

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 February 25, 1998	APPLICATION NUMBER G3-30143	PERMIT NUMBER G3-30143	CERTIFICATE NUMBER
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NAME Maynard Cutler			
ADDRESS (STREET) 17606 N. South Bank Road	(CITY) Nine Mile Falls	(STATE) Washington	(ZIP CODE) 99026

PUBLIC WATERS TO BE APPROPRIATED

SOURCE 2 Wells
TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 300	MAXIMUM ACRE FEET PER YEAR 60.7
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QUANTITY, TYPE OF USE, PERIOD OF USE

300 gallons per minute, 60.7 acre-feet per year, each year, for the seasonal irrigation of 27.6 acres

The instantaneous quantity of 300 gallons per minute, 60.7 acre-feet per year are additive to Superseding Ground Water Certificates 2926-A and 4149-A.

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL
Well A – 825 feet North, 155 feet East of the center of Sec. 21, within the SW¹/₄NE¹/₄
Well C – 722 feet South, 248 feet West from the northeast corner Sec. 28, within the NE¹/₄NE¹/₄

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE, (E. OR W.) W.M.	W.R.I.A.	COUNTY
		27	41 E.	54	Spokane

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

27.6 acres being within the following legal description:

Well "A" – 13.8 acres being within the NW¹/₄NW¹/₄, NE¹/₄NW¹/₄, N¹/₂SW¹/₄NW¹/₄, N¹/₂SE¹/₄NW¹/₄, NW¹/₄NE¹/₄ and NW¹/₄SW¹/₄NE¹/₄ of Section 21.

Well "C" 13.8 acres being within the NE¹/₄ of Section 28, NW¹/₄ of Section 27, the S¹/₂S¹/₂SE¹/₄ of Section 21, S¹/₂S¹/₂SW¹/₄ of Section 22 and the N¹/₂N¹/₂SW¹/₄ of Section 27.

The legal descriptions contain more than 13.8 acres each. Should regulation occur, the land owner is required to identify 13.8 acres subject to regulation within the authorized place of use.

DESCRIPTION OF PROPOSED WORKS

2 wells, pumps and distribution system. These wells are not currently integrated.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:
Started	August 1, 2013	August 1, 2014

REPORT

BACKGROUND

An application to appropriate public ground water was submitted by Maynard Cutler of Nine Mile Falls, Washington to the Department of Ecology on February 25, 1998. The applicant proposes to withdraw water from five wells in the amount of 500 gallons per minute for seasonal irrigation of 52.4 acres located within Sections 21, 22, 27, and 28, T. 27 N., R. 41 E.W.M. The points of withdrawal applied for are located as follows: Well "A" in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 21; Well "B" in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 21; Well "C" in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 28; Well "E" in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 27; Well "#9" in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 21; All in T. 27 N., R. 41 E.W.M.

In addition to Ground Water Application G3-30143, Mr. Cutler filed applications for change/transfer to Certificate 2926-A (with change 1-3-129) and Certificate 4149-A (with change 1-3-130). Decisions were made on these change applications in January of 2003. Mr Cutler completed the metering requirements and submitted the proof of appropriation for these rights in August of 2012 and Superseding Certificates were issued.

Mr. Cutler applied to have the place of use of his water rights match the legal description of land ownership. Review of the irrigated lands within the property confirmed 627.6 acres irrigated under all rights. Certificates 2926-A and 4149-A confirm rights for 600 acres. This application will be reduced to the remaining 27.6 acres. After discussions with Mr. Cutler, he amended the place of use in this application. He proposes to establish two areas of 13.8 acres each. Should regulation occur, the land owner shall be required to identify which 13.8 acres are subject to regulation. This will allow for some flexibility in the rotational farming practices.

A notice of application was duly published in accordance with RCW 90.03.280 in the Spokesman-Review on June 3 and June 10, 2002 and no protests were received.

This application is categorically exempt from the provisions of the State Environmental Policy Act (SEPA) of 1971, Chapter 43.21C RCW.

INVESTIGATION

In considering the proposed application, the investigation included, but was not limited to, research and review of (1) appropriate rules and statutes; (2) Ground Water Certificate 2926-A (Change No. 1-3-129), Ground Water Certificate 4149-A (Change No. 1-3-130) and other water rights/claims/applications in the vicinity; (3) water well reports for the applicant's wells, and other wells in the vicinity; (4) USGS topographic maps; (5) discussions with regional program staff, Department of Fish and Wildlife (WDFW) and review by Ecology hydrogeologists.

Site visits were conducted by Laurie Dahmen on July 10 and 18, 2002 with Maynard Cutler. Additional meetings were held with Mr. Cutler at the Department of Ecology to discuss change applications 2926-A (Change No. 1-3-129), 4149-A (Change No. 1-3-130), and Ground Water Application G3-30143 on September 27, October 4, and November 19, 2002. Additional meetings were held in August of 2012 to discuss proof of appropriation filing, metering records and current water use.

