State of Idaho
Department of Water Resources

Water Right License

Water Right No. 86-12114

Priority: April 26, 2021

Maximum Diversion Volume: 21.3 AF

It is hereby certified that:

WARREN R CASE PO BOX 105 DEARY ID 83823-0105

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated April 26, 2021, and has submitted Proof of Beneficial Use on December 3, 2021. An examination confirms water is diverted from:

Source : SURFACE RUNOFF **Tributary:** PINE CREEK

Beneficial Use	Period of Use	Annual Volume
IRRIGATION STORAGE	01/01 to 12/31	1.5 AF
IRRIGATION FROM STORAGE	03/15 to 11/15	1.5 AF
RECREATION STORAGE	01/01 to 12/31	19.8 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	19.8 AF

Location of Point(s) of Diversion

SURFACE RUNOFF	SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M.	LATAH County
SURFACE RUNOFF	SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M.	LATAH County
SURFACE RUNOFF	SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M.	LATAH County

Place of Use: IRRIGATION STORAGE, RECREATION 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	
39N	02W	23																X	

Place of Use: IRRIGATION FROM 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	
39N	02W	23															0.3	0.2	0.5

Total Acres: 0.5

Conditions of Approval

1. Right 86-12114 authorizes the storage of an annual total of 21.3 acre-feet, comprised of 13.8 acre-feet to be used for the initial filling or carryover storage of the pond(s), 6.0 acre-feet for the replacement of losses due to seepage and evaporation, and up to 1.5 acre-feet for additional refills to replace water used for irrigation from storage.
2. Water shall not be diverted from fire protection storage except to fight or repel an existing fire.
3. This right when combined with all other rights shall provide no more than 3.0 afa per acre at the field headgate for irrigation of the place of use.

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Conditions of Approval Continued

4. This right when combined with all other rights shall provide no more than 5.0 afa per acre for irrigation storage and irrigation from storage for the place of use.
5. This right does not grant any right-of-way or easement across the land of another.

This license is issued pursuant to the provisions of Idaho Code § 42-219. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 10th day of May, 2023.

Shelley W. Keen

SHELLEY W. KEEN
Water Allocation Bureau Chief

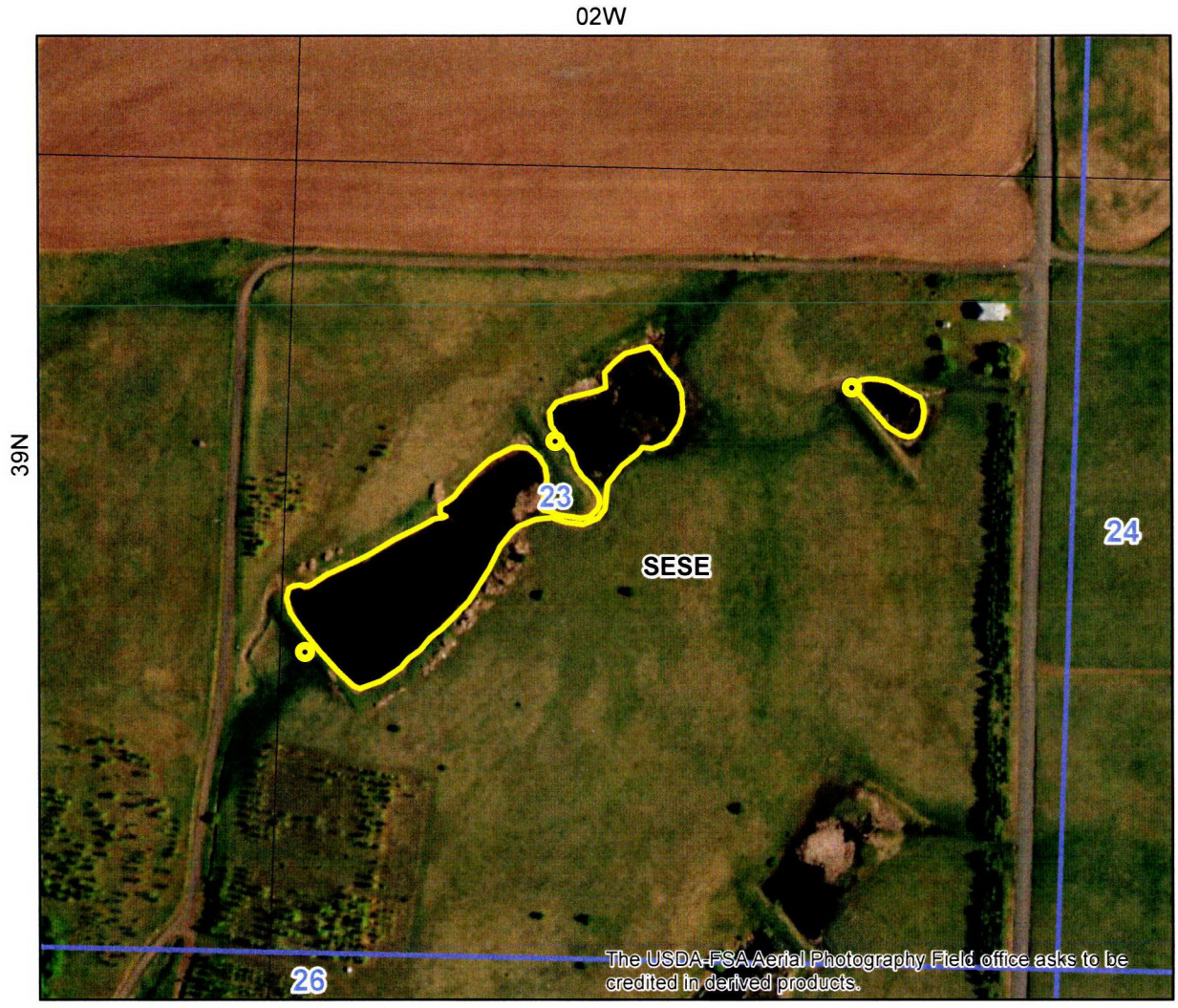
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Department of Water Resources

