

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
IN-OFFICE REVIEW/BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATIONPermit No: 95-16665Exam Date: 2/23/2016

1. Does this qualify for an in-office field exam (IDAPA 035.02.r)? X Y N
- Irrigation of 5 acres or less
 - Storage of up to 14.6 AF for stockwater purposes only
 - Any use other than irrigation or storage, if the combined diversion rate is 0.24 cfs or less
 - Other < >

2. Current Owner: Name: Snyder Family Trust
- Owner of Record Correct? X Y N
- Address of Record Correct? Y N
- If No: Address

Tax lot data shows Snyder Family 2001 Trust as the owners of the property.

3. Beneficial Use Fees have been paid: X Y N Receipt No: C0

4. SOURCE TRIBUTARY
- Unnamed Stream Spokane River

Method of Determination: GIS and Taxlot Data

Change in Source: Y X N

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
NONE			

Comments: Water right 95-14426 is a domestic use from ground water for the same property, but is from ground water and not unnamed stream water. Water right 95-4066 is a statutory claim that claims a spring source delivering water to a pond. However, this spring appears to be in the NESW of Section 9 instead of the NWSW of Section 9. The back file for 95-4066 shows the spring is on the property of the owner to the east of this property. Water right 95-8356 is north of the property, 95-10628 is south of the property and water rights 95-11586 and 95-1338 are both north of the property.

2. Other water rights with the same point of diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
95-14426	Ground water	Domestic	Recommendation.

Comments: Water right 95-14426 is a domestic use from ground water for the same property, but is from ground water and not unnamed stream water. Water right 95-4066 is a statutory claim that claims a spring source delivering water to a pond. However, this spring appears to be in the NESW of Section 9 instead of the NWSW of Section 9. The back file for 95-4066 shows the spring is on the property of the owner to the east of this property. Water right 95-8356 is north of the property, 96-10628 is south of the property and water rights 95-11586 and 95-1338 are both north of the property.

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

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
Creek Pump			NW	SW	9	50N	5W	B.M.	Kootenai
								B.M.	
								B.M.	

Method of Determination: GIS and Tax Lot data.Change in POD? X N Amendment Required? X N**2. PLACE OF USE:** 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	5W	9										0.6							
		Lot #																	
Total Acres =																			

Method of Determination: GIS and Tax Lot DataChange in POU? X N Amendment Required? X N Delivery System Diagram Attached (required). Indicate all major components and distances between components.

Indicate weir size/pipe as applicable.

 X 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
Creek Pump	Unknown	unkown			

*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
NONE						

2. Measurements: No measurement is required for an in-house exam, but a pump curve from a similar pump was used.

E. FLOW CALCULATIONS X Additional Computation Sheets Attached

Measured Method:

The Hp of the pump is unknown. However, the photos suggest that this is a Franklin Electric sump pump. These pumps have a maximum capacity under ideal conditions of 0.02 to 0.04 cfs, which is in line with the small area being irrigated with the drip system shown in the photos.

Acre Limitation = 0.02 cfs (0.6 acres X 0.03 cfs = 0.02 cfs)

Pump Information flow rates = 0.02 to 0.04 cfs

Permit allowed = 0.09 cfs

In order to operate this system, I am assuming they are using 8 to 10 gpm or 0.02 cfs. Therefore, I am recommending a diversion rate of 0.02 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.6 \times 3 = 1.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.02 \times 246 \times 1.9835 = 9.8 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1.8 \text{ af}$$

2. Volume Calculations for Other Uses:

G. PURPOSE OF USEIrrigation X Y N # Stock _____ Domestic # of Homes _____

Other: < >

Change in Purpose of Use? Y X N Method of Determination: Taxlot data and conversations with owner.

If Yes: From Use _____ To Use _____ Amount _____ CFS _____ AFA _____

H. NARRATIVE/REMARKS/COMMENTS

This permit is qualified for an in-house exam. The permit states that this use is for irrigation use of up to 3 acres of ground. A map supplied by the permit holder shows that approximately 0.6 acres of ground were actually developed. The acre amount and diversion rate were reduced accordingly. The permit holder uses a drip type watering system, so the flow rates for this system are very low. The pump that is shown in the photos appears to be a sump pump, so it doesn't generally operate under higher pressures. With the type of irrigation system used, I am estimating that this pump could produce a maximum of 8 to 10 gpm or 0.02 cfs.

