

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9166

Exam Date: 5/28/2008

1. Current Owner: JUNE BERGQUIST
4136 S BOISEN LOOP RD
COEUR D ALENE ID 83814
2. Accompanied by: June Bergquist
Phone No: (208) 691.3069
Address: 4136 S Boisen Loop RD, Coeur d'Alene, ID 83814
Relationship to Permit Holder: Owner

3. SOURCE

UNNAMED STREAM

TRIBUTARY

COEUR D ALENE LAKE

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-8435
2. Other water rights with the same point of diversion: NONE

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM GOVT LOT 2, NE1/4SW1/4, Sec. 35, Twp 50N, Rge 04W, B.M., KOOTENAI County

Method of Determination: Garmin GPS, USGS 7.5' Quadrangle (Topographic)
2. 'Coeur d'Alene' F4

PLACE OF USE:**AESTHETIC**

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N 04W 35									X								
									L 2								

PLACE OF USE:**FIRE PROTECTION**

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N 04W 35									X								
									L 2								

PLACE OF USE:**IRRIGATION**

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N 04W 35									1.0								1.0
									L 2								

Total Acres: 1

PLACE OF USE:**DOMESTIC**

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
50N 04W 35									X								
									L 2								

3. Method of Determination:

- ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

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4. PODWell or Diversion

<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
<u>721296</u>	<u>Franklin</u>	<u>1/2</u>	<u>unknown</u>	<u>Little Giant</u>	<u>Model 5 MSP</u>

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

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>Bucket</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5 GAL</u>	<u>-</u>
<u>Watch</u>	<u>-</u>	<u>Remington</u>	<u>-</u>	<u>-</u>	<u>Wristwatch</u>	<u>-</u>

2. Measurements: 5 GAL Bucket Filled in 45 seconds = .75 min

$$\frac{5 \text{ GAL}}{.75 \text{ MIN}} \times \frac{1}{1.0 \text{ MIN}} = .75 \text{ IS} = 6.67 \text{ GPM} = .014 \text{ CFS}$$

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

Theoretical (See Below)

PUMP EQUATIONS		WATER RIGHT #	95-9166	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
		HP	H in feet			
Q =	HP*8.8*Eff/H	0.167	57.82313	0.7	0	25
Q =	.0018 cfs					

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{\text{I.R.}} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (.5) \times (3.0) = 1.5 \text{ AF}$$

$$V_{\text{D.R.}} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (.02) \times (245) \times (1.9835) = 9.719 \text{ AF}$$

$$V = \text{Smaller of } V_{\text{I.R.}} \text{ and } V_{\text{D.R.}} = 1.5 \text{ AF}$$

2. Volume Calculations for Other Uses:

Aesthetic .02 cfsFire Protection .02 cfsDomestic (1 home) .02 cfs .6 AF

	<u>EFs</u>	<u>Summary AF</u>
<u>Aesthetic</u>	<u>.02</u>	
<u>Fire Protection</u>	<u>.02</u>	
<u>Domestic</u>	<u>.02</u>	<u>.6</u>
<u>Irrigation</u>	<u>.02</u>	<u>1.5</u>
	<u>.02</u>	<u>2.1</u>

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G. NARRATIVE/REMARKS/COMMENTS

Field Exam conducted 5/26/08. There is no storage on system. Domestic use is backup only. Domestic water is routinely provided by Kidd Island Bay Water Users Association. Irrigation use is limited to small drip system for individual trees and a garden hose with a single sprayer which is used for a grassy area. The drip system is currently distributed across three lots and the hose across a fourth lot with a total area of .97 acre. Total irrigated area does not exceed one half acre. All lots within the Place of Use shown on the application are now owned by the applicant per review of Kootenai County tax records.

A 1/6 Horsepower, electric powered, submersible pump is used at the only Point Of Diversion (POD). The pump sits inside a five gallon bucket that receives water falling from a culvert on an unnamed seasonal stream. The stream usually dries up completely during the summer. The present pump and bucket configuration at the POD allows water to be diverted only when there is enough flow in the stream to collect in the bucket and to keep the pump submerged.

