STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

☐ Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

☒ Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE	APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
March 22, 1994	G3-29662		

NAME
Isaak Land Inc.

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
PO Box 953	Coulee City	WA	99115

PUBLIC WATERS TO BE APPROPRIATED

SOURCE

TRIBUTARY OF (IF SURFACE WATERS)

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

QUANTITY, TYPE OF USE, PERIOD OF USE

DENIED

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE, (E. OR W.) W.M.	W.R.I.A.	COUNTY
		24	29 E	42	Grant

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

DESCRIPTION OF PROPOSED WORKS

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:

REPORT

BACKGROUND

An application to appropriate public ground water was submitted by David Goodwin to the Department of Ecology on March 22, 1994. The application was accepted and assigned Ground Water Application No. G3-29662. The application was assigned to Isaak Land Inc. The applicant proposes to withdraw water from one well in the amount of 4000 gallons per minute for the seasonal irrigation of 480 acres and continuous stockwater. The proposed point of withdrawal is to be located within the NE¼NE¼ of Section 10, T. 24 N., R. 29 E.W.M.

A notice of application was duly published in accordance with RCW 90.03.280 in the Coulee City News-Standard on June 9 and 16, 1994 and one letter of concern was 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 would entail the withdrawal of more than 2,250 gallons per minute, in addition to being part of a larger project, it is subject to SEPA. A final Determination of Non-Significance was issued by the Department of Ecology on April 15, 2013, stating that no environmental impact statement is 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 in western WRIA 43. 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) air 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 16, 2008, with a follow-up field examination on November 5, 2012 to verify any changes to the site. This site is approximately six miles southeast of Coulee City, Washington. This proposed project lies within what has been historically referred to as the Wilson Creek – Coulee City Study Area.

The proposed place of use is 516 acres of land partially bisected by Road P within portions of Section 3, 10 and 11, T. 24 N., R. 29 E.W.M. The terrain of the proposed place of use is relatively flat and partially lies within a shallow coulee that runs generally from east to west. Currently, much of the place of use is developed with two center pivots, irrigated under various other water rights (see overlapping rights). The only parts of the proposed place of use not irrigated are the corners around the pivots and a portion of the western part of the proposed place of use. The applicant originally proposed to irrigate 480 acres of the place of use, which at that time would have been practical due to the farming practices and land use at that time. Modern farming practices, economic factors and trends for farming in this region have changed to the use of irrigation pivots. Due to the location of the road and the existing irrigation pivots, it is estimated that only 125 acres can be practically irrigated with two small partial sweep pivots.

The applicant proposes to withdraw 4000 gallons per minute from one proposed well, located within Section 10 of the proposed place of use. This proposed well site is currently used under other existing rights. Since the acres available for irrigation have been significantly reduced, the rate of withdrawal would need to reflect that reduction. A typical use of water for irrigation is 10 gallons per minute per acre. This project would require a maximum of 1,250 gallons per minute for the irrigation of 125 acres.

In addition to irrigation, the applicant proposes to provide water for approximately 450 head of cattle for up to six months of the year. Because the ground water exemption in RCW 90.44.050 does not contain a quantity limit for stock watering, a water right is not required for that purpose of use.

WATER QUANTITIES

A standard water duty of 2.5 acre-feet per acre has been determined as a maximum 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.

A typical requirement for the stockwater of a cow is 15 gallons per day.

A typical requirement for irrigation is 10 gallons per minute per acre.

OVERLAPPING AND ADJACENT WATER RIGHTS

A review of Ecology records was conducted for existing applications, water rights, permits, and claims in the area surrounding the proposed well under this application. The search focused primarily on Sections 2, 3, 10 and 11 of T. 24 N., R. 29 E.W.M. The review of Ecology records shows multiple water right certificates and water right claims within the vicinity of the project. One application and six certificates are appurtenant to the proposed place of use and are as follows:

Overlapping application for new water

The proposed place of use of application G3-29662 is almost entirely within the proposed place of use of application G3-30385. Application G3-29662 has an earlier priority date than application G3-30385, with each requesting a primary right for irrigation.

Overlapping Ground Water Certificates

These rights are used to irrigate portions of two existing full sweep pivot irrigation systems located within the proposed place of use of Ground Water Application G3-29662. They are as follows:

7094-A, with change ROE
G3-25434, with change ROE
G3-01350C, with change ROE
G3-22573C, with change ROE
G3-00802C, with change ROE
G3-21395C, with change ROE

(The extent and validity of the above listed rights are not determined in this report.)

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. It was determined that 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 seven of the original 18 water right approvals remained active. They 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 on file for new water. 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, including the applicant for this permit, requested that a formal appropriation decision be made by Ecology. 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 proposed point of withdrawal for this application is 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.

