STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
IRRIGATION EFFICIENCIES PROGRAM
TRUST WATER RIGHT
REPORT OF EXAMINATION
Change of Purpose and Place of Use
Change of Water Right Application No. CS4-129470CL@1

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
1900	129470		

NAME OF PARTY CONVEYING RIGHT TO TRUST WATER RIGHTS PROGRAM

John and Carol Sorg

ADDRESS/STREET	CITY/STATE	ZIP CODE
222 Twisp-Winthrop Eastside Road	Twisp, WA	98856

TRUST WATER RIGHT ATTRIBUTES

SOURCE

Methow River

TRIBUTARY OF (IF SURFACE WATERS)

Columbia River

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE FEET PER YEAR
0.17		46.53

QUANTITY, TYPE OF USE, PERIOD OF USE

46.53 acre-feet per year for the purpose of instream flows within the Methow River from April 10, 2008 through April 10, 2028 at the diversionary rate of 0.17 cubic feet per second (cfs) May 1 through October 15.

PLACE OF USE and AFFECTED REACHES
[See Attachment for map of the trust water right location]

APPROXIMATE LOCATION OF HISTORIC DIVERSION

Primary Reach: Approximately 320 feet north and 750 feet east from the southwest corner of Section 12, T. 34 N., R. 21 E.W.M., within the SE¼SW¼SW¼ of Section 12, T. 34 N., R. 21 E.W.M.*

GPS location in Decimal Degree: Latitude 48.45494, Longitude -120.16245 (Datum WGS84)

*Present Point of Diversion Barkley Irrigating Company.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
SE¼SW¼SW¼	12	34 N.	21 EWM	48	Okanogan

Methow River: Approximately between river miles 48.4 and 41.4.

PROJECT SUMMARY

This irrigation efficiencies project consists of the conversion of 6.62 acres of flood irrigation practices to an impact sprinkler irrigation system. The conserved non-consumptive water, estimated at 0.17 cubic feet per second and 46.53 acre-feet per year, will be placed in the Washington State Trust Water Rights Program to augment instream flow in a seven-mile primary reach on the middle Methow River.

TRUST WATER RIGHT TERM

BEGIN DATE	END DATE
Date of Final ROE for Change/2009	April 10, 2028

PORTION OF WATER RIGHT
NOT PLACED INTO TRUST

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
1900	129470		

NAME
Barkley Irrigating Company c/o Charles Lehman

ADDRESS/STREET	CITY/STATE	ZIP CODE
340 Twisp-Winthrop Eastside Road	Twisp, WA	98856

WATER RIGHT CLAIM ATTRIBUTES

SOURCE

Methow River

TRIBUTARY OF (IF SURFACE WATERS)

Columbia River

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE FEET PER YEAR
84.83		61,153.47

QUANTITY, TYPE OF USE, PERIOD OF USE

84.83 cubic feet per second May 1 to October 15 and 61,153.47 acre-feet per year for the irrigation of 900 acres through 4/10/2028.

***This quantity does not include the water savings from an additional irrigation efficiencies project for Charles Lehman, a Barkley Irrigating Company shareholder. This quantity does not reflect an extent and validity for the remaining water use under the claim.**

LOCATION OF DIVERSION

APPROXIMATE LOCATION OF DIVERSION

Barkley Irrigating Company as described on the original water right claim: 823.4 feet in a southeasterly direction from the NW corner of Section 13, within the NW¼ of Section 13, T. 34 N., R. 21 E.W.M.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
NW1/4	13	34 N	21 EWM	48	Okanogan

PARCEL NUMBER

N/A

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
N/A	N/A	N/A

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED
[See Attachment for map of the place of use and point of diversion]

The place of use is described as parts of Sections 13, 24, and 25 in T. 34 N., R. 21 E.W.M., parts of Sections 19, 30, and 31 in T. 34 N., R. 22 E.W.M., parts of Sections 5, 6, and 8 in T. 33 N., R. 22 E.W.M., all lying east of the Methow River in Okanogan County.

DESCRIPTION OF WATER SYSTEM

Barkley Irrigating Company diverts water from the Methow River into an irrigation canal that delivers water to all the shareholders within the place of use described in the claim to be used for irrigation purposes.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
April 10, 2008	Completed 2008	October 15, 2009

DRAFT

PROVISIONS

TRUST WATER RIGHT provisions:

INSTREAM FLOW
Consistent with 90.42.080(1)(a), this trust water right shall be managed by the Department of Ecology as an instream flow right for the Methow River, as described in this trust water report.