Water from the bucket travels downhill about 150 feet via a 3/4 inch garden hoses to a junction on the North side of a residence. Water from the 1/6 HP pump can be diverted to the house for backup domestic use or to a small irrigation system. 6.7 Gallons Per Minute was measured filling a 5 gallon bucket at a distance of 50 feet from the submersible pump.

Junctions and valves at the North side of the residence control water for the irrigation system. There are three separate zones. The system consists of drip irrigation lines to the East and South of the residence and a garden hose with a single fixed sprayer at the end of the hose for a lot on the West side of the residence. The drip lines are 1/2 inch diameter black poly irrigation pipe to which 25 each drip irrigation valves are connected. The valves are rated to supply up to two gallons per minute when opened. Water in the drip system is used to supply about 20 young and 5 mature trees.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
AESTHETIC	01/01 to 12/31	0.020 CFS	
FIRE PROTECTION	01/01 to 12/31	0.020 CFS	
IRRIGATION	03/15 to 11/15	0.020 CFS	1.50 AF
DOMESTIC	01/01 to 12/31	0.020 CFS	0.60 AF
<u>Totals:</u>		0.020 CFS	2.10 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Sharon M. May

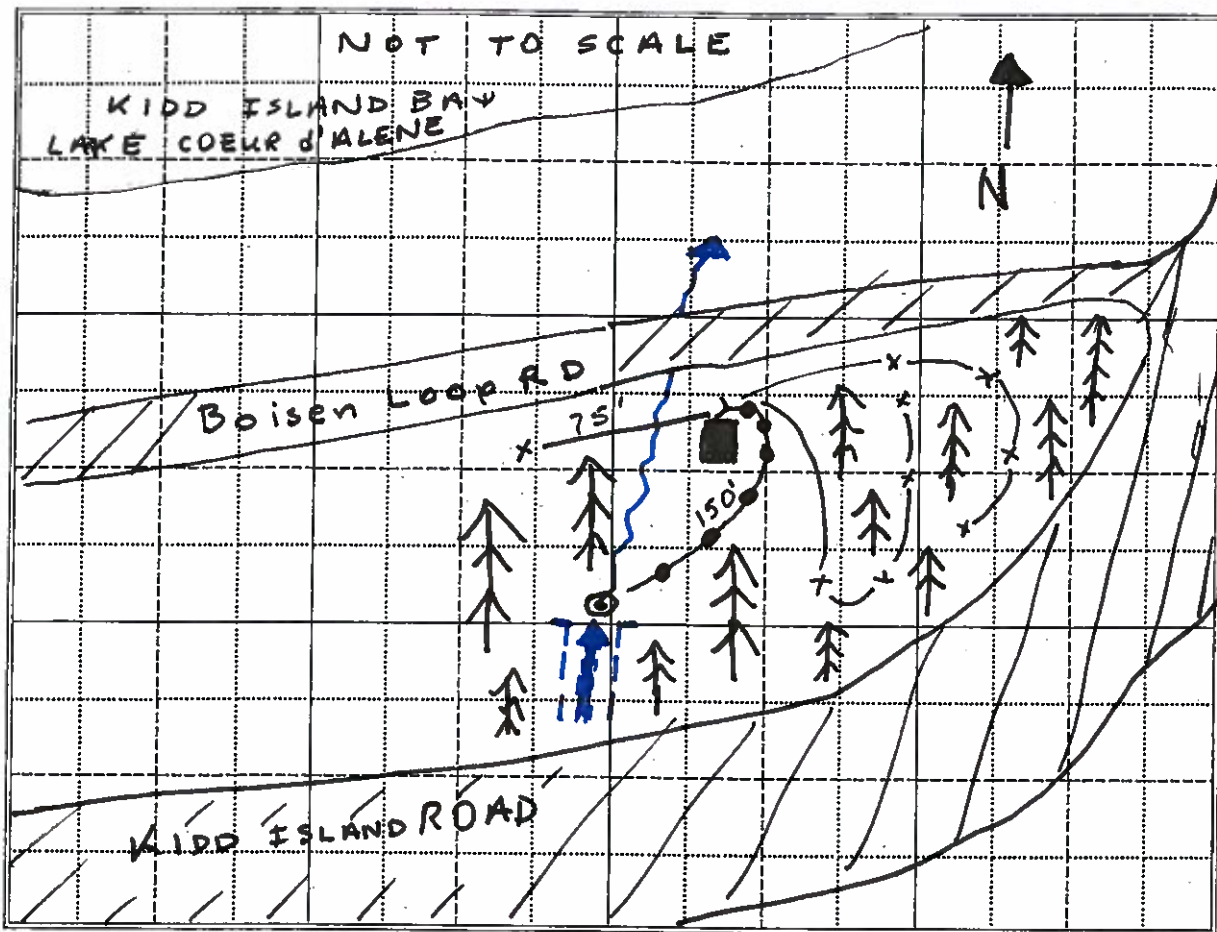
Date 5/30/08

Reviewer [Signature]

Date 6/16/08

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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 Quadrangle Attached Showing location(s) of
point of diversion and elements of the boundary

Aerial Photo Attached

Photo of Diversion and System Attached



Point of Diversion



House



Garden Hose with end sprinkler



Garden Hose (POD to junction)



