State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

DEPARTMENT OF ECOLOGY
State of Washington

PRIORITY DATE	WATER RIGHT NUMBER
8/19/2013	G3-30693

MAILING ADDRESS
Isaak Land Inc
PO Box 953
Coulee City, Washington 99115

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
	GPM	

DENIED

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE ADDITIVE	WITHDRAWAL OR DIVERSION RATE NON-ADDITIVE	WITHDRAWAL OR DIVERSION RATE UNITS	ANNUAL QUANTITY (AF/YR) ADDITIVE	ANNUAL QUANTITY (AF/YR) NON-ADDITIVE	PERIOD OF USE (mm/dd)
Irrigation						-

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Grant			42-Grand Coulee

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE

Datum: NAD83/WGS84

Place of Use

PARCELS (NOT LISTED FOR SERVICE AREAS)
N/A
LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Proposed Works

Development Schedule		
BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
n/a	n/a	n/a

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is not available from the source in question; that there will be impairment of existing rights; and that there will be detriment to the public interest.

Therefore, I ORDER Denial of Ground Water Application No. G3-30693.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road SW Ste 301 Tumwater, WA 98501	**Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

Signed at Spokane, Washington, this 21st day of January, 2015.

Keith L. Stoffel, Section Manager

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://www1.leg.wa.gov/CodeReviser.

BACKGROUND

An application to appropriate public ground water was submitted by Isaak Land Inc. to the Department of Ecology on August 19, 2013. The application was accepted and assigned Ground Water Application No. G3-30693. The applicant proposes to withdraw water from two wells in the amount of 1,250 gallons per minute for the seasonal irrigation of 250 acres. The proposed points of withdrawal are to be located within the SW¼NE¼ and the S½S½, of Section 16, all within T. 25 N., R. 30 E.W.M.

A notice of application was duly published in accordance with RCW 90.03.280 in the Coulee City News-Standard on September 18 and 25, 2013 and no protests were received.

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met.

(a) It is a surface water right application for more than 1 cubic foot per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
(b) It is a groundwater right application for more than 2,250 gallons per minute;
(c) It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
(d) It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
(e) It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

When an application for appropriation of public waters of the state is made, it is the responsibility of the Department of Ecology, Water Resources Program to determine whether or not the application meets the four tests listed in RCW 90.03.290(3):

1. is water available for appropriation,
2. is the proposed use a beneficial use, and
3. will the appropriation as proposed in the application not impair existing rights,
4. nor be detrimental to the public welfare

The "Wilson Creek – Coulee City Area" is a work area that was designated during the 1980s for new ground water applications. This work area is located primarily within the central portion of WRIA 42, with a small portion being in western WRIA 43 and northern WRIA 41. See hydrogeologic "*Analysis: Coulee City* dated October 3, 2012" for a current description.

INVESTIGATION

In considering the proposed application, the investigation included, but was not limited to, research and review of: (1) appropriate rules and statutes; (2) other water rights, claims, and applications in the vicinity; (3) USGS topographic maps; (4) aerial photographs; (5) Hydrogeologic Analysis: Coulee City Dated October 3, 2012; and (6) discussions with Department of Ecology regional program staff.

A field investigation was conducted by Dan Tolleson on January 27, 2014. The site is approximately eleven miles east of Coulee City, Washington. This proposed project lies within what has been historically referred to as the Wilson Creek – Coulee City Study Area. Isaak land Company owns the proposed place of use, along with the proposed points of withdrawal.

The proposed place of use describes a 320 acre parcel of land that is currently undeveloped. This parcel of land is mostly rolling land in native vegetation. The northern edge of the place of use is relatively steep and may limit an irrigation system. The applicant proposes to withdraw 1,250 gallons per minute from two existing wells. These wells are currently used to provide water for other water rights within the area. It is estimated that two proposed pivot irrigation systems that total 250 acres could be practically utilized within the place of use.

WATER QUANTITIES

A standard water duty of 2.5 acre-feet per acre, was historically determined to be the maximum practical water duty for agricultural irrigation within the Wilson Creek – Coulee City Study Area. This water duty was derived from the standards used in the Odessa Subarea and has been used on all new agricultural water rights issued in this area since the 1980s. Using this standard, this project would call for the same water duty proposed by the applicant, which is 625 acre-feet.