Attachment to Water Right License

86-12114

This map depicts the RECREATION STORAGE & FIRE PROTECTION STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.035 0.07 0.14 Miles

N

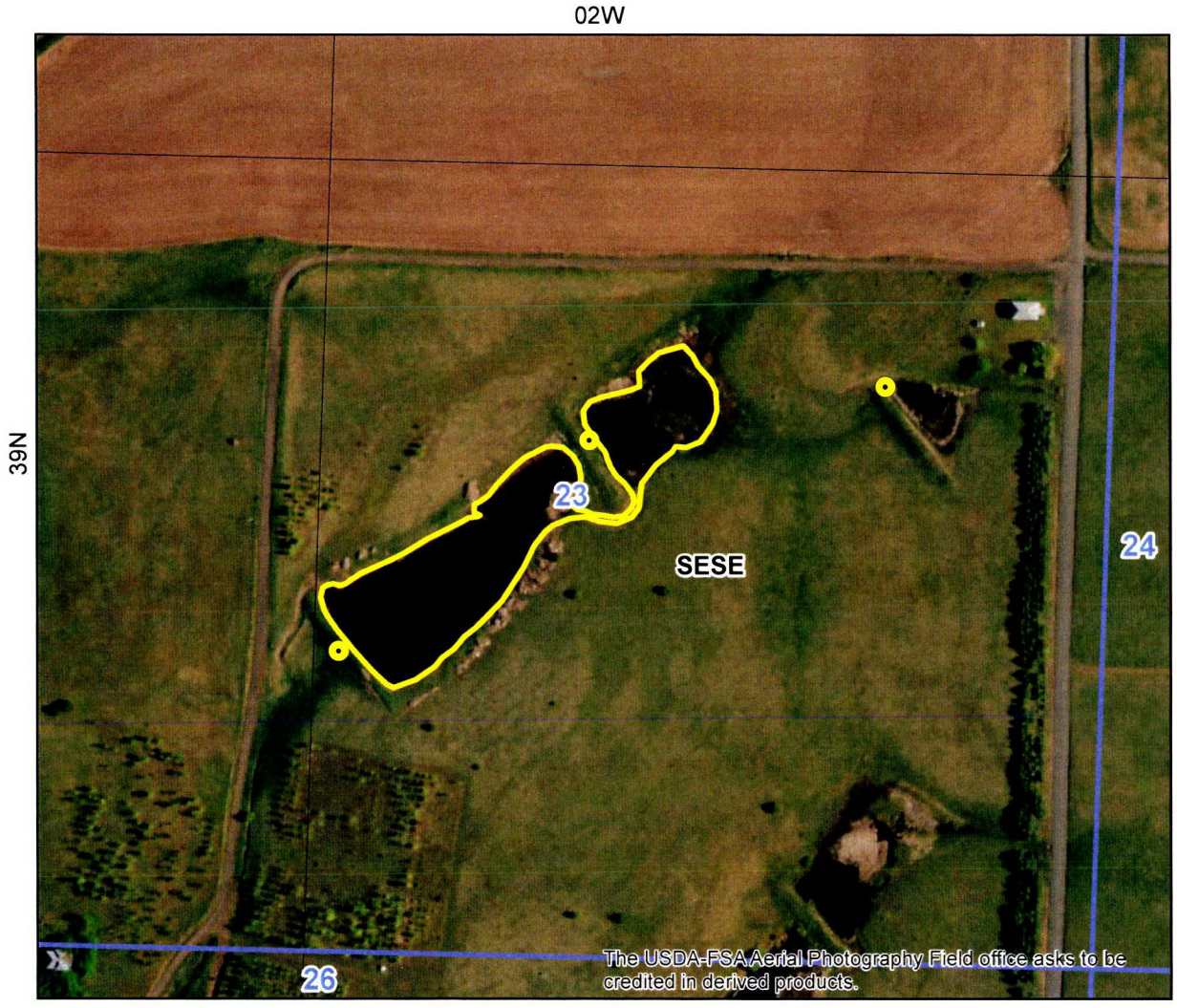
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Attachment to Water Right License

86-12114

This map depicts the IRRIGATION STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.035 0.07 0.14 Miles

N

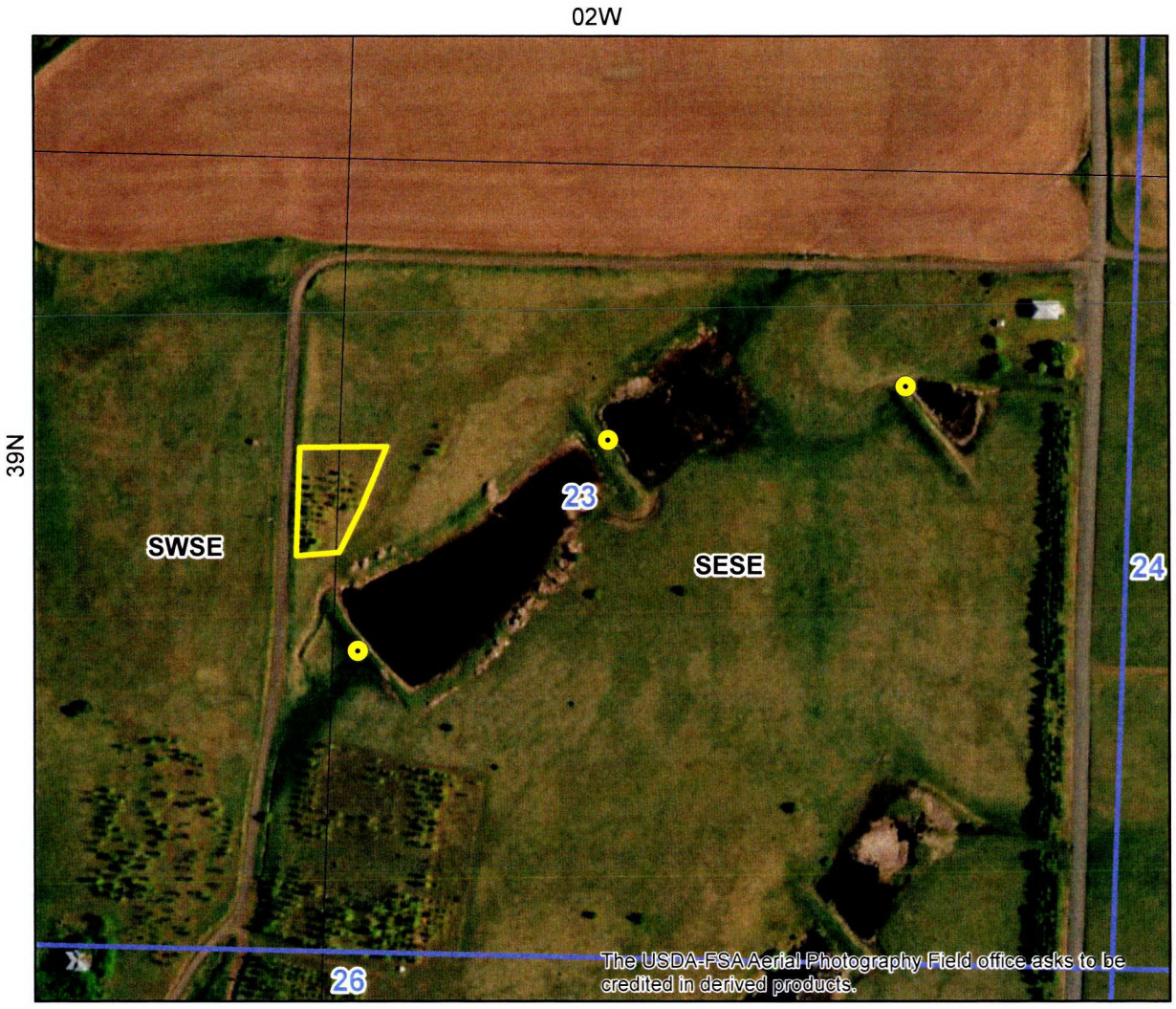
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State of Idaho
Department of Water Resources

Attachment to Water Right License

86-12114

This map depicts the IRRIGATION FROM STORAGE place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



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

0 0.035 0.07 0.14 Miles

N

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IDAHO DEPARTMENT OF
WATER RESOURCES

Northern Region • 7600 N Mineral Drive, Suite 100 • Coeur D'Alene, ID 83815-7763
Phone: 208-762-2800 • Fax: 208-762-2819 • Email: northerninfo@idwr.idaho.gov • Web: idwr.idaho.gov

Governor Brad Little

Director Gary Spackman

May 11, 2023

WARREN R CASE
PO BOX 105
DEARY ID 83823-0105

RE: License No. 86-12114

ISSUANCE OF LICENSE

Dear Water Right Holder(s):

The Department of Water Resources ("Department") has issued the enclosed Water Right License confirming that a water right has been established in accordance with your permit. Please be sure to thoroughly review all the conditions of approval listed on your license. The conditions may include ongoing requirements, such as maintenance of a measuring device or implementation of mitigation, as well as information about how your water use may be administered, such as regulation by a watermaster in a water district.

The license is a PRELIMINARY ORDER issued by the Department pursuant to Rule 730 of the Department's Rules of Procedure (IDAPA 37.01.01.730). It can and will become a final order without further action by the Department unless a party petitions for reconsideration, files exceptions, or requests a hearing as described in the enclosed information sheet.

Also, please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Water right forms are available from any office of the Department or on the Department's website at idwr.idaho.gov

If you have any questions concerning the enclosed information, please contact the Northern Region Office at (208) 762-2800.

Sincerely,

Shelley W. Keen

Shelley Keen
Water Allocation Bureau Chief

Enclosure(s)

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CERTIFICATE OF SERVICE

I hereby certify that on May 11, 2023, I served a true and correct copy of Water Right License No. 86-12114 by U.S. Mail, postage prepaid, to the following:

WARREN R CASE (Current Owner)
PO BOX 105
DEARY ID 83823-0105

Tammy Alleman
Administrative Assistant 1

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EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

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CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 86-12114
Exam Date: 06/06/2022

1. Current Owner:
WARREN R CASE PO BOX 105 DEARY ID 83823-0105

2. Accompanied by: Warren R Case
Phone No: 208-877-1614
Address: Same as above
Relationship to permit Holder: Permit Holder

3. **SOURCE:** SURFACE RUNOFF

Tributary PINE CREEK

Arcmap and DRG.

