

Expert Report and Narrative Relative to Water Right Permit 35-14402

Prepared for:

A&B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company and Twin Falls Canal Company.

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Brockway Engineering, PLLC
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A. Introduction

A.1. Objectives

This report examines water right permit application 35-14402 filed by Jeffrey Cook and Karl Cook in August 2014. The application seeks to divert up to 5 cfs of groundwater, but intends to maintain the overall volume limitation under the following decreed water rights: 35-7280, 35-7281, 35-13241, 35-14334, 35-14335, & 35-14336. According to the application, this would allow the period of irrigation to be shortened and to accommodate the applicants' desired crop rotations. Calculations were included with the application.

A.2. Executive Summary

The Idaho Department of Water Resources should not approve water right permit 35-14402 because the application has not provided sufficient mitigation to offset the additional depletive affects caused by the new diversion. The ESPA moratorium applies to all water right applications proposing a new consumptive use of water. The cumulative diversion rate of 35-7280, 35-7281, 35-13241, 35-14334, 35-14335, & 35-14336 has been decreed by the SRBA court as 5.13 cfs. An enlargement of water from the State of Idaho will occur if the Applicant is allowed to divert 8.3 cfs without appropriate mitigation.

B. Water Right Information

B.1. Jeffrey Cook Water Rights

Water right 35-7280 was partially decreed on 1/31/2002 for a diversion rate of 3.13 cfs, an annual volume of 626.8 acre-feet and an acre limit of 156.7 acres. The priority date of 35-7280 is 2/26/1973.

Water right 35-7281 was partially decreed on 1/31/2002 for a diversion rate of 3.37 cfs, an annual volume of 836 acre-feet and an acre limit of 209 acres. The priority date of 35-7281 is 2/26/1973.

Water rights 35-7280 and 35-7281 when combined shall not exceed a total diversion rate of 3.83 cfs, a total annual maximum diversion volume of 1462.8 acre-feet at the field headgate, and the irrigation of 365.7 acres.

Water right 35-13241 was partially decreed on 9/17/2002 for a diversion rate of 0.86 cfs, an annual volume of 209.2 acre-feet and an acre limit of 52.3 acres. The priority date of 35-13241 is 2/26/1973. Right 35-13241 is an enlargement of rights 35-7280 and 35-7281.

Rights 35-7280, 35-7281 and 35-13241 when combined are limited to a total diversion rate of 3.83 cfs, a total annual maximum diversion volume of 1633.3 acre-feet at the field headgate, and the irrigation of 418.0 acres. The allowed diversion of 3.83 cfs over 418.0 acres is 0.009 cfs/acre (4.11 gpm/acre).

B.2. Karl Cook Water Rights

Water right 35-14335 was partially decreed on 1/31/2002 for a diversion rate of 1.27, an annual volume of 284.0 acre-feet and an acre limit of 71.0 acres. The priority date of 35-14334 is 2/26/1973.

Water right 35-14334 was partially decreed on 1/31/2002 for a diversion rate of 1.07, an annual volume of 213.2 acre-feet and an acre limit of 53.3 acres. The priority date of 35-14334 is 2/26/1973.

Rights 35-14334 and 35-14335 when combined shall not exceed a total diversion rate of 1.3 cfs, a total annual maximum diversion volume of 497.2 acre-feet at the field headgate, and the irrigation of 124.3 acres.

Water right 35-14336 was partially decreed on 9/17/2002 for a diversion rate of 0.29, an annual volume of 70.8 acre-feet and an acre limit of 17.7 acres. The priority date of 35-14336 is 4/1/1987. Right 35-14336 is an enlargement of rights 35-14334 and 35-14335.

Rights 35-14334, 35-14335 and 35-14336 when combined are limited to a total diversion rate of 1.3 cfs, a total annual maximum diversion volume of 554.4 acre-feet at the field headgate, and the irrigation of 142.0 acres. The allowed diversion per acre for 1.3 cfs over 142.0 acres is 0.009 cfs/acre (4.11 gpm/acre).

C. Aquifer Impact

Permit 35-14402 would increase the diversion rate from the local aquifer beyond what the SRBA Court approved for the same place of use and point of diversion for 35-7280, 35-7281, 35-13241, 35-14334, 35-14335, & 35-14336.