A typical instantaneous requirement for irrigation is 10 gallons per minute per acre. This is often less with larger projects since rotation and irrigation systems vary greatly. The instantaneous quantities of 1250 gallons per minute proposed for this project appear to be reasonable given the project design.

OVERLAPPING AND ADJACENT WATER RIGHTS/WELLS

A review of Ecology records was conducted for existing water right certificates, permits, and claims within the proposed project and the surrounding area. The search focused primarily on Sections 16 and 21 within T. 25 N., R. 30 E.W.M. The review of Ecology records shows multiple

water right certificates and water right claims within the vicinity of the project, but none that overlap the proposed place of use.

There are four production wells within the Section 16 well field that share an intertie. The two larger production wells within this well field are the proposed sources for this application. The following rights authorize at least one of the wells and in most cases all of the wells located in the Section 16 well field, which are as follows: 221-A, 2408-A, 2802-A, 2283-A, 2769-A, 5492-A, G3-00884C(B), G3-01352C(C), G3-22021C, 1476-A and G3-01539C.

WILSON CREEK – COULEE CITY STUDY AREA

The "Wilson Creek – Coulee City Area" is a work area that was designated during a hydrogeologic study conducted in the 1980s for new water right applications. The study indicated that there were essentially two aquifers within the area, the shallow Wanapum Basalt aquifer and the deep Grande Ronde Basalt aquifer. At that time there was significant public concern that water was not available and new uses would impair existing rights.

The Wanapum aquifer was determined to have limited physical capacity. The proposed appropriations for new water from the shallow aquifer would exceed the capacity of the formation to yield water and would impair existing rights. A small quantity of water was held in reserve for exempt wells.

The Grande Ronde aquifer was deemed to have adequate water available, and water table declines in the 1980s were not considered significant. The declines were found to be from zero to a maximum two feet per year. The average was estimated to be less than one foot.

In the 1980s, applications for new water from the Grande Ronde aquifer requested a total of 18,900 acre-feet per year. The first water right issued after this study, in 1984, was G3-25926. Ecology's decision was appealed to the PCHB, but the appeal was eventually withdrawn. The remaining applications were put on hold pending the PCHB case and further investigation of water availability in the study area. In 1987, 17 additional water rights were issued. To protect existing domestic and stockwater rights, all of the newly authorized wells were required to be cased and sealed into the deeper aquifer.

The majority of the approved water right permits issued in the 1980s were not developed and were subsequently cancelled. As of 2013, only 7 of the original 18 water right approvals remained active. The remaining rights authorized a total of 4,500 acre-feet. The extent and validity of these rights is not determined within this report.

Applications received for new water rights in the Wilson Creek – Coulee City Area after 1987 were put on hold until a new determination of water availability was made. The intent was to monitor the aquifer to determine actual impact of the water rights issued in 1984 and 1987. As

of early 2012, there were 19 applications on file for new water rights requesting a total of 74,145 gallons per minute and 8,100 acre-feet per year.

A second water availability study of the area was conducted in recent years and is documented in an Ecology internal report entitled Hydrogeologic *Analysis: Coulee City,* dated October 3, 2012. This study indicated that water levels in the shallow and deep aquifers are declining at a rate of 0.25 to 3 feet per year, an increase in the rate of decline estimated in the 1980s study.

The only area not exhibiting water level declines is the shallow aquifer in the vicinity of Banks Lake and the main irrigation canal. The lack of decline is the result of leakage of waters from the US Bureau of Reclamation project. This leakage water is claimed by the US Bureau of Reclamation and is not available for appropriation through the state permitting system.

In the fall of 2012, letters were sent to each of the 19 applicants requesting new water rights. The letters stated that applications would most likely be denied because water was not available for appropriation. Eight of the applications were rejected because applicants were no longer interested in obtaining water or the applicants could not be located by Ecology. The remaining 11 applicants requested that a formal appropriation decision be made by Ecology. One application was approved for non-consumptive use only. The remaining 10 applications were denied, which resulted in several appeals that were eventually withdrawn or dismissed. Currently, two applications for new water rights are now on file within this work area. Each application will be evaluated on its own respective findings.

