DEPARTMENT OF ECOLOGY
State of Washington

State of Washington
REPORT OF EXAMINATION (ROE)
FOR WATER RIGHT CHANGE

WR File No. CG3-01260C
WR Doc ID 4884765

RECEIVED
JAN 13 2014
Department of Ecology
Eastern Regional Office

☐ Surface Water ☒ Ground Water

DATE APPLICATION RECEIVED	WATER RIGHT DOCUMENT NUMBER (i.e., claim, permit, certificate, etc.)	WATER RIGHT PRIORITY DATE
July 29, 2011	G3-01260C	January 29, 1973

NAME: Jared Omlin

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
PO Box 5235	George	WA	98824

Changes Proposed: ☐ Change purpose ☐ Add purpose ☐ Add irrigated acres ☐ Change point of diversion/withdrawal ☒ Add point of diversion/withdrawal ☒ Change place of use ☐ Other (Temporary, Trust, Interties, etc.)_____

BACKGROUND AND DECISION SUMMARY

Existing Right

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	1100	507.5	Irrigation of 145 acres from March 1 to October 31 annually

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Two Existing Wells	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE, EWM	WRIA	COUNTY.
150383000	NE	NW	8	18	23	41	Grant
	SW	NW	8	18	23	41	Grant

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED

NW ¼ of Sec 8, T 18 N., R 23 E.W.M.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE, EWM
150383000 (Omlin) 201570000 (Omlin) 31199300 (Miller)		NW	8	18	23

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	1100	507.5	Irrigation of 145 acres from March 1 to October 31 annually

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
Two Existing Wells in NW ¼ of Section 8, and Proposed Well in S ½ NE ¼ of Section 7	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE, EWM	WRIA	COUNTY.
150383000	NE	NW	8	18	23	41	Grant
150383000	SW	NW	8	18	23	41	Grant
150379001	SE	NE	7	18	23	41	Grant

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

NW ¼ of Section 8, and the S ½ NE ¼ and SE ¼ NW ¼ of Section 7, all in T 18 N., R 23 E.W.M.

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,

DESCRIPTION OF PROPOSED WORKS

The water right is served by two existing wells located in the NW ¼ of Section 8, T. 18 N., R. 23 E.W.M.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE:
N/A, Change Denied	N/A, Change Denied	N/A, Change Denied

REPORT

BACKGROUND

On July 29, 2011 Jared Omlin of George, WA filed an application for change to add place of use and a point of withdrawal under G3-01260C with the Grant County Water Conservancy Board (Board). The application was accepted at an open public meeting and the Board assigned application number GRAN-11-09. On April 30, 2012, the Board declined further processing of the application. On May 23, 2012, the applicant requested Ecology to process the application for change, and submitted the application fee to Ecology. On September 24, 2012, Mr. Omlin requested that his change application be processed via cost-reimbursement rather than by Ecology. On October 29, 2013, Ecology accepted Mr. Omlin's change application into cost-reimbursement processing. Dan Haller, P.E., with Aspect Consulting, LLC (Aspect) was selected to investigate the proposed change.

The following summarizes the attributes of the original certificate appurtenant to land now owned by Mr. Omlin. A copy of key original water right documents (ROE, Permit, and Certificate for G3-01260C) and change application CG3-01260C are provided in Appendix A. Figure 1 summarizes the existing water right attributes and proposed changes.

Attributes of Certificate G3-01260C

Name on Certificate: Charles Rasmusan

Water Right Document Number: G3-01260C

Previous Changes or Transfers: NA

Priority Date: January 29, 1973

Water Quantities: Qi: 1,100 gpm Qa: 507.5 acre ft./ year

Source: Two Wells

Points of Withdrawal: (1) 1650 ft east and 950 feet south from the NW corner of Section 8, being within the SW ¼ NE ¼ NW ¼ of Section 8, T. 18 N, R. 23 E.W.M. (2) 1300 feet east and 1550 feet south from the NW corner of Section 8, being within the NE ¼ SW ¼ NW ¼ of Section 8, T. 18 N., R. 23 E.W.M.

Purpose of Use: Irrigation of 145 acres

Period of Use: March 1 to October 31 annually

Place of Use: NW ¼ of Sec 8, T. 18 N., R. 23 E.W.M.

Existing provisions: See Appendix A

LEGAL REQUIREMENTS FOR PROPOSED CHANGE

The following is a list of requirements that must be met prior to authorizing the proposed change in Water Right Change Application No. CG3-01260C.

- **Public Notice and Application Notice**
  Notice of the proposed appropriation was published in the Columbia Basin Herald, on October 4th and October 11th, 2013. No protests were received during the 30-day comment period. A copy of the affidavit of publication is provided in Appendix B.

  During the Board review of this same application, notice was provided to the State of Washington Department of Archaeology and Historic Preservation, State of Washington Department of Fish and Wildlife (WDFW), and Eastern Washington Council of Governments. WDFW provided a comment letter to Ecology on September 12, 2011 (Appendix B) with the following comment:

  - *"It appears that there is no increase in irrigated acreage or quantity of water historically used. Provided that a complete determination of extent and validity have been done, WDFW does not object to this change application."*

- **State Environmental Policy Act (SEPA)**
  The subject application is categorically exempt under SEPA (RCW 43.21C.035) and WAC 197-11-800(4), because the instantaneous quantity is for irrigation purposes equal to or less than the 2,250 gpm. No other permit was identified for Mr. Omlin's project that would otherwise trigger SEPA that would preclude the use of the SEPA exemption for the water right.

- **Water Resources Statutes and Case Law**
  Change application CG3-01260C is governed by several water resource statutes, rules, policies, and case law. Key amongst these include:

  - RCW 90.44.100: Amendments of place of use and adding wells permitted to groundwater certificates provided Ecology makes "findings as prescribed in the case of an original application". These would include water availability, beneficial use, no impairment, and no detriment to the public interest. When adding wells, the transfer must be in the same body of public groundwater and cannot enlarge the right.
  - RCW 90.44.510: Ecology is required to issue a superseding water right certificate for groundwater rights in groundwater management subareas where water is delivered from the Columbia Basin project. The superseding certificate shall designate its use as a standby or reserve right to be used when project water is not available.
  - The Supreme Court, in *Schuh v. Department of Ecology (1983)*, decided a case where a state water right in the Columbia Basin Project was proposed to be transferred to a new place of use in addition to continued irrigation at the existing place of use with federal project water. The Court found that "*the Department of Ecology exercises its discretion in deciding whether to grant an amendment to a groundwater permit under RCW 90.44.100*", and that "*the permit was limited to water in excess of that provided by the federal project and that the transfer would result in the enlargement of the ground water right and would be detrimental to the public welfare*".
  - Policy 1120 "*Conducting Tentative Determinations of Water Rights*" (2004): This policy describes Ecology's practices when reviewing water right transfers.

- **Expedited Processing**
  This application qualifies for expedited processing. RCW 90.03.265(1)(c) provides that an applicant can pay for the cost of processing his/her applications without paying for senior applicants to also be processed, provided that the application for change does not diminish the water available to earlier pending applicants for changes or transfers from the same source of supply. Ecology agreed that Mr. Omlin qualified for expedited processing by letter on October 29, 2013.

INVESTIGATION

Aspect relied on the following information in investigating proposed change application CG3-01260C:

- Interviews and materials provided by the Board, applicant consultants (Don Phelps, Ed Kemp, Eugene St. Godard, and Mark Peterson), applicant Jared Omlin, Kenneth Miller consultant Harold Moberg, and Ecology staff.
- Review of Ecology and Board water right files, Bureau of Reclamation (Reclamation) and Quincy Columbia Basin Irrigation District (District) records, applicant records, aerial photographs from Grant County, Ecology, and GoogleEarth, and Grant County

databases.

- A site visit performed by Dan Haller (Aspect), Kevin Brown (Ecology), Mark Peterson (Applicant Attorney), and Jared Omlin (Applicant) on September 4, 2013.

The following sections summarize Aspect's investigation of the proposed change.

Property Ownership

Aspect investigated property ownership associated with the historic and proposed places of use. Figure 2 below is from Grant County's ArcGIS Explorer website and shows parcels in the vicinity of the place of use.

Figure 2: Grant County Assessor Parcel map

Table 1 summarizes Aspect's review of these parcels.

