

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-17746

Exam Date: 4/8/20

Current Owner:

DENNIS P VERMILLION 7902 E WOODVIEW DR SPOKANE WA 99212-1669 AND/OR
MARLENE M VERMILLION 7902 E WOODVIEW DR SPOKANE WA 99212-1669

SOURCE:

COEUR D ALENE LAKE

Tributary

SPOKANE RIVER

Method of Determination: Permit application, ArcMap, aerial imagery, and USGS topography

B. OVERLAP REVIEW1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-8929	Groundwater	Irrigation	License

Comments: 95-8929 community well that delivers irrigation use to property.

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-9054	Coeur D' Alene Lake	Irrigation	License
95-17770	Coeur D' Alene Lake	Irrigation	Permit
95-17747	Coeur D' Alene Lake	Irrigation	Permit

Comments: 95-9054, 95-17770, 17746, and 95-17747 are diverting water using a community pump.

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

COEUR D ALENE LAKE NW¼ SE¼, Sec. 15, Twp 48N, Rge 04W, B.M. KOOTENAI County

Method of Determination: Permit application, ArcMap, aerial imagery, and USGS topography

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
48N	04W	15														X	X		

Method of Determination:

3.

N/A Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

X Aerial Photo Attached (required for irrigation of 10+ acres).

N/A Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
L-95-S-4574	F+W	2	945120	F+W	1.5'

D. FLOW MEASUREMENTS

In office field exam so flow measurements not applicable.

E. FLOW CALCULATIONS

See attached theoretical spreadsheet.

Domestic Permit	0.04 cfs
Theoretical Rate	0.08 cfs
B.U. Proof Fee:	\$50 → 0.00 cfs to 0.20 cfs

License Recommendation	0.04 cfs
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F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A
2. Volume Calculations for Other Uses:
Domestic = 0.6 afa as per Apps Memo No. 22 "Definition of Domestic" when in home use is not included.

G. NARRATIVE/REMARKS/COMMENTS

The field exam was conducted in-office on April 8, 2020 by Kate Huelse.

Permit 95-17746 authorized the diversion of 0.04 cfs from the Coeur D Alene Lake tributary of the Spokane River for domestic external use for one home in Section 15, Township 48 North, Range 04 West, NW 1/4, SE 1/4 and SW 1/4, SE 1/4. Based on the information provided in the water right file, this qualifies for an in office field exam.

The proof of beneficial use was submitted by Dennis and Marlene Vermillion on February 10, 2020. Current Kootenai County tax lot data represent Dennis Vermillion as the owner pertinent to the place of use. The place of use was determined based on aerial photography, ArcMap tools and imagery depict an area of 0.3 acres to be irrigated.

While conducting the overlap analysis, there were several other water rights found in the same general QQ as the land described in this permit. The analysis found that water rights 95-9054, 95-17746, 95-17747, and 95-17770 are diverting from a community pump in Coeur D Alene Lake on Dennis Vermillions property. Overlap review found that 95-8929 delivers water from community well to 5 parcels, lots 11, 12-5, 12-2, 12-4, and 12-N. Analysis can be viewed in attached spreadsheet.

Spoke with Dennis Vermillion over the phone on February 27, 2020. Mr. Vermillion confirmed that the original 2hp, F&W pump installed by water right 95-9054 will be used to divert water to serve 95-9054, 95-17746, 95-17747, and 95-17770. Mr. Vermillion also provided photos of the pump, please see the photo log of this report.