B. OVERLAP REVIEW

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

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

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
SURFACE RUNOFF SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M. LATAH County
SURFACE RUNOFF SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M. LATAH County
SURFACE RUNOFF SE¼ SE¼, Sec. 23, Twp 39N, Rge 02W, B.M. LATAH County

Method of Determination: GPS. Three earthen pond POD(s) located at -116°32.511, 46°42.205 (small pond), -116°32.628, 46°42.187 (medium center pond), & -116°32.725, 46°42.128 (large pond).

PLACE OF USE: IRRIGATION STORAGE, RECREATION STORAGE, & 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	
39N	02W	23																X	

PLACE OF USE: IRRIGATION FROM 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	
39N	02W	23															0.3	0.2	0.5

Total Acres: 0.5

Method of Determination: Beneficial use field examination & Arcmap aerial imagery.

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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
3EA POND DAMS					

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements: NONE

E. FLOW CALCULATIONS

Measured Method: in-stream surface runoff source(s) filled pond(s) interconnected with flow through swale & ditch; permit incorporates an irrigation from storage beneficial use and there is no diversion rate recommended for licensing purposes.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R}$ = (Acres Irrigated) x (Irrigation Requirement) = 0.5 ac x 3.0 afa = 1.5 af

$V_{D.R}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = N/A no diversion rate associated with WR.

V = Smaller of $V_{I.R}$ and $V_{D.R}$ = **1.5 af**

2. Volume Calculations for Other Uses: See attached Pond Analysis Worksheet(s)

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 6/6/2022 with the applicant, Warren Case, showed three excavated ponds that impound surface runoff water for multiple storage uses & irrigation from storage use. At each POD the respective pond has an earthen dam. The small pond is in close proximity to the other two ponds and overflow routes by channel to the medium center pond; the medium center pond has an excavated flow through swale to allow water to flow into the larger pond during seasonal high runoff periods, but at the low levels the pond is isolated from the large pond. I derived pond volumes using two pooling's (medium & large) in addition to the small pond analysis worksheet for licensing purposes.

A rocked overflow channel has been developed on the NW corner of the large pond dam which allows overflow water to discharge down-hill reconnecting with the historic intermittent stream channel. The permit was approved with the tributary

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characterized as SINKS but after observing the overflow discharge and discussion with Mr. Case water flows down grade joining an intermittent stream channel associated with a nearby pond (reference WR 86-12113) which continues downstream tributary of Pine Creek. I revised the water source tributary from sinks-to-**Pine Creek** during licensing review There is no diversion rate associated with licensing this surface water source permit.

Photographs were taken of the storage pond(s) POU during the field exam that provide irrigation storage, recreation storage, and fire protection storage uses. The medium center pond has what appears to be small islands in aerial imagery but are shallow pond areas with cat tails that are completely submerged during high flow periods throughout the year. Arcmap aerial imagery was used to accurately trace out the three pond(s) high water line surface area during licensing review. At time of permit approval, the irrigation storage POU was designated solely as the large pond, but upon finding that two ponds (medium & large) are interconnected by a flow through swale I am recommending that both ponds be recommended for irrigation storage beneficial use. Three pond analysis worksheets were developed following the field exam which derive pond(s) calculations toward licensing as follows:

Small pond –

- Surface area = 0.2 ac, maximum depth = 8 feet, average depth = 3.2 feet, pond capacity = 0.6 af, seepage & evaporation loss rate = 0.4 af, and total volume required = 1.0 af.

Medium center pond –

- Surface area = 0.6 ac, maximum depth = 10 feet, average depth = 4 feet, pond capacity = 2.4 af, seepage & evaporation loss rate = 1.4 af, and total volume required = 3.8 af.

Large pond –

- Surface area = 1.8 ac, maximum depth = 15 feet, average depth = 6 feet, pond capacity = 10.8 af, seepage & evaporation loss rate = 4.2 af, and total volume required = 16.5 af.

Total pond volumetric data –

- Recreation storage & fire protection storage annual volume(s) = 13.8 af (3ea pond capacity) + 6.0 af (combined seepage & evaporation rates) = **19.8 af**. This value between use(s) is not additive toward the maximum diversion volume.
- irrigation from storage use multiple fill annual volume (medium & large ponds only) = 1.5 ac x 3.0 afa = **1.5 af**.
- The maximum diversion volume recommended for licensing equals 1.0 af (small) + 3.8 af (medium) + 16.5 af (large) = **21.3 af**.

The applicant uses a portable water transfer pump with dedicated 2-inch poly pipelines for irrigation from storage uses. The delivery system utilizes Honda and/or Briggs & Stratton 5 HP, 2-inch discharge, and main irrigation trunk line to soaker hose lateral lines at a small ½ acre tree plot. Due to a wetter than average spring season active irrigation was not occurring at time of exam. Proof of irrigation use was evident and the fully built out irrigation main line and row(s) off lateral soaker hose installed at time of exam demonstrates active irrigation occurs at the POU. In fact, the applicant's irrigation practices date further back in time, but the applicant was unaware of water right requirements and has since filed to bring the system into compliance gaining water right license(s). The applicant's use of irrigation from storage is cyclic for tree farm growing near the pond and depending on tree age irrigation is rotated annually with some areas left fallow to let soil recharge for a season before replanting.

The irrigation from storage POU was walked with the applicant and sketched out on field maps. Arcmap aerial imagery was used to accurately trace out the POU during licensing review, which consists of 0.5 acres. The annual volume for irrigation from storage equals 0.5 ac x 3.0 afa = **1.5 af**. This value is the same as the irrigation storage beneficial use volume but is not additive between the two for licensing purposes. The applicant works with Idaho Fish & Game and does stock the ponds

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for recreational fishing use. There is a fire protection pipe from the large pond to a fire truck fill point observed at time of exam. The applicant did not apply for fire protection from storage beneficial use and this water right does not authorize diversion from the pond to fill water truck for fire protection training by the local fire department. In the event of an active fire, drafting water from the pond to fight the fire is considered exempt and a permit is not mandated for that particular use. The applicant would need to file an addition application for permit to secure water rights for any fire protection from storage use, but is not mandated to do so.

