

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

**Permit No:** 96-9833  
**Exam Date:** 05/24/2022

1. Current Owner:  
BARBARA COLLINS 324 SUNCHASER LN SAGLE ID 83860-5054
2. Accompanied by: Chuck (Renter)  
Phone No: 509-828-0331  
Address: Same as above  
Relationship to permit Holder: Representative renting home from Permit holder.

3. **SOURCE:**  
CARR CREEK

**Tributary**  
PEND OREILLE 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   |
|-----------------|-------------|----------------------------------|---------|
| 96-9634         | GROUNDWATER | DOMESTIC, STOCKWATER, IRRIGATION | LICENSE |
|                 |             |                                  |         |

Comments: Licensed WR 96-9634 uses a Groundwater source co-located with this Permit's POD and shares the same POU & water uses for stockwater & irrigation as this permit. Condition X35 has been incorporated when approving Permit 96-9833 to mitigate combined use and assign combined use limits for irrigation acreage and stockwater use. Condition X35 shall be carried forward to licensing.

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

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

CARR CREEK NE¼ SW¼, Sec. 23, Twp 57N, Rge 03W, B.M. BONNER County

Method of Determination: GPS. POD is a water transfer pump located at -116°39.967, 48°16.218.

**PLACE OF USE:** IRRIGATION STORAGE, STOCKWATER 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 |        |
| 57N | 03W | 23  |    |    |    |    |    |    |    |    | X  |    |    |    |    |    |    |    |        |

**PLACE OF USE:** IRRIGATION FROM STORAGE & STOCKWATER 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 |        |
| 57N | 03W | 23  |    |    |    |    |    |    |    |    | 0.7 |    |    | 0.3 |    |    |    |    | 1.0    |

Total Acres: 1.0

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

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 |
|---------------------------|------------|----|-------------------|-----------|-----------------------------------|
| GENERATOR TRANSFER PUMP   | HONDA      |    | GX120 MODEL WP20X |           |                                   |

**D. FLOW MEASUREMENTS**

1.

| Measurement Equipment | Type | Make | Model No. | Serial No. | Size | Calib. Date |
|-----------------------|------|------|-----------|------------|------|-------------|
| 5-GAL BUCKET          |      |      |           |            |      |             |

2. Measurements: Three 5-gallon bucket tests were completed from the main service pipe inflow to storage pond, with average of three resulting in a diversion rate of 5 gal / 6.076 sec x 60 sec/min = 49.37 gpm = **0.11 cfs**, considering department rounding standards.

**E. FLOW CALCULATIONS**

Measured Method: 5-GAL Bucket Test = (5 gal / 5.91 sec) x 60 sec/min = 50.25 gpm  
 = (5 gal / 6.13 sec) x 60 sec/min = 48.94 gpm  
 = (5 gal / 6.19 sec) x 60 sec/min = 48.47 gpm

Average of 3ea 5-GAL Bucket Tests = (50.25 gpm + 48.94 gpm + 48.47) / 3 = 49.22 gpm = 0.11 cfs considering department rounding standards.

**F. VOLUME CALCULATIONS**

1. Volume Calculations for irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 1 \text{ ac} \times 3.0 \text{ afa} = 3.0 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = \text{Irrigation from storage, no diversion rate applied.}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \mathbf{3.0 \text{ af}}$$

2. Volume Calculations for Other Uses: See attached pond analysis worksheet.

- Stockwater storage & Stockwater from storage annual volume = 10 head mixed stock x 12 gpd x 365 days = 43,800 gal / 325,850 gal per af = **0.1 af** considering Department rounding standards.

**G. NARRATIVE/REMARKS/COMMENTS**

Field exam performed on 5/24/2022 with the applicant's representative, Mike (renter), showed Carr Creek water being diverted for multiple storage uses and irrigation & stockwater from storage use(s). At the POD, the applicant uses a Honda GX120 Honda water transfer pump as part of the diverting works. There is a yellow ¼ inch screen attached to the 2-inch intake pipe, and a fire hose is used to divert water up hill to a small pond on the property. Mike asserts that the diverting system is operated at intervals throughout the summer to keep the pond level high enough to keep water loving vegetation around the banks alive, but that the pond doesn't require significant recharge throughout the summer.

Three 5-gallon bucket tests were completed from the main service pipe inflow to storage pond, with average of three resulting in a diversion rate of 5 gal / 6.076 sec x 60 sec/min = 49.37 gpm = **0.11 cfs**, considering department rounding standards which is recommended for licensing purposes. The permit approved development up to 0.20 cfs, but the applicant is limited to pump performance at time of field exam for licensing purposes.

