

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 98-7940

Exam Date: 08/15/2019

1. Current Owner:
GOODRICH PATTON LIVING TRUST C/O TRS REBECCA LEA PATTON & RAYMOND THOMAS GOODRICH
1001 FOREST AVE PALO ALTO CA 94301-3031

2. Accompanied by: Rebecca Patton
Phone No: 415-271-2250
Address: Same as above
Relationship to permit Holder: Permit holder

3. **SOURCE:**
CURLEY CREEK
GROUND WATER

Tributary
KOOTENAI RIVER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

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

Water Right No.	Source	Purpose of Use	Basis
98-2031	CURLEY CREEK	INDUSTRIAL	LICENSE
98-4082	CURLEY CREEK	STOCKWATER	STATUTORY CLAIM
98-4083	KINGSLEY CREEK	IRRIGATION	STATUTORY CLAIM

Comments: WR 98-2031 uses water for industrial purposes, owned by Bonners Ferry Lumber Co, but not associated with this property. WR 98-4082 uses water for stockwater purposes not associated with this property. WR 98-4083 uses water for irrigation, same permit holder, but out of Kingsley Creek before it forks into Curley Creek.

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

Water Right No.	Source	Purpose of Use	Basis

Comments: _____

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

CURLEY CREEK NE¼ SW¼, Sec. 15, Twp 62N, Rge 03E, B.M. BOUNDARY County
GROUND WATER NE¼ SW¼, Sec. 15, Twp 62N, Rge 03E, B.M. BOUNDARY County

Method of Determination: Arcmap and field exam. PODs located at -116°03.733, 48°43.285 and -116°03.762, 48°43.266.

PLACE OF USE: WILDLIFE STORAGE and FIRE PROTECTION STORAGE

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
62N	03E	15									X	X							

Method of Determination: Arcmap and Field Exam.

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 Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: At Curley Creek POD, creek in-flowed directly into pond, and flow measurements not required. At Groundwater POD, water enters pond naturally from within the pond, and flow measurements not required. There is no diversion to storage flow rate for this license.

E. FLOW CALCULATIONS

Measured Method: N/A

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: N/A

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

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

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

2. Volume Calculations for Other Uses:

See attached pond analysis sheet.

G. NARRATIVE/REMARKS/COMMENTS

The field exam was performed on 08/15/2019 without the applicant, Rebecca Patton, present. Rebecca Patton gave permission to conduct the exam in her absence prior to field exam date. The exam showed one pond that was being fed by ground water and in-flow from Curley Creek. Photography at date of field exam shows pond using water for wildlife storage and fire protection storage.

The original pond construction plans at time of permit showed a culvert being installed to provide diversion from Curley Creek to the pond. At time of field exam, it was observed that both the shape of the original construction plan was changed,

as well as the culvert planned for not being installed to divert water. The changes to construction DID NOT enlarge the pond nor volume applied for at time of permitting. Upon speaking with applicants and property owner at time of construction, Mark Owens, the pond construction was altered and in-flow from Curly Creek POD using the historic dry natural creek channel was incorporated to allow water to flow into the pond. As such, the DIVERSION TO STORAGE component was removed at time of licensing. The second POD is from groundwater that fills from bottom of pond. There will be no diversion rate applied to license.

The pond was traced out using arcmap 2017 aerial imagery and has a surface area of 0.8 acres, pond capacity of 3.2 af, a maximum depth of 10 feet, an average depth of 4 feet, and estimated seepage/evaporation of 1.7 af. At the pond dam location there is an open U-channel spillway under a bridge alongside the pond that enables return flow back to Curley Creek. The volume is less than what was applied for due to changes in construction and a more accurate pond analysis worksheet. The pond analysis sheet derived a Total Volume of 4.9 af, which is less than the applicant applied for at time of permitting. The Maximum Diversion volume of 4.9 af will be applied to license.

Conditions 15X, 26A and 082 were removed from license. Condition 219 was modified using current values from pond analysis sheet. Condition 220 was modified to describe pond surface area and pond capacity. There are three other water rights that overlap the place of use (98-2031, 98-4082, 98-4083). WR 98-2031 uses water for industrial purposes, owned by Bonners Ferry Lumber Co, but not associated with this property. WR 98-4082 uses water for stockwater purposes not associated with this property. WR 98-4083 uses water for irrigation, same permit holder, but out of Kingsley Creek before it forks into Curley Creek. Condition 123 was applied to this WR stating that water stored under this right is subject to fluctuations of the water table caused by changes in the flow of local streams and by diversions under prior ground water rights. This right does not guarantee the maintenance of any particular ground water level. There are no overlap concerns.