Condition 029 was removed from the permit during licensing review. Conditions 259 & 220 were revised to reflect volumetric data derived following the field exam and assessed pond(s) size & irrigation acreage recommended for credit during licensing review. There are no overlap concerns for this water right. The unnamed stream source is tributary of Pine Creek & subsequently the Potlatch River, which has a minimum stream (MSF) flow water right 86-11960. As this permit was not approved with MSF requirements in the conditions of approval, the license is not being recommended with them as this would be more restrictive than the department imposed at time of permit approval.

Have conditions of permit approval been met? _X_ Yes ____ No

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Annual Volume
IRRIGATION STORAGE	01/01 to 12/31	1.5 AF
IRRIGATION FROM STORAGE	01/01 to 12/31	1.5 AF
RECREATION STORAGE	01/01 to 12/31	19.8 AF
FIRE PROTECTION STORAGE	01/01 to 12/31	19.8 AF
	Totals:	21.3 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 -

Field Examiner's Name_____ Date 11/14/2022

Reviewer_____ Date_____

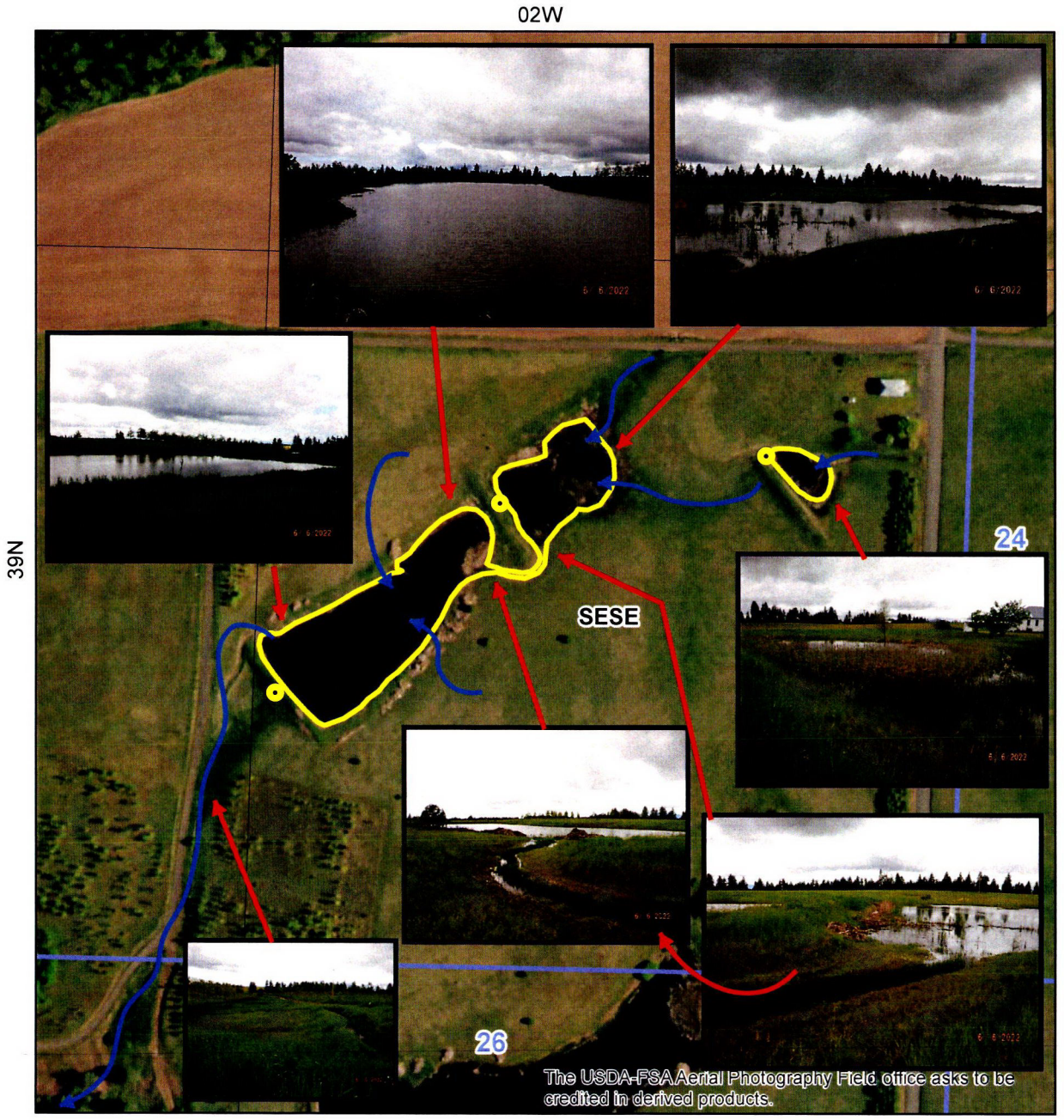
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State of Idaho
Department of Water Resources

Attachment to Field Exam

86-12114

RECREATION STORAGE & FIRE PROTECTION STORAGE system diagram.