The Irrigation Storage, Stockwater Storage, & Fire Protection Storage pond was observed during the field exam and sketched out on field maps. During licensing review Arcmap aerial imagery was used to accurately trace out the pond's surface area. The pond has a surface area of 0.1 acres, pond capacity of 0.6 af, maximum depth of 15 ft, and an average depth of 6 ft. Seepage and evaporation loss equals 0.8 af, and total pond volume equals 4.5 af which includes 3.1 af for stockwater & irrigation from storage multiple fill requirements. **4.5 af** is recommended as the maximum diversion volume for licensing purposes.

The Fire protection storage annual volume equals 0.6 af (pond capacity) + 0.8 af (seepage/evaporation loss rates) = **1.4 af**, which is recommended for licensing. The Stockwater storage & Stockwater from storage annual volume equals 10 head mixed stock x 12 GPD x 365-days = 43,800 gal per year / 325,850 gal per af = **0.1 af** considering department rounding standards. Stockwater use is not additive and is only counted once when determining the maximum diversion rate.

The irrigation from storage POU includes fenced in fields which are watered to keep stock feed growing, lawn space, garden space, and assorted trees located around the parcel. I traced out the irrigation POU during the exam on field maps, and during licensing review Arcmap aerial imagery was used to accurately designate the irrigation from storage POU. Irrigation acreage equals 1.0 acres, and the annual volume designated to license irrigation from storage equals 1.0 ac x 3.0 afa = **3.0 af**. This permit's irrigation & stockwater from storage POU is the same as an existing WR's POU for direct flow beneficial use of irrigation & stockwater. Condition X35 was incorporated in licensing 96-9833 to mitigate overlap concerns and describe combined use limitations between 96-9634 & 96-9833.

Permit 96-9833 was filed on by the applicant due to the source of water used to fill the pond being different than their existing WR's groundwater source along with each system being separate and not co-mingling in water usage. Condition X02 was removed from the permit during licensing review. All other conditions on the permit have been carried forward to licensing. Overlap concerns: Licensed WR 96-9634 uses a Groundwater source co-located with this Permit's POD and shares the same POU & water uses for stockwater & irrigation as this permit. Condition X35 has been incorporated when approving Permit 96-9833 to mitigate combined use and assign combined use limits for irrigation acreage and stockwater use. Condition X35 shall be carried forward to licensing. There are no additional overlap concerns for this water right.

Permit 96-9833 Statement of Completion was submitted by the applicant after the commencement of the Clark Fork Pend Oreille River Basin Adjudication on 15 June 2022, and does not require filing in the adjudication process to keep the water right active once license approved.

Have conditions of permit approval been met? X Yes      No

## H. RECOMMENDATIONS

## 1. Recommended Amounts

| <b><u>Beneficial Use</u></b> | <b><u>Period of Use</u></b> | <b><u>Rate of Diversion</u></b> | <b><u>Annual Volume</u></b> |
|------------------------------|-----------------------------|---------------------------------|-----------------------------|
| IRRIGATION STORAGE           | 01/01 to 12/31              |                                 | 3.0 AF                      |
| IRRIGATION FROM STORAGE      | 04/01 to 10/31              |                                 | 3.0 AF                      |
| STOCKWATER STORAGE           | 01/01 to 12/31              |                                 | 0.1 AF                      |
| STOCKWATER FROM STORAGE      | 01/01 to 12/31              |                                 | 0.1 AF                      |
| FIRE PROTECTION STORAGE      | 01/01 to 12/31              |                                 | 1.4 AF                      |
| DIVERSION TO STORAGE         | 01/01 to 12/31              | 0.11 CFS                        |                             |