Drip Irrigation Line



Buried Culvert & Culvert opening

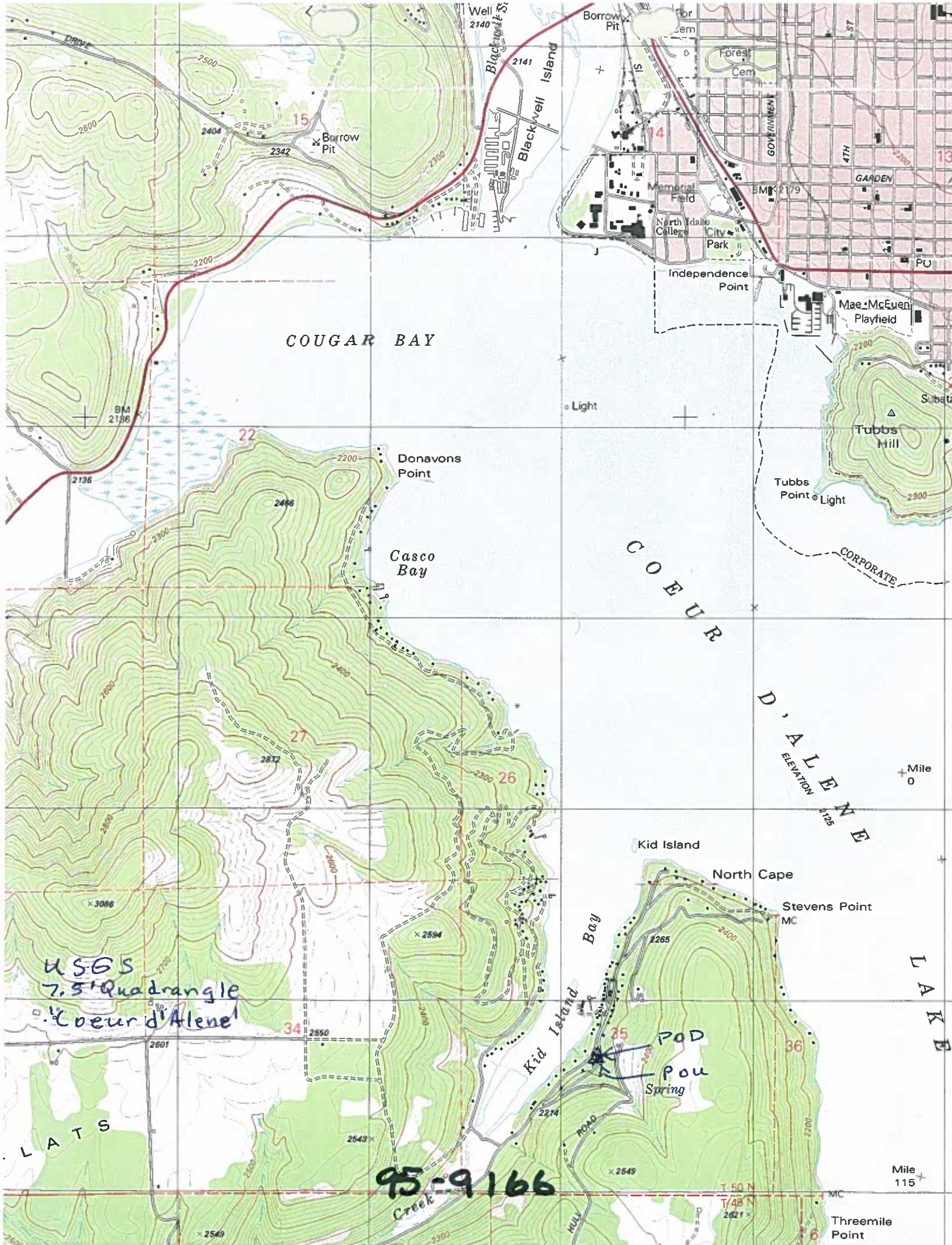


Unnamed seasonal stream



Conifer Trees

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COUGAR BAY

Casco Bay

COEUR

D'ALENE

LAKES

USGS
7.5' Quadrangle
Coeur d'Alene

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Kid Island

North Cape

Stevens Point MC

POD
pou Spring

Threemile Point

Mile 115

Mile 0

Light

Tubbs Point Light

CORPORATE

GARDEN

4TH

GOVERNMENT

MAE MCGEEN

PLAYFIELD