Condition #1 (R66) will be changed to condition X31 that will limit the use when combined with other water rights to 0.02 cfs and 1.8 acres for irrigation. This would be acceptable when combined with the irrigation use allowed in the domestic use for water right 95-14426 which limits the total use to 0.04 cfs and 1.2 af of water use for both the in-house use and up to 1/2 acre yard irrigation. The irrigation portion of the domestic use component usually allows 0.02 cfs and 0.6 af of water, so this limitation should not be an issue. Condition #2 (X15) will be carried forward to licensing. Condition #3 (004) will be removed, since the unnamed stream runs through the owner's property. Condition #4 (227) will be carried forward to licensing.

Have conditions of permit approval been met? X Yes No

I. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
Irrigation	3/15 to 11/15	0.02 CFS	1.8 AF
<u>Totals:</u>		0.02 CFS	1.8 AF

2. Recommended Amendments

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

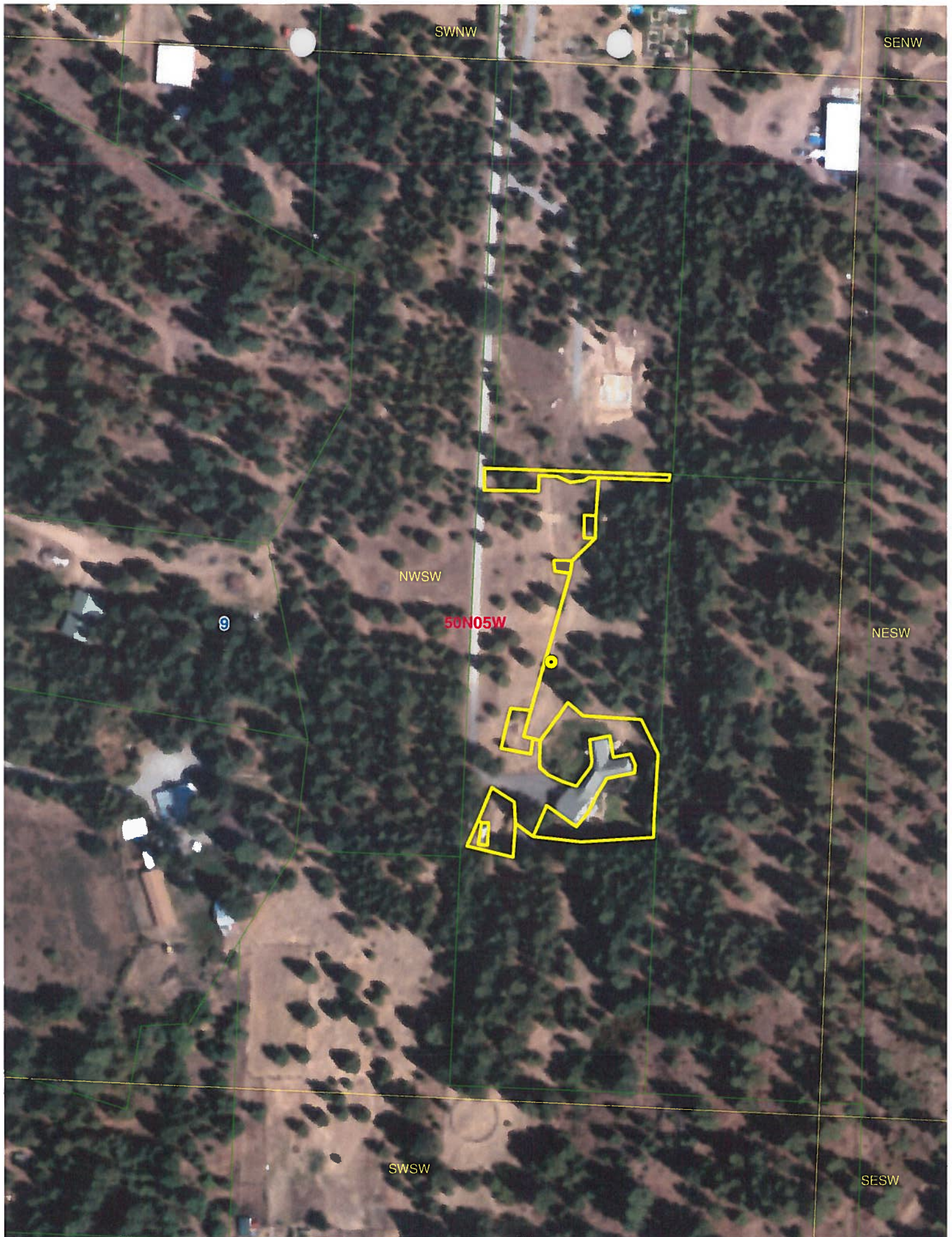
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ None

Other: < >

J. AUTHENTICATION – DANIEL A. NELSON – STAFF HYDROLOGIST

Field Examiner's Name  Date 2-23-16.