**Totals:** 0.11 CFS 4.5 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 -**

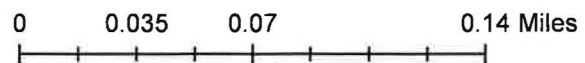
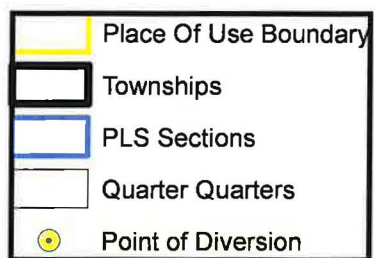
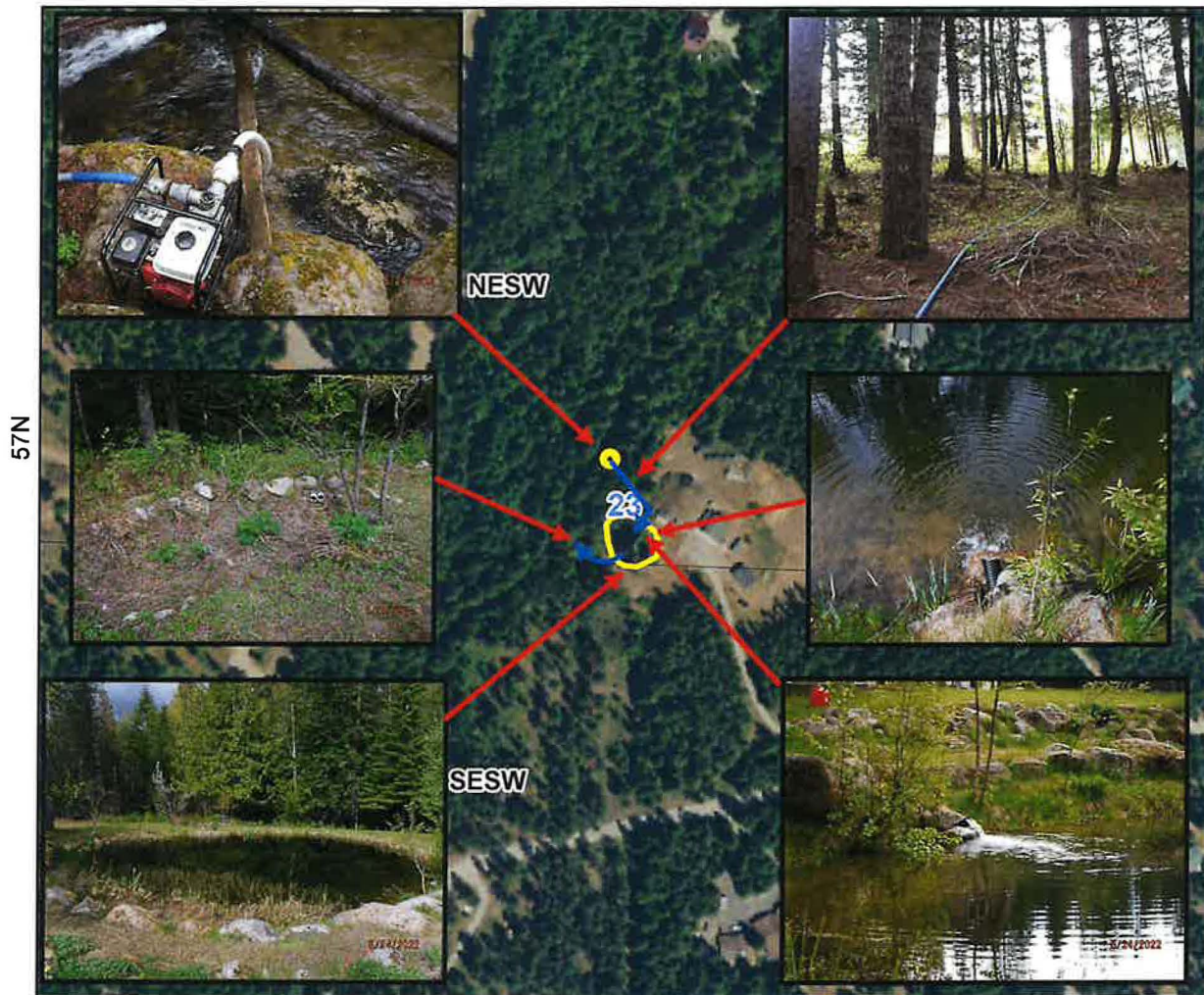
Field Examiner's Name Stacy R. DeF... Date 8/31/2022

Reviewer Chase Bell Date 5/14/2024

State of Idaho  
Department of Water Resources  
**Attachment to Field Exam**  
96-9833

