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

A. GENERAL INFORMATION

Permit No: 92-11025
Exam Date: 8/24/2020

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

2. Current Owner: Name: State of Idaho – Department of Lands
   Owner of Record Correct? __X__Y ____N
   Address of Record Correct? __X__Y ____N
   If No: Address

3. Fees have been paid: __X__Y ____N Receipt No: N036295

4. **SOURCE** MERRY CREEK
   TRIBUTARY MIDDLE FORK ST MARIES RIVER

   Method of Determination: Permit and GIS examination.

   Change in Source: ____Y __X__N

B. OVERLAP REVIEW

1. Other water rights with the same place of use: __X__NONE

Water Right No.	Source	Purpose of Use	Basis

Comments: No POU overlap

2. Other water rights with the same point of diversion: _X_NONE

Water Right No.	Source	Purpose of Use	Basis

Comments: No POD overlap

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

Source	Govt. Lot	¼	¼	¼	Sec.	Twp.	Rge.		County
MERRY CREEK			NW	NE	34	43N	02E	B.M.	SHOSHONE
								B.M.	

Method of Determination: Permit and GIS Examination

Change in POD? ____Y __X__N Amendment Required? ____Y __X__N

2. **PLACE OF USE:** Use: Fire Protection and Industrial

TWP	RGE	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
43N	02E	34		X															
		Lot #																	
																Total Acres =			N/A

Method of Determination: Permit and GIS Examination

Change in POU? ____Y __X__N Amendment Required? ____Y __X__N

3. __ 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

**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: None taken

E. FLOW CALCULATIONS _____Additional Computation Sheets Attached

Measured Method:

No measurement taken. Review is consistent with IDAPA 37.03.02.035.01(r). Direct measurement is not required.

Measurement = No direct measurement. A Mark III is a commonly used pump. Per manufacturer specs, at 50 psi, it will pump 89 gpm. 89 gpm x 0.002228 cfs/gpm = 0.20 cfs

Permit allowed = 0.20 cfs

License recommend for 0.20 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) =_____

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 =_____

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ =_____

2. Volume Calculations for Other Uses: Per IDL Supplied Calculations:

10 gallons/acre x 4 acres/mile x 5 miles / 3 years in Merry Creek = 66.7 gallons

66.7 / 325851 = 0.0002 af Recommendation is for 0.1 af

G. PURPOSE OF USE

Irrigation ____Y __X__N # Stock_____ Domestic # of Homes _____

Other: Fire Protection and Industrial

Change in Purpose of Use? ____Y __X__N

Method of Determination: Statement of Completion

If Yes: From Use _____To Use _____Amount _____CFS _____AFA_____

H. NARRATIVE/REMARKS/COMMENTS

Idaho Department of Lands ("IDL") submitted statement of completion for water right permit 92-11025 on July 28, 2020. The permit was for 0.20 cfs for fire protection and 0.20 cfs for industrial for a total diversion rate of 0.20 cfs. The application for permit stated that the industrial use was for dust abatement. According to IDAPA 37.03.02.j.iv. no volume is required at licensing for the fire protection use, however a volume is still required for the industrial use. This was also stated in condition No. 6 on the permit "The right holder at time of submitting proof of beneficial use shall provide the department with annual volume for industrial use." Although sec. 7 of the statement of completion stated "Max annual volume=800 gal (Type 4 engine)" it was unclear if this was in reference to the fire protection or the industrial use for dust abatement. IDL was contacted and asked to supply information as to how much water was used for dust abatement in a given year during the development period. Response to this request was a table that included water right numbers, source stream, miles treated, acres treated, and total gallons used. The table also stated an assumption of 10 gallons per acre and 4 acres per mile of treatment. Total gallons associated with each right did not seem comparable with normal dust abetment practices and appeared quite low. When this question was posed IDL about these numbers, the response was that they were gallons associated with noxious weed treatment and not for dust abetment. It was also stated that no water was diverted from any of the PODs for dust abetment during the development period. The original table submitted did not include rights 92-11018 or 92-11025. When those were requested, a new, expanded table was submitted. This table included both these rights and also included a new column labeled gallons per year. The data in this column was the total gallons divided by 3, alluding to the fact that the total gallons was a total across a three year period. Since even the total across a 3 year period on all the rights was much less than 0.1 AF, the minimum volume that can be placed on a right, there was no need to determine which of the 3 years had the highest volume, as it would never be above 0.1 AF.

Since weed spraying would still fit under the umbrella of industrial use, the industrial use was considered confirmed, however reference to dust abetment in conditions should be removed. Although dust abetment will not be covered under the water right, the practice is specifically listed as a use not requiring a water right under Idaho code §42-201 (3)(b), and therefore IDL may still divert water from the PODs listed on all the rights. This was also explained to the contact person at IDL.