According to the Water Right Backfile for water right 95-9054 the pump is about 20 feet below static water level. Lift was measured using the DRG map. Topography from the home to shore waters measure close to 65 feet. A range of discharge pressures were used under what we would expect to see from sprinkler irrigation. Theoretical average flow rate is 0.08 cfs. The four rights will be conditioned with a combined use limit of 0.08 CFS

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	
DOMESTIC	02/15 to 11/15	0.04 CFS	

Totals:

0.04 CFS

2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above X None

____ Change P.U. as reflected above ____ Add P.U. as reflected above X None

I. AUTHENTICATION

Kate Huelse - Water Resource Agent

Field Examiner's Name

Kate Huelse

Date

5/12/20

Reviewer

Date

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 95-17746
 Reviewer: Kate Huelse
 Date of Review: 3/2/2020

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	2	2	2
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	85	85	85
DISCHARGE PRESSURE	30	35	40
RATE OF FLOW (cfs)	0.08	0.07	0.07 0.07

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

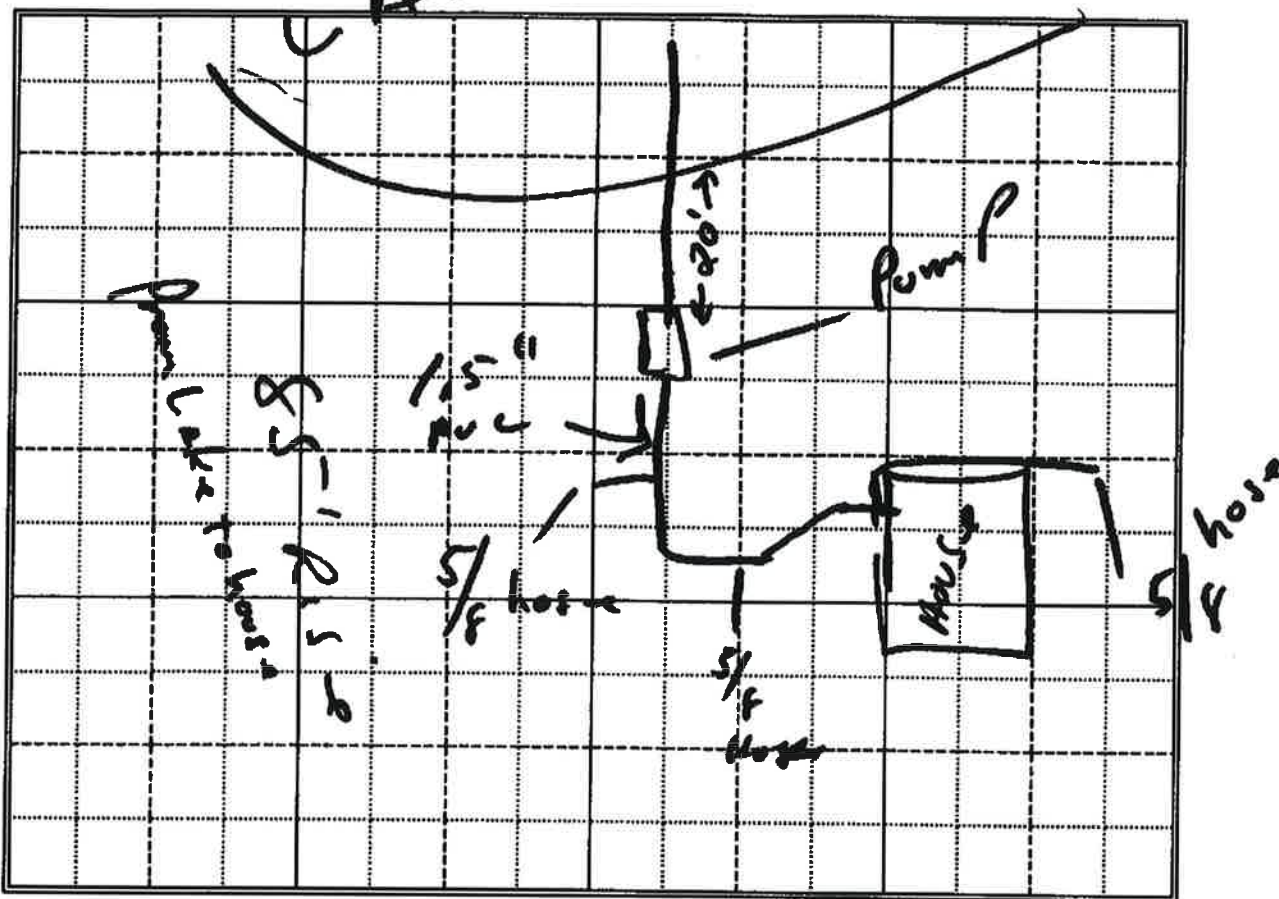
Examiners Notes:

A range of small hp pumps were assumed given this is for domestic use and the requested diversion rate is relatively small. Lift was measured using the DRG map. Topography from the home to shore waters measure close to 85 feet. A range of discharge pressures were used under what we would expect to see from in home domestic tanks (30-40 psi). Theoretical average flow rate is 0.8 cfs.

BasinSequence	Owner	Source	Use	NWSE	SWSE	SESE	TotalAcres
95-12479	CALKINS, KURT	COEUR D ALENE LAKE	DOMESTIC			X	
95-16855	GRIDLEY , SAM; VENTURA, PAL	COEUR D ALENE LAKE	DOMESTIC			X	
95-16855	GRIDLEY , SAM; VENTURA, PAL	COEUR D ALENE LAKE	FIRE PROTECTION			X	
95-17746	VERMILLION, DENNIS P; VERM	COEUR D ALENE LAKE	DOMESTIC	X	X		
95-17747	VERMILLION, DENNIS P; VERM	COEUR D ALENE LAKE	DOMESTIC	X	X		
95-17770	ERBLAND, DAVID; ERBLAND, M	COEUR D ALENE LAKE	DOMESTIC	X	X		
95-4050	KENNAUGH, GEORGE L	SPRING	DOMESTIC			X	
95-4107	KENNAUGH, GEORGE L	COEUR D ALENE LAKE	IRRIGATION				1
95-4412	DUNN, BARBARA J; DUNN, EAR	COEUR D ALENE LAKE	DOMESTIC			X	
95-4413	DUNN, BARBARA J; DUNN, EAR	SPRINGS	DOMESTIC			X	
95-7980	MARTIN, ADELA A; MARTIN, JA	SPRING	DOMESTIC			X	
95-8207	POWDERHORN BAY WATER AS	GROUND WATER	DOMESTIC			X	
95-8215	KELLY, LESTER J; KELLY, LOYCE	COEUR D ALENE LAKE	DOMESTIC		X		
95-8764	UNDERWOOD, LAWRENCE	COEUR D ALENE LAKE	DOMESTIC			X	
95-8929	BLAIR, RHONDA L; FAULKNER,	GROUND WATER	IRRIGATION		2.5		2.5
95-9054	FAULKNER, THOMAS C	COEUR D ALENE LAKE	IRRIGATION		0.2		0.2

95-09054

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.