Reviewer _____ Date _____



APPLICATIONS

- Commercial, industrial, and home uses where water must be transferred or recirculated



5-ASP

5-MSP

FEATURES

- 1/6 hp shaded pole motor with overload protection
- Designed for continuous duty
- Pumps down to 1/8" (38 mm)
- 1" FNPT (25.4 mm) discharge
- Removable inlet screen for easy cleaning
- Multiple switch options for automatic operation
- Multiple power cord lengths available
- 120 °F (49 °C) liquid temperature rating
- cCSAus on models 505300, 505350, 505400, 505486, 505000, 505025, and 505176

SERIES SPECIFICATIONS

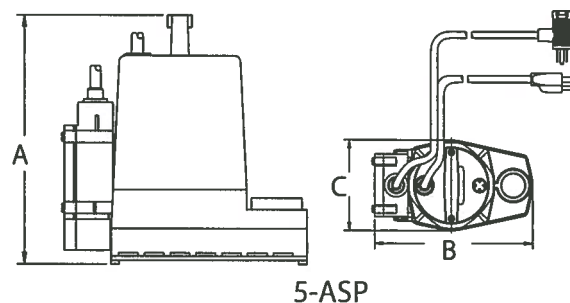
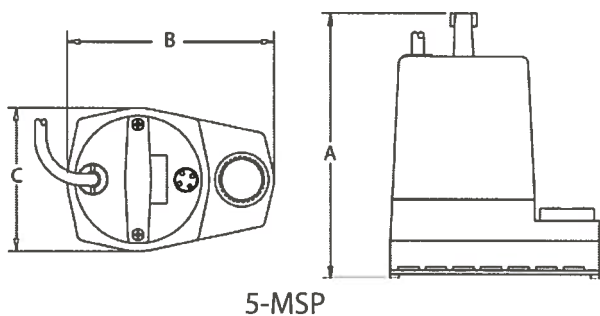
Volts	Hz	Amps		Watts	Performance (GPH @ Height in Feet)					Shut-Off (ft)	PSI
		FLA	Start		1'	3'	5'	10'	20'		
115	60	5	6.4	380	1200	1170	1100	1000	520	26.3'	11.4
230	60	2.5	6.4	380	1200	1170	1100	1000	520	26.3'	11.4

$$520 \text{ gph} / 60 = 8.67 \text{ gpm} / 448.8 = 0.020 \text{ cfs}$$

$$1200 \text{ gph} / 60 = 20 \text{ gpm} / 448.8 = 0.045 \text{ cfs}$$

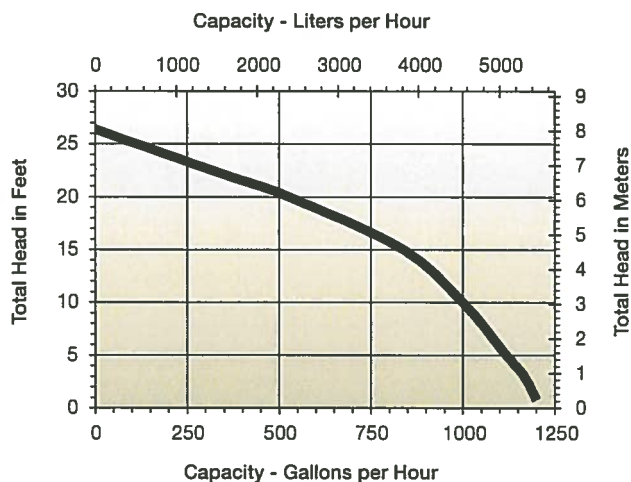
Item No.	Model	HP	Volts	Switch Type/ Operation	On Level	Off Level	Cord	Weight
505300	5-ASP	1/6	115	Piggyback Diaphragm	6" - 9" 15.2 cm - 23 cm	1" - 4" 2.5 cm - 10 cm	10' 3 m	9 lbs 4.08 Kg
505350	5-ASP-LL	1/6	115	Piggyback Diaphragm	2" - 3" 5 cm - 7.6 cm	0.5" - 1.5" 1.27 cm - 3.8 cm	18' 5.5 m	10.25 lbs 4.65 Kg
505400	5-ASP-FS	1/6	115	Integral Float Switch	10" - 12" 24.5 cm - 30.5 cm	2" - 4" 5.1 cm - 10.2 cm	10' 3 m	9 lbs 4.08 Kg
505486	5-MSPR (black pump)	1/6	115	Manual	—	—	10' 3 m	9 lbs 4.08 Kg
505000	5-MSP	1/6	115	Manual	—	—	10' 3 m	8.25 lbs 3.74 Kg
505500	5-MSP	1/6	115	Manual	—	—	10' 3 m	8.25 lbs 3.74 Kg
505025	5-MSP	1/6	115	Manual	—	—	25' 7.6 m	8.75 lbs 3.97 Kg
505176	5-MSP	1/6	115	Manual	—	—	10' 3 m	8.75 lbs 3.97 Kg
505202	5-MSP	1/6	230	Manual	—	—	12' 3.6 m (w/o plug)	8.25 lbs 3.74 Kg

ENGINEERING DATA



Model	A	B	C
5-MSP	7.78" 19.76 cm	6.1" 15.49 cm	4.13" 10.49 cm
5-ASP	7.78" 19.76 cm	7.75" 19.69 cm	4.13" 10.49 cm

PERFORMANCE DATA



CONSTRUCTION

Motor Housing	Epoxy-coated cast aluminum
Impeller Material	Nylon
Impeller Type	Semi-open
Volute	Nylon
Motor Shaft	Stainless steel
Shaft Seal	Fluoroelastomer (FKM)
Fasteners	Stainless steel
Bearings	Bronze sleeve
Power Cord	SJTW

Dear Daniel Nelson

RECEIVED

FEB 21 2016

DEPARTMENT OF
WATER RESOURCES

2/16/16

Thank you for the request information

letter enabling the process for our licensing.
We irrigate areas one through six (circled
on arial map) via a cistern. When the
creek flows we pump into the cistern. Our
diversion pump is in a five gallon pail, surrounded
and covered with screen. See photo

area 1 has 14 Liliac bushes

2 lawn around house

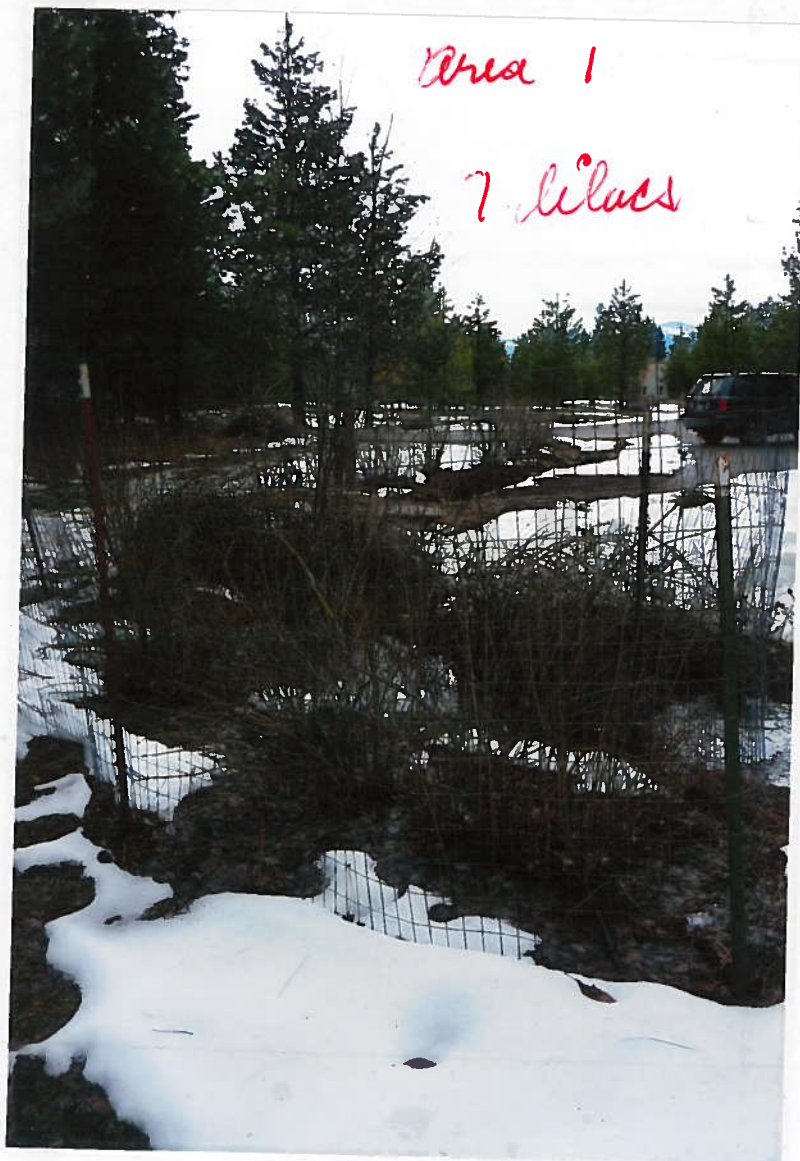
3 1 Japanese Maple & 1 weeping willow tree

4 1 Birch & 1 Poplar tree

5 1 Japanese Maple

6 7 Liliacs, 23 Firs, 1 Blue Spruce

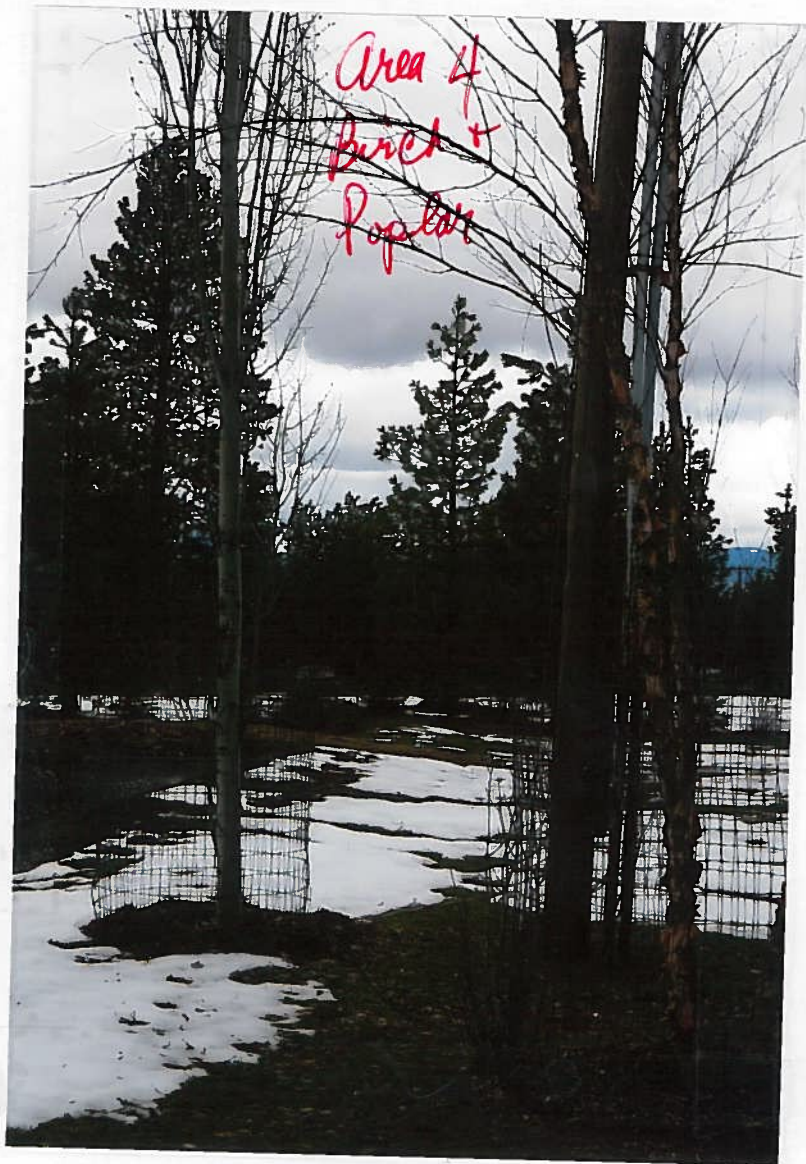




PHOTOS
SENT BY
OWNER
95-16665
Area #1



PHOTO'S SENT BY OWNER
95-16605 POINT OF DIVERSION.



PHOTOS
SENT BY
OWNER
PERMIT
95-16065
AREAS 3 & 4



PHOTOS SENT BY OWNER

PERMIT 95-16665 AREA 6.



PHOTOS SENT BY OWNER
PERMIT 95-16665 AREA 6 CONTINUED.



PHOTOS SENT BY OWNER

PERMIT 95-16665 AREA 6 CONTINUED.