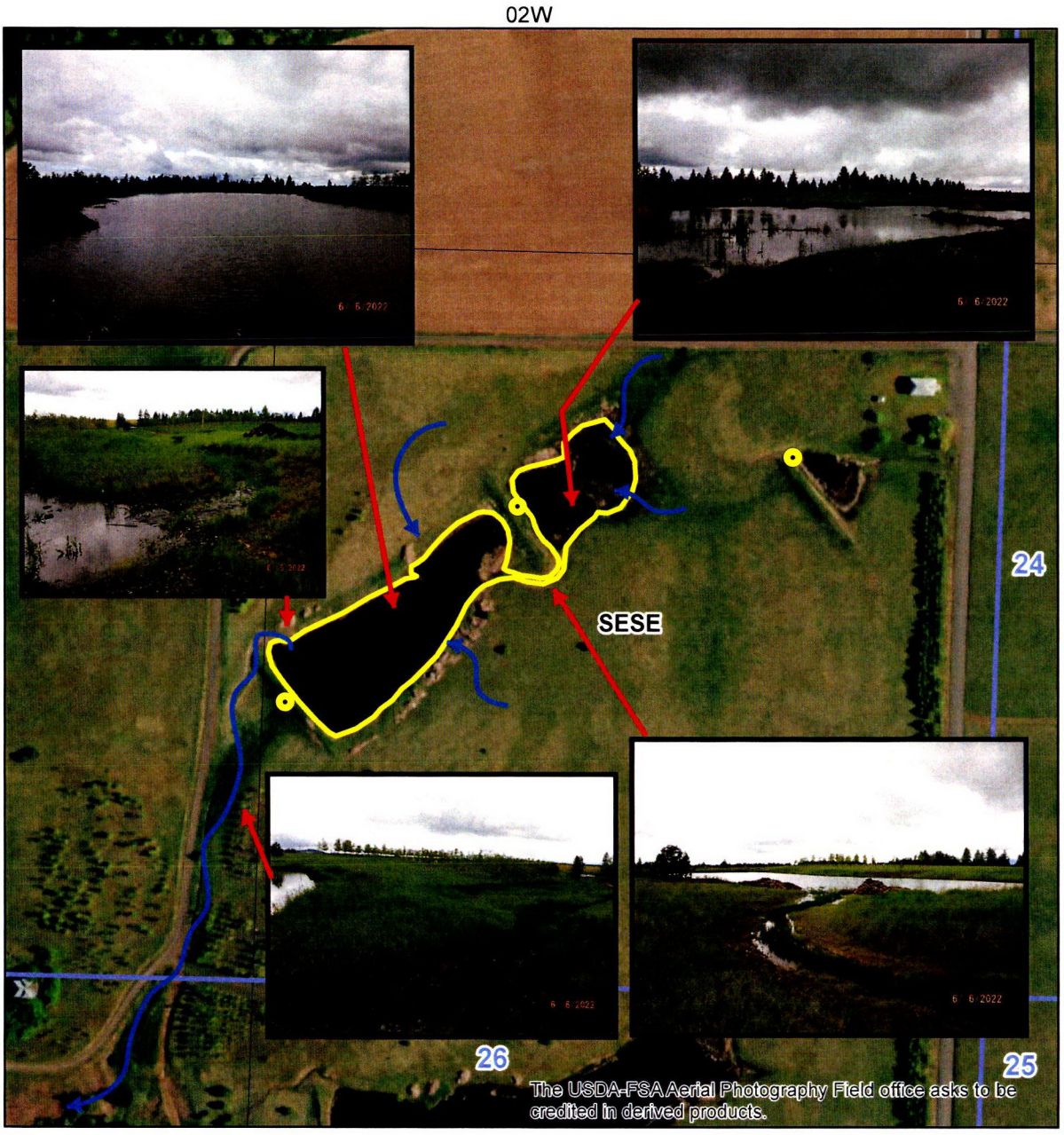
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Attachment to Field Exam

86-12114

IRRIGATION STORAGE system diagram.