The POD for the right was described on the permit application as in-stream fill sites and that the diversion rate will vary based on engine pumping capabilities. The data submitted for volume totals did not include any pump size information. Review of the National Wildfire Coordinating Group's *Water Handling Equipment Guide* (https://www.fs.fed.us/t-d/pubs/pdf/03511206.pdf), there are multiple portable pumps capable of pumping 0.2 cfs or 89 gpm, including the commonly used Mark 3 pump (specs page from the document attached) and basically all recommended mountable pumps

that would be found on various fire engines and/or water tenders, are also capable of this rate or higher. Therefore the permitted rate of 0.2 cfs is recommended to remain for the license.

The POU for the permit was described as the same quarter quarter that the POD was located in. This was also described as such on the permit application. Although use will likely take place throughout a much larger region, both uses and the diversion rate fall within the exceptions of the need for a water right as outlined in Idaho code §42-201 3.(a) & (b). As such, the POU description was used to secure the water right, however use outside the described POU will still be valid under §42-201 3.(a) & (b).

Conditions 26A, 106, and No.6 on the permit "The right holder at time of submitting proof of beneficial use shall provide the department with annual volume for industrial use." should all be removed at licensing. Conditions X15, 077, WB9, 004 should all be retained on the license. Condition No.5 on the permit "Industrial use is for forest practices and forest dust abatement" should be modified to state "Industrial use is for forest practices" because no dust abetment occurred during the development period.

Have conditions of permit approval been met? __X__Yes _____No

I. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
FIRE PROTECTION	01/01 – 12/31	0.20 CFS	AF
INDUSTRIAL	01/01 – 12/31	0.20 CFS	0.1 AF
	Totals:	0.20 CFS	0.1 AF

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

Other:

J. AUTHENTICATION Scott Storms, Water Resource Agent, Senior

Field Examiner's Name_____ Date_____

Reviewer_____ Date Jan 6, 2021

Idaho Department of Lands - St, Joe Supervisory Area
Water Use Data for Water Rights

Input
Calculated

Assumptions:
10 gallons per acre of H20 used for Roadside Spray
4 Acres per mile sprayed

Water Right Number	Stream Name	Miles	IDL Miles	Acres	Total Gallons	Gallons/Year	Comments
92-11018	Santa Creek	8	7.4	32	320	106.7	
92-11019	Willow Creek	8	7.4	32	320	106.7	
92-11020	Flewsie Creek	5.5	3.2	22	220	73.3	
92-11021	Renfro Creek	15.3	11.1	61.2	612	204.0	
92-11030	Beaver Creek	15.6	12.5	62.4	624	208.0	12.5 miles IDL including Soldier Creek
92-11022	Unnamed Tributary to the St. Maries	10.5	10.5	42	420	140.0	
92-11023	Syringa Creek	24.6	22.3	98.4	984	328.0	
92-11024	Tyson Creek	21	19.7	84	840	280.0	Tyson creek miles on project divided by 2.
92-11025	Merry Creek	5	5	20	200	66.7	
92-11026	Upper Tyson Creek	21	19.7	84	840	280.0	Tyson creek miles on project divided by 2.
92-11027	Little Carpenter	20	19.7	80	800	266.7	

Total Miles	138.5
Total Acres	618
Total Gallons	6180
Avg. Gal / Site	562

Simplified Approach

Project Miles	Acres Sprayed	Gallons Used	Gal / Site	
230.7	922.8	9228	838.9091	279.6364

Comments: This accounts for other roads (i.e. Adams Creek, Santa Y, Pierce, etc.) that are apart of the roadside spray project without a fill site on State land. There might be a site on other ownership that was used not associated with our water rights.

Idaho Department of Lands
92-11025

Water Right POD
Water Right POU
Township/Range
Sections
QQ

N

0 0.125 0.25 0.5 Miles

WATER PUMPING EQUIPMENT
Pumps —Lightweight portable

Pump		Engine			
Make	**Wildfire Equipment Inc.**	Make	**Rotax**		
Model	**Mark 3**	Model	**185 cc**		
Type	**4-stage, centrifugal**	Horsepower	**10**	RPM	**5,000**
Priming	**Manual**	Ignition type	**Magneto**		
Inlet size	**2 inch NPSH**	Cylinders	**1**		
Outlet size	**1½ inch NPSH**	Fuel used	**Gasoline-oil mixture**		
Height (in)	**16¼**	Width (in)	**12**	Fuel pump available	**No**
Length (in)	**23**	Dry weight (lb)	**55**		