The property is located off of South Bank Road, approximately six miles northwest of Nine Mile Falls, Washington, within Water Resource Inventory Area (WRIA) 54, Lower Spokane River Basin Watershed. The applicant is currently irrigating 627.6 acres with pivots and handlines. The majority of crops grown by Mr. Cutler include spring wheat, winter wheat, and bluegrass. Pollen, grass seedling, and other crops make up the remaining acres.

Mr. Cutler provided a history of the irrigated lands within the farm. Approximately 577 acres were irrigated during the 1960's prior to installing center pivot irrigation systems in 1973 and 1974. Approximately 602.8 acres were irrigated from 1975 to 1978 after the center pivot irrigation systems were installed. In 1979, an additional 17.4 acres were irrigated from Well #9 and 4.3 acres from Well "A" for a total of 624.5 acres of irrigation. In 1985, 1.8 acres irrigated from Well #9 were taken out to build a home. In 1992, an additional 4.9 acres were irrigated from Well "A" for a total of 627.6 acres of irrigation. Approximately 27.6 of the 627.6 acres are not authorized under existing rights and are proposed for authorization under this application.

The total number of acres irrigated from 1992 to present is 627.6 acres. This was verified by Mr. Cutler, the Farm Services Agency (FSA), and by digitizing the place of use. Under Ground Water Certificate 2926-A together with Change No. 1-3-129, 600 acres were authorized for primary irrigation within the place of use at a rate of 3500 gallons per minute, and 2100 acre-feet per year. Ground Water Certificate 4149-A together with Change No. 1-3-130 was supplemental to the annual portion of Ground Water Certificate 2926-A (Change No. 1-3-129) and authorized 577 acres for irrigation within the same place of use as Ground Water Certificate 2926-A (Change No. 1-3-129) at a rate of

1350 gallons per minute, and 800 acre-feet per year. The total acres authorized under Ground Water Certificate 4149-A (Change No. 1-3-130) was corrected from 577 to 600 acres of irrigation. The total instantaneous withdrawal is determined to be 4850 gallons per minute and total annual withdrawal was limited to 2100 acre-feet under these two ground water rights. The Superseding Certificates reduced the annual quantity of these rights to 2.2 acre-feet per acre for a total of 1320 acre-feet based on a review of actual water use and the irrigation guide.

Water Rights

A summary of water rights is listed below.

TABLE 1: Water Rights

Water Right	Name	GPM	Acre-feet	Acres	Wells
2926-A	Maynard Cutler	3500	1320	600	A, B, C, E, and #9
4149-A	Maynard Cutler	1350	800*	600*	A, B, C, E, and #9
G3-30146	Maynard Cutler	300	60.7	27.6	A, C
Total		5150	1380.7	627.6	

*800 acre-feet is non-additive, 600 acres are non-additive

Water Quantity

At the time of the original field investigation, there were no meters on the wells. Provisions of the 2003 change authorizations under Certificates 2926-A and 4149-A required flow meters to be installed. The meters were installed and Mr. Cutler submitted flow records for the farm for the years 2003-2011 as part of his proof of appropriation for the change authorizations.

This application requested 500 gallons per minute for instantaneous quantity. The instantaneous quantity will be reduced to 300 gallons per minute to reflect a reasonable amount of water for the 27.6 acres of irrigation. The total instantaneous quantity authorized under Superseding Ground Water Certificate 2926-A, Superseding Ground Water Certificate 4149-A and this authorization will be limited to a total of 5150 gallons per minute.

An annual quantity of 2.2 acre-feet per acre was calculated using the crop irrigation guide. In review of the metering records submitted by Mr Cutler, between 2003 and 2011 a maximum water use in 2007 was 1149.1 acre-feet for the 627 acres irrigated, including the lands of this application. This calculates out to 1.83 acre-feet per acre. It is recognized the applicant is irrigating a variety of crops. He may rotate into a higher water use crop in the future. Therefore, a total of 60.7 acre-feet for 27.6 acres will issue under this application based on the irrigation guide at 2.2 acre-feet per acre. Annual quantities will be re-evaluated at the time of the Proof Examination and may be reduced to reflect actual water use.

