

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-12512
Exam Date: 04/19/2021

1. Current Owner:
RICHARD STILES 152 E SHINGLE CREEK RD RIGGINS ID 83549 AND/OR
LISA MCCONNELL 152 E SHINGLE CREEK RD RIGGINS ID 83549
2. In-office qualification (IDAPA 035.01.r):
Total diversion rate $\leq$ 0.24 cfs and irrigation $<$ 5 acres

3. **SOURCE:** SHINGLE CREEK **Tributary** RAPID RIVER

Method of Determination: Aerial imagery, photographs

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis

Comments: No overlap present.

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

Water Right No.	Source	Purpose of Use	Basis
78-4059	Shingle Creek	Irrigation	Decree
78-10625	Shingle Creek	Administrative	Decree
78-12112	Shingle Creek	Stockwater	Decree

Comments: This permit is diverted through the same screened diversion and ditch/pipe as water right 78-4059. The system is gravity fed.

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

SHINGLE CREEK SW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 1, Twp 23N, Rge 01W, B.M. IDAHO County

Method of Determination: Aerial imagery, digital PLSS map, GPS provided by permit holder recorded at: 45°21'50.55"N, 116°24'11.96"W

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
23N	01W	1													0.8				0.8

Total Acres: 0.8

Method of Determination: Aerial imagery, digital PLSS map

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X 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

X 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X 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
n/a	n/a	n/a	n/a	n/a	n/a

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
n/a	n/a	n/a	n/a	n/a	n/a	n/a

2. Measurements: In-office exam, so no flow measurements were taken.

E. FLOW CALCULATIONSX Additional Computation Sheets Attached

Measured Method:

Admin AP memo no. 17 states that a rate of flow in excess of 0.02 cfs/acre is often necessary for irrigation of a small acreage, due to restricted system design mechanics and poor economy of scale. To correspond with practical design procedures, the Department will accept rates of diversion as high as 0.03 cfs/acre for irrigation of up to five acres without the justification that a rate greater than 0.02 cfs is necessary. Irrigation for 0.8 acres in this right's POU is allowed a rate up to 0.03 cfs/acre, and therefore a rate 0.03cfs/acre multiplied by 0.8 acres results in a diversion rate of 0.02 cfs. This rate of 0.02 cfs is recommended for licensing.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 0.8 \text{ acres} \times 4.0 \text{ af/acre} = 3.2 \text{ af}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.03 \text{ cfs} \times 289 \text{ days} \times 1.9835 = 17.2 \text{ af}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 3.2 \text{ af}$$

2. Volume Calculations for Other Uses: n/a

G. NARRATIVE/REMARKS/COMMENTS

This permit authorizes the diversion of 0.03 cfs of water for irrigation purposes from Shingle Creek, tributary to Rapid River in Idaho County. The permit holder is the current property owner according to tax lot data. This permit qualified for an in-office exam under IDAPA 37.03.02.r for a permit with a total diversion rate less than or equal to 0.24 cfs and irrigation of less than 5 acres. The beneficial use of this permit was confirmed via satellite imagery, Google Climate Engine, GPS coordinates, and photographs provided by the permit holder.

Water is diverted from Shingle Creek via an existing diversion headgate for water right 78-4059 that is located on Nez Perce-Clearwater National Forest land. The water then flows through a ditch through Forest Service property to a pipe. This pipe continues east past the permit holders property where there is 1 water access point from the pipe that is used for irrigation for this permit. Water from the access point is diverted to the place of use via a hose and sprinklers. The pipe continues east to the place of use 78-4059 where the pipe ends. The entire diversion is gravity fed, and since 78-4059, which authorizes 0.14 cfs, is fed via the same pipe, it is reasonable to assume the system is capable of delivering the 0.03 cfs authorized by this permit.