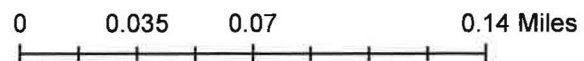
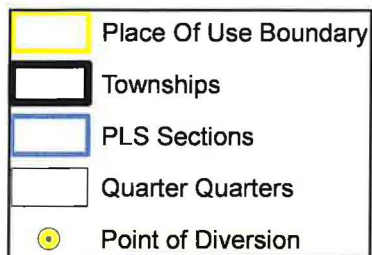
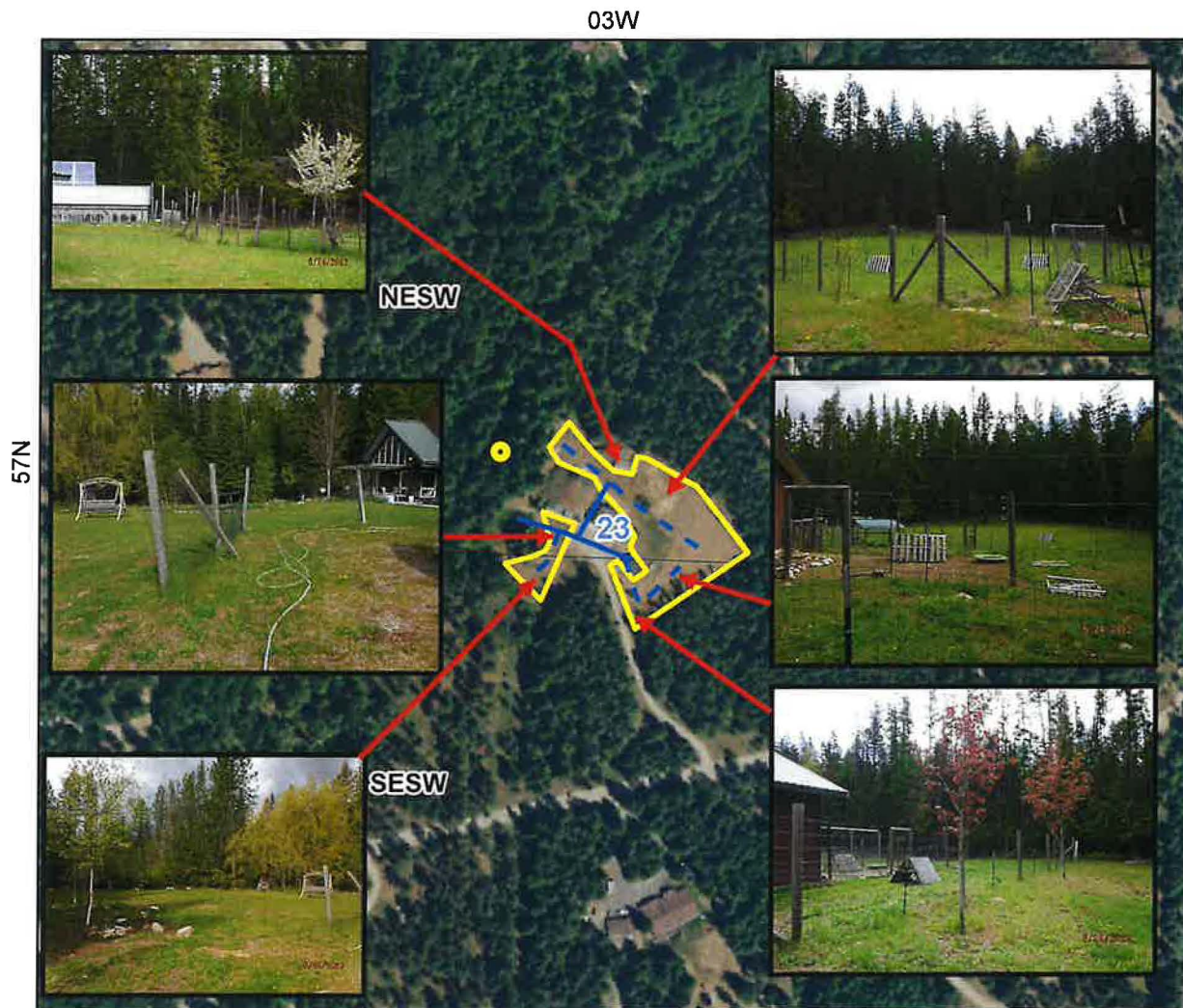
IRRIGATION STORAGE, STOCKWATER STORAGE, & FIRE PROTECTION STORAGE system diagram.

03W



State of Idaho  
Department of Water Resources  
**Attachment to Field Exam**  
96-9833

IRRIGATION FROM STORAGE & STOCKWATER FROM STORAGE system diagram.



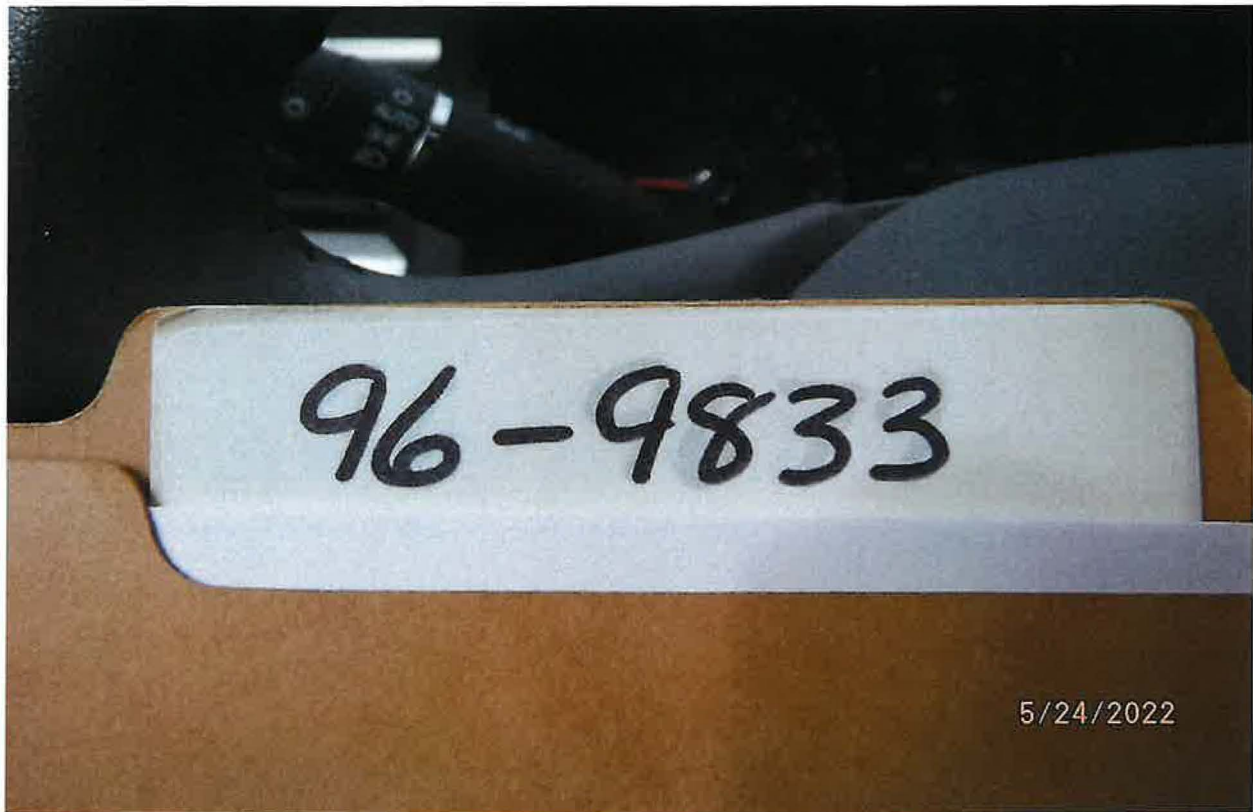
## Total Storage Calculations

|             |            |
|-------------|------------|
| FILE NUMBER | 96-9833    |
| REVIEWER    | LUKE BATES |
| DATE        | 8/31/2022  |

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 |

|                                                                                                                |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Area<br>(AC.)                                                                                          | 0.1 | "Surface Area" is automatically carried over from the "Seepage Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Average Pond<br>Depth<br>(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<br>(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.<br><b>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.</b>                                                                                                                                                                                                                                                                                                                                                                                         |
| Multiple Fill<br>Volume Above<br>Initial Fill to Fulfill<br>From Storage<br>Needs- "Multiple<br>Fills"<br>(AF) | 3.1 | 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).<br><b>Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.</b> |
| Estimated<br>Seepage Loss (AF)                                                                                 | 0.7 | The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Estimated<br>Evaporation Loss<br>(AF)                                                                          | 0.1 | The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Total Volume<br>Required<br>(AF)                                                                               | 4.5 | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



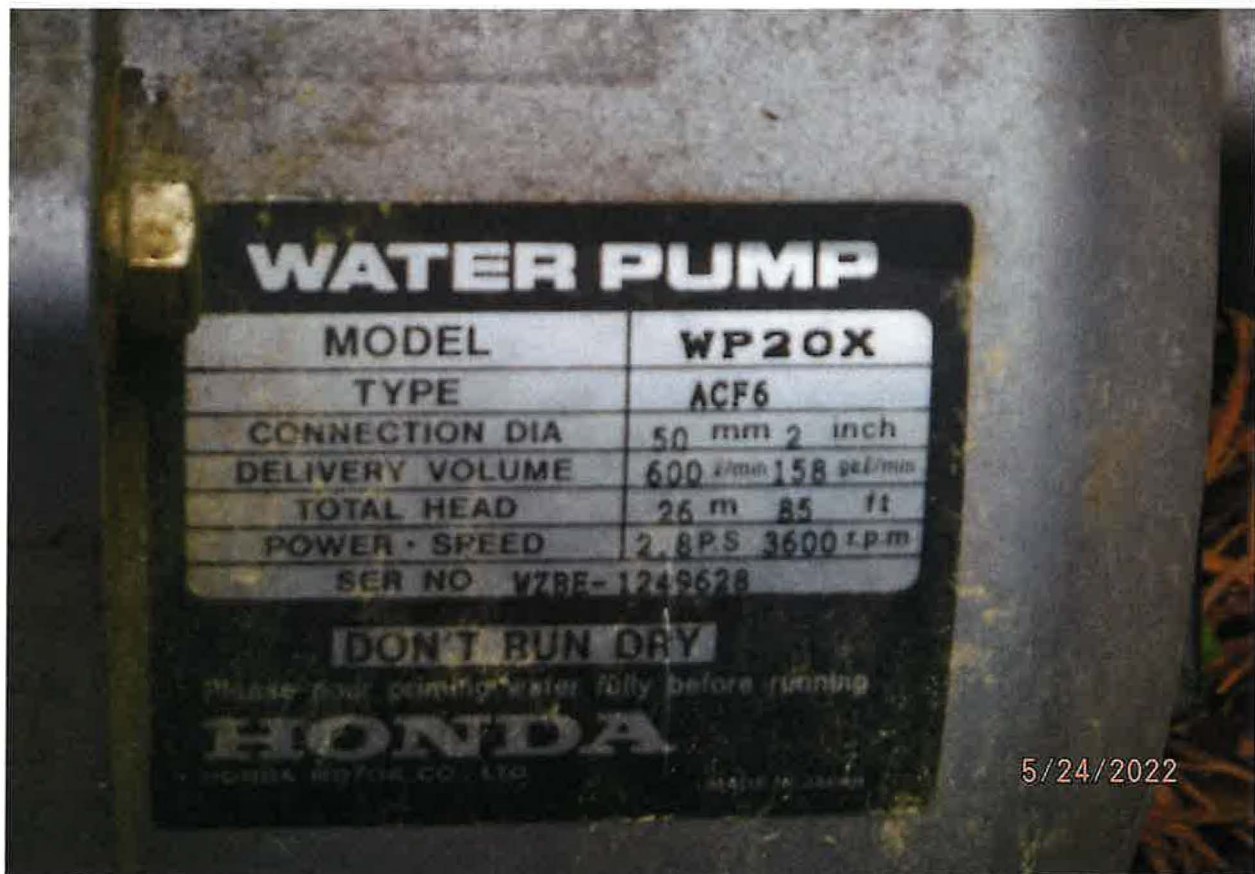
BENEFICIAL USE FIELD EXAMINATION DATE 5/24/2022



POD – WATER TRANSFER PUMP WITH INTAKE PIPE IN CREEK



SCREENED INTAKE PIPE



HONDA WP20X WATER PUMP



BLUE FLEX FIRE HOSE FROM POD TO STORAGE POND POU



WATER INFLOW TO STORAGE POND



STORAGE POND POU – IRRIGATION STORAGE, STOCKWATER STORAGE, FIRE PROTECTION STORAGE



ROCK COVERED OVERFLOW DISCHARGE PIPE



SMALL OVERFLOW BASIN WITH PIPES THAT ROUTE OVERFLOW DOWNSLOPE BACK TO CREEK



POU – IRRIGATION FROM STORAGE & STOCKWATER FROM STORAGE



POU – IRRIGATION FROM STORAGE & STOCKWATER FROM STORAGE





POU – IRRIGATION FROM STORAGE & STOCKWATER FROM STORAGE





POU – IRRIGATION FROM STORAGE & STOCKWATER FROM STORAGE