HYDROGEOLOGIC ANALYSIS

The following hydrogeologic analysis was written by Tracy Band, Hydrogeologist, and was reviewed by Guy J. Gregory, L.G., L.Hg. Hydrogeologist and Unit Supervisor of the Water Resources Program Technical Unit in Ecology's Eastern Regional office.

The existing points of withdrawal for this application are located within the Wilson Creek-Coulee City area. A detailed hydrogeologic analysis of this area was completed by Ecology Eastern Region Water Resource Program hydrogeologists in October 2012. This assessment of water availability for new water rights in this area is based on this report (and the referenced reports therein) including water level measurements obtained by Ecology staff over the last 30 years.

Well No. 3 (within the S½S½ of Section 16, T. 25 N., R. 30 E.W.M.) was constructed in 2011 to a total depth of 1490 feet and has been used for irrigation purposes. It is drilled through soil and gravel and then into basalt. It penetrates the Wanapum Basalt and the Vantage Interbed, and is completed in the Grande Ronde Basalt Group. The land surface elevation of the well is approximately 1883 feet. The well had a static water level of 500 feet below land surface at the

time of drilling. The well yielded 2500 gpm with an unknown amount of drawdown after construction. The well was cased and sealed to 599 feet below land surface.

Well No. 4 (within the SW¼NE¼ of Section 16, T. 25 N., R. 30 E.W.M.) was constructed in 2012 to a total depth of 1540 feet, and used for irrigation purposes. The well is drilled through silt and sandstone and then into basalt. It penetrates the Wanapum Basalt and is completed in the Grande Ronde Basalt Group. The land surface elevation of the well is approximately 1830 feet. The static water level at the time of drilling was 510 feet. The well yielded 2000 gpm with an unknown amount of drawdown after construction. The well was cased and sealed to 630 feet below land surface.

These two particular wells have not been measured by Ecology staff, but several wells in the vicinity have been measured in the spring of the year by the Department. Hydrographs, or plots of these static water levels over time, are created from these measurements. The hydrographs of wells in the area show that the majority of wells in the upper and lower portions of the basalt aquifer system are declining at a rate averaging between 0.25 to 3 feet per year. This rate of decline indicates current use exceeds the rate of recharge to the aquifers in this area. The result is declining water tables and groundwater mining.

RCW 90.44.070 indicates that "No permit shall be granted for the development or withdrawal of public ground waters beyond the capacity of the underground bed or formation in the given basin, district, or locality to yield such water within a reasonable or feasible pumping lift in case of pumping developments, or within a reasonable or feasible reduction of pressure in the case of artesian developments. The department shall have the power to determine whether the granting of any such permit will injure or damage any vested or existing right or rights under prior permits and may in addition to the records of the department, require further evidence, proof, and testimony before granting or denying any such permits."

The above analysis indicates current appropriations exceed available recharge, and approval of additional withdrawal from this basin, as requested in this permit application, will further exceed the available recharge in this basin. The only data available to the department indicates current levels of water use are resulting in a decline in wells at a rate between 0.25 and 3 feet per year. Taken together, this suggests that issuance of additional withdrawal in this area may injure or damage existing vested rights due to increasing the withdrawal beyond the capacity of the formation in this basin to yield water. Ecology concludes this long term decline indicates issuance of water for this permit would exceed the capacity of the formation to provide it, thus there is no water available for this application in consideration of the criteria of RCW 90.44.070.

Furthermore, the proposal to withdraw additional water from these 2 wells will enlarge the quantity of water withdrawn from the aquifer and increase the irrigated acres. The instantaneous rate of withdrawal from these two existing wells will be an additional 1,250 gpm. Several wells already exist in the vicinity of the proposed location with similar depths and water

levels. There has been documented history of pumping interference problems between existing water rights in the Coulee City study area, and it is anticipated that this proposal to withdraw additional water from the aquifer systems would cause impairment to existing water rights.

WATER AVAILABILITY

For water to be available for appropriation, it must be both physically and legally available.

Physical availability

For water to be physically available for appropriation there must be ground or surface water present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use or uses. To determine whether water is physically available for appropriation, the following factors are considered:

- Volume of water represented by senior water rights, including federal or tribal reserved rights or claims;
- Water right claims registered under Chapter 90.14 RCW
- Ground water uses established in accordance with Chapter 90.44 RCW, including those that are exempt from the requirement to obtain a permit; and
- Potential riparian water rights, including non-diversionary stock water.

