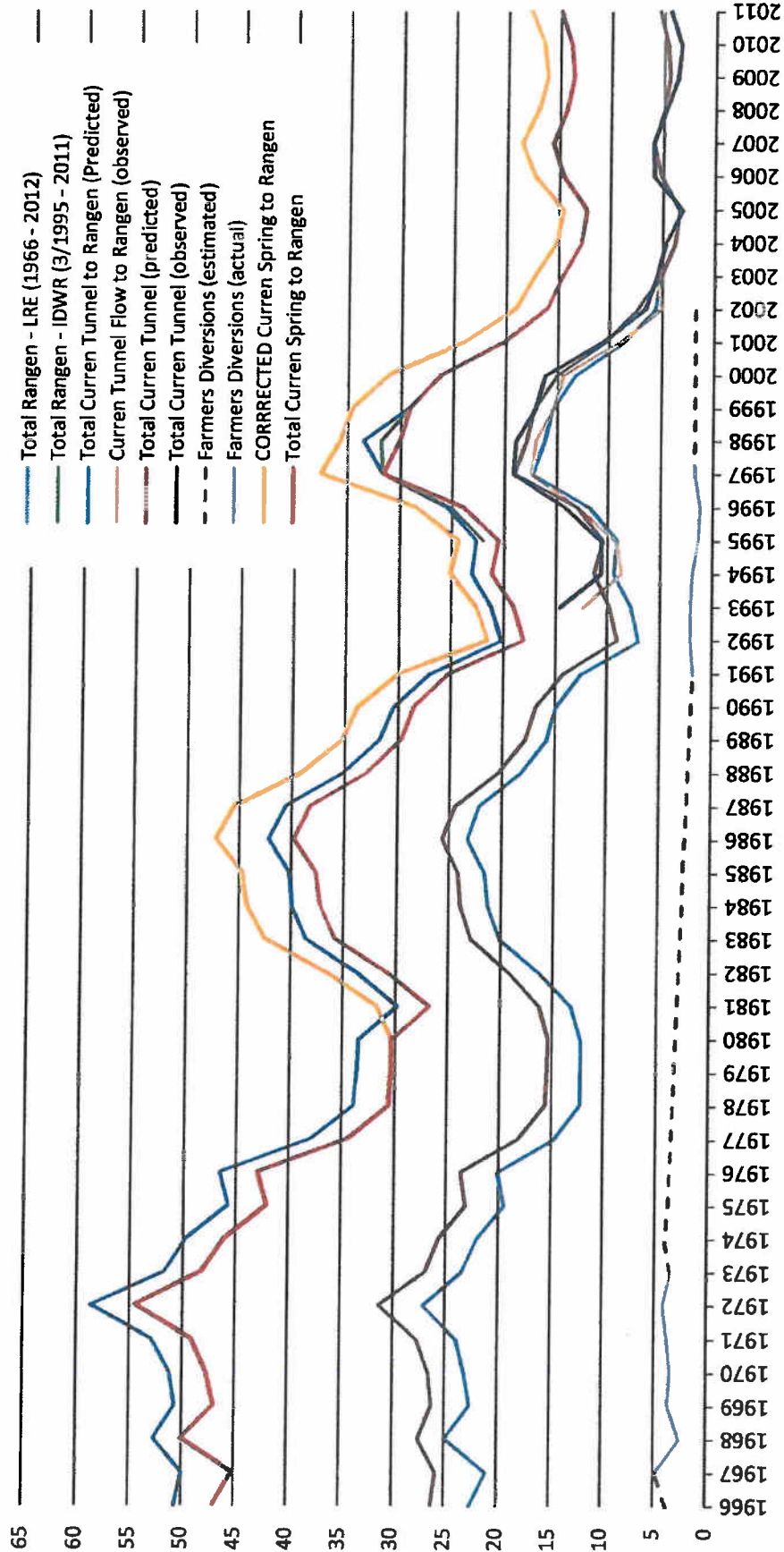


Figure 3.10: Back-casted Current Tunnel Flow versus Total Rangen Flow

Figure 2-5c

**Annual Average Flow
Rangen Hatchery
1966 - 2012**
Values in CFS



Source: Annual averages of monthly average flows presented in Figure 2-5b.
Annual average Total Curran Spring Flow to Rangen computed as the Total Curran Spring after diversions to farmers.

Spronk Water Engineers, Inc.

Updated 5/15/2013