Normalized Difference Vegetation Index (NDVI) values derived from Google Climate Engine showed a maximum of 0.44 for the place of use during the 2020 irrigation season. An NDVI between 0.4 and 0.6 typically indicates moderate vegetation. This NDVI value, along with the photo of the place of use supplied by the applicant indicate irrigation beneficial use occurred during the development period. The permitted place of use includes a house, outbuilding and driveway for a total of 1.0 acre. When these non-irrigated spaces are removed from the place of use, the irrigated acres is reduced to 0.75 acres, which by Department standards rounds to 0.8 acres. The standard rate per acre for 0.8 acres is 0.03 cfs/acre, and when multiplied by 0.08 acres gives a diversion rate of 0.02 cfs. This is the diversion rate recommended for licensing. Since water is diverted from a surface water source, Shingle Creek, this license should not have a volume limitation.

Comments from Idaho Department of Fish and Game, as a result of a Rule 40 information request during application processing, state that the existing diversion that this permit utilizes is already screened. Therefore, condition 029 of the permit is satisfied and can be dropped at licensing. Conditions R68 and 004 should be carried forward to the license, and 121 changed to 103.

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>
IRRIGATION	02/15 to 11/30	0.02 CFS

Totals: 0.02 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

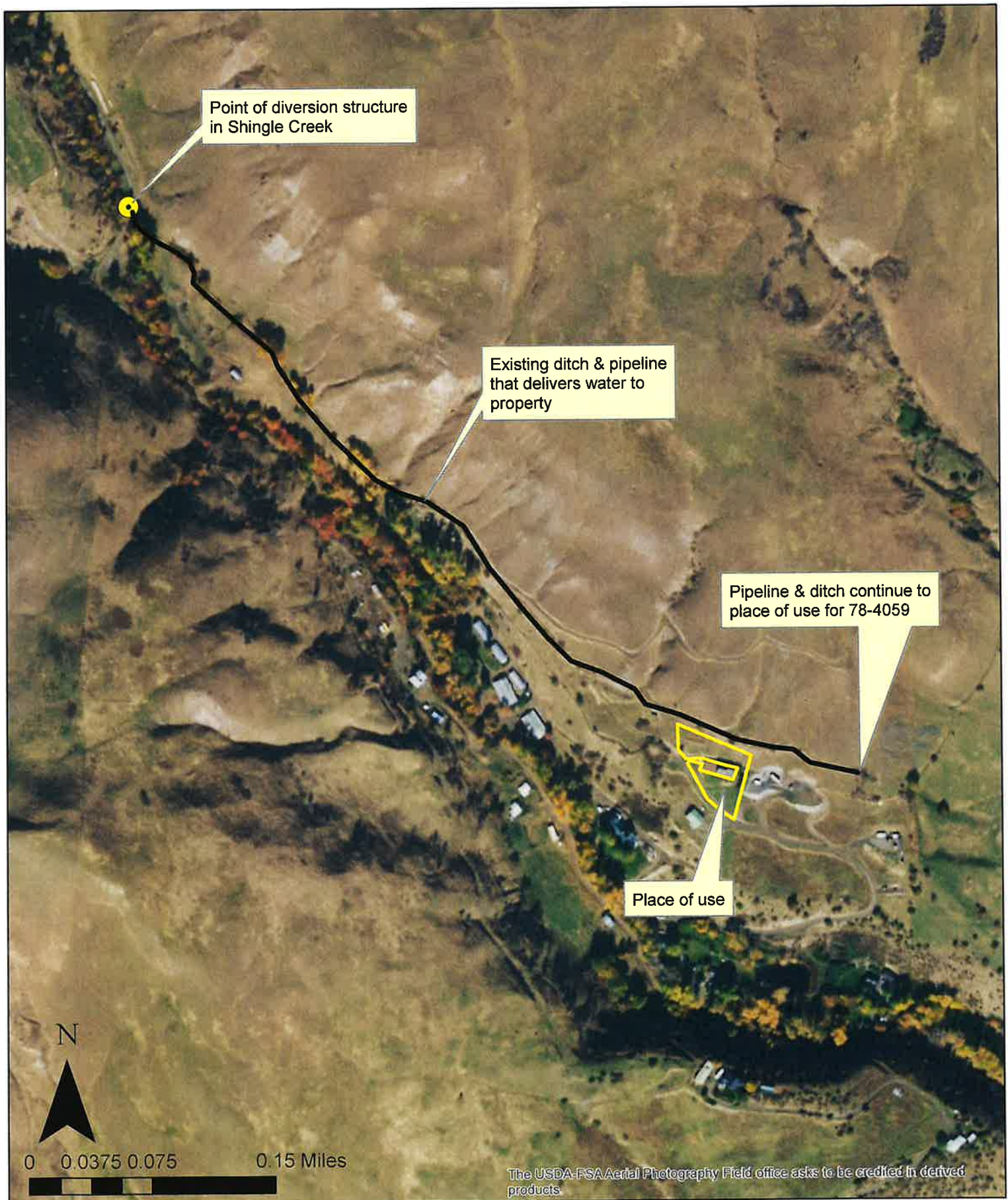
I. AUTHENTICATION

Tyler Smith - Water Resource Agent

Field Examiner's Name  Date 9/10/21

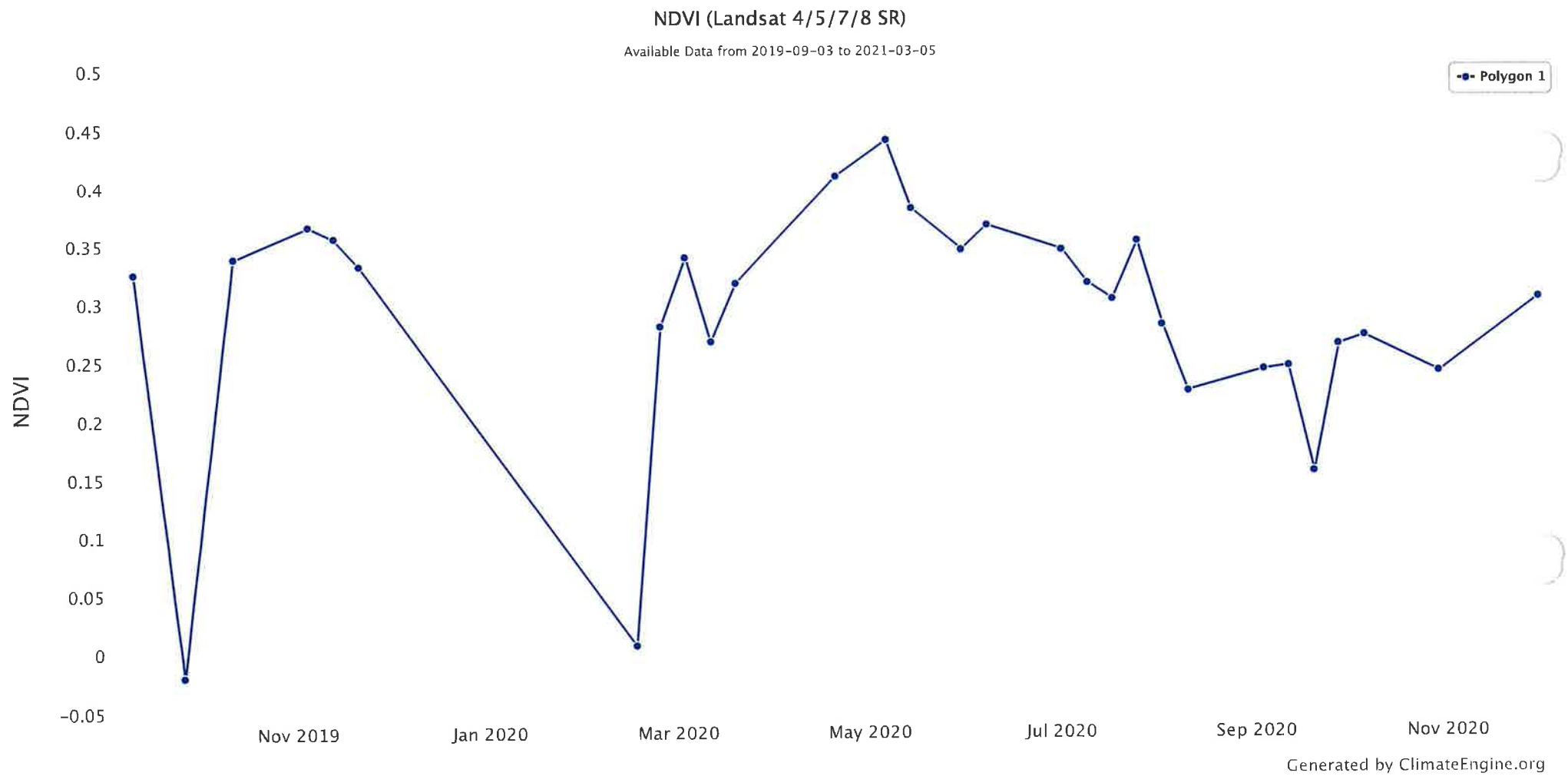
Reviewer  Date 9/15/21

78-12512 Delivery System Diagram



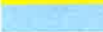
Map ▾ Layers ▾ Masking ▾ Download ▾





BasinSeque	Owner	Source	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHINGLE CREEK LL	SPRING												X				