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>Annual Volume</u>
WILDLIFE STORAGE	01/01 to 12/31	4.9 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	4.9 AF

Totals: 4.9 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

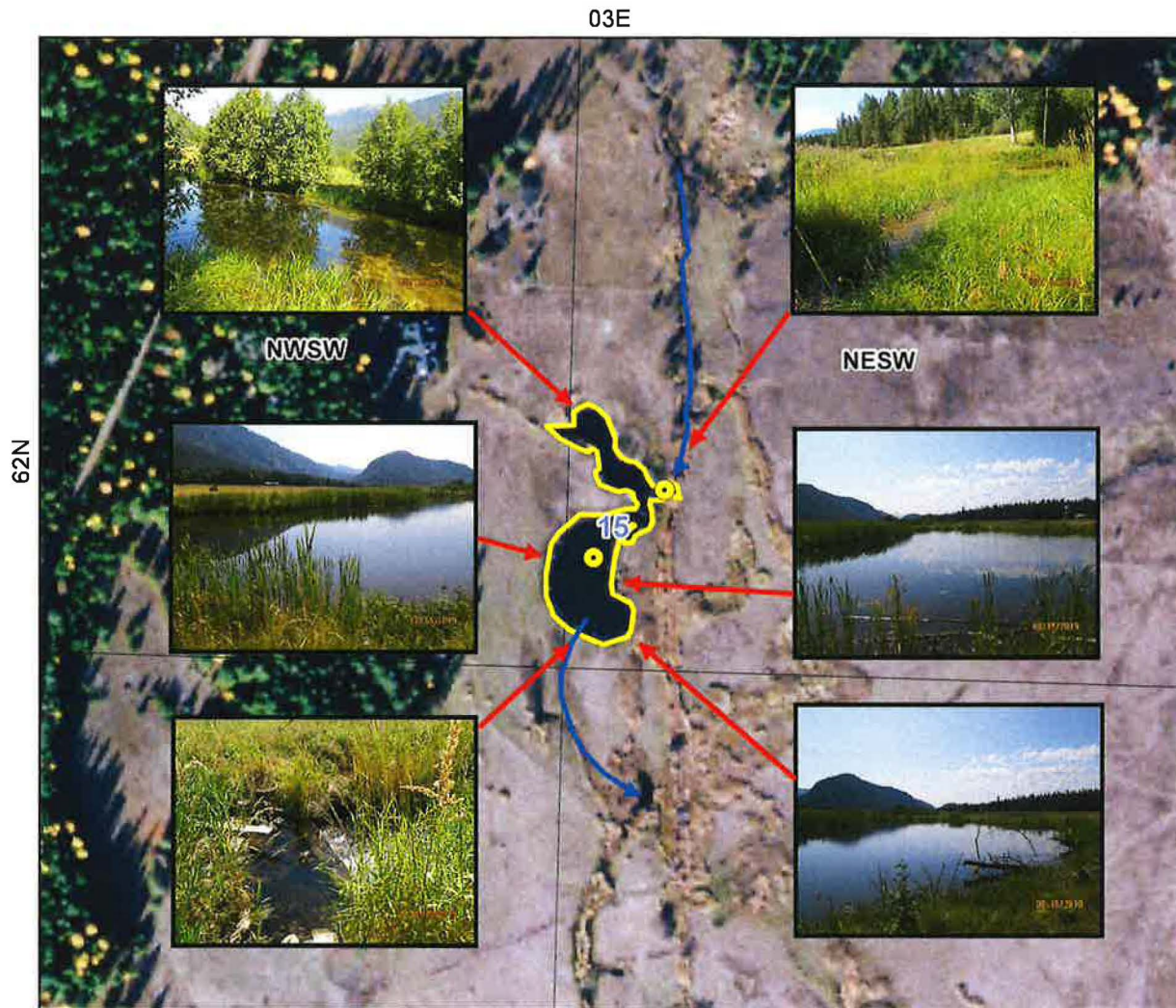
I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name Ad Fink Date 4/30/2020

Reviewer JB Date 4/28/2020

State of Idaho
Department of Water Resources
Attachment to Field Exam
98-7940

WILDLIFE STORAGE and FIRE PROTECTION STORAGE system diagram.



- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.035 0.07 0.14 Miles



Bates, Luke

From: Becker, Greg - NRCS, Sandpoint, ID <greg.becker@usda.gov>
Sent: Tuesday, April 14, 2020 9:39 AM
To: Bates, Luke
Subject: RE: Thunder Mtn Windy Pass pond water right

Luke - See responses below. I am also available to visit the site with you sometime.
greg

From: Bates, Luke <Luke.Bates@idwr.idaho.gov>
Sent: Thursday, April 9, 2020 11:42 AM
To: Becker, Greg - NRCS, Sandpoint, ID <greg.becker@usda.gov>
Subject: Thunder Mtn Windy Pass pond water right

Good afternoon Greg,

I am reaching out, attempting to gain information about a pond built on Rebecca Patton's property. I believe it was developed when Mark Owens owned the property??

Regardless, your name was identified as the one to contact with questions.