Scale: 1" = _____

____ Copy of USGS Quadrange Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

____ Aerial Photo Attached (required for irrigation of 10+ acres)

____ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	F+W	2	945120	F+W	1.5"

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

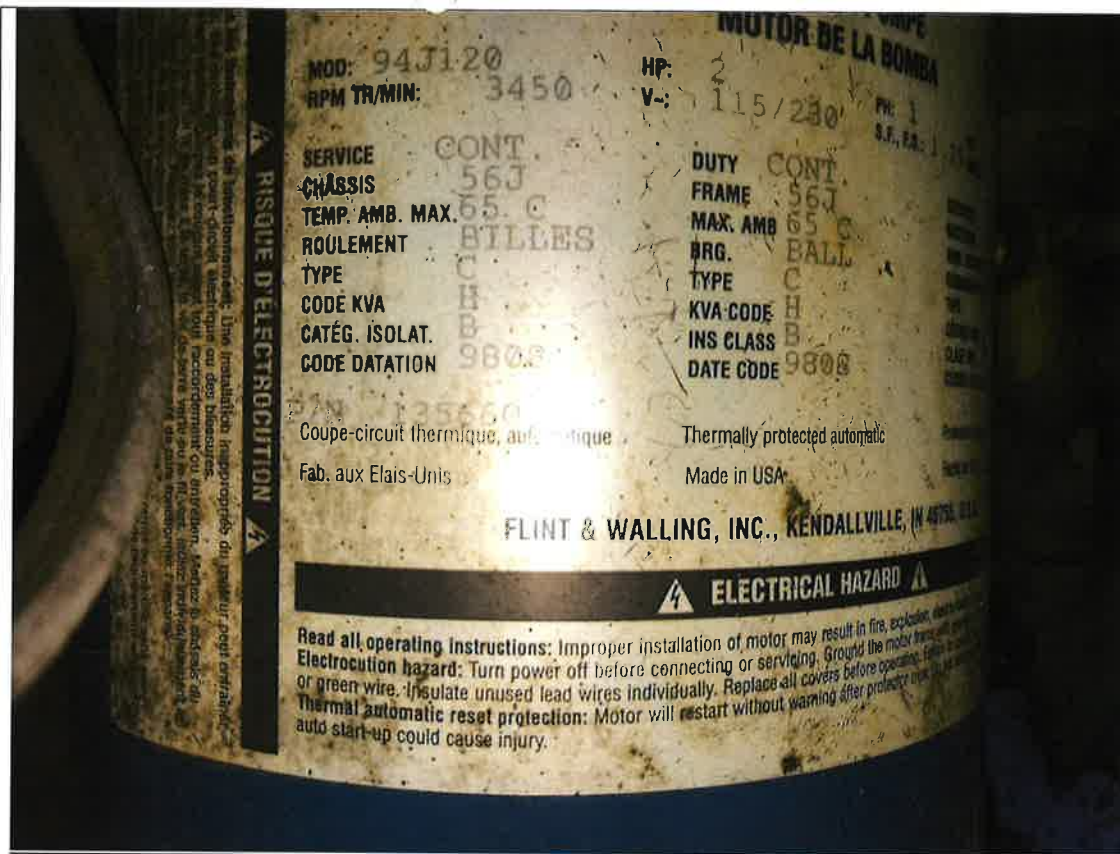
2. Measurements: _____

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POD OVERLAP

TRS	Process	BasinSeque Draft	Owner	NWSW	SWSW	SESW	NESE
95-17283	N	4 TOO MAI	COEUR D A POD	X			
95-17319	N	KOSTER, DI	COEUR D A POD	X			
95-17746	N	VERMILLIO	COEUR D A POD			X	
95-17747	N	VERMILLIO	COEUR D A POD			X	
95-17770	N	ERBLAND, I	COEUR D A POD			X	
95-17812	N	DIANNE HE	COEUR D A POD				
95-17856	N	MARTIN, A	GROUND V POD				X
95-12479	N	CALKINS, K	COEUR D A POD				
95-4050	N	KENNAUGT	SPRING POD				
95-4107	N	KENNAUGT	COEUR D A POD				
95-4412	N	DUNN, BAF	COEUR D A POD				
95-4413	N	DUNN, BAF	SPRINGS POD				
95-7980	N	MARTIN, A	SPRING POD				
95-8215	N	KELLY, LESI	COEUR D A POD				X
95-8764	N	UNDERWO	COEUR D A POD				
95-8929	N	BLAIR, RHC	GROUND V POD				X
95-9054	N	FAULKNER,	COEUR D A POD				X



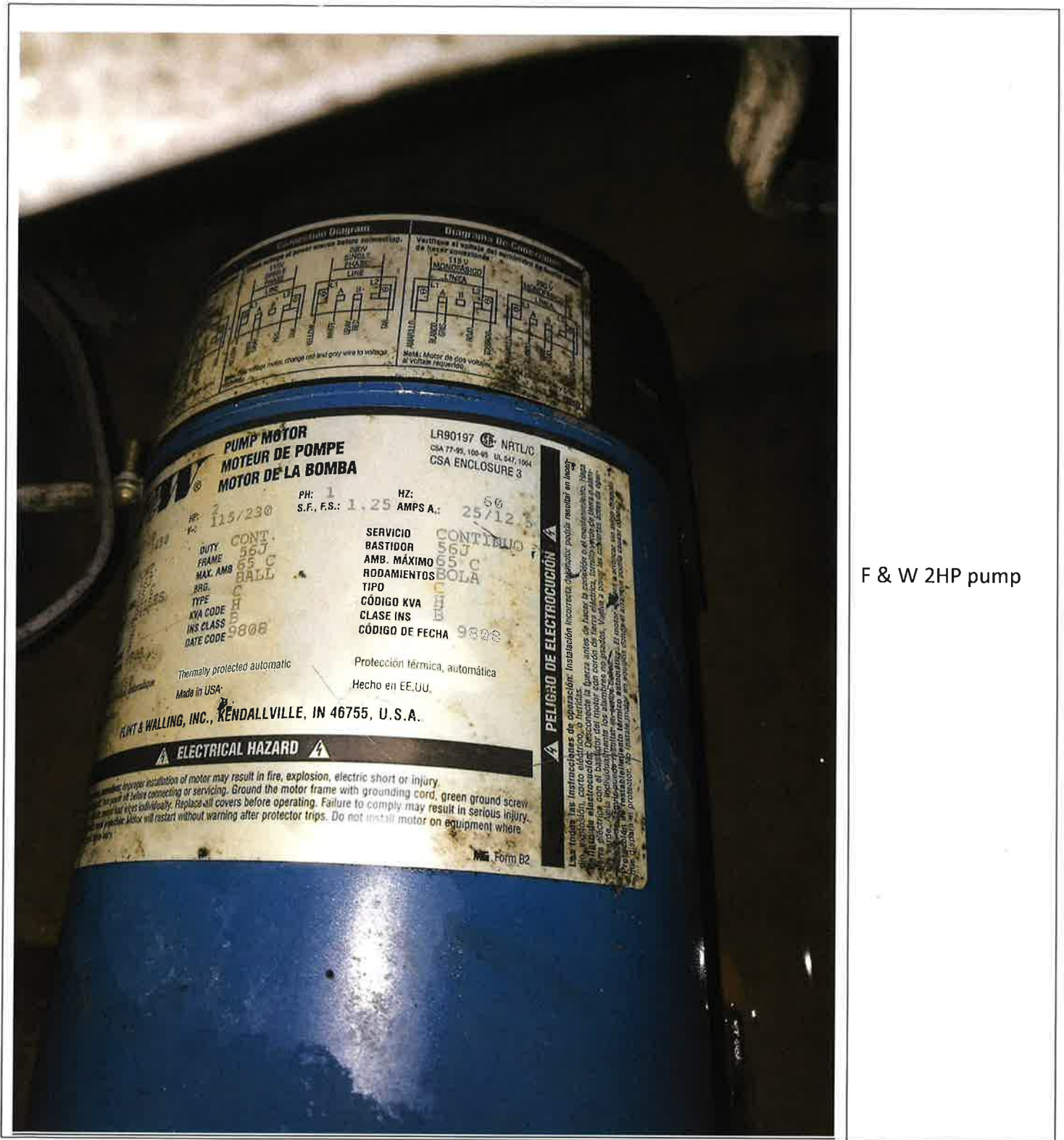
F & W 2HP pump



F & W 2HP pump



F & W 2HP pump



F & W 2HP pump

State of Idaho
Department of Water Resources
Beneficial Use in Office Exam
95-17746



- 04W
- 48N
- Point of Diversion
 - Place Of Use Boundary
 - Townships
 - PLS Sections
 - Quarter Quarters

0 0.015 0.03 0.06 Miles

