

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-7804

Exam Date:

1. Current Owner: SKIN CREEK WATER ASSN
PO BOX 1441
BONNERS FERRY ID 83805
(208)265-4270
2. Accompanied by: Ed Huucklby
Phone No: SAME
Address: SAME
Relationship to Permit Holder: operator
3. SOURCE TRIBUTARY
SKIN CREEK MOYIE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 98-2128
2. Other water rights with the same point of diversion: 98-2128

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

SKIN CREEK SE1/4SW1/4 Sec. 29 Twp 63N, Rge 03E, B.M. BOUNDARY County

2. Method of Determination:
3. ☒ 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

4.

Well or DiversionPump Serial No. or Discharge

In Stream diversion system is a concrete structure that is parallel to Skin Creek. Dimensions are 11 feet long X 33 inches wide X 35 inches. This system was installed in 1966 by the Skin Creek Association. This diversion system use a 8 inch elbow pipe to a 6 inch delivery pipe to the injection station that is 1700 feet away from Skin Creek point of diversion. The U.S. Forest Service owns property at the point of diversion.

PLACE OF USE:

MUNICIPAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
62N 02E 1	X L 1	X L 2	X	X			X	X	X	X	X	X	X	X	X	X	
62N 02E 2													X			X	
62N 02E 10												X			X	X	
62N 02E 11	X			X									X			X	
62N 02E 12		X	X		X	X	X	X	X	X	X	X		X	X		
62N 02E 13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
62N 02E 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
62N 02E 15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
62N 02E 16													X			X	
62N 02E 21	X			X									X			X	
62N 02E 22	X	X	X	X L 6	X	X	X			X	X	X	X L 7	X	X	X L 10	
62N 02E 23	X	X	X	X	X	X	X L 3	X	X	X L 13	X	X	X	X	X	X	
62N 02E 24	X	X	X	X L 6	X	X	X	X	X	X	X	X	X	X	X	X	
62N 02E 25	X				X	X											
62N 02E 26	X	X			X	X											
62N 03E 18										X	X	X			X	X	
62N 03E 19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
62N 03E 30		X			X	X											
63N 02E 36			X	X									X	X	X L 2	X L 1	
63N 03E 29										X	X						
63N 03E 30												X			X	X	
63N 03E 31	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
63N 03E 32					X	X	X	X		X							

D. FLOW MEASUREMENTS

See Attached Manning's Equation.

F. VOLUME CALCULATIONS: No Volume with this water right.**G. NARRATIVE/REMARKS/COMMENTS:**

The recommended Amendment to water 98-7804 is to correct the location for the point of diversion. The exam show that location of this point of diversion is: **GPS W116°06.332 N 48°46.552**. IDWR and DEQ have GPS this location to be in Township 63 N, Range, 03E, Section 29, SE¼ of SW¼. The application and permit has the incorrect location as Township 63 N, Range, 03E, Section 29, NE¼ of NE¼. The map provided with this exam will show the GPS location of the point of diversion and the tax lot for Skin Creek Water Association.

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>
MUNICIPAL	01/01 to 12/31	0.120 CFS
<u>Totals:</u>		0.120 CFS

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 *Eric H. [Signature]* Date 12-17-2012
 Reviewer *Beth L. Franklin* Date 4-23-2013

Manning's Equation Calculator for Flow Rate in a Circular Conduit Flowing Full

READ ME

S = 0.0588 ft/ft
n = 0.024 manning's coefficient
d = 6.0 pipe diameter (inches)
D = 0.50 pipe diameter (feet)
r = 0.25 pipe radius (feet)
A = 0.20 area (ft²)
WP = 1.57 wetted perimeter (ft)
R = 0.13 hydraulic radius (ft)
Q = 0.73 flow rate (CFS)

Channel Slope

Slope Options
☐ Manual Entry ☒ Slope Calculator

Slope Calculator

Rise = 100 feet
Run = 1700 feet
Slope, S = 0.0588 ft/ft

Pipe Material, (n): corrugated metal pipe (CMP)

Pipe Diameter (inches) 6.0 inches

Manning's Equation (1), is an empirical formula that solves for velocity (v) in a open channel under uniform flow. The continuity equation (2) when combined with equation (1) allows for the computation of the flow rate (Q) in an open channel under uniform flow.

In equations (1) and (3), n refers to Manning's Coefficient of Roughness and can be found in tabulated form for many open channel types. R is the hydraulic radius of the open channel and is equal to the area of the open channel divided by the wetted perimeter, R = A/P. S is the slope of the energy grade line which is often assumed to be equal to the slope of the channel .

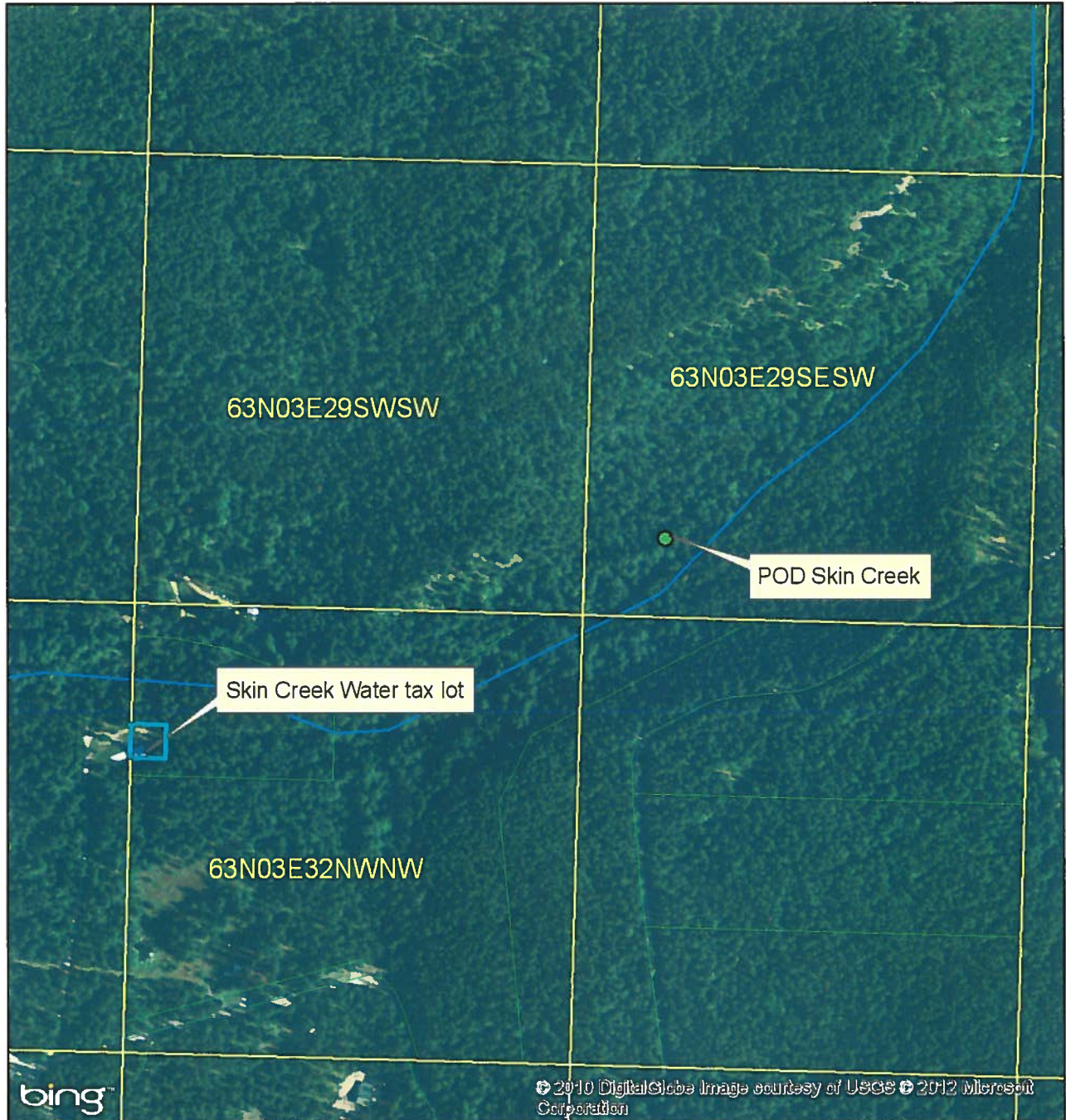
Because Manning's Equation is empirical the units are not arbitrary. To obtain a velocity in ft/s and a flow rate in ft³/s, area must be reported in ft², hydraulic radius must be reported in ft, and S must be reported in ft/ft. Manning's Coefficient of Roughness is

$$(1) \ v = 1.49 \left(\frac{1}{n} \right) \left(R^{\frac{2}{3}} \right) \sqrt{S}$$

$$(2) \ Q = vA$$

$$(3) \ Q = 1.49 \left(\frac{1}{n} \right) (A) \left(R^{\frac{2}{3}} \right) \sqrt{S}$$

98-7804 System



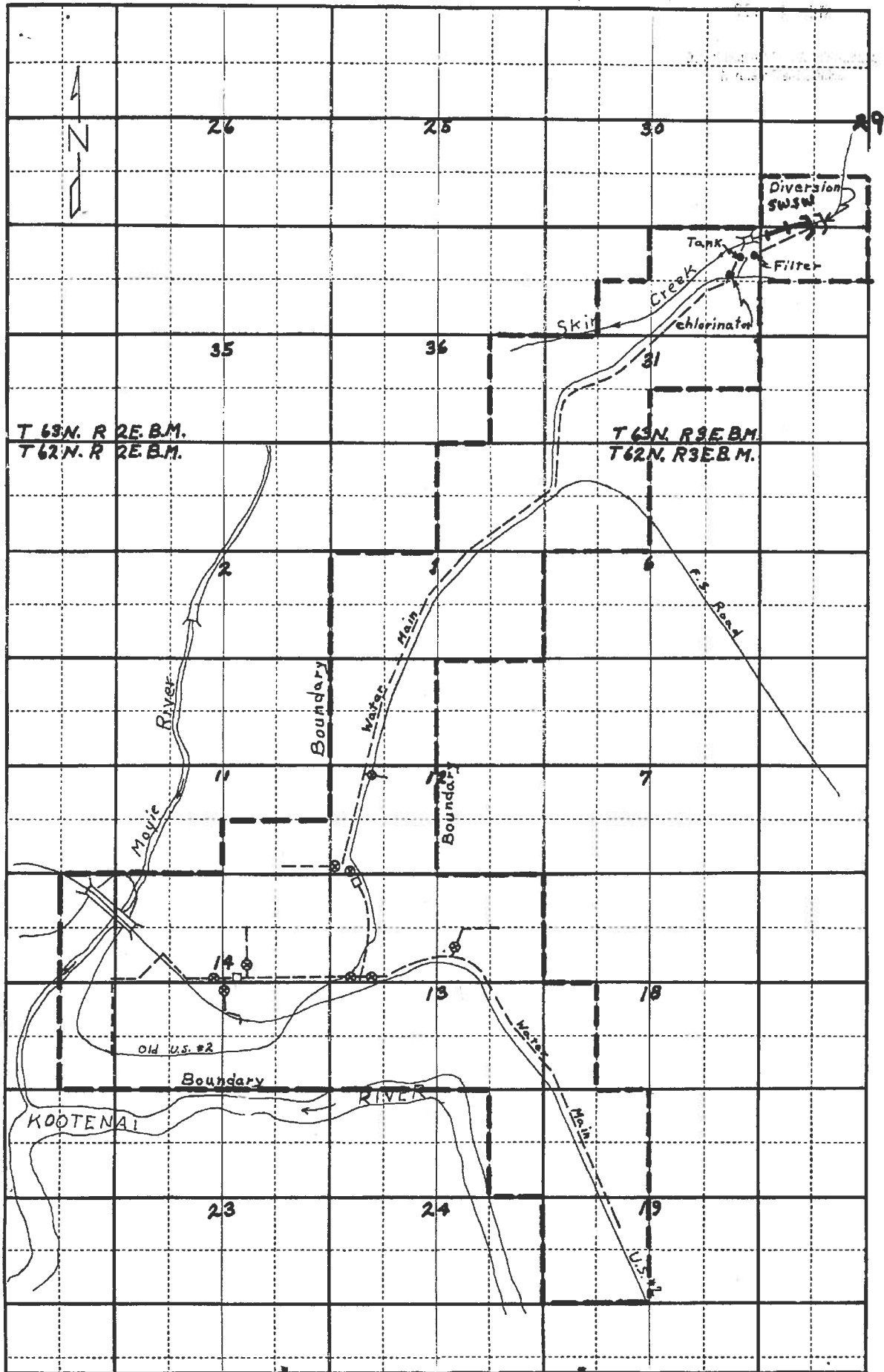
1 inch = 470 feet



Legend

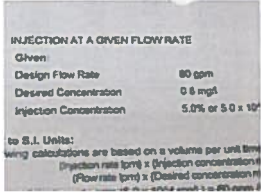
- Application POD

 Taxlots





SCREEN.JPG



INJECTIO FLOW RATE.JPG



SIGN.JPG



FLOW.JPG



TANK .JPG



POD.JPG



INJECTION AT A GIVEN FLOW RATE

Given:

Design Flow Rate	80 gpm
Desired Concentration	0.6 mg/l
Injection Concentration	5.0% or 5.0×10^4

to S.I. Units:

Following calculations are based on a volume per unit time

$$\frac{(\text{Injection rate lpm}) \times (\text{Injection concentration mg/l})}{(\text{Flow rate lpm}) \times (\text{Desired concentration mg/l})}$$