Well Information

All five wells currently operate separately. Based on the metering records, 2011 average monthly pumping rates reached approximately 3800 gallons per minute. Individual well rates can operate as described below. As currently constructed, the area proposed for irrigation is served by Wells "A" and "C"

TABLE 3: Well Specifications

Well	Status	Size (in)	Depth (ft)	Casing Depth (ft)	Static Water Level (ft)	Pump (type)	Pump (hp)	GPM
"A"	On-line	52"	≈58'	43'6"	11'	Turbine	50	1200
"B"	On-line	52"	62'11"	43'	20'	Turbine	75	1200
"C"	On-line	52"	87'	43'6"	48'	Turbine	100	1600
"E"	On-line	16"	135'	106'	64'	Turbine	75	550
"9"	On-line	12"	64'	42'	20'	Submersible	15	300

TABLE 4: GPS Well Locations (Datum: WGS 84)

Well	Latitude	Longitude
"A"	047°49'35.77"N	117°38'7.35"W
"B"	047°49'19.38"N	117°37'52.64"W
"C"	047°48'53.05"N	117°37'33.57"W
"E"	047°48'44.92"N	117°37'14.93"W
"9"	047°49'33.04"N	117°37'33.25"W

The wells proposed for use (A, C) are all constructed at this time. Well "D" was abandoned in approximately 1975 when well "E" was constructed. Well "E" produced enough water so that well "D" was no longer needed. The well has been capped and sealed, however not decommissioned.

Hydrogeologic Analysis

This application was reviewed by John Covert, hydrogeologist for the Department of Ecology. All five wells are installed into a "gravel" bar on the west bank of the Spokane River. The bar is composed of a poorly sorted, stratified mixture of sand, gravel, cobbles, and boulders, which was deposited during one or more glacial outburst floods that flowed down the lower Spokane River valley during the late Pleistocene epoch (approximately 13,000 to 15,000 years ago).

Groundwater pumped from each of the five wells is withdrawn from the same hydrogeologic unit (i.e., the flood gravel), which is in direct hydraulic continuity with surface water in Long Lake.

Existing Water Rights

A review of Ecology records was conducted for existing ground water rights, permits, applications and claims in the surrounding area of the existing well and proposed place of use. The search focused primarily on Sections 20, 21, 22, 27, and 28. A total of 17 water right claims, two permits and 7 certificates were located.

A review of recorded well logs in this area was also conducted and reviewed. The wells range in depth from 17 feet to 600 feet, with most falling in the range of 100 feet to 300 feet. The majority of wells are for used for domestic supply. The wells produce quantities ranging from approximately five to 950 gallons per minute with the majority falling between 10 and 50 gallons per minute. There are seven irrigation and two municipal well logs recorded in the search area.

Surface Water Certificate No. 5788 issued on July 27, 1954 to Carl Osteheller overlaps the place of use described under Superseding Ground Water Certificates 2926-A and 4149-A . Surface Water Certificate No. 5788 authorized the diversion of water from the Spokane River located in the N $\frac{1}{2}$ N $\frac{1}{2}$ of Section 21, T. 27 N., R.41 E.W.M. in the amount of 1.0 cubic foot per second for the irrigation of 80 acres on land located in the N $\frac{1}{2}$ N $\frac{1}{2}$ of Section 21, T. 27 N., R. 41 E.W.M. According to Mr. Cutler this water right has not been exercised from the time the farm was purchased in 1960, and only wells are used for irrigation. A voluntary relinquishment of Surface Water Certificate No. 5788 was signed and notarized by Robert and Jill Cutler on August 23, 2002, property owners of parcel number 17215.9036, located within the N $\frac{1}{2}$ N $\frac{1}{2}$ of Section 21, T. 27 N., R. 41 E.W.M. Certificate 5788 appears to have relinquished for non use.

EVALUATION

When evaluating an application for a new water right permit, the following statutory (RCW 90.03.290) requirements are met:

1. The proposed use of water will be a beneficial one;
2. There is water available for appropriation;
3. There will be no impairment to existing water rights;
4. The requested water right will not be detrimental to the public interest.

1. Beneficial Use

Irrigation is specifically identified as being a beneficial use of water in RCW 90.54.020(1).

2. Water Availability

An analysis of water availability must take into account not only the physical limitations on the source of supply, but the legal availability as well.

Given the nature of the unconsolidated gravel bar aquifer which is the proposed source of water, and the proximity to Long Lake, it is presumed that sufficient water is available in this aquifer for the wells to produce the 300 gallons per minute required for irrigation of 27.6 acres.

State water law requires that ground and surface waters be managed as an integrated resource (RCW 90.44.030). As the proposed source of water is hydraulically connected to Long Lake, consideration must be given to what impact the proposed withdrawal would have on Long Lake.

3. No Impairment of Existing Water Rights

Given the nature of the unconsolidated gravel bar aquifer which is the proposed source of water, and the proximity to Long Lake, it does not appear the withdrawal from these wells will impair any existing ground water right. The potential for this withdrawal to impair existing surface water rights must also be considered. Impairment to existing surface water rights has not historically impaired and this application is conditioned with instream flows set by the Department of Fish and Wildlife.