Lack of data indicating water usage can also be a consideration in determining water availability, if the department cannot ascertain the extent to which existing rights are consistently utilized and cannot affirmatively find that water is available for further appropriation.

Legal availability

To determine whether water is legally available for appropriation, the following factors are considered:

- Regional water management plans – which may specifically close certain water bodies to further appropriation.
- Existing rights – which may already appropriate physically available water.
- Fisheries and other instream uses (e.g., recreation and navigation). Instream needs, including instream and base flows set by regulation. Water is not available for out of stream uses where further reducing the flow of surface water would be detrimental to existing fishery resources.
- The Department may deny an application for a new appropriation in drainages where adjudicated rights exceed the average low flow supply, even if the prior rights are not presently being exercised. Water would not become available for appropriation until existing rights are relinquished for non-use by state proceedings.

The applicant has requested to obtain a permit to withdraw ground water from two wells that are constructed into what is considered the deep aquifer within this area. The *Hydrogeologic Analysis: Coulee City, dated October 3, 2012* (2012 Analysis), indicated that water levels in the deep aquifers are generally declining at a rate of 0.25 to 3 feet per year.

The deep Grande Ronde Basalt aquifer within the Wilson Creek – Coulee City area provides water for many of the large irrigation rights. This includes the water rights issued during the 1980s when it was determined that water was not available from the shallow aquifer. Water levels in the deep aquifer within the vicinity of the proposed project are declining. The 2012 Analysis indicates water level declines in the aquifer have continued and in some places have accelerated from what was documented in 1980's analysis (see Wilson Creek – Coulee City Study Area). The increased decline indicates the water quantities within the deep aquifer are already appropriated under existing rights and that water is not available from this source.

In July of 2013, ten applications for new water rights were denied within the Wilson Creek – Coulee City area. Each of these prior applications had a similar request to this one and were denied in part due to the lack of water availability. This history of denials shows that water is not available for new consumptive water rights within this area.

State issued municipal rights, excluding claimed uses and small group domestic supplies that may or may not qualify as a municipal supplier, have been issued for approximately 2,425 gallons per minute and 773 acre-feet of water use. Several of the existing water right certificates and a permit do not appear to be fully developed. These municipal rights must be evaluated as described under RCW 90.03.330(2) which does not allow for the diminishment of a certificate except in very limited circumstances. In addition, RCW 90.03.330(3) provides that water rights for municipal water supply purposes documented by certificates issued prior to September 9, 2003 with maximum quantities based on system capacity (known as "pumps and pipes" certificates) are <u>rights in good standing</u>. These municipal quantities of water, although not put to full use yet, have already been spoken for and are not available for new appropriations.

The Pollution Control Hearings Board, in <u>Smasne Farms Inc. v. Ecology</u> PCHB No. 94-114, found that with 10 years of data indicating a decline in ground water of 2.5 feet per year, in a geographic area, that water was not available for allocation. This finding of water non-availability was considered consistent with protecting prior appropriations and ensuring a safe sustaining yield. This decision is similar to the proposed project, in that water levels are declining at a similar rate from a comparable formation. This is consistent with the findings that water is not available from the Grand Ronde Aquifers described above.

The Wilson Creek-Coulee City area generally has a declining ground water level of up to three feet per year. Further appropriations, will increase this problem and accelerate aquifer mining. Increased mining of the aquifer does not ensure a safe sustainable yield of the aquifer. In consideration of the uses under existing water rights, appurtenant case law, and the decline

defined in the hydrogeological analysis, it is determined that water is not available for appropriation.

IMPAIRMENT ANALYSIS

"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 flow 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.

Water use in this region is predominately for agricultural irrigation, with other uses being comparatively small. Since most of these rights are for commercial irrigation they tend to be for larger quantities, so each appropriation has a significant potential for impact. This proposed appropriation is located in the vicinity of the most heavily pumped region of the Wilson Creek – Coulee City Area. As indicated above, this project proposes to withdraw water from the deeper Grand Ronde Aquifer.