An existing well is proposed as the point of withdrawal for this application. It is located within the NE1/4 NE1/4 of Section 10, T. 24 N., R. 29 E.W.M. It was constructed in 2008 to a depth of 1590 feet. The well has been used for irrigation purposes under other existing water rights. It is drilled through sand and gravels, and then into basalt. It penetrates the Wanapum Basalt and is completed in the Grande Ronde Basalt. The well is cased and sealed to a depth of 404 feet, and yielded 2500 gpm for one hour when originally constructed. The static water level in the well was 429 feet below land surface at the time of construction. The land surface elevation of the well is approximately 1730 feet.

This particular well has not been measured by Ecology staff, but several wells in the vicinity have been measured in the spring of many recent years 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 Wanapum and Grande Ronde aquifers are declining at a rate 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 data available to the department indicates current quantities of water use are resulting in a decline in wells at a rate between 0.25 and three 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, withdrawal of additional water from this well would increase the quantity of water withdrawn from the aquifer. 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 users in the Coulee City study area, and withdrawal of additional water from the aquifer system would probably cause impairment of 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, but has not identified a specific source or aquifer. This area has two aquifers, including the shallow Wanapum Aquifer and the deeper Grand Ronde Aquifer. The proposed well already exists and is completed into the Grande Ronde aquifer. The 2012 Study indicated that water levels in the shallow and deep aquifers are declining at a rate of 0.25 to 3 feet per year.

The shallow Wanapum Basalt aquifer within the Wilson Creek – Coulee City area provides water to most of the smaller domestic supplies, stockwater and some of the irrigation within the area. This aquifer, within the vicinity of the proposed project, has been determined to produce limited quantities of water and is declining. All water within the shallow aquifer is already appropriated for other existing rights. There have been no new major appropriations from this aquifer since it was determined water was not available for any use except exempt wells, approximately 25 years ago. New water uses within this aquifer have continued to be limited to exempt well uses. This lack of availability is consistent with the various hydrogeologic analysis and the water right decisions issued in the 1980s (see Wilson Creek – Coulee City Study Area).

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 junior 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.

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 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 rights in good standing. 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 Smasne Farms Inc. v. Ecology 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 either the Wanapum or 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. This decline indicates that both the shallow and deep aquifers are being mined with respect to recharge. 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. Other existing water uses in this area are comparatively small. Since most of these rights are for 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 area has two major sources of water, the shallow Wanapum Aquifer and the deeper Grand Ronde Aquifer.

The shallow aquifer within the vicinity of the proposed project has been determined to produce limited quantities of water and is declining. This proposed appropriation would further exceed the yield of the formation by mining the aquifer and negatively impacting existing water rights. This is consistent with the water right determinations made in the 1980s, that water was unavailable. Furthermore, the 2012 Hydrogeologic Analysis referenced above indicates that new appropriations will amplify the decline in the aquifer and cause impairment.

The deep aquifer within the vicinity of the proposed project also is declining. These declines have exceeded the estimates in the 1980s hydrogeologic study with only a quarter of the quantities authorized being developed. This aquifer is declining at a greater rate than anticipated in 1980s. Further appropriation of this aquifer will negatively impact the existing water rights which are primarily for irrigation. This proposed use would further exceed the yield of the formation by mining the aquifer and negatively impacting existing water rights and cause impairment of existing rights.

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 water in this area has been allocated. Ground water mining is occurring in both aquifers. Additional uses created by issuing the proposed new water right within this area would impair existing rights.

BENEFICIAL USE

The use proposed under this project is a beneficial use of water on the lands that are practically irrigable as described above in the investigation.

PUBLIC INTEREST AND CONSIDERATION OF PROTESTS

One letter of concern was received against granting this water right permit, in response to the public notice. In addition the Bureau of Reclamation has made comments about new applications in the Wilson Creek – Coulee City area. The following is a summary of the comments:

Letter Of Concern

Phil Isaak's (Isaak Land Inc.) letter of concern was received on June 20, 1994. This letter was sent as a protest but the fee was not submitted until July 21, 1994, therefore it was not accepted as a protest. He essentially wants Ecology to make sure that the water table is not adversely affected. This comment was made prior to Mr. Isaak acquiring the application from David Goodwin, the original owner.

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. It is not in the public interest.

There has been a significant public expression of protest and concerns regarding the proposed 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. 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.

CONCLUSIONS

It is the conclusion of this examiner that although the proposed use is a beneficial use, water is **not** legally or physically available for further appropriation. Further appropriations within this area will cause impairment to existing rights and might restrict existing water users from exercising their full quantities. Additional allocations of ground water in excess of the capacity of the formation to satisfy the newly proposed uses would be contrary to the public interest and would be detrimental to the public welfare.

RECOMMENDATIONS

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

In addition, the ground water exemption allows for unlimited stockwater, thus a water right is not required for the stockwater portion of the application, per RCW 90.44.050 Permit to Withdraw.

Signed at Spokane, Washington this ___ day of _____, 2013.

_____
Dan Tolleson
Water Resources Program
Department of Ecology

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