4. Public Interest

The effects of new water rights on fish habitat and water quality are fundamental public interest considerations. Preservation and enhancement of instream flows are an essential component of instream habitat. The groundwater code, under RCW 90.44.030, states; "The rights to appropriate the surface waters of the state and the rights acquired by the appropriation and use of surface waters shall not be affected or impaired by any of the provisions of this supplementary chapter and, to the extent that any underground water is part of, or tributary to, the source of any surface stream or lake, or that the withdrawal of groundwater may affect the flow of any spring, water course, lake, or other body of surface water, the right of an appropriator and owner of surface water shall be superior to any subsequent right hereby authorized to be acquired in or to groundwater."

Due to the hydraulic connection with Long Lake, a copy of this application was forwarded to the WDFW for comments. Comments on this application were provided from Steve Boessow, Habitat Biologist with WDFW. The WDFW has provided comments to Ecology regarding the application for ground water near the Spokane River. WDFW has indicated that this application should also be subjected to instream flow recommendations on the Spokane River.

The recommendation of WDFW requested surface water diversions or ground water withdrawals in continuity with the Spokane River shall cease when the flow of the Spokane River falls below 200 cubic feet per second in the Spokane River below Little Falls Dam as measured by Avista Corporation. Additionally, when the elevation of Franklin D. Roosevelt Reservoir is at or below 1281 feet, all diversions/withdrawals shall cease when the flow of the Spokane River falls below 500 cubic feet per second (cfs). The proposed water uses under this application are for 27.6 acres of irrigation. To assure that the ground water withdrawal does not significantly affect the flow of the Spokane River, all of the irrigation use under this permit will be subjected to the recommended instream flow. Conditioned with the instream flow, no affects on fish habitat or water quality are anticipated.

CONCLUSION

The following are the conclusions of this examiner regarding the proposed withdrawal:

The proposed use is a beneficial use of water; the proposed withdrawal, when subject to the recommended instream flow, will not impair existing water rights. Water is available for the proposed withdrawal. Approval of this application for permit will not be contrary/detrimental to the public interest provided the 27.6 acres of irrigation shall cease when the Spokane River below Little Falls Dam falls below 200 cfs as measured by Avista Corporation. Additionally, when the elevation of Franklin D. Roosevelt Reservoir is at or below 1281 feet, all irrigation shall cease whenever the flow of the Spokane River falls below 500 cfs in accordance with the Little Falls Settlement Agreement. These instream flows have been tentatively established from revised recommendations of the Washington Department of Fish and Wildlife (WDFW) December 2, 2002.

RECOMMENDATIONS

This application for water is **APPROVED** in the amount of 300 gallons per minute, 60.7 acre-feet, each year, for the seasonal irrigation of 27.6 acres and are subject to the following provisions. A map of irrigated land is provided in the file.

Provisions

"All irrigation shall cease when the flow of the Spokane River falls below 200 cubic feet per second in the Spokane River below Little Falls Dam as measured by Avista Corporation. Additionally, when the elevation of Franklin D. Roosevelt Reservoir is at or below 1281 feet, all irrigation under this authorization shall cease when the flow of the Spokane River falls below 500 cubic feet per second (cfs). The elevation of Lake Roosevelt shall be measured at the United States Bureau of Reclamation (USBR) gage located at Grand Coulee Dam. Avista Corporation measures the flow in the Spokane River below Little Falls Dam. This flow has been tentatively established from revised recommendations of the Washington Department of Fish and Wildlife.

Should regulation occur, the land owner shall identify 13.8 acres of land within each legal description for curtailment. The land description or a map depicting 13.8 acres shall be provided to the department within 15 days of notice of proposed regulation.

"All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells)."

"An approved measuring device shall be installed and maintained for each of the sources identified herein in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. Water use data shall be recorded monthly and maintained by the property owner for a minimum of five years, and shall be promptly submitted to Ecology upon request."

"Installation and maintenance of an access port as described in Ground Water Bulletin No. 1 is required. An airline and gauge may be installed in addition to the access port."

"The rule above describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements."

"Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions."

"The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required for the actual crop grown on the number of acres and the place of use specified."

"This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise."

"Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations."

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

"This authorization to use public waters of the State is classified as a Family Farm Permit in accordance, with Chapter 90.66 RCW (Initiative Measure No. 59). This means the land being irrigated under this authorization shall comply with the following definition: Family Farm - a geographic area including not more than 6,000 acres of irrigated agricultural lands, whether contiguous or noncontiguous, the controlling interest in which is held by a person having a controlling interest in no more than 6,000 acres of irrigated agricultural lands in the State of Washington which are irrigated under water rights acquired after December 8, 1977. Furthermore, the land being irrigated under this authorization must continue to conform to the definition of a family farm."

Signed at Spokane, Washington
this XXth day of , 2012

Kevin Brown
Water Resources Program
Department of Ecology