The Warner report indicates that the range of the irrigation season is 103 days to 164 days. With a diversion rate of 5.13 cfs and 103 days of pumping, a total volume of 1048 afa would be pumped from the aquifer. With a diversion rate of 8.20 and 103 days of pumping, a total volume annual of 1675 afa would be

pumped from the aquifer. That would result in an increased volume pumped to 627 afa.

With a diversion rate of 5.13 cfs and 164 days of pumping, a total volume of 1669 afa would be pumped from the aquifer. With a diversion rate of 8.20 and 164 days of pumping, a total volume annual of 2667 afa would be pumped from the aquifer. That would result in an increased volume pumped to 998 afa.

The ESPA model assumes that the full allotment of allowed volume of a water right is diverted from the aquifer. The actual amount of water volume diverted from the aquifer is depended on the diversion rate from wells, crop rotation, precipitation and water management. The ESPA model, in it is currently constructed and approved form, is not capable of utilizing or incorporating allowed diversion rates into the model's analysis.

D. Evaluation of Permit Application Criteria

D.1. Authority to File

Jeffery Cook and Karl Cook have authority to file for permit 35-14402 because they own and operate the farm currently irrigated by 35-7280, 35-7281, 35-13241, 35-14334, 35-14335, & 35-14336.

D.2. Injury to Other Water Rights and Domestic Wells

By increasing the allowed diversion of the base water rights, Jeffery Cook and Karl Cook will increase the volume of water being diverted. This increased volume will reduce the quantity of water available for other water rights.

The Warner report indicates that the range of the irrigation season is 103 days to 164 days. With a diversion rate of 5.13 cfs and 103 days of pumping, a total volume of 1048 afa would be pumped from the aquifer. With a diversion rate of

8.20 and 103 days of pumping, a total volume annual of 1675 afa would be pumped from the aquifer. That would result in an increased volume pumped to 627 afa.

With a diversion rate of 5.13 cfs and 164 days of pumping, a total volume of 1669 afa would be pumped from the aquifer. With a diversion rate of 8.20 and 164 days of pumping, a total volume annual of 2667 afa would be pumped from the aquifer. That would result in an increased volume pumped to 998 afa.

D.3. Enlargement of Use

The ESPA moratorium applies to all water right applications proposing a new consumptive use of water. In this case, an enlargement of water will occur if the Applicant is allowed to divert 8.3 cfs without appropriate mitigation.

The approval of permit 35-14402 could result in a license to increase the annual volume diverted beyond what is reasonably expected under the existing irrigation water rights, even if the rights do not exceed the existing water rights annual volume limit.

D.4. Local Public Interest

By increasing the diversion of the base water rights, Jeffery Cook and Karl Cook will increase the volume of water being diverted, which is contrary to the local public interest.

It also appears from the Warner Report that the increased diversion rate may not be necessary to raise the crops desired by the applicants. The reports states that the applicants could construct a pond. Water would be diverted into the pond under the original diversion rate (5.13 cfs) and then applied to the land at a higher rate from the pond (Warner page 1). The Warner report also states that the

applicants could have maintained the original diversion rate, but that they would have been forced to “run constantly.”

D.5. Beneficial Use/Conservation of Water Resources

Applicants have provided no mitigation to offset the increase in consumptive use. They apparently believe that maintaining a volume limitation consistent with, or less than, the volume limitation on the base irrigation rights will result in no impacts from the increased diversion rate. However, as discussed above, and as demonstrated by the Warner Report, the increased diversion rate allows the applicants to nearly double the volume of water diverted in an irrigation season.

The Warner Report states that, if the applicants were limited to 5.13 cfs then they would have changed their irrigation practices and diverted the same volume of water. They conclude that, because the volumes would be the same, there can be no injury. However, applicants have provided no information that they would have changed their system or altered their irrigation practices.

Water right permit 35-14402 does not have a sufficient mitigation plan that would conserve the water resources of the state of Idaho.

CERTIFICATE OF SERVICE

I hereby certify that on this 17th day of April, 2015, I caused to be served a true and correct copy of the foregoing upon the following by the method indicated:

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s/ W. Kent Fletcher

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