Provisions related to PORTION OF WATER RIGHT NOT PLACED INTO TRUST:

The amount of water authorized is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial.

WATER AVAILABILITY
Water is limited to the authorized quantities of the Barkley Irrigating Company's water right claim less the amounts placed into the trust program over the duration of the project contract.

METER INSTALLATION
An approved measuring device shall be installed and maintained for each of the sources authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", chapter 173-173 WAC. http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html

RECORD WEEKLY, REPORT ANNUAL TOTALS
Water use data shall be recorded weekly. The maximum rate of diversion/withdrawal and the annual total volume shall be submitted to Ecology by January 31st of each calendar year.

FISH SCREENING CRITERIA
This authorization is subject to Washington Department of Fish and Wildlife fish screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Fish screening criteria are attached to this Report of Examination. Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091. Attention: Habitat Program, Phone: (360) 902-2534 if you have questions about screening criteria. http://wdfw.wa.gov/hab/engineer/habeng.htm

AUTHORITY TO ACCESS DATA AND MEASURING DEVICE
Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above provisions, and to inspect at reasonable times any measuring device used to meet the above provisions.

AUTHORITY TO ACCESS PROJECT
Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times wells or diversions and associated distribution systems for compliance with water law.

CONSERVATION
Use of water under this authorization shall be contingent upon the water right holder's maintenance of efficient water delivery systems and use of up-to-date water conservation practices consistent with established regulation requirements and facility capabilities.

FINDINGS OF FACT AND ORDER

Upon reviewing the investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or detrimental to the public interest.

Therefore, I ORDER the requested change of place and purpose of use for a portion of Surface Water Claim No. 129470 under Trust Water Application No. CS4-WRC129470@1be approved, subject to existing rights and the provisions specified above.

You have a right to appeal this decision. To appeal this you must:

- File your appeal with the Pollution Control Hearing Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your Notice of Appeal.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board:

Mail appeal to:	OR	Deliver your appeal in person to:
The Pollution Control Hearings Board PO Box 40903 Olympia WA 98504-0903		The Pollution Control Hearings Board 4224 – 6th Ave SE Rowe Six, Bldg 2 Lacey WA 98503

2. To serve your appeal on the Department of Ecology:

Mail appeal to:	OR	Deliver your appeal in person to:
The Department of Ecology Appeals & Application for Relief Coordinator PO Box 47608 Olympia WA 98504-7608		The Department of Ecology Appeals & Application for Relief Coordinator 300 Desmond Dr SE Lacey WA 98503

3. And send a copy of your appeal packet to:

   Mark C. Schuppe, Acting Section Manager
   Water Resources Program, Dept. of Ecology
   Central Region Office
   15 W Yakima Ave Ste 200
   Yakima WA 98902-3452

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov
To find laws and agency rules visit the Washington State Legislature Website: http://www.leg.wa.gov/CodeReviser

Signed at Yakima, Washington, this _____ day of _____ 2009.

_____

Mark Schuppe, Acting Section Manager
Water Resources Program
Central Region Office

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INVESTIGATOR'S REPORT

BACKGROUND

Applications: A Trust Water Application through the Irrigation Efficiencies Grant Program (IEGP) for Surface Water Claim No. 129470 (Claim No. 129470) was submitted by Bob Clark of the Okanogan County Conservation District on behalf of John and Carol Sorg, property owners and Barkley Irrigating Company shareholders, to the Department of Ecology (Ecology) on May 23, 2008. The application number was assigned as CS4-129470CL@1 in the Water Right Tracking System. The applicant proposes to temporarily place a portion of the water right claim into the state's Trust Water Rights Program (TWRP) for the purpose of instream flow to be used exclusively for instream flows within the Methow River. Saved water may eventually be changed into a side-channel of the Methow River for fish rearing habitat.

Water right change applications may be processed prior to applications submitted at an earlier date when the proposed water use, if approved, would substantially enhance or protect the quality of the natural environment (WAC 173-152-050(3)(a)). This application has been determined to meet WAC 173-152-050(3)(a) criteria and has therefore been afforded priority processing.