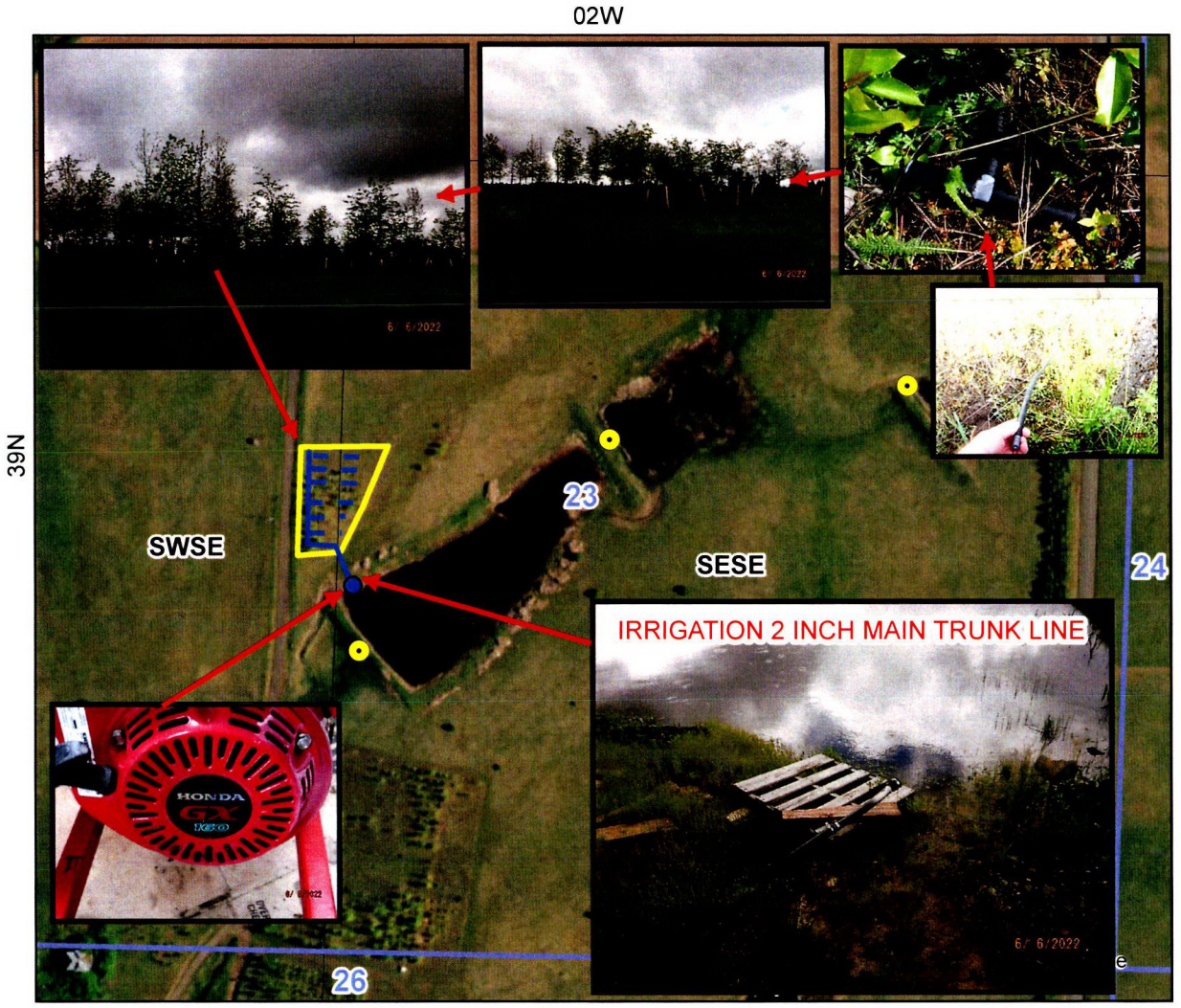
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Department of Water Resources

Attachment to Field Exam

86-12114

IRRIGATION FROM STORAGE system diagram.



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Total Storage Calculations

FILE NUMBER	86-12114
REVIEWER	LUKE BATES
DATE	11/14/2022

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

SMALL POND

Surface Area (AC.)	0.2	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	3.2	"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)	0.6	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 *from storage* component if the *from storage* 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)	0.2	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.2	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	1.0	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.

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Total Storage Calculations

FILE NUMBER	86-12114
REVIEWER	LUKE BATES
DATE	11/14/2022

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

MEDIUM POND

Surface Area (AC.)	0.6	"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)	2.4	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 *from storage* component if the *from storage* 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)	0.7	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.7	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	3.8	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.

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Total Storage Calculations

FILE NUMBER	86-12114
REVIEWER	LUKE BATES
DATE	11/14/2022

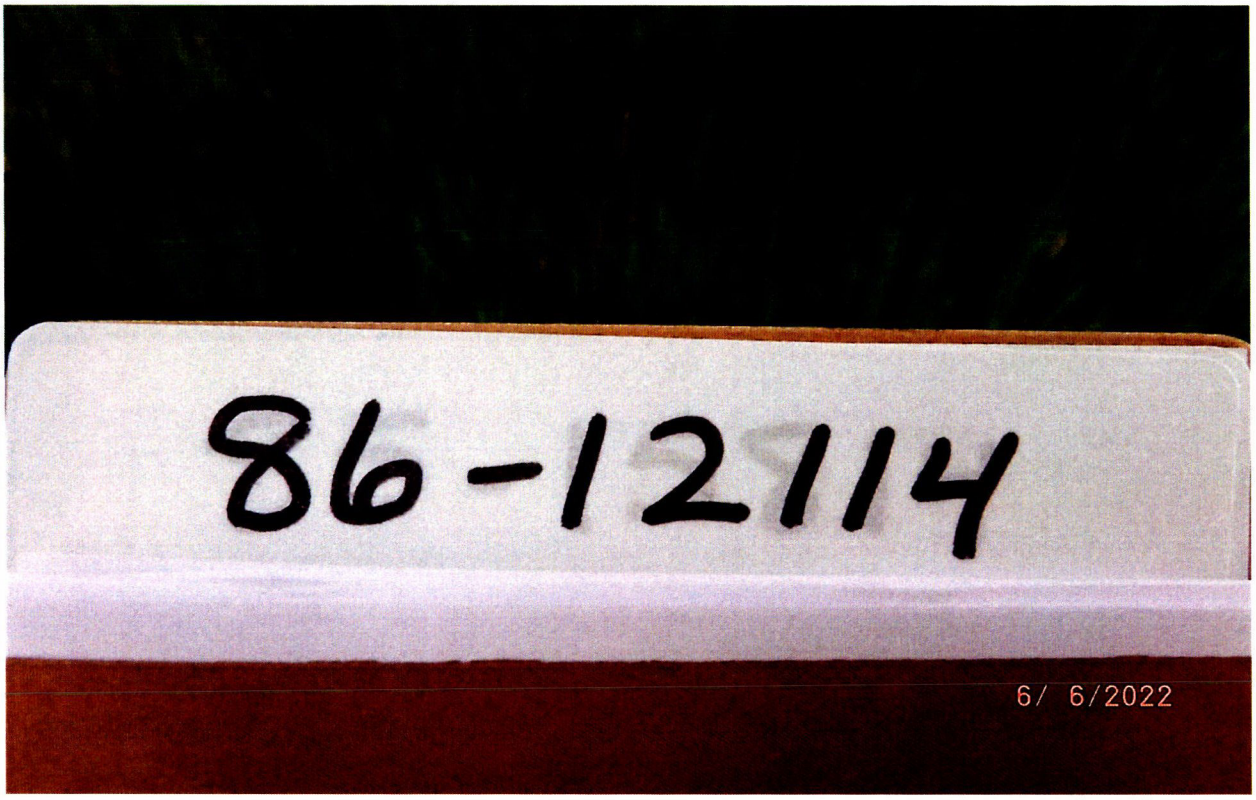
LARGE POND

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.)	1.8	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"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)	10.8	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)	1.5	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a *from storage* component if the *from storage* 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)	2.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	2.2	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	16.5	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.