SUBSTATION

TUBBS HILL

INDEPENDENCE POINT

CITY PARK

NORTH IDAHO COLLEGE

MEMORIAL FIELD

BORROW PIT

WELL

BLACKWELL ISLAND

BLACKWELL ISLAND

BLACKWELL ISLAND

BLACKWELL ISLAND

BLACKWELL ISLAND

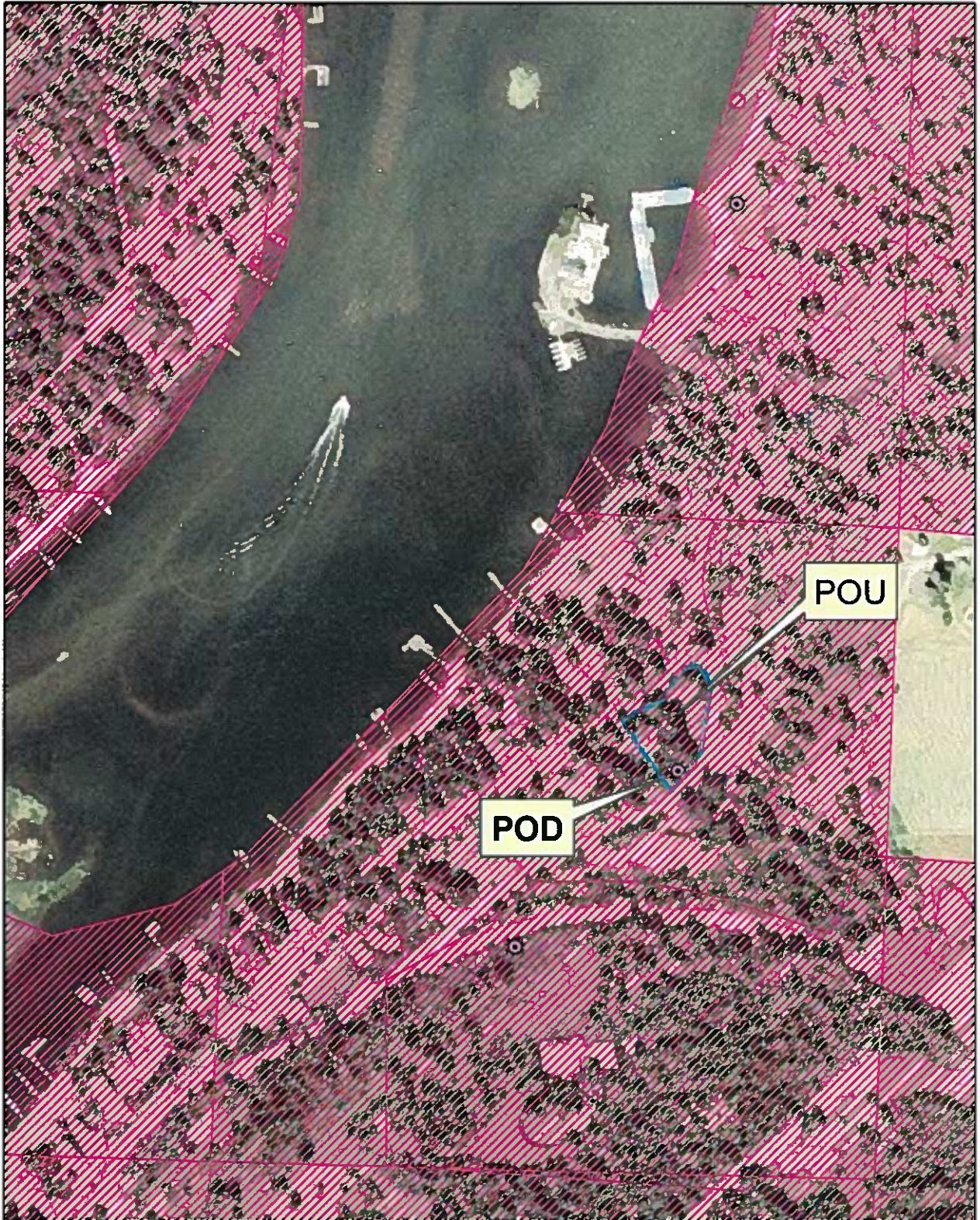
BLACKWELL ISLAND

BLACKWELL ISLAND

BLACKWELL ISLAND

BLACKWELL ISLAND

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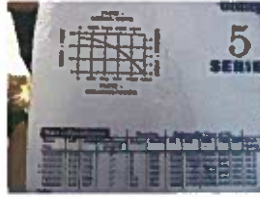
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Point of Diversion (POD) On Unnamed Stream.JPG



Submersible Pump at POD.JPG



Pump Data View 1.JPG



Pump Data View 2.JPG



5 gallon Bucket filled from POD pump.JPG



Drip Irrigation Point (2 GPM).JPG



Drip Irrigation Equipment.JPG



Drip Irrigation .5 inch supply line.JPG



Irrigation hose to Grassy Lot.JPG



Sprinkler Head Close-Up.JPG



Domestic Point of Use.JPG



Lid Kidd Island Bay water line.JPG

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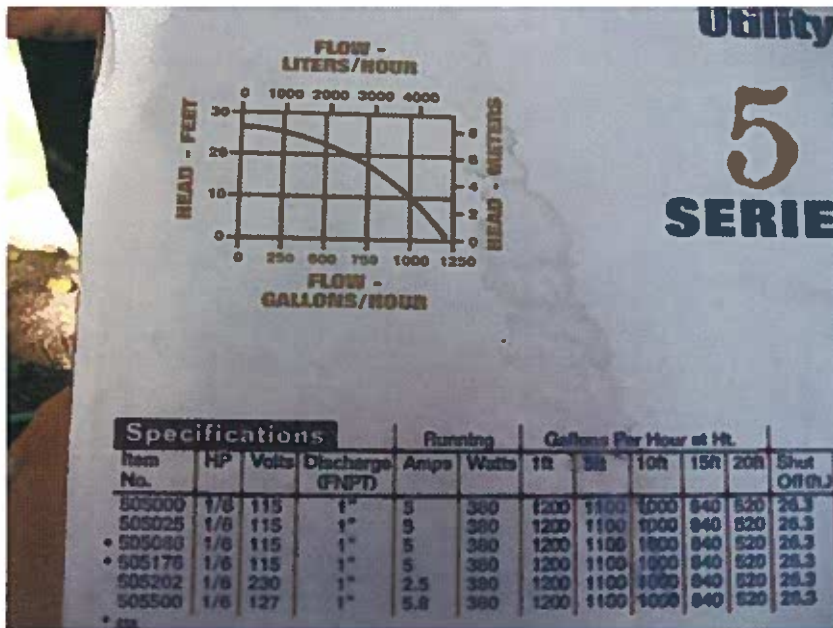


95-9166 Point Of Diversion (POD) on unnamed stream

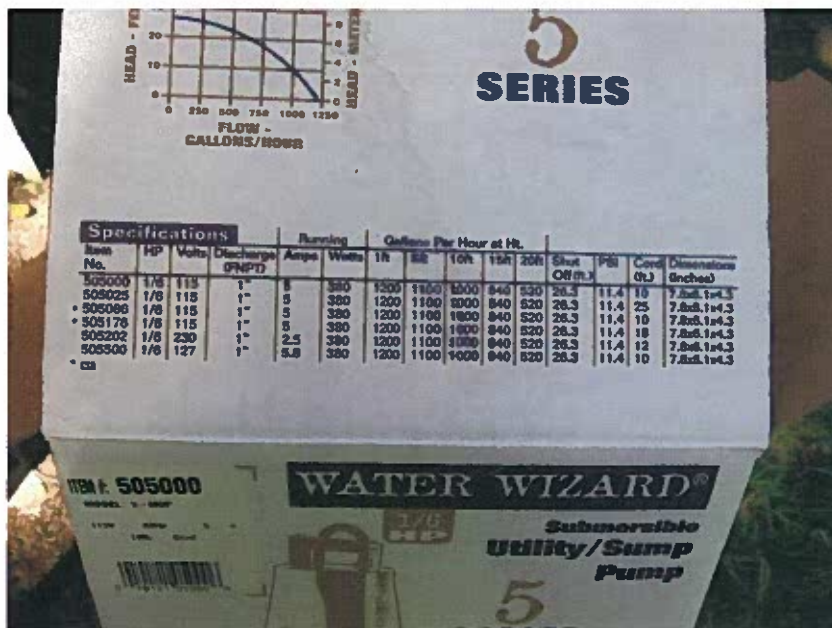


1/6 Horsepower Electric Submersible pump at POD

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95-9166 Pump Data View 1



95-9166 Pump Data View 2

95-9166



95-9166 Five Gallon Bucket filled from 1/6 HP pump



95-9166 Drip Irrigation point (2 Gallon Per Minute)

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95-9166 Drip Irrigation equipment (2 Gallon Per Minute)



95-9166 Drip Irrigation 1/2 inch supply line

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95-9166 Irrigation hose to grassy lot West of house



95-9166 Sprinkler head close-up grassy lot West of house

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95-9166 Domestic Point of use



95-9166 Lid for Kidd Island Bay water line

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Survey Details

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Original Survey • Twp **50N-4W**, ID, Boise (North, South, East, West boundaries and Subdiv. Lines)

[Survey Details](#) | [Plat Details](#) | [Plat Image](#) | [Field Note Images](#)

Description: ---

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SW 1/4 Sec. 35 Twp. 50 N. R. 4 W.B.M.

50N04W-35