I am currently finalizing the field exam notes and moving toward licensing, but have a couple variables that need answers for:

- 1) Is there a pipe diverting water to pond? NO At time of field exam, department rep only noted a check dam with ditch visible.
- 2) What is the max depth of the pond? Under 12 feet.
- 3) Does the pond depth vary a lot from wide areas to narrow areas? Or is it a steep banked pond with consistent depths? It has a bank on downstream side which is the deepest point.
- 4) Is there a return pipe that returns flow back to Curley Creek? Open U channel spillway under the bridge on an aerial view.

Thank you in advance for any assistance you may be able to provide. My contact information is below if you've any questions of me.

v/r,

Luke Bates
Water Resource Agent
Idaho Dept. of Water Resources
Northern Regional Office
P: (208) 762-2800
F: (208) 762-2819
Luke.bates@idwr.idaho.gov

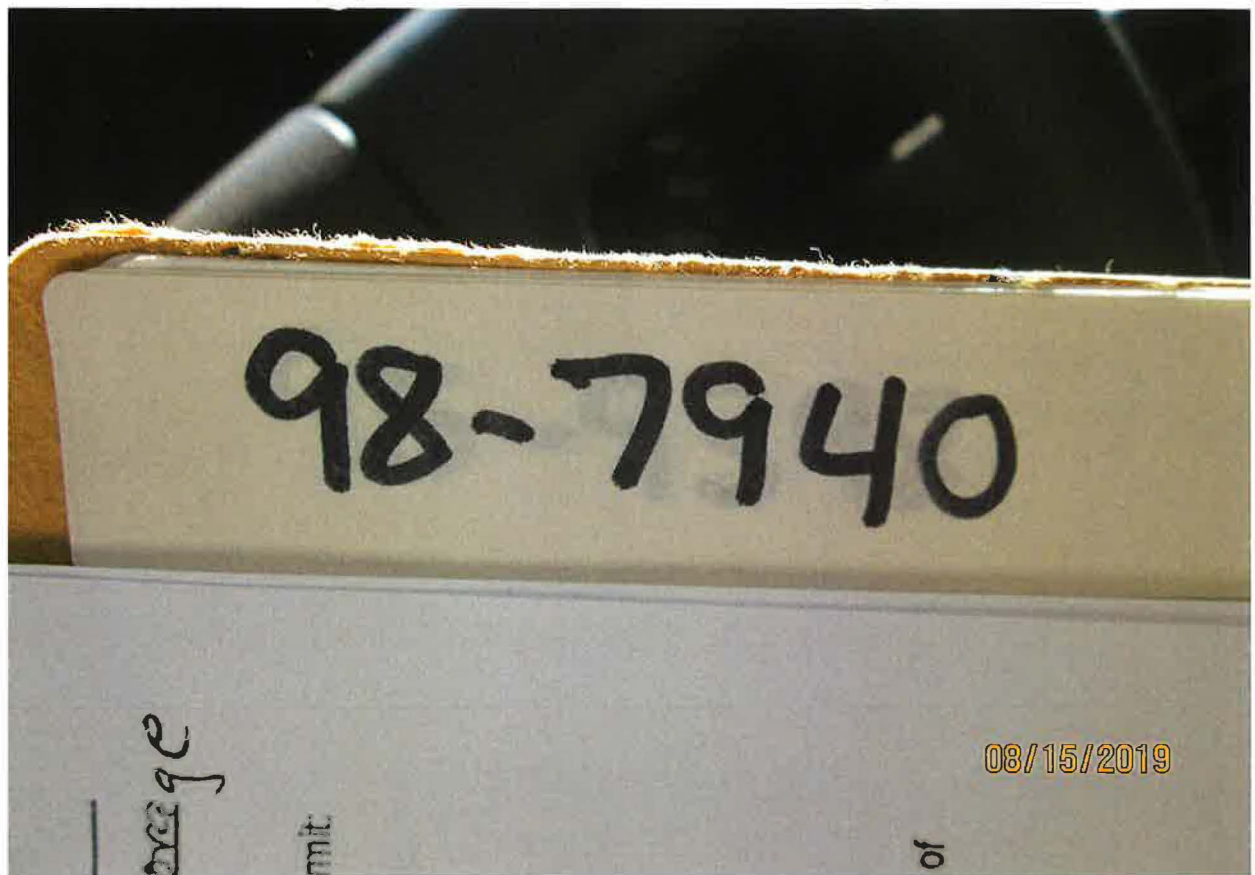
Total Storage Calculations

FILE NUMBER	98-7940
REVIEWER	Luke Bates
DATE	4/21/2020

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

Surface Area (AC.)	0.8	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	4	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	3.2	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	0.9	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.8	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	4.9	The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.



INFLOW TO POND FROM CURLEY CREEK



INFLOW TO POND FROM CURLEY CREEK





WILDLIFE AND FIRE PROTECTION STORAGE POND POU





WILDLIFE AND FIRE PROTECTION STORAGE POND POU





CONCRETE SPILL WAY OUTFLOW FROM POND BACK TO CURLEY CREEK