This is the second IEGP project for Barkley Irrigating Company under Claim No. 129470. Charles Lehman is a shareholder of Barkley Irrigating Company and placed 3.6 cubic feet per second (cfs) and 1098 acre-feet of annually saved water in perpetuity to the mainstem Methow. The cumulative water savings from these two projects add value to fish habitat and needed instream flows. The saved water from both of these projects may eventually be moved to a side channel of the Methow River. The Bureau of Reclamation, Washington Department of Fish and Wildlife (WDFW), Washington Rivers Conservancy, and the Okanogan County Conservation District are working towards a side channel for fish rearing habitat. In the event this takes place, change applications will need to be made to transfer saved water to the side channel.

Description and Purpose of Proposed Change for the Irrigation Efficiencies Project

The project site is located approximately two miles northeast of Twisp, along Eastside Winthrop-Twisp Road within Section 5, Township 33 N., Range 22 E.W.M. within Water Resource Inventory Area (WRIA) 48. This irrigation efficiencies project consists of the conversion of 6.62 acres of flood irrigated farmland to impact sprinklers on risers. Saved water from this project will increase flows within the Methow River resulting in increased habitat functions benefiting fish for approximately seven miles from the Barkley Irrigating Company diversion point located at river mile 48.4 within the SW¼SW¼ of Section 12, Township 34, Range 21 E.W.M. and ending at approximately river mile 41.4.

Eighty three percent of the saved water from this project will be placed into trust to increase flows and habitat restoration within the middle Methow River, identified as a medium priority stream for instream flow restoration.

Attributes of the Claim and Proposed Change for the Irrigation Efficiencies Project

The following table summarizes the attributes of Claim No. 129470 and the proposed quantities to place into the Trust Water Right Program.

Table 1 Summary of Attributes and Proposed Changes to Barkley Irrigating Company Claim No. 129470.

	Existing Attributes of Claim	**Proposed Changes**
Name	Barkley Irrigating Company	John and Carol Sorg (shareholder)
Priority Date | Date of Final Application for Trust	1900	May 23, 2008
Instantaneous Quantity	85 cfs	0.17 cfs
Annual Quantity	61,200 acre-feet	46.53 acre-feet
Period of Use	"Irrigation Season"	May 1 to October 15
Source	Methow River	Methow River
Point of Diversion	Section 13, T. 34 N., R. 21 E.W.M.	Section 12, T. 34 N., R. 21 E.W.M. (Barkley Irrigating Co. Point of Diversion)*
Purpose of Use	Irrigation of 900 acres	Instream Flow
Place of Use	*See claim and first page of this report*	That part of the NW¼SW¼ of Section 5, T. 33 N., R. 22 E.W.M. lying east of the Eastside Winthrop-Twisp Road.

*Cannot change the point of diversion for this project. A change application from the Barkley Irrigation Company to do this should be submitted. This can, however, be the point where the primary reach for this trust water begins.

Statement of Authorities

The state law that governs claims (Chapter 90.14 RCW) provides that water users whose uses were initiated prior to the water code and not represented by a state issued permit or certificate were to file a water right claim or the right was considered to be waived (RCW 90.14.071). Typically, claims represent water uses that pre-date the adoption of the state water code, RCW Chapter 90.03, on June 6, 1917. The state water code provides under 90.03.460 RCW that water use projects that were under development at the time of the adoption of the water code were unaffected by the new statutory framework and did not have to comply with the permit provisions of the code, provided that reasonable diligence was used in completing the project. The Supreme Court held in Brown v. Chase, 125 Wash. 542, 217 P. 23 (1923), that a riparian landowner has a "reasonable time" after adoption of the Surface Water Code to put water to beneficial use. In Proctor v. Sim, 134 Wash. 606, 236 P. 114 (1925), the Supreme Court held that the water code protected existing rights, the "beneficial use of which are either directly or prospectively, within a reasonable time, proper and necessary for the irrigation of their lands…" In Ecology v. Abbott, 103 Wn.2d 686, 694 P.2d 1071 (1985), the Supreme Court held that the length of reasonable time was ultimately determined to be 15 years from the enactment of the Water Code, up until 1932.

Though the trust water right would prevent impairment against existing water rights, it cannot be regulated for without an adjudication of the basin (Rettkowski v. Ecology, 122 Wn.2d 219, 858 P.2d 232).

Trust water rights are governed state-wide by Chapter 90.42 RCW and in the Yakima River Basin, by Chapter 90.38 RCW. The statutes[1] limit the portion of a water right eligible for transfer to the TWRP to the extent the water right was exercised in the five years prior to application. A water right accepted into the TWRP may not be enlarged. When a portion of a water right is accepted in the TWRP, the portion remaining with the landowner and the portion in trust combined may not exceed the greatest amount exercised within the last five years before application. Any trust water right found to impair an existing water right will be modified to prohibit impairment.

RCW 90.42.040(9) states that when a portion of a water right is acquired or donated to the TWRP to assist in achieving established instream flows, the trust water right/claim is processed without conducting a review of the extent and validity of the portion of the water right/claim to remain with the water right/claim holder. Because Methow River minimum instream flows were established in 1976, the extent and validity of only John and Carol Sorg's portion of the Barkley Irrigating Company's irrigation water right claim will be reviewed.

Legal Requirements for Proposed Change for the Irrigation Efficiencies Project

The following is a list of requirements that must be met prior to authorizing the proposed change in purpose of use and point of diversion:

- **Public Notice**
  A notice of application was duly published in accordance with RCW 90.42.040(5) in the Methow Valley News on December 10 and December 17, 2008. No protests or objections were received.

- **State Environmental Policy Act (SEPA)**
  This application is not exempt from the provisions of the State Environmental Policy Act (SEPA) of 1971, Chapter 43.21c RCW, due to the fact that the cumulative quantities of water for this project under all water rights, including those proposed for trust water herein, constitute a diversion of more than one (1) cubic foot per second. The Department of Ecology (Ecology), acting as lead agency, determined that the subject action does not have a significant adverse impact on the environment and an environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). A final Determination of Non-Significance was issued by Ecology on December 2, 2008.

- **Water Resources Statutes and Case Law**
  Tentative Determination/Extent and Validity
  Ecology cannot adjudicate a claim to a water right; only the Superior Courts have this authority. However, the Washington Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. *R.D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp.*

[1] RCW 90.38.020(4), 90.38.020(6), 90.42.080(4) and 90.42.080(8)

INVESTIGATION

In considering this application, the investigation included, but was not limited to, research and/or review of:

- The State Water Code, administrative rules, and policies
- Other recorded water rights in the vicinity
- A site visit conducted on by Department of Ecology staff Jim Lyerla
- Correspondence and conversations with Bob Clark of the Okanogan County Conservation District
- Correspondence and conversations with Jack Myrick of the Conservation Commission
- Conversations with Ecology staff
- Correspondence with Paul LaRiviere of the Department of Fish and Wildlife
- Correspondence with Jon Culp of the Conservation Commission
- Correspondence with Lisa Pelly of Washington Rivers Conservancy
- Topographic and local area maps
- Aerial photographs of the site

History of Water Use

Historic use data was calculated by Bob Clark of the Okanogan County Conservation District. Mr. Clark calculated the historic quantity of water used on the acres for this project based on information provided by the Barkley Irrigating Company as follows:

- 9 gallons per minute (gpm) (0.02005 cfs) = 5 shares
- 110 shares = 0.44 cfs (rounded)
- 0.44 cfs over the course of a 138 day irrigation season = 120.44 acre-feet

An extent and validity determination of the water right claim, including aerial photograph review, was conducted by Jim Lyerla from the Department of Ecology. Water right claim and project review was conducted by Laurie Dahmen from the Department of Ecology. As described in a letter from Jim Lyerla to Jon Culp (dated April 18, 2008), John and Carol Sorg's shares of water use from the Barkley Irrigating Company's water right claim are tentatively determined valid and have been used to the full extent during the 2008 irrigation season for the irrigation of 6.62 acres.

The diversion rate for the Barkley ditch for the years 2004 through 2008 were submitted to Ecology by Craig Boesel, Vice President of the Barkley Irrigation Company. The diversion rate varied from a minimum of 19 cfs to a maximum of 26 cfs during the irrigation season of May 1 through September 30 and a maximum of 9.3 cfs from October 1 through October 15. A tentative determination for a water right consists of an extent and validity review for the last five (5) years, however a tentative determination for the remaining water claimed under Claim No. 129470 is not made through this change (RCW 90.42.040(9)).

An error describing the point of diversion was noted and corrected in the Charles Lehman Report of Examination. The site examination and subsequent confirmation with georeferenced digital aerial photos indicate the point of diversion is actually located approximately 320 feet north and 750 feet east from the southwest corner of Section 12, T. 34 N., R. 21 E.W.M., within the SE¼SW¼SW¼ of Section 12, T. 34 N., R. 21 E.W.M. The point of diversion is located approximately 600 feet north-northeast of the location described on Claim No. 129470. The primary reach for this trust water right will begin at this point, however the original described point of diversion will remain until a change application to fix the error is submitted by the Barkley Irrigating Company.

Proposed Use

The purpose of instream flow is to enhance instream flows for fish maintenance and habitat enhancement within the Middle Methow River.

Other Rights Appurtenant to the Place of Use

A review of Ecology records was conducted for existing surface and ground water rights in the surrounding area.

In order to evaluate the pending trust water applications, it is necessary to review all water rights appurtenant to the place of use (POU) described under Claim No. 129470.

Surface Water Claim No. 129471 filed by Barkley Irrigating Company overlaps the place of use for Claim No. 129470. The claimed quantity is 60 cfs, 43,200 acre-feet annually during the irrigation season for irrigation of approximately 900 acres and the claimed date of first use is 1909. It is unclear as to why this claim was filed.

No other overlapping water rights for the acres in this irrigation efficiency project were found.

Department of Fish and Wildlife Project Evaluation

The Middle Methow River (between river miles 40 and 50) is classified with medium priority based on the number of salmonid species listed as endangered or threatened under the Endangered Species Act (ESA), the status of various salmonids, existing habitat conditions and the period when seasonal low flows occur. Washington Department of Fish and Wildlife (WDFW) reports that Chinook, bull trout and rainbow/steelhead (listed as endangered) are found in all life stages in the affected reach of this project. In addition, eastern brook trout, sculpin, dace, large scale suckers, pacific lamprey and mountain whitefish utilize the affected reach as habitat.

Paul LaRiviere with the Washington State Department of Fish and Wildlife assessed the project for benefits to the Methow River. In a letter to Laurie Dahmen (Department of Ecology) dated November 19, 2008, Mr. LaRiviere states that water savings from this project is small and difficult to measure but is important in a cumulative fashion that will benefit fish and habitat over time and also improve water quality.

Hydrologic/Hydrogeologic Evaluation

Anna Hoselton, Department of Ecology Hydrogeologist, provided the following analysis for the Methow River area:

This section describes in general terms, the geology and hydrogeology along the mainstem of the Methow River between the township boundary of T. 33 N. and T. 34 N., R. 22 E.W.M., and the intersection of state routes 20 and 153, located within Sec. 22, T. 33 N., R. 22 E.W.M.

To the north and east of the mainstem Methow River, volcanic and sedimentary rocks of the undivided Newby Group are the predominate rock type forming the valley walls with a minor exposure of the Pipestone Canyon Formation sedimentary unit. Similar volcanic and sedimentary rocks of the undivided Newby Group are exposed in the valley walls to the south and west of the mainstem. Numerous faults have been recognized and mapped in the Newby Group unit(s) along the west side of the mainstem valley, and are inferred to occur under the unconsolidated sediments that overlay these units near the mouth of the Twisp River valley. The combination of rock types on both sides of the river form the bedrock boundaries of the unconsolidated sediment aquifer.

In this region, the unconsolidated aquifer is commonly composed of glacial and alluvial cobbles, gravels, sands, with lesser amounts of silts, clays and glacial till (hardpans). Clay and till materials that have been noted on some area well logs appear to occur in discontinuous lenses, both above and within the saturated thickness of the aquifer, but do not appear to form any definable confining layer. Recharge to the unconsolidated aquifer is derived from precipitation and potentially from side drainage sub-surface flow, but is largely dependent on surface water exchange with the Methow River. This exchange between the river and aquifer is an expression of hydraulic continuity.

Trust Water Right Calculations

While an entire water right (or water right claim), or portion thereof, may be accepted into trust, the extent to which that water right may be exercised is based on the highest water use within the last five (5) years that will be foregone for the period of trust. The calculation for the extent to which a water right may be exercised as a Trust Water Right is not a tentative determination of the water right and is not a finding of relinquishment or abandonment. Water use records indicate that the subject water right claim has been used to the full extent during the last five (5) years on the subject acres for this irrigation efficiency project. Therefore, the entire quantity of water savings may be exercised during the period of trust.

Bob Clark from the Okanogan County Conservation District provided water use information and Jack Myrick from the Washington State Conservation Commission calculated projected water use from the new irrigation system as requested by John and Carol Sorg. All calculations are computed from a 'per share' basis of the Barkley Irrigating Company water right claim. The claimed annual quantity is 61,200 acre-feet and an instantaneous quantity of 85 cfs. John and Carol Sorg own 110 shares of the water right claim for Barkley Irrigating Company and own 12.44 acres. Of that, 100 shares are appurtenant to 6.62 acres in this irrigation efficiencies project. The remaining 10 shares are appurtenant to the remaining acres outside of this irrigation efficiencies project.

Based on historical use calculations submitted by Jack Myrick and Bob Clark, there are 0.44 cfs and 120.44 acre-feet appurtenant to the 6.62 acres in this irrigation efficiencies project. Annual water use is high due to flood irrigation practices and ditch conveyance losses. Mr. Myrick designed a hand line system to be operated at night taking advantage of optimum efficiency, reducing the instantaneous quantity to a maximum of 0.23 cfs. After this irrigation efficiencies project is complete, based on the new irrigation system requirements and the reduction of water use for shares of Barkley Irrigating Company water on John and Carol Sorg's 6.62 acres, there is a water saving up to 0.21 cfs and 57.48 acre-feet from May 1 to October 15. They have agreed to place 83 percent of saved water into the trust water program for a total of 0.17 cfs and 46.53 acre-feet in trust.

The remaining amount available for irrigation on the 6.62 acres is 0.27 cfs and 73.91 acre-feet from May 1 to October 15. These calculations exclude the remaining shareholders of the Barkley Irrigating Company water right claim and are not included in this irrigation efficiencies project. Annual quantities include ditch conveyance losses.

Table 2 Quantities in trust and remaining for use on the 6.62 acres in this IEGP project for John and Carol Sorg through contract expiration on April 10, 2028.

Through April 10, 2028	
In Trust	**Remaining for Use**
0.17 cfs 46.53 acre-feet May 1 to October 15	0.27 cfs 73.91 acre-feet May 1 to October 15

The following tables summarize the quantities in trust and remaining under the claimed water use. The remaining claimed water use has not been reviewed for extent and validity (RCW 90.42.040(9)), although it appears from water use measurements submitted to the Department of Ecology from 2004 through 2008 that the maximum diversion rate is 26 cfs during the irrigation season of May 1 through September 30 and 9.3 cfs October 1 through October 15.

Water in trust from this project and the Charles Lehman project are to be subtracted from the diversion rates each month during the irrigation season from the highest rates of the last five years (26 cfs May 1 through September 30 and 9.3 cfs October 1 through October 15). Due to the fact that the existing measuring structure at the point of diversion does not have the ability to measure the small quantity of trusted water, it is the responsibility Barkley Irrigating Company to reduce the diversion rate by the trusted quantities.

Table 3 Quantities for trust and water remaining under Claim No. 129470 from the Charles Lehman IEGP project and this IEGP project for John and Carol Sorg through contract expiration on April 10, 2028.

Through April 10, 2028	
Charles Lehman project (amended report for CS4-WRC129470); trust is in perpetuity:	3.6 cfs 1,098 acre-feet
John and Carol Sorg project; trust is temporary and expires April 10, 2028:	0.17 cfs 46.53 acre-feet
Total in trust:	3.77 cfs 1,144.53 acre-feet
***Remaining quantity under claim:**	81.23 cfs 60,055.47 acre-feet

*This quantity is the remaining amount on paper and has not undergone an extent and validity review.

Table 4 Quantities for trust and water remaining under Claim No. 129470 from the Charles Lehman IEGP project after this IEGP project for John and Carol Sorg expires.

After April 10, 2028	
Charles Lehman project (amended report for CS4-WRC129470); trust is in perpetuity:	3.6 cfs 1,098 acre-feet
Total in trust:	3.6 cfs 1,098 acre-feet
***Remaining quantity under claim:**	81.4 cfs 60,102 acre-feet

*This quantity is the remaining amount on paper and has not undergone an extent and validity review.

Trust Water Place of Use

Trust Water use for instream flow are generally split into primary and secondary reaches in order to distinguish the contribution of return flows from a water use and the benefits of any reduction in consumptive water use. The annual quantity placed into Trust is calculated differently for the primary reach and secondary reach due to the effects of return flows. The primary reach of a stream is the portion that benefits from both the reintroduction of return flows and any reduced consumptive water use. It is considered to be the reach starting at the point of diversion for the subject right/claim, and extending downstream to a point on the stream where return flows from the irrigated lands have rejoined the stream. The secondary reach is that portion of the stream that benefits by the reintroduction of water that would otherwise be lost to consumptive use and extends from the end of the primary reach to such point downstream as it is practical and feasible to regulate for the subject right. Because this irrigation efficiency project did not reduce consumptive use for this water right claim, there is no benefited secondary reach of the stream.

Primary Reach

The trust water right for the primary reach begins from the point water has been historically diverted and ends at the point where return flows are estimated to have returned to the river. For this project the primary reach is approximately seven (7) miles of the middle Methow River beginning at River Mile 48.4 at the Barkley Irrigating Company's point of diversion and ending at River Mile 41.4.

Secondary Reach

There is no secondary reach in this trust water right.

Trust Water Management

Consistent with 90.42.080(1)(a), this Trust Water Right shall be managed by Ecology as an instream flow right for the Middle Methow River, as described in this Trust Water Report.

Impairment Considerations

"Impair" or "impairment" means to 1) adversely impact the physical availability of water for a beneficial use that is entitled to protection, and/or 2) to prevent the beneficial use of the water to which one is entitled, and/or 3) to adversely affect the flow of a surface water course at a time when the flows are at or below instream flows levels established by rule (POL-1200), and/or 4) degrade the quality of the source to the point that water is unsuitable for use by existing water right holders (WAC 173-150). Demonstration of impairment would require evidence of a substantial and lasting or frequent impact reflecting such conditions.

The proposed trust water has been evaluated as to the potential for impairment to existing water rights in the area. The water retained instream from this Trust Water Right will be available to other water rights in accordance with seniority and no impairment of any water right will occur. Additionally, the primary reach has been designated in part to avoid potential impairment to existing water rights.

No Enhancement of the Original Water Right Claim

No diversion of water over and above what has been historically put to beneficial use would be authorized through approval of this change. Total water between trust and that portion remaining with the water right claim holder will not exceed the greatest use within the last five (5) years of water use nor will the total exceed the historical extent of the water right claim.

Consideration of Protests and Comments

No protests or comments were received.

CONCLUSIONS

It is the conclusion of this examiner that, in accordance with Chapter 90.42 RCW, the applications for trust water through an irrigation efficiencies project under Surface Water Claim No. 129470 (CS4-129470CL@1) will not impair existing rights provided the terms and conditions below are followed.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that the request for change in purpose of use and place of use for transfer of water to the TWRP under Surface Water Claim No. 129470 approved, within the limitations listed below and subject to the Provisions Section of this report.

Portion of Water Right Claim Placed into Trust

For instream flow during the irrigation season May 1 through October 15 in the primary reach through April 10, 2028:

0.17 cfs, 46.53 acre-feet per year for instream flow in the Methow River.

The primary reach begins at the Barkley Irrigating Company ditch point of diversion site located approximately 320 feet north and 750 feet east from the southwest corner of Section 12, T. 34 N., R. 21 E.W.M., within the SE¼SW¼SW¼ of Section 12, T. 34 N., R. 21 E.W.M. at river mile 48.4 and ending approximately seven (7) miles downstream at river mile 41.4.

There is no secondary reach in this project for this water right.

Portion of Water Right Claim Not Placed into Trust

The portion of water available for the Barkley Irrigating Company shareholders is 84.83 cfs, 61,153.47 acre-feet per year for irrigation of approximately 900 acres May 1 through October 15.

This is the remaining quantity listed under Claim No. 129470 after subtracting out this Irrigation Efficiencies Project trust water savings from Application No. CS4-129470CL@1. When the period of trust ends, the water right/claim will revert back to the water right/claim holder or landowner in the full quantity accepted into the trust water program and for the original purposes.