Manufacturer

Wildfire Equipment Inc.
1100 Norman, Suite 200, Lachine, Quebec, Canada H8S 1A6

Pump Performance Values

PSI	50	75	100	150	200	250	300	350	380
GAL/MIN	89	83	78	65	52	38	25	9	0

Hearing safety sound level **Warning label required**

Description

USDA qualification code	**2-C-60-200/35**	Integral or removable handles	**No**
Cooling method	**Air cooled**	Relief valve	**No**
Starting system	**Recoil w/ backup Manual**	Backpack & straps	**Optional**
2-or 4-stroke cycle	**2 stroke**	Special accessories or tools	**Spark plug wrench, grease gun included**
Pressure gauge	**Optional**		
Integral or removable base	**No**		

Remarks
Forest Service—USDA qualified: July 25, 2001
Meets Forest Service—USDA Specification 5100-274

Parker, Cody

From: Rick Arcano <RArcano@idl.idaho.gov>
Sent: Tuesday, December 1, 2020 3:06 PM
To: Storms, Scott
Subject: RE: Fire Protection and Industrial Water Use Permits
Attachments: Water Rights Usage.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Scott,

Attached is the information for 11025 and 11018. It is on the same spreadsheet as the previous information we submitted but I highlighted the records for your convenience. Have a happy holidays.

Thank you,

Rick Arcano
Lands Area Manager
St. Joe Area Office
Idaho Department of Lands
1806 Main Avenue
St. Maries, ID 83861
Office: 208-245-4551
Fax: 208-245-4867
Cell: 208-512-5309
Email: rarcano@idl.idaho.gov

"Plans are nothing. Planning is everything." Dwight D. Eisenhower

From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Tuesday, December 01, 2020 05:16
To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Good morning Rick,

I have yet to see any water volume use information related to permit 92-11025, sourced from Merry Creek. In addition I have also now received permit 92-11018, sourced from South Fork Santa Creek, for licensing review. This one was

delayed a bit because the permit lapsed due to a late submittal of the proof of beneficial use, which required a reinstatement process for the permit. I will also require volume information for 92-11018 in order to complete the licensing process. Looking through Department records, it appears this is the last one of this suite of permits.

I would like to remind you of condition 8 on all of these permits which states "The right holder at time of submitting proof of beneficial use shall provide the department with annual volume for industrial use.", and as such volume information should have been provided along with the proof of beneficial use statement. I ask that you please respond within 7 days in order to facilitate timely processing of these water rights.

Thank you again,

Scott

Scott Storms
Senior Water Resource Agent
Idaho Department of Water Resources
208-287-4915
Scott.Storms@idwr.idaho.gov

From: Rick Arcano [mailto:RArcano@idl.idaho.gov]
Sent: Thursday, November 5, 2020 9:27 AM
To: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Yes I did. Sorry Scott. Just really busy.

From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Thursday, November 05, 2020 05:18
To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Good morning Rick,

I just wanted to reach out again and see if you saw my last email (below). I have just about everything I need to finalize licensing of all these permits except for volume information on 92-11025 and any sort of confirmation that you guys have the capability to pump at the permitted rate of 0.2 cfs (90 gpm) i.e. you have pumps on trucks that are capable of that rate, even if that was not what was used for the weed spraying.

Thanks again!

Scott

From: Storms, Scott
Sent: Wednesday, October 28, 2020 1:38 PM
To: 'Rick Arcano' <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

A couple more questions Rick,

First, I just realized there was no information included on the spreadsheet for water right 92-11025, sourced from Merry Creek. Was this diversion point used at all during the development period?

Second, just to confirm the diversion rate of 0.2 cfs, what is the max pumping rate (in either cfs or gpm) for the largest pump that could be used for any of the engines for fire protections? And perhaps the horsepower of that pump as well.

Thanks again, this info should get me pretty close to done.

Scott

From: Rick Arcano [mailto:RArcano@idl.idaho.gov]
Sent: Wednesday, October 28, 2020 10:44 AM
To: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Scott. The use was not dust abatement. It was a chemical application to control roadside noxious weeds and brush.

We will perform this application again. We will typically apply once every 3-7 years depending on the presence of noxious weeds and brush impeding the roadways. These sites will likely be used again within the next 3 years. For the purposes of volume calculations, I think that saying we will repeat this application every 4 years will suffice.

We did not perform dust abatement during this time period, but it is possible we may need to perform it at some time in the future.

Thank you,

IDAHO DEPARTMENT OF LANDS

Rick Arcano
Lands Area Manager
St. Joe Area Office
Idaho Department of Lands
1806 Main Avenue
St. Maries, ID 83861
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Fax: 208-245-4867
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Email: rarcano@idl.idaho.gov

"Plans are nothing. Planning is everything." Dwight D. Eisenhower

From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Wednesday, October 28, 2020 09:22

To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Good morning Rick,

I have some questions about the figures you shared with me. The number one question is that the application rate and subsequent totals seem very low to me. The spreadsheet states an assumption of 10 gallons per acre and 4 acres per mile. At 4 acres per mile, this would equate to an average road with of about 30 feet and a water application rate of 40 gallons per mile of road. That application rate seems extremely low. Typical rates we see for dust abatement here at the Department are on the order of thousands of gallons per mile, especially on roads that wide. I just want to be sure we are capturing the correct amounts as I developing recommendations for permanent water rights. I want to be absolutely certain I am not shortening you on the amount of water authorized for use under these water rights. Additionally, Are these applications taking place only once a year or do they happen multiple times? If they happen repetitively, I will need to know how many times a year this amount is applied at each site, as I need to calculate a volume for the entire year's worth of use and not just an individual application.

Thanks again.

Scott
Scott Storms
Senior Water Resource Agent
Idaho Department of Water Resources
208-287-4915
Scott.Storms@idwr.idaho.gov

From: Rick Arcano [mailto:RArcano@idl.idaho.gov]
Sent: Tuesday, October 27, 2020 2:34 PM
To: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Sorry Scott,

Thought someone else forwarded this to you:

Please see the attached for volume information...

Thank you,

Rick Arcano
Lands Area Manager

St. Joe Area Office
Idaho Department of Lands
1806 Main Avenue
St. Maries, ID 83861
Office: 208-245-4551
Fax: 208-245-4867
Cell: 208-512-5309
Email: rarcano@idl.idaho.gov

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From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Tuesday, October 27, 2020 12:46
To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Hello again Rick,

I'm just checking back in to see if there has been any progress in finding any usage data/information on the rights we discussed earlier? IN addition to the ones I inquired about before, I have also been handed permit 92-11027, which is basically the same as the rest and sourced from Little Carpenter Creek in Benewah county, basin 92.

I've pretty much got all of these ready to go, other than volume information, so the sooner I get that info the sooner we can get them licensed.

Thanks again, hopefully the fire season has subsided in your area.

Scott

Scott Storms
Senior Water Resource Agent
Idaho Department of Water Resources
208-287-4915
Scott.Storms@idwr.idaho.gov

From: Rick Arcano [mailto:RArcano@idl.idaho.gov]
Sent: Friday, September 11, 2020 8:42 AM
To: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Subject: Re: Fire Protection and Industrial Water Use Permits

Yes. We have had a bit of a fire situation but will send you the information shortly.

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Friday, September 11, 2020 6:39:20 AM
To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Good morning Rick,

I just wanted to touch base and see if you have made any progress in gathering the information I requested?

Thanks,

Scott

Scott Storms
Senior Water Resource Agent
Idaho Department of Water Resources
208-287-4915
Scott.Storms@idwr.idaho.gov

From: Rick Arcano [mailto:RArcano@idl.idaho.gov]
Sent: Monday, August 24, 2020 10:40 AM
To: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Subject: RE: Fire Protection and Industrial Water Use Permits

Hi Scott,

I'm working on your request. It will take some time to pull together this information. It looks like I'll need a basin number to search for all of these. Do you have basin numbers for these permits?

Thank you,

Rick Arcano
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Email: rarcano@idl.idaho.gov

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From: Storms, Scott <Scott.Storms@idwr.idaho.gov>
Sent: Monday, August 24, 2020 09:09
To: Rick Arcano <RArcano@idl.idaho.gov>
Subject: Fire Protection and Industrial Water Use Permits

Hello Rick,

I'm writing in reference to water permits 92-11019, 11020, 11021, 11022, 11023, 11024, 11026, & 11030, held by the Idaho Department of Lands. All these permits are for fire protection and industrial use and the industrial use was stated as for dust abatement. As I work through review for licensing recommendation, I need to develop an annual volume for the industrial use on the rights. I see the statement of completion for all of these permits included the statement "Max annual volume=800 gal (Type 4 engine)." Is this associated with the abatement as part of the industrial use or is the 800 gallons associated with the fire protection use?

Basically what I am looking to get to is, how much water is used annually for dust abatement on each of these rights? If you had a truckload size and a maximum number of truckloads used in any of the years from August 2015 to July 2020, that would be a perfect way to determine this.

Thank you, and feel free to call me at 208-287-4915 if you have any questions.

Scott

Scott Storms
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