Table 1: Summary of Parcel Ownership and Signature Compliance

Parcel Number	Owner	Notes
150383000	Jared Omlin	Overlaps Existing Place of Use, 164.73 acres, signed application
201570000	Jared Omlin	Overlaps Existing Place of Use, 144.1 acres, signed application
311993000	Kenneth and Cecelia Miller	Overlaps Existing Place of Use, 2.5 acres, did not sign application
150384000	U.S.A.	No authorized water right, 147 acres, includes beneficial use from G3-01260C in northern portion of parcel based on center-pivot overlap, , did not sign application
150379000	Jared Omlin	Proposed Place of Use, 40 acres, signed application
150379001	Jared Omlin	Proposed Place of Use, 44.16 acres, signed application

At the time Application CG3-01260C was filed in 2011, the two proposed parcels were owned by Ken and Bianca Mattson, subject to a Purchase and Sale Agreement with Jared Omlin. The Mattson's signed the application for change. Grant County Assessor's Office reports that these parcels are now owned outright by Jared Omlin subject to closing in June 2013.

With respect to U.S.A.-owned parcel 150384000, Aspect reviewed Ecology's Water Resources Explorer to determine whether any other water rights could be associated with the overlap of the Omlin center-pivot. None were identified. Based on aerial photographs, the site visit, and interviews with the applicant, this unauthorized use appears to be continuous and long-standing,. However, this change application does not seek to add this parcel, so no signature on the application is necessary.

With respect to Miller-owned parcel 311993000, this lies within the authorized place of use, but Mr. Miller did not sign the application. On May 31, 2012 Ecology notified the applicant that this signature may be required on the application. On September 24, 2012, Omlin attorney Mark Peterson clarified that this parcel has not historically been irrigated with the subject water right, and is served by an exempt well. This issue was again raised at the site visit. Aerial photos from the last 10 years appear to support irrigation use on the parcel. Before 2003, the parcel was farmed in its entirety. No federal contract appears to cover the Miller parcel. Mr. Omlin asserts that he acquired G3-01260C in its entirety when he purchased the farm. Consistent with Ecology Guidance GUID 2040, on November 26, 2013, Aspect sent a certified letter with the public notice to Mr. Miller requesting verification whether any portion of G3-01260C is associated with his property (Appendix B). Mr. Miller's attorney, Harold Moberg replied by mail on December 3, 2013, asserting that Mr. Miller did own a portion of the water right in excess of the exemption. Mr. Haller spoke with Mr. Moberg by phone on December 10, 2013, wherein Mr. Moberg relayed that Mr. Miller was irrigating approximately 2.25 acres of pasture, lawn, and landscaping. Mr. Miller is using his own well, rather than the historic wells authorized by G3-01260C which are owned by Mr. Omlin.

Under RCW 90.03.380, a water right remains appurtenant to the land, but may be transferred to others and other places of use provided no impairment of existing water rights occurs. Appurtenancy remains with the land, unless explicitly reserved by deed. Aspect obtained copies of the deeds (Appendix B) to Omlin and Miller from the previous owner, Mr. Rasmusan (the original holder of G3-01260C), as well as a subsequent Omlin deed for the property associated with an inter-family transfer. No explicit reservation or transfer information is present in

the deeds. Therefore, a portion of the water right remains appurtenant to the land based on each party's actual beneficial use. A review of beneficial use occurs later in this ROE.

Aerial Photography Review

Aspect evaluated aerial photographs available on Ecology's Water Resources Explorer website, Grant County's ArcGIS Explorer Website, and GoogleEarth images from USDA Farm Services Agency and USGS. Aerial photos from 1996, 2000, 2003, 2005, 2006, 2009, 2011 and 2013 were reviewed. Use of water has been continuous in the authorized place of use, as evidenced by selected aerial photos shown in Figure 3, 4 and 5 below.

Although the authorized place of use is the NW ¼ of Section 8 and comprises approximately 160 acres, only 145 acres is authorized to be irrigated under G3-01260C. In 1996, with the exception of the canal right-of-way and few acres of land in the southwest corner of the authorized place of use, the entire quarter section was irrigated. Additionally, the center-pivot extends outside the authorized place of use to the south and east. This pattern continues through the aerial photographs reviewed, with the exception that in approximately 2003, the Miller home was constructed in the northwest corner of the authorized place of use and commercial irrigation ceased on that parcel. Irrigation occurring on the 2.5 acre Miller farm is difficult to see at the scale of the photos. However, zooming in on the aerial images available in Google Earth suggest continued irrigation of approximately 2.25 acres as asserted by Mr. Miller. Figure 4 below shows irrigation from 2006, while cultivation, irrigation or mowing patterns are evident in 2005, 2011, and 2013 as well.

Because this place of use also contains federal water service contract authorizations, aerial photography alone cannot be used to determine the extent and validity of Certificate G3-01260C. Aspect evaluates the federal contracts and metered water use in the following sections.

Figure 3: USGS Aerial Photo from 1996 (GoogleEarth)

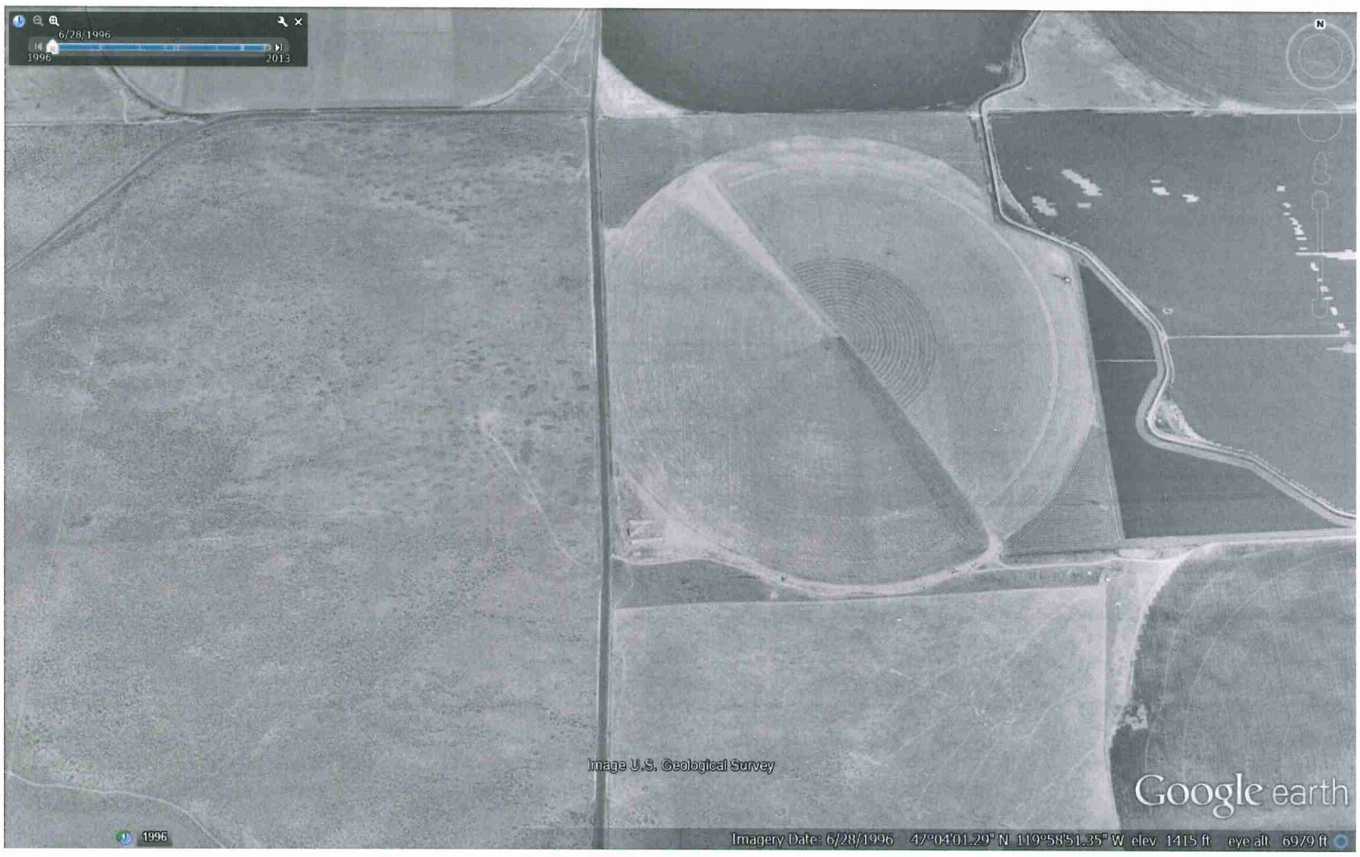


Figure 4: USGS Aerial Photo from 2006 (GoogleEarth)