78-10625	UNITED STATES OF AMERICA ACTING THROUGH	SHINGLE CREEK			X													
78-11302	UNITED STATES OF AMERICA TRUSTEE	SILVERS UNIT SPRING				X												
78-12054	UNITED STATES OF AMERICA TRUSTEE	SPRING											X					
78-12112	DE VENY, BETTY G; DE VENY, WILLIS D; SHINGLE CREEK LL	SHINGLE CREEK								X								
78-12116	DE VENY, BETTY G; DE VENY, WILLIS D; SHINGLE CREEK LL	SHINGLE CREEK								X								
78-12240	BOYER, PAUL S	SHINGLE CREEK					X											
78-12241	BOYER, PAUL S; TRAVIS, GAIL C; TRAVIS, ROY M	SHINGLE CREEK			X													
78-12331	UNITED STATES OF AMERICA ACTING THROUGH	SHINGLE CREEK			X													
78-12512	MCCONNELL, LISA; STILES, RICHARD	SHINGLE CREEK			X													
78-4059	CROSS O RANCH INC; DE VENY, BRYAN G; DE VENY, SAND	SHINGLE CREEK			X													
78-4205	UNITED STATES OF AMERICA ACTING THROUGH	SPRING											X					
78-7303	YOUTH WITH A MISSION IDAHO	GROUND WATER														X		