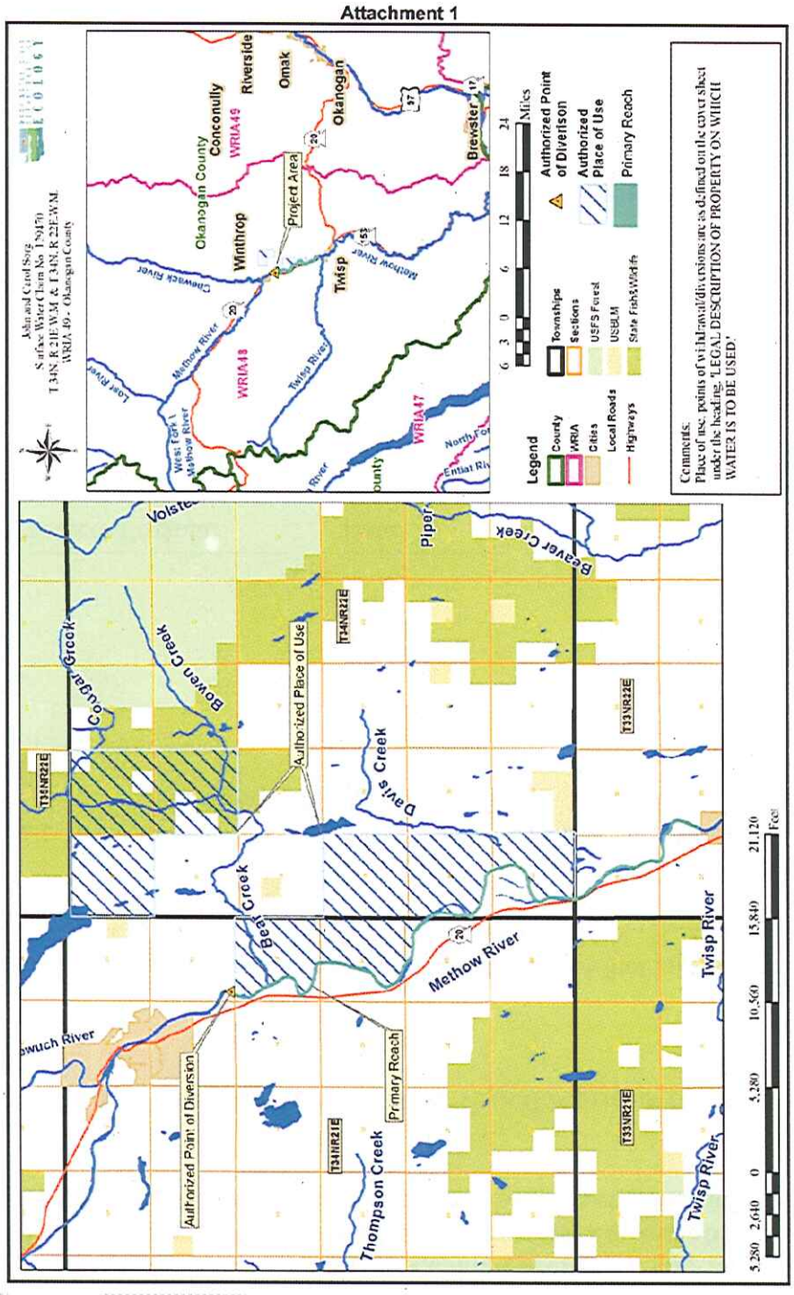
This does not reflect the cumulative trust quantities under the Charles Lehman project as described earlier in this report, nor does it reflect the actual remaining quantity of the water right claim. The quantity remaining on paper is large and would need to undergo a full extent and validity review for correct instantaneous and annual quantities.

For the total quantities in trust from both projects through April 10, 2028 when this project contract expires and after, see Tables 2 and 3 of this report.

Point of Diversion
Barkley Irrigating Company as described on the original water right claim: 823.4 feet in a southeasterly direction from the NW corner of Section 13, within the NW¼ of Section 13, T. 34 N., R. 21 E.W.M.

Place of Use
The place of use is described as parts of Sections 13, 24 and 25 in T. 34 N., R 21 E.W.M., parts of Sections 19, 30, and 31 in T. 34 N., R. 22 E.W.M., parts of Sections 5, 6, and 8 in T. 33 N., R. 22 E.W.M., all lying east of the Methow River in Okanogan County.

Report by: _____ _____
Laurie Dahmen, Water Resources Program Date

DRAFT

Attachment 1