Figure 5: USDA Aerial Photo from 2013 (GoogleEarth)

Overlapping Federal Water Service Contracts and Authority

As shown on Figure 6, Mr. Omlin's farm is located in the Grey Area of the Quincy Ground Water Subarea governed by WAC 173-124 and WAC 173-134A. The original 1980 ROE for G3-01260C provides a comprehensive background on how the Quincy Subarea was developed and how it relates to this water right (Appendix A). In summary, Mr. Omlin's predecessor, Charles Rasmusan originally obtained a Quincy Basin (QB) Permit in 1975 to use federally-owned artificially stored groundwater for his farming operations. In 1979, Ecology amended the Quincy rule because Reclamation's declaration for artificially-stored groundwater was slightly smaller than the original rule boundary adopted by Ecology. Mr. Rasmusan's farm fell in the "Grey Area" outside the federal declaration but inside the Quincy Subarea, so he was issued G3-01260C and his QB permit was cancelled.

As part of its evaluation of the proposed change, Aspect investigated the nature of federal water deliveries that supply Mr. Omlin's farm. Mr.

Omlin has had several water service contracts with the District that overlap the authorized place of use for G3-01260C, as summarized on attached Figure 7. Table 2 summarizes these contracts and a copy of Mr. Omlin's current interruptible water service contract is provided in Appendix C. No water service contract appears to cover Mr. Miller's property and Mr. Miller asserts his irrigation use is from his well.

Table 2: Summary of Omlin Federal Water Service Contracts

Contract Number	Term and Conditions	Notes
Farm Unit 58 Block 77 Water Shares	Firm supply (active), 111 acres	Overlaps NE corner of G3-01260C place of use
1992 Interruptible Contract 920512011	Interruptible supply (expired, replaced)	Overlaps eastern portion of G3-01260C place of use
2008 Interruptible Contract 1245781	Interruptible supply (active), 166.4 acres	Overlaps almost entire G3-01260C place of use

The District meters delivery of water to Mr. Omlin's farm. Table 3 below summarizes District water deliveries data, which was provided by Mr. Omlin's consultant, Ed Kemp.

Table 3: Surface Water Deliveries Under the Farm Unit and Interruptible Contract

Year	Farm Unit 59, Block 77 (111.0 irrigable acres)		Interruptible Contract 1245781 (166.4 gross acres)	
	Second-Feet Days	Duty (ac-ft/ac)	Second-Feet Days	Duty (ac-ft/ac)
2009	161.50	2.88	250.50	2.98
2010	65.32	1.14	251.68	2.99
2011	64.82	1.15	251.68	2.99
2012	169.57	3.02	251.68	2.99
2013*	Not available	Not available	137.00	1.63

*Delivery data for 2013 was only for a portion of the year.

Site Visit

Aspect performed a site visit on the Omlin Farm on September 4, 2013. In attendance were Dan Haller (Aspect), Kevin Brown (Ecology), Mark Peterson (Applicant Attorney), and Jared Omlin (Applicant). Aspect documented the following during its site visit:

- Jared Omlin purchased the farm in approximately 2006.
- Mr. Omlin has two wells under water right G3-01260C. However, only Well 2 is currently in operation. A pump is in Well 1, but the power supply for Well 1 was damaged a few years ago.
- Both Farm Unit and Interruptible Contract surface water are delivered to the farm. The surface supply is diverted from the canal to a small pond, which is visible in Figure 4 adjacent to the canal at the north end of Mr. Omlin's property. Mr. Omlin has 3 booster pumps that divert water from the pond, including a 75 HP pump (variable frequency drive), a 40 HP pump (fixed speed), and a 30 HP pump (fixed speed). The pumps can be run in series or in parallel depending on crop demand.
- Mr. Omlin runs 4 center-pivot circles (see Figure 5).
    - The largest circle occupies the bulk of the NW ¼ of Section 8, and receives both state water under G3-01260C and Interruptible canal water.
    - The smallest half-circle, located south of the canal, is mostly outside of the authorized place of use but receives state water under G3-01260C, as well as Farm Unit and Interruptible contract water.
    - The other two half circles located north of the canal and in the NE ¼ of Section 8 receive both Farm Unit and Interruptible canal water, but no well water under G3-01260C.
- Mr. Omlin does not run the wells at the same time as booster pumps are supplying surface water to the large center-pivot circle.
- Mr. Omlin makes decisions on whether to use the canal water or well water on a day-to-day basis, in part depending on surface water availability.
- Mr. Omlin often uses interruptible contract water first when available, and then switches to other firm water supply sources (wells, farm unit water) when the interruptible contract is curtailed.
- At the time of the site visit, no irrigation was occurring as harvest was commencing. Crops are rotated from year-to-year. Mr. Omlin clarified that the current crop mix was:
    - Alfalfa: Large center-pivot in NW ¼ of Section 8 and smallest center-pivot in the NE ¼ of Section 8 (green circles in Figure 5).
    - Kidney Beans: Half-circle in the NE ¼ of Section 8 adjacent to access road in Figure 5.
    - Timothy Hay: Half-circle in the south half of the NE ¼ of Section 8.
- Mr. Omlin uses an irrigation water management service to evaluate soil moisture every 3 or 4 days to help match supply with crop demand.
- Generally, Mr. Omlin irrigated from March to mid-October.
- Well 2 is equipped with a Seametrics flow meter and typically flows between 750 gpm and 1,000 gpm depending on crop demand. Meter records were not available.
- No well tag was observed for Well 1, Well 2, or the proposed well to be added at the new place of use.
- GPS readings of the two existing authorized wells and the existing proposed well were taken.
    - Main Well, Existing Well No. 2, Latitude 47.0684, Longitude -119.9777.
    - Existing Well No. 1, Latitude 47.0700, Longitude -119.9763
    - Existing Well (proposed to be added in new place of use), Latitude 47.0671, Longitude -119.9853

Power Records

Applicant engineer Don Phelps, PE, prepared power calculations in support of this application when it was in Board jurisdiction. Aspect

interviewed Mr. Phelps and reviewed the assumptions and data Mr. Phelps utilized. Mr. Phelps obtained power records from Grant County PUD for the 2010 and 2011 irrigation seasons for the power meter supplying Well 2, the primary well supplying the irrigation circle within the authorized place of use for G3-01260C. In 2010 a total of 128,400 kWh was used and in 2011 161,520 kWh's was used.

WAC 173-173-160 provides guidance on conversion of power data to water usage, according to the following formula.

$$V = \frac{318{,}600(kWh)(Peff)(Meff)}{TDH}$$

Where: V = volume of water pumped in gallons;

318,600 = conversion factor;

kWh = number of kilowatt-hours for the time period in question; e.g., irrigation season, year or minutes;

Peff = pump efficiency as a decimal;

Meff = motor efficiency as a decimal; and

TDH = total dynamic head of the system in feet.

Based on information provided by Lad Irrigation of George, installers of a new Well 2 pump and motor in 2007 for Mr. Omlin, the TDH was estimated to be 300 feet, and the efficiency of the pump and motor was estimated to be 90% since they are both relatively new. Based on these assumptions, the volume of water pumped in 2010 was estimated to be approximately 340 acre feet and in 2011 it was 430 acre-feet.

Aspect considered the accuracy of power to water conversions in estimating water use. Power to water conversions are directly dependent on the pump efficiency, motor efficiency, and TDH assumptions, and these assumptions can be hard to document other than through best professional judgment. Mr. Phelp's use of these numbers seem reasonable. However, without corroborating data, these estimates can over or under-estimate actual water use by 20% or more. However, since Ecology's Policy on Tentative Determinations (POL 1120) encourage the use of multiple data sources, they are useful to include here along with other methods of estimating water use.

Water Duty Estimates

Ecology often uses aerial photography coupled with water duty estimates to estimate total water use. The original water right was authorized for irrigation of 507.5 acre-feet on 145 acres, which is equivalent to 3.5 acre-feet per acre which is the typical water duty in the Project. By contrast, the Farm Unit and Interruptible Contract are limited to 3 acre-feet per acre.

The Washington Irrigation Guide (WIG) provides estimates of crop irrigation requirements. Based on the Quincy monitoring station, the WIG provides the following crop irrigation requirements:

- Alfalfa = 38.46 inches
- Clover (surrogate for Timothy Hay) = 42.77 inches
- Dry Beans (surrogate for Kidney Beans) = 24.03 inches
- Double-Crop Dry Beans (surrogate for Kidney Beans, reported crop use in 2011) = 48.06 inches

Ecology's Guidance GUID-1210 provides application efficiency estimates for different irrigation methods. For center-pivot spray-head application, GUID-1210 identifies that most systems have efficiencies in the range of 75% to 95%. Based on the WIG:

Total Use = Crop Irrigation Requirement / Application Efficiency.

Therefore, reasonable crop duties based on the WIG and GUID-1210 could be in the following ranges:

- Alfalfa = 3.4 to 4.3 acre-feet / acre
- Clover (surrogate for Timothy Hay) = 3.8 to 4.8 acre-feet / acre
- Dry Beans (surrogate for Kidney Beans) = 2.1 to 2.7 acre-feet / acre
- Double-Crop Dry Beans (surrogate for Kidney Beans, reported crop use in 2011) = 4.2 to 5.3 acre-feet / acre

Based on the 2013 aerial photo in Figure 5, well water under G3-01260C is applied to the large full-circle center-pivot and the smallest half-pivot. Table 4 summarizes these acreages, and what portion is within the authorized place of use.

Table 4: Summary of Irrigated Acres

	Large Full-Circle Center-Pivot		Small Half-Pivot	
	Inside Authorized Place of Use	**Outside Authorized Place of Use**	**Inside Authorized Place of Use**	**Outside Authorized Place of Use**
Farmed Area	143.9 acres	18.6 acres	1.1 acres	10.5 acres

Based on Table 4, the well water is used on a maximum of 174.1 acres, of which 162.5 acres is within the current authorized place of use.

Because several water sources are used to serve these acres, and because those decisions occur by Mr. Omlin on a day-to-day basis, it can be challenging to say definitively how much water was used and where. Estimates of both well use and interruptible contract deliveries are available for 2010 and 2011, so these years were used to estimate total applied water.

In 2010, Table 3 suggests that 2.99 acre-feet per acre of Interruptible Water was supplied on 166.4 acres, or about 497 acre-feet. In practice, this may have been applied to the slightly greater acreage of 174.1 acres in Table 4 since those two pivots are run with common infrastructure. The power analysis suggests that about 340 acre-feet was pumped from the well that year for use on the 174.1 acres in Table 4. Collectively, this would be 837 acre-feet. On the 174.1 acres of the two combined pivots, this is an average water duty of 4.8 acre-feet/acre.

Using this same approach for 2011, there was 497 acre-feet of Interruptible Water and 430 acre-feet of well water, or 927 acre-feet / acre. On the 174.1 acres of the two combined pivots, this is an average water duty of 5.3 acre-feet/acre.

Applied water duties from the project surface water and the well are in the range of 4.8 to 5.3 acre-feet / acre, which are within the range of reasonable water duties supported by the WIG. However, these duties are higher than specified in the federal water service contracts (water duty for the Columbia Basin Project is 3.0 acre-feet per acre) and for G3-01260C (3.5 acre-feet per acre). While it is difficult to determine affirmatively, it appears that some spreading is occurring under the existing water right, which is described more fully in the next section.

In addition to the above analysis for Mr. Omlin's property, Aspect considered the 2.25 acres irrigated under this water right by Mr. Miller for a windbreak of trees, lawn, and pasture. Using a surrogate water duty of alfalfa and the average sprinkler irrigation efficiencies, the original duty of 3.5 acre-feet/acre (or 7.9 total acre-feet) and 7.6 gpm/acre (or 17 gpm total) are reasonable.

Annual Consumptive Quantity (ACQ)

Under RCW 90.03.380, "*A change in the place of use, point of diversion, and/or purpose of use of a water right to enable irrigation of additional acreage or the addition of new uses may be permitted if such change results in no increase in the annual consumptive quantity of water used under the water right.*"

Mr. Omlin does not propose spreading under the subject change application. Rather, Mr. Omlin proposes to limit his acreage within the existing and proposed places of use to the 145 acres authorized.

Ecology expressed concern regarding spreading and enhancement of the right during the site visit. Investigation of historic aerial photos, and Mr. Omlin's use of water collectively among state and federal authorizations through common infrastructure make spreading possible, if not likely under the current farming operation. For example, Mr. Omlin's use of Well 2 to supply the existing irrigation (approximately 174.1 acres) appears to be beyond his current acreage limitation. Adding an expanded place of use to the authorization could increase the potential for spreading unless proper controls were put in place. Ecology and Mr. Omlin discussed options such as pivot stops, fallowing land, additional service meters, and ways that both the acreage and acre-foot limits could be complied with if the change were approved. Additionally, since Mr. Omlin asserts the entirety of G3-01260C despite the fact that irrigation historically occurred on the Miller parcel and continues to this day, spreading is more likely.

Following the site visit, Ecology and Mr. Omlin discussed the following provision that could be used in the event of approval of the change authorization to prevent spreading:

"*The applicant does not propose spreading or adding acres under the proposed change to Certificate G3-01260C. Approximately 84 acres of land currently irrigated in the S½ of the NW¼ of Section 8 will no longer be irrigated under Certificate G3-01260C following this change. This 84 acres will be excluded from the authorized place of use for Certificate G3-01260C as part of this change.*"

Because new acres are not being added, but are being substituted one-for-one under the change, no ACQ is calculated herein.

Instantaneous Quantity

G3-01260C is authorized for 1,100 gpm from 2 wells. Mr. Omlin reports Well 2 provides between 750 gpm and 1,000 gpm depending on demand. Well 1 is currently offline with a damaged power supply. Neither well was in operation during the site visit. Mr. Omlin reports that Well 1 is not needed currently based on the current mix of federal supplies and supply from Well 2; however, Well 1 could be returned to service in a week if needed.

In the original 1980 ROE (Appendix A) it was reported that Well 1 was equipped with a 100 HP motor and Well 2 with a 75 HP motor. Power data notes from Mr. Phelps and the Aspect field visit confirmed a 75 HP motor for Well 2.

Under low head situations, Well 2 may alone be able to provide the authorized 1,100 gpm. For example, application rates on the order of 5 to 7 gpm/acre are common for pressurized systems. Mr. Omlin operates center-pivots approximately 174.1 acres in size with Well 2. At these application rates, Well 2 would produce 870 to 1,218 gpm. Well 1 remains in reserve to supply additional capacity, likely in excess of Well 2 given the reported motor horsepower.

Mr. Miller's well capacity is not known, nor is it authorized. If Mr. Miller applies for a change to authorize his well, he will be confined to the extent of his portion of the right appurtenant to his property.

Total Use

Water Right G3-01260C authorizes 507.5 acre-feet. Based on power data from the well, it appears that Mr. Omlin used less than this quantity in 2010 and 2011. Based on the site visit interview and the federal contract delivery records, Mr. Omlin appears to rely on interruptible water service when available with supplemental water from the wells when the federal contract is curtailed. This routine practice appears to represent Mr. Omlin's irrigation practice from 2006 to present (about 7 years). Therefore, it appears that total use under G3-01260C by Mr. Omlin is routinely less than that authorized, while total use including the federal contracts approaches a water duty more typical of that supported by a "WIG-based" analysis, which exceeds the typical water requirement of the Columbia Basin

Project of 3.5 acre-feet per acre. Mr. Miller's irrigation appears to be stable at approximately 2.25 acres irrigated. Because it appears there are five or more consecutive years where partial nonuse has occurred, a relinquishment exemption is required to prevent partial forfeiture of G3-01260C.

Abandonment and Relinquishment

Abandonment of a water right occurs if there is intent by a water right holder to abandon a water right. It can be inferred if there is a long-standing period of non-use, and if infrastructure is removed. Mr. Omlin's farming practices do not appear to suggest abandonment criteria have been met.

Under RCW 90.14.180, a water right relinquishes to the State if there are five or more consecutive years of nonuse (whole or partial) without sufficient cause. In Mr. Omlin's case, Mr. Omlin appears to use his wells as a standby or reserve source to supplement federal water service contract water that is not available during low flow periods. This appears to meet the relinquishment exemption provided in RCW 90.14.140(2)(b): "*If such right is used for a standby or reserve water supply to be used in time of drought or other low flow period so long as withdrawal or diversion facilities are maintained in good operating condition for the use of such reserve or standby water supply.*"

Statutory Framework For State and Federal Water Right Transfers (RCW 90.44.510)

In 2011, the Legislature promulgated RCW 90.44.510, which clarifies the relationship between federal and state rights within groundwater management areas:

"*The department shall issue a superseding water right permit or certificate for a groundwater right where the source of water is an aquifer for which the department adopts rules establishing a groundwater management subarea and water from the federal Columbia Basin project is delivered for use by a person who holds such a groundwater right. The superseding water right permit or certificate shall designate that portion of the groundwater right that is replaced by water from the federal Columbia Basin project as a standby or reserve right that may be used when water delivered by the federal project is curtailed or otherwise not available. The period of curtailment or unavailability shall be deemed a low flow period under RCW 90.14.140(2)(b). The total number of acres irrigated by the person under the groundwater right and through the use of water delivered from the federal project must not exceed the quantity of water authorized by the federal bureau of reclamation and number of acres irrigated under the person's water right permit or certificate for the use of water from the aquifer.*"

Certificate G3-01260C meets the criteria described in RCW 90.44.510. G3-01260C is a groundwater right, it is located within a groundwater management area, and water is delivered to Mr. Omlin's farm from the federal Columbia Basin project. Under this statute, the portion of G3-01260C supplied by federal contracts that would otherwise have been withdrawn shall be designated as standby/reserve. While this helps confirm the relinquishment exemption that excuses partial nonuse under G3-01260C, it does create a connection between the two water rights that can be challenging to sever.

Ecology's Policy 1040 "*Use of Terms That Clarify Relationships Between Water Rights*" describes general Ecology practices when facing water rights affected by a primary-to-standby/reserve relationship.

"*Primary/additive water rights, and non-additive water rights that are issued as standby/reserve or alternate (historically "supplemental"), are fundamentally linked based on the water right holder's ability to use the combined rights to meet the project's needs. In general, water rights with non-additive quantities cannot be changed to rights with additive quantities. However, over time, events may occur that change the physical relationship of the rights. In some cases, these events can be recognized through changes to the water rights, so long as the withdrawals under the combined rights are not exceeded.*"

During the conservancy board review, Mr. Phelps provided a June 20, 2012 Water Right Memo (Appendix D) that sought to distinguish why G3-01260C can be transferred without impermissibly violating this provision. The central argument of the memo is that because Mr. Omlin's federal contract is interruptible and can be terminated, it is distinguishable from other permanent primary-to-standby/reserve relationships. RCW 90.44.510 does not appear to make an explicit exception in the case of interruptible water service contracts. Rather it instructs Ecology to designate G3-01260C as standby-reserve if it meets the statutory criteria. Given the high standard in Ecology's policy for severing these types of rights and the explicit statutory language, Ecology's interpretation is that G3-01260C is a standby-reserve water right.

Enlargement

RCW 90.44.100(2) outlines criteria for transfer of groundwater rights, which includes a requirement that "*where an additional well or wells is constructed, the original well or wells may continue to be used, but the combined total withdrawal from the original and additional well or wells shall not enlarge the right conveyed by the original permit or certificate*". Mr. Omlin's proposed change triggers the no-enlargement provision under RCW 90.44.100(2) and requires an understanding of the nature of the original authorization for G3-01260C.

Mr. Omlin proposes to meet this provision through valving and metering to ensure that the total instantaneous withdrawal from all 3 wells is limited to 1,100 gpm and the total volume withdrawn to 507.5 acre-feet. This provision is typically adequate unless overlapping primary-to-standby/reserve water right relationships create additional enlargement issues, which is the case for this transfer.

The Supreme Court, in *Schuh v. Department of Ecology (1983)*, decided a case where a state water right in the Columbia Basin Project was proposed to be transferred to a new place of use in addition to continued irrigation at the existing place of use with federal project water. The Court found that "*the Department of Ecology exercises its discretion in deciding whether to grant an amendment to a groundwater permit under RCW 90.44.100*", and that "*the permit was limited to water in excess of that provided by the federal project and that the transfer would result in the enlargement of the ground water right and would be detrimental to the public welfare*"

In the Water Right Memo prepared by Mr. Phelps, Mr. Omlin seeks to distinguish his situation from that of *Schuh*. The main argument is that while the Pederson water right in the *Schuh* case was specifically provisioned as conditioned to federal water service contracts, G3-01260C is not similarly provisioned.

"*A condition on this water right was that if any water from the Columbia Basin Project was used on Mr. Pederson's farm (because his farm was located within the Columbia Basin Project service area), he would be required to subtract the federal project water that was applied to his land from his 640 afy right, so that he was not 'doubling-up' his water use*".

Further, Mr. Phelps reiterates that this argument is misplaced in light of the temporary nature of Interruptible Water Service Contract 1245781.

While an explicit provision similar to that in *Schuh* would clarify the relationship of G3-01260C to federal rights, it is not the only factor to consider. Ecology files contain hundreds of state water rights within the Columbia Basin Project, some of which are explicitly provisioned to federal water rights and some not, depending on the era issued and the policies Ecology used at the time to provide clarity on water right documents. Ecology also looks at the conditions placed on other water rights that overlap G3-01260C and the statutory framework for the Columbia Basin Project and the Quincy Rule.

The primary certificate that supplies the Columbia Basin Project (including deliveries to Mr. Omlin's property under this water service contracts) is S3-28586C issued to Reclamation with a priority date of May 16, 1938. A copy of the ROE for S3-28586C is provided in Appendix E. Page 2 of this ROE contains the following language:

"*The water to be appropriated under this permit may in some instances be used upon land that enjoy existing public water rights and can be served by the Columbia Basin Project distribution system and associated facilities. The use of the waters under this authorization is considered to be supplemental to such existing rights. Therefore, the waters made available under this authorization to any landowner(s) should not be increased as a result of a subsequent transfer of the existing water rights to other lands or change in the nature or purpose of use of such rights. Supplemental, as used herein, means that waters withdrawn under this authorization should be used in place of or instead of the existing public water rights, but should not be used in addition to the existing public water rights except in those cases where the annual volume allowed under the existing public water rights is less than the annual volume allowed under this authorization. In those cases where this anomaly occurs, the only additional waters from this authorization that should be used is the annual difference between the existing public water rights and this authorization.*"

This provision directly addresses the overlapping nature of G3-01260C and S3-28586C. Mr. Omlin seeks to transfer water sufficient to irrigate approximately 70 acres of new ground. No existing water rights cover the proposed 70 acres. There is a difference of 0.5 acre-feet/acre between the duty authorized by G3-01260C and the federal water service contract. However, Ecology understands Mr. Omlin's proposal is to transfer the full 3.5 acre-feet/acre to the new 84 acres (with a commensurate fallowing of 84 acres in the old place of use), (see Change Application CG3-01260C in Appendix A, transfer of 294 acre-feet on 84 new acres). This is impermissible given the relationship between the two water rights.

The Legislature recently addressed this issue when it promulgated RCW 90.44.510 described previously. This legislation was passed to provide clarity on the scope of investments the State was making to improve water supply in the Columbia Basin Project. There was concern that the water budget was unclear and that farmers with both State and federal rights would seek to "double-up" their supplies if additional Columbia River water was brought to the Project to offset declining groundwater. RCW 90.44.510 sought to explicitly clarify that for all basin water rights, there was no enlargement permitted.

Mr. Omlin is currently using water in excess of the permitted water duty. Collectively, G3-01260C and the federal water rights should not exceed 3.5 acre-feet/acre based on the language in ROE S3-28586C.

Beneficial Use

Consistent with RCW 90.44.100's requirement to make "*findings as prescribed in the case of an original application*", Aspect evaluated the proposed beneficial use of water. Based on RCW 90.54.020(1), Mr. Omlin's irrigation purpose is beneficial: "*Uses of water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial.*"

Water Availability

Consistent with RCW 90.44.100's requirement to make "*findings as prescribed in the case of an original application*", Aspect evaluated availability of water. Regionally, the USGS has reported on groundwater declines in the Columbia Plateau Regional Aquifer System in its 2012 report, "*Groundwater Status and Trends for the Columbia Plateau Regional Aquifer System, Washington, Oregon, and Idaho*". Mr. Omlin's farm lies within the Quincy Ground Water Subarea, the water availability of which is governed by WAC 173-124 and 173-134A.

Mr. Omlin has reported no limitation in his local available water supply. Ecology is not actively regulating this groundwater body by priority based on water shortages. As to the local aquifer system from which his wells withdraw, Mr. Omlin's proposed change does not affect water availability. As to the regional system, which includes supply from the Columbia River, Mr. Omlin's proposal would decrease water availability by irrigating more ground consumptively than would be possible if his State water right G3-01260C is considered non-additive (standby/reserve) to federal water service contracts backed by Certificate S3-28586C.

Public Welfare

Consistent with RCW 90.44.100's requirement to make "*findings as prescribed in the case of an original application*", Aspect evaluated whether Mr. Omlin's proposed transfer would be "*detrimental to the public welfare*" (RCW 90.03.290(3)). The applicant argues that the proposed change simply reallocates water from one side of the Silica Road to the other and will not result in any reduction of return flows, increased withdrawal from the groundwater, or change the flow path for any return flows. Further, increasing farmed acres provides for increased jobs, taxes, and other values that are in the public interest. Therefore, the change would not be detrimental to the public welfare.

This argument does not consider the statutory framework for the adoption of RCW 90.44.510. The State is investing millions of dollars in creating a firm supply for farms in the Columbia Basin Project. This statute was passed to ensure the farm water budget was fixed and that the goal of improving water reliability for farmers in the Project was not undermined by increased acreage by divorcing state and federal water rights from one another.

Based on Ecology's Office of Columbia River website, examples of recent investments include:

- Odessa Subarea Special Study ($250,000 appropriated), studies conversion of farm land from declining groundwater to surface canals.
- Odessa Improvement Project ($846.1 million to 3.31 billion, not yet appropriated), implements the preferred alternative from the study.

- Potholes Supplemental Feed Route ($15.1 million, appropriated), improves supply irrigation districts in the Project.
- Lake Roosevelt Incremental Storage Releases ($10.6 million, appropriated), provides $30,000 acre-feet to the Odessa Subarea.
- Weber Siphon Project ($800,000 appropriated), reduces interruptible water service contracts and provides increased canal capacity in the Project.
- Columbia Basin Irrigation District Piping Projects ($6 million, appropriated), improves reliability of District interruptible contracts.

Some of these projects directly benefit Mr. Omlin's farm, such as the Columbia Basin Irrigation District Piping Projects, which improve the reliability of Interruptible Contract 1245781. Improving Project water supply and reliability of farming operations is in the public interest.

Same Body of Public Groundwater

RCW 90.44.100(2) allows amendments to add additional wells to groundwater right provided "*additional or replacement well or wells shall tap the same body of public groundwater as the original well or wells*". The purpose of this statutory provision is to ensure the integrity of the prior appropriation system by grouping water right holders into regulating bodies, and not allowing senior water right holders to impact new junior users in other water bodies by moving from one groundwater body to another. This test is influenced by both technical and administrative considerations, because groundwater bodies are often not perfectly isolated from one another and Ecology has discretion on whether to manage or co-manage groundwater bodies as separate or single units. For example, in the locale of Mr. Omlin's farm, Ecology co-manages the Wanapum and Grande Ronde aquifers as a single body of public groundwater.

Applicant consultant Eugene N.J. St. Godard (WNR Group), a licensed hydrogeologist provided a technical evaluation of same body of groundwater for Mr. Omlin's change application on August 25, 2011 (Appendix F) when the application was pending before the Board. Following acceptance by Ecology of the change application for cost-reimbursement processing, Aspect hydrogeologist Tyson Carlson authored a second technical memorandum (Appendix F) reviewing work done by WNR Group and providing independent findings.

One of the key challenges noted include the absence of well log information for Well 2, as noted in the original ROE for G3-01260C. Ecology originally permitted Well 2, perhaps based on anecdotal evidence at the time, as in the same body of groundwater as Well 1. Aspect did not disturb this assumption, but recommended that the well be sounded or videotaped when its well construction issues are resolved.

Based on the technical and water right file reviewed and summarized in Appendix F, Mr. Omlin's existing two wells, and the proposed Well 3 to be added, appear to be located in the Wanapum Basalt Formation. No geologic structures (faults or folds) are mapped in the vicinity between the wells which would create barriers to groundwater flow. In addition, although there is some doubt as to the depth of Well 2, because Ecology co-manages the Wanapum and Grande Ronde aquifers as one body of public groundwater, and because these formations are collectively several thousand feet thick in this area, it is likely that these wells are in the same body of public groundwater.

Impairment

RCW 90.44.100 requires that new or additional wells not "*interfere with or impair water rights with an earlier date of priority than the water right or rights for the original well or wells*". Both the WNR Group and Aspect evaluated this issue in Appendix F using a Theis drawdown interference analysis. The closest well in the same body of groundwater was identified approximately 700 feet to the northwest. Based on the proposed quantities of 635 gpm being relocated to proposed Well 3, located approximately 1900 feet to the southwest, the interference drawdown at the control well is less than 7.5 feet, a small percentage of the available drawdown in the well. It does not appear that the addition of new Well 3 will impair existing water rights.

Overlapping Water Rights

Overlapping water rights may affect the nature of a water right proposed for change. Overlapping water rights were investigated using Ecology's Water Resources Explorer website. Several federal water rights overlap Mr. Omlin's farm (e.g. S3-28586C), which have been discussed previously. There are no other non-federal certificated water rights associated with the current or proposed place of use.

There are two claims that were filed by Charles Rasmusan that overlap Certificate G3-01260C.

The first claim, G3-021614CL, was filed by Rasmusan on January 17. 1972 and claimed 400 gpm, 4 acre feet of water annually, for the irrigation of 2 acres of land in the SE ¼ of the NE ¼ of Section 8 and for livestock corrals, lawn and house. The legal description given for the point of withdrawal was 300 feet west and 200 feet north from the SE corner of the SE ¼ of the NE ¼ of Section 8 being within the NW ¼ of Section 8. The place of use was described as the SE ¼ of the NE ¼ of Section 8. The Claim asserted use starting in May of 1965 which was past the date of adoption of the groundwater code (1945) that is a prerequisite for a valid claim. The only overlap with G3-01260C is the asserted location of the well. However, the property designated as the place of use for this claim lies east of the District canal and is irrigated with water from the canal at the present time.

The second claim, G3-151793CL, was filed by Rasmusan, on June 28, 1974 and claimed 700 gpm and 400 acre feet per year for the irrigation of 100 acres in the NW ¼ of Section 8. The point of withdrawal was given as 500 feet east and 500 feet north of the SE corner of the NE ¼ of the NW ¼ of Section 8. The lands to be irrigated were within the NW ¼ of Section 8 and the date of first use was given as March 1974, again past the date of adoption of the groundwater code (1945) that is a prerequisite for a valid claim.

CONCLUSIONS

In accordance with RCW 90.44.100 and other applicable laws, the author makes the following Conclusions:

Tentative Determination of the Extent and Validity of the Water Right

The water right exists in the amount of 1,100 gpm, 507.5 acre-feet for the irrigation of 145 acres, as shown on the face sheet of this ROE. Of the 145 acre water right, 142.75 acres (1,083 gpm and 499.7 acre-feet) is appurtenant to land owned by the applicant, Jared Omlin. Of the 145 acre water right, 2.25 acres (17 gpm and 7.8 acre-feet) is appurtenant to land owned Mr. Miller. Mr. Omlin is irrigating a portion of the N ½ of the SW ¼ of Section 8 and a portion of the NE ¼ of Section 8, T. 18 N., R. 23 E.W.M., which lies outside of the authorized place of use for G3-01260C. Mr. Omlin is irrigating in excess of the authorized 145 acres.

Abandonment and Relinquishment

There has been no abandonment or relinquishment of G3-01260C. Partial nonuse for 5 or more years is excused under relinquishment exemption RCW 90.14.140(2)(b).

Beneficial Use and Water Availability

The proposed purpose of use of irrigation is a beneficial use of water and water is available for the transfer within the limitations of the existing water right.

Same Body of Groundwater and Impairment

The existing and proposed wells are in the same body of public groundwater and the transfer will not impair existing water rights. Mr. Miller is irrigating from an unauthorized well.

Public Interest

The transfer will be detrimental to the public interest. It undermines investments being made in the Columbia Basin Project to create a more reliable water supply for farmer relying on declining groundwater and interruptible water service contracts, and creates an increase in consumptive use (new acres) within the Project.

Enlargement

The change impermissibly enlarges water right G3-01260C by severing the overlapping nature of federal water rights in conflict with the *Schuh* decision and RCW 90.44.510..

Compliance with RCW 90.44.510

The change is contrary to the statutory requirement in RCW 90.44.510 that groundwater rights located within groundwater management areas receiving Columbia Basin Project water be for standby/reserve and not primary/additive status.

RECOMMENDATIONS

Based on my investigation of the subject change, the statutory framework for groundwater transfers in the Columbia Basin Project and applicable case law, I recommend that application CG3-01260C be denied. Upon issuance of a superseding certificate consistent with the requirements of RCW 90.44.510, corrective provisions should be used to address the existing overly-broad place of use (as to parcel 311993000), unauthorized irrigation on parcel 150384000, unauthorized well withdrawals (Miller), and well construction deficiencies.

Report by Dan Haller, P.E., Aspect Consulting, LLC *Date*

Reviewed by Kevin Brown, Water Resources, ERO *Date*

If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

REFERENCES

Ecology Water Resources Explorer, http://www.ecy.wa.gov/programs/wr/info/webmap.html.

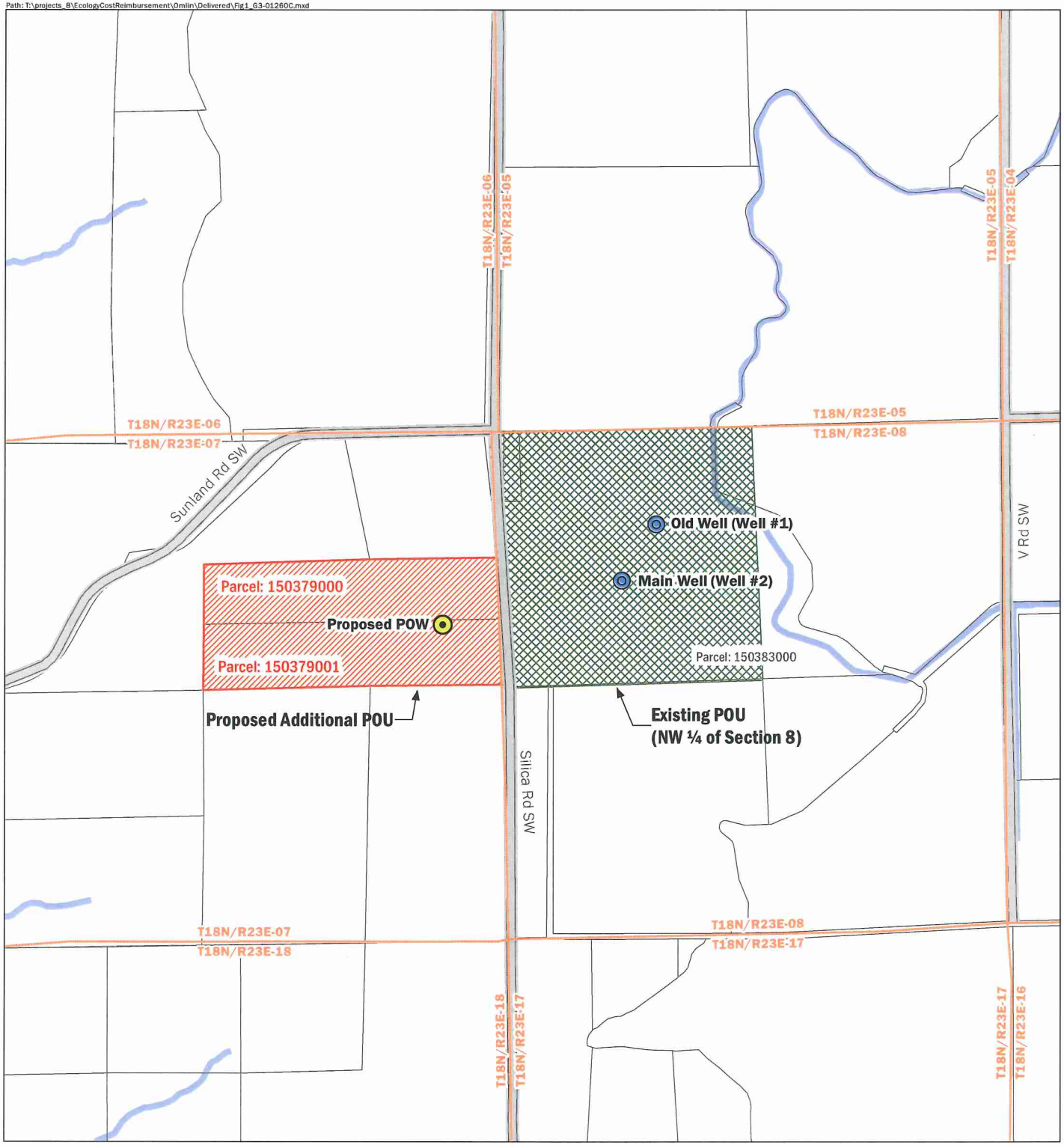
Grant County ArcGIS Explorer, http://grantwa.mapsifter.com/default.aspx.

Grant County TaxSifter, http://grantwa.taxsifter.com/.

GoogleEarth, http://www.google.com/earth/.

Burns, E.R, Snyder, D.T, Haynes, J.V., and Waibel, M.S., 2012, Groundwater status and trends for the Columbia Plateau Regional Aquifer System, Washington, Oregon, and Idaho: U.S. Geological Survey Scientific Investigations Report 2012–5261, 52 p., http://pubs.er.usgs.gov/publication/sir20125261.

Path: T:\projects_8\EcologyCostReimbursement\Omlin\Delivered\Fig1_G3-01260C.mxd



Comments: *Place of use and point of withdrawal are defined on the cover sheet under the heading "LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED."*

Legend

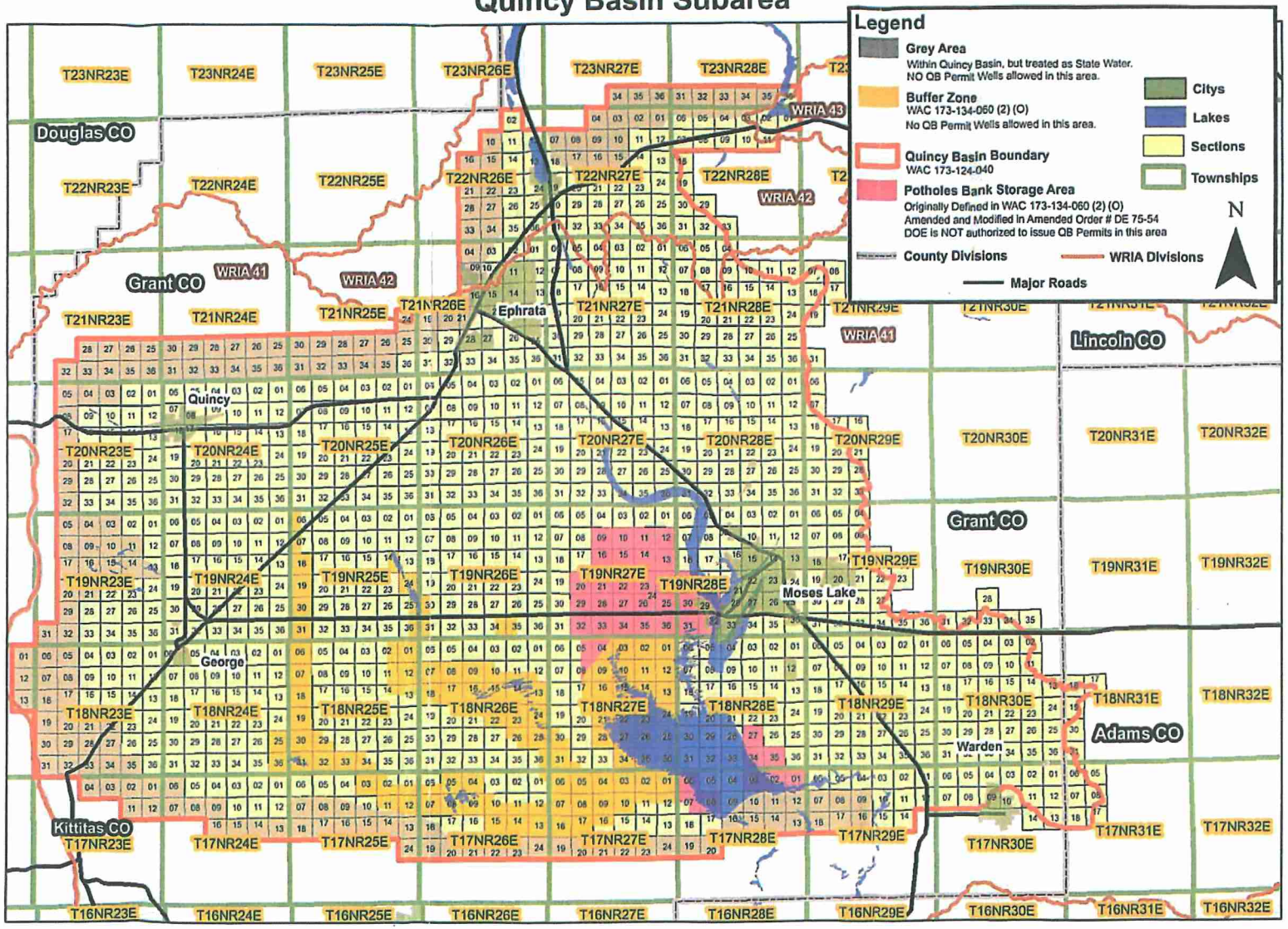
- Existing Place of Use (POU)
- Proposed Additional Place of Use (POU)
- Existing Point of Withdrawal (POW)
- Proposed Additional Point of Withdrawal (POW)
- Grant Co. Tax Parcels
- Section
- Road
- Watercourse

No. G3-01260C

(Jared Omlin)
T18N R23E, Sec 7 and Sec 8
WRIA 41, Grant County, Washington

Aspect CONSULTING	September, 2013		FIGURE NO. 1
	ASPECT PROJECT NO. 090180	FIGURE BY: BZ / PPW	

Quincy Basin Subarea



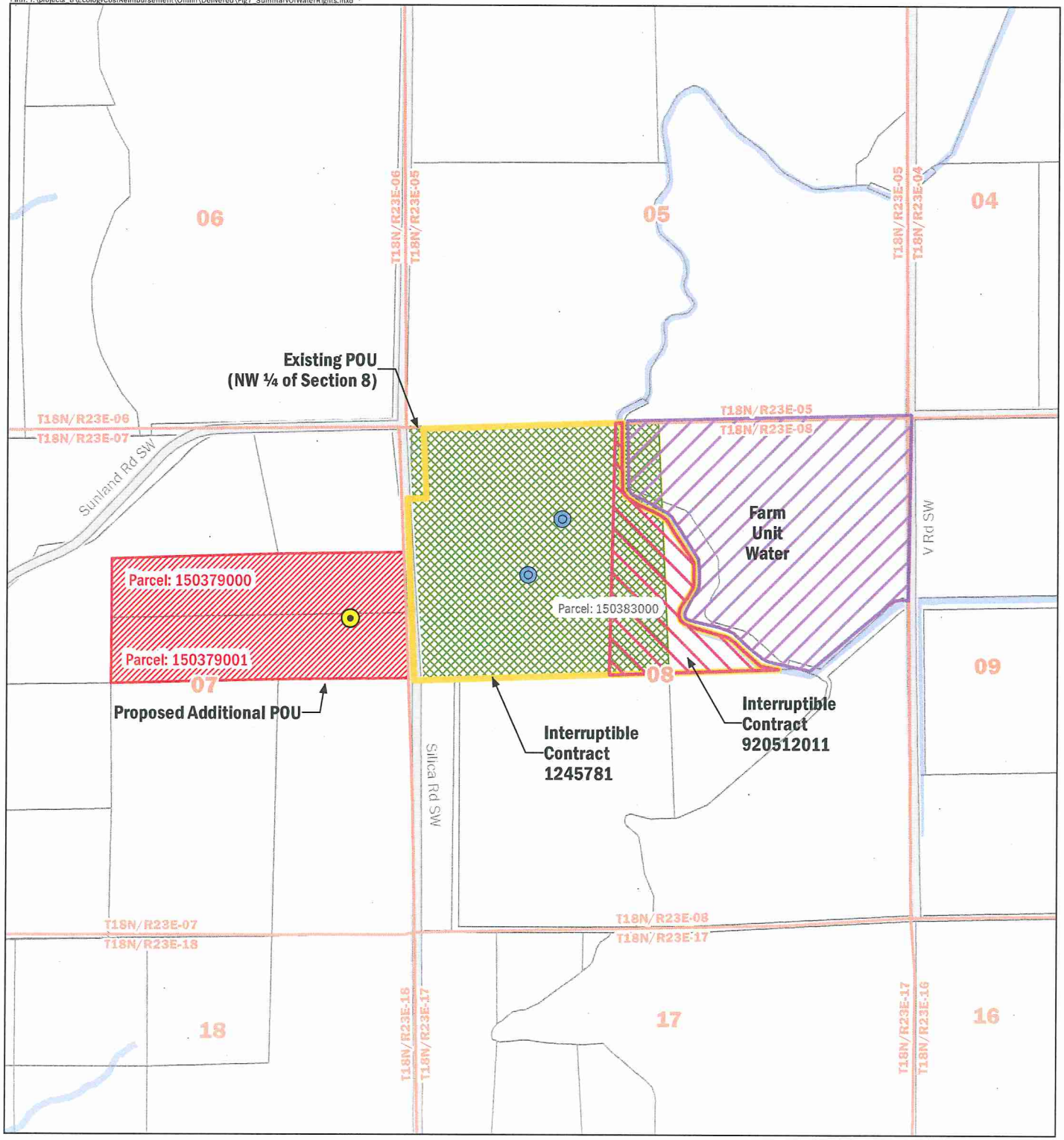
Quincy Basin Subarea Water Rights Boundaries

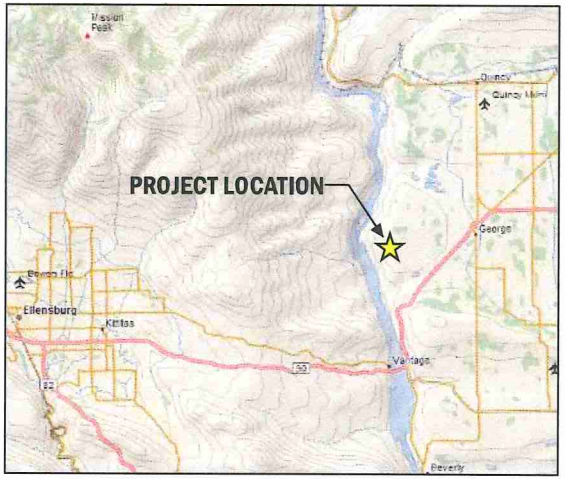
T18N R23E, Sec 7 and Sec 8
WRIA 41, Grant County, Washington

Aspect Consulting	NOV-2013	BY: DRH / EAH	FIGURE NO. 6
	PROJECT NO. 090180	REV BY: ---	

GIS Path: T:\projects_8\Ecology\CostReimbursement\Dmin\Delivered\Fig6_WaterRightBoundaries.mxd || Coordinate System || Date Saved: 11/20/2013 || User: ehealy || Print Date: 12/2/2013

Path: T:\projects_8\EcologyCostReimbursement\Omlin\Delivered\Fig7_SummaryOfWaterRights.mxd





Comments: *Place of use and point of withdrawal are defined on the cover sheet under the heading "LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED."*

Legend

- Existing Point of Withdrawal (POW)
- Proposed Additional Point of Withdrawal (POW)
- Interruptible Contract 920512011
- Interruptible Contract 1245781
- Farm Unit Water
- Section
- Road
- Existing Place of Use (POU)
- Proposed Additional Place of Use (POU)
- Grant Co. Tax Parcels
- Watercourse

Summary of Overlapping Water Rights for G3-01260C (Jared Omlin)

T18N R23E, Sec 7 and Sec 8
WRIA 41, Grant County, Washington

Aspect Consulting	November, 2013	FIGURE NO.
	ASPECT PROJECT NO. 090180 / FIGURE BY: EAH / DRH	7