The deep aquifer within the vicinity of the proposed project is declining. These declines have exceeded the estimates in the 1980s hydrogeologic study with approximately one quarter of the quantities authorized actually being developed. This aquifer is declining at a greater rate than anticipated in 1980s. This proposed use would further exceed the yield of the formation by mining the aquifer and negatively impacting existing water rights. This negative impact would ultimately cause impairment of existing rights.

In July of 2013, ten applications for new water rights were denied within the Wilson Creek – Coulee City area. Each of these prior applications had a similar request to this one and were denied in part due to the impairment of existing rights. This history of denials shows that water is not available for new consumptive water rights within this area due to impairment issues.

As stated above in the Water Availability section, there are several existing municipal water right certificates and a permit that do not appear to be fully developed within the Wilson Creek-Coulee City area. These inchoate rights must be evaluated under RCW 90.03.330, which indicates they are rights in good standing. The water under these rights has not yet been put to full use. The proposed appropriation would impair these existing municipal rights by ultimately preventing them from obtaining water to which they are entitled.

This area is experiencing significant ground water level declines. Based on the analysis above, all ground water in this area has been allocated and ground water mining is occurring. Additional appropriations, as proposed under this application, within this area would impair existing rights.

PUBLIC INTEREST AND CONSIDERATION OF PROTESTS

No protests were received against granting this water right permit, in response to the public notice. The Bureau of Reclamation has made the following comments about new appropriations in the Wilson Creek – Coulee City area:

Bureau of Reclamation Comments

> The United States Department of the Interior, Bureau of Reclamation's comments were received on February 4, 2013. They indicated that they agree, absent further investigation, with Ecology's Hydrogeologic *Analysis: Coulee City* dated October 3, 2012. In particular, Reclamation agrees with the conclusion that the shallow aquifer lying immediately east and southeast of Banks Lake is in direct continuity with Banks Lake. Reclamation has requested that Ecology deny any applications in these areas, on the basis they would impair existing water rights. The Bureau of Reclamation has proposed to work with the applicants to identify alternate water sources. Further information can be obtained from Ms. Christi Davis-Kernan, Water & Contracts Specialist at cdaviskernan@usbr.gov or by phone at 509-754-0227.

As stated above, in the Water Availability section, there are several existing municipal water right certificates and a permit that do not appear to be fully developed within the Wilson Creek-Coulee City area. These inchoate rights must be evaluated under RCW 90.03.330, which indicates they are rights in good standing. The water under these rights has not yet been put to full use, with some quantities held in reserve for future development. Municipal suppliers ultimately depend on these rights for growth and certainty of water supply for their community. The proposed appropriation is anticipated to have a negative impact to the existing municipal rights, which is not in the public interest.

In July of 2013, ten applications for new water rights were denied within the Wilson Creek – Coulee City area. Each of these prior applications had a similar request to this one and were denied in part due to not being in the public interest. This history of denials shows that issuing new consumptive water rights within this area is not in the public interest.

In general, there has been a significant public expression of protest and concerns regarding applications in the Wilson Creek – Coulee City area. This includes the protests of many of the other applicants for new water rights within the work area that were issued a decision in 2013. The protestants of these other applications hold a variety of rights including state issued certificates, claims and permit exempt wells. This area is experiencing significant ground water level declines. The result of issuing new water rights in the area would create greater water level declines and worsen aquifer mining. In addition, it would impair existing water rights and would

not be beneficial to the long term economic stability of the area, which relies heavily on agriculture and ranching. Therefore, issuance of this application is not in the public's interest.

BENEFICIAL USE

The proposed use of water is defined in statute as a beneficial use (RCW 90.54.020(1)). This use in only beneficial on the lands that are practically irrigable as described above in the investigation.

CONCLUSIONS

It is the conclusion of this examiner that although the proposed use is a beneficial use, water is not legally and physically available for further appropriation. The proposed new appropriation within this area will cause impairment to existing rights. This appropriation would further exceed the capacity of the formation, which would be contrary to the public interest and would be detrimental to the public welfare.

RECOMMENDATIONS

Therefore, it is recommended this application be **DENIED.**

Dan Tolleson 1-21-2015

Dan Tolleson, Report Writer *Date*

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