SCANNED
MAY 17 2023



BENEFICIAL USE FIELD EXAMINATION DATE 6/6/2022



POD – EARTHEN POND DAM

POU – RECREATION STORAGE & FIRE PROTECTION STORAGE (EASTERN POND)

SCANNED
MAY 17 2023



POD – EARTHEN DAM

POU – FIRE PROTECTION STORAGE & RECREATION POND (MIDDLE POND)



POU – RECREATION STORAGE & FIRE PROTECTION STORAGE (MIDDLE POND)

SCANNED
MAY 17 2023



FLOW THROUGH CHANNEL FROM MIDDLE POND TO WESTERN POND



POD – EARTHEN DAM (WESTERN POND) & OVERFLOW CHANNEL ON NW CORNER OF POND

SCANNED
MAY 17 2023



POU – IRRIGATON STORAGE, RECREATION STORAGE, & FIRE PROTECTION STORAGE



SCANNED
MAY 17 2023

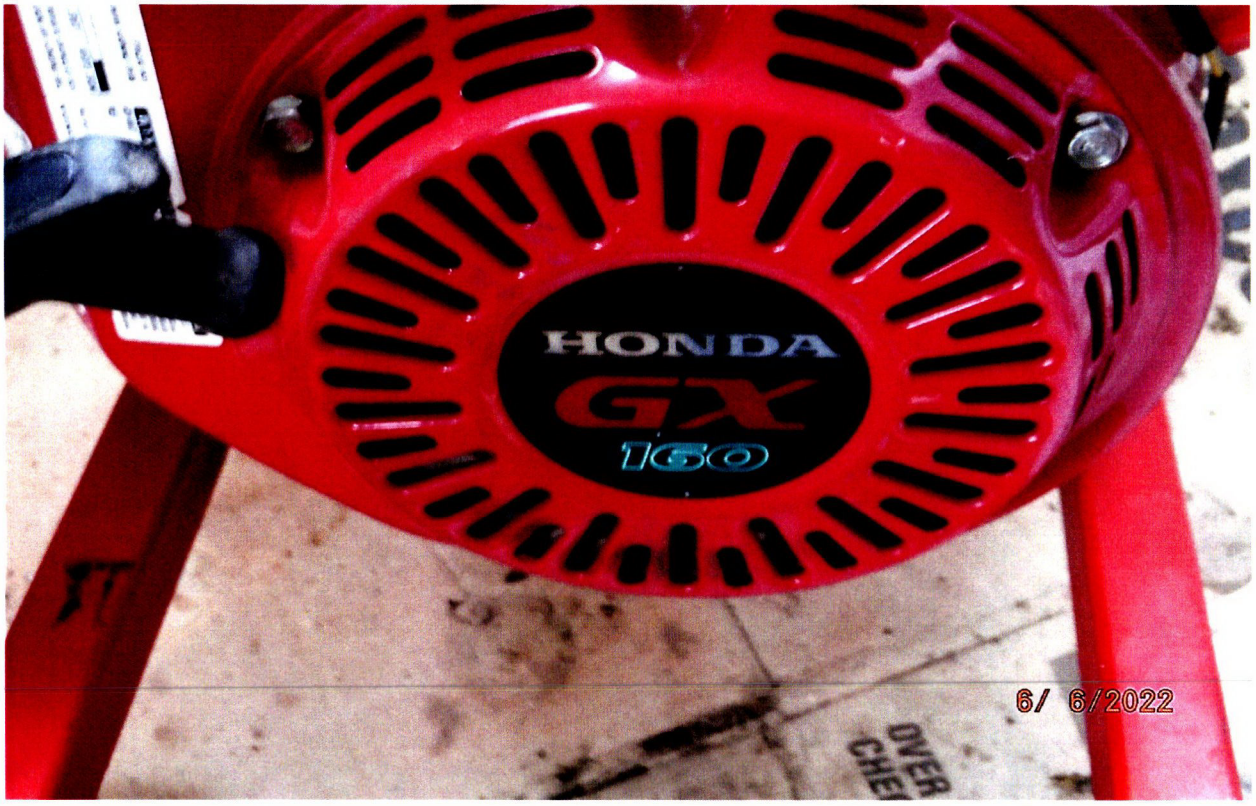


IRRIGATION FROM STORAGE 1 ¼ INCH POLY PIPE



IRRIGATION FROM STORAGE – 5 HP WATER TRANSFER PUMP

SCANNED
MAY 17 2023



HONDA GX 160 WATER TRANSFER PUMP USED FOR IRRIGATION FROM STORAGE USE



IRRIGATION FROM STORAGE POU

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MAY 17 2023



IRRIGATION FROM STORAGE POU



IRRIGATION FROM STORAGE – ORCHARD TREE PLOT USING SOAKER HOSES FROM MAIN PIPELINE

SCANNED
MAY 17 2023