 = this right

 = overlapping right

BasinSequence	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SESW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	AITKEN SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	ALDER SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	BLUE GULCH SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	CANNON BALL SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	CHAIN SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	CLYDE SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	COTTONWOOD SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	HOWARD SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	LOG TROUGH SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	MORRISON RIDGE SPRING	STOCKWATER												X					
78-10338	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	SPRING	STOCKWATER												X					
78-10341	DE VENY, BETTY G; DE VENY, WILLIS D	SPRINGS	STOCKWATER					X												
78-10341	DE VENY, BETTY G; DE VENY, WILLIS D	UNNAMED STREAMS	STOCKWATER					X												
78-10625	UNITED STATES OF AMERICA ACTING THROU	SHINGLE CREEK	ADMINISTRATIVE			X														
78-12112	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	SHINGLE CREEK	STOCKWATER							X		X								
78-12116	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	DUTCH OVEN CREEK	STOCKWATER					X	X			X								
78-12116	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	RAPID RIVER	STOCKWATER					X	X			X								
78-12116	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	SHINGLE CREEK	STOCKWATER					X	X			X								
78-12116	DE VENY, BETTY G; DE VENY, WILLIS D; SHIN	WYANT CREEK	STOCKWATER					X	X			X								
78-12240	BOYER, PAUL S	SHINGLE CREEK	IRRIGATION														16			16
78-12241	BOYER, PAUL S; TRAVIS, GAIL C; TRAVIS, R	SHINGLE CREEK	IRRIGATION														15.5	39	19	73.5
78-12331	UNITED STATES OF AMERICA ACTING THROU	SHINGLE CREEK	IRRIGATION			3														3
78-12512	MCCONNELL, LISA; STILES, RICHARD	SHINGLE CREEK	IRRIGATION													0.8				0.8
78-2070	DE VENY, BETTY G; DE VENY, WILLIS D	SHINGLE CREEK	IRRIGATION					14	11	2	10									37
78-4173	DE VENY, BETTY G; DE VENY, WILLIS D	SHINGLE CREEK	IRRIGATION					15	5	1	8									29
78-4205	UNITED STATES OF AMERICA ACTING THROU	SPRING	STOCKWATER												X					
78-7157	DE VENY, BETTY G; DE VENY, WILLIS D	SHINGLE CREEK	POWER									X								
78-7158	DE VENY, BETTY G; DE VENY, WILLIS D	NORTH FORK SHINGLE CREEK	POWER									X								
78-7277	DE VENY, BETTY G; DE VENY, WILLIS D	NORTH FORK SHINGLE CREEK	POWER									X								
78-7303	YOUTH WITH A MISSION IDAHO	GROUND WATER	DOMESTIC														X			

= this right

= overlapping right

Photos and Captions submitted by permit holder



Diversion in Shingle Creek. 45°21'50.55"N, 116°24'11.96"W



Diversion in Shingle Creek. 45°21'50.55"N, 116°24'11.96"W



Diversion in Shingle Creek. With board in place, flow diverts back to creek. 45°21'50.55"N, 116°24'11.96"W



After Diversion, water flows into ditch on contour across the slope, through Forest Service Property. 45°21'48.76"N, 116°24'8.64"W



At the end of the Forest Service Property that the ditch flows through, there is another diversion that allows water to flow into pipe or back to Shingle Creek. 45°21'42.43"N, 116°23'59.20"W



This is the 1 water access point I have in my yard. 45°21'33.37"N, 116°23'43.28"W



This is looking up slope from the picture above. The pipe/ditch is near the posts at top of photo. The lat/long would be represented in the top of the photo. 45°21'34.32"N, 116°23'42.96"W



This is a view of the lawn that is irrigated with water from Shingle Creek.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082

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BRAD LITTLE
Governor

GARY SPACKMAN
Director

March 24, 2021

RICHARD STILES & LISA MCCONNELL
152 E SHINGLE CREEK RD
RIGGINS, ID 83549

COPY

Re: Water Permit 78-12512

Dear Permit Holder:

Your permit to appropriate water number **78-12512** is currently being reviewed for its beneficial use. Due to the nature of this permit, it qualifies for an in-office exam. This means that no beneficial use field exam need be conducted if certain aspects of the beneficial use can be verified.

In order to verify the developed diverting works, please provide pictures of your diversion system and irrigated place of use and briefly describe what is being shown in the pictures. If you have information regarding your pump's make and/or model, please provide that as well. Additionally, please provide the GPS coordinates of your point of diversion (POD) if you have the available means. This can be done using most common smartphones, but if this is not possible, please let me know and we can discuss other possible verification methods.

Please submit the necessary information within the next thirty (30) days. If IDWR does not receive your written response within thirty (30) days, the permit may begin the process of being voided. You may receive future correspondence regarding more specific details of your application. IDWR forms and other information are available on the Internet at www.idwr.idaho.gov. Please consult the IDWR website or contact this office at 208-334-2190 and ask for me if you have any questions about the necessary information.

Sincerely,

Tyler Smith
Water Resource Agent
Western Region
tyler.smith@idwr.idaho.gov

Enclosure: