



Surface Water Applications

Wyoming State Engineer's Office

Submitting a Reservoir Special Application SW-3 with the SW 3A
(Hardcopy)

Reservoir Special Applications

A reservoir application shall be filed for any constructed facility used to store water. A reservoir meeting the following requirements is considered a **Special Application** and may follow the instructions described in this manual:

- 1) Reservoirs that do not exceed 20 acre-feet in capacity or 20 feet in dam height.
- 2) Floodwater detention reservoirs that do not exceed 50 acre-feet in capacity, 20 feet in height, or 20 acre-feet of inactive capacity (providing the dam has a low-level outlet with a minimum of 18 inches in diameter).

Reservoir special applications are submitted on the S.W.3 with the S.W. 3A form, which may be downloaded from the Wyoming State Engineer Office (SEO) website. This form shall be printed on 8.5” x 14” bond paper in tumblehead format. →



1. Reservoir Special Application (S.W. 3 Form)

The instructions below describe how to complete each item of the application:

Refer to Figure 1 for the following items:

- A. Facility name: enter a name for the reservoir in space provided. Short, distinct names are preferred. For reservoir enlargements, the name shall follow the format “Enlargement of the _____ Reservoir (Permit # _____ .OR)”
- B. Items 1 and 2: Provide the name, mailing address, phone number, and e-mail address for the applicant and agent. The applicant is the individual or entity applying for the water right and the agent is the point of contact. Write “Same as above” in Item 2 if the agent and applicant are the same.
- C. Item 3: Write the type of beneficial use to which the water will be applied.
 - a. If more than one beneficial use is applied for, you may specify the volume (acre-feet) allocated to each use.
 - b. Provide the surface area (acres) of the reservoir at the high water line.
 - c. Specify the total capacity (acre-feet) of the reservoir at the high water line.
 - d. If the application is for an enlargement of an existing reservoir, specify the volume (acre- feet) of the enlarged portion.

Figure 1. Application Items 1-4

NAME OF FACILITY

THE Crow RESERVOIR

1. Name(s), mailing address and phone no. of applicant(s) is/are Reservoir Company, c/o Rex Ervore
799 Swanton Ave, Thermopolis, WY 82443
Ph: 999-999-9999
E-mail address: reservoirco@email.com
(if more than one applicant, designate one to act as Agent for the others)

2. Name & address of agent to receive correspondence and notices Same as above
E-mail address: _____

3. The use to which the water is to be applied is Fish propagation and recreation
(a) If more than one beneficial use of water is applied for, the reservoir capacity must be allocated in acre-feet to the various uses:

<u>Active Capacity</u>	<u>Inactive Capacity</u>
	<u>Fish propagation and Recreation = 19.33 AF</u>

(b) The area of the high water line of the reservoir is 5.8 acres.
(c) The total available capacity of the reservoir is 19.33 acre-feet.
(d) If enlargement, the capacity of this enlargement is N/A acre-feet.

Refer to Figure 2 for Items 4-9:

- D. Item 4: Write the name of the stream that is supplying the reservoir. Leave blank if unknown. If the reservoir is off-channel and supplied by a ditch, pipeline, or well, a separate application shall be submitted for the supply facility and the name of the supply facility shall be specified here.

- E. Item 5: Specify the legal description and geographic coordinates of the Point of Outlet (POO) in the spaces provided. The legal description may be found on your property deed. If there is no outlet, the point of intersection between the natural stream bed and the dam, or natural overflow point, shall be used. Leave the spaces referring to the corner tie blank, as this information is not required.

- F. Item 6: Specify the legal description and owner of any state or federally-owned lands that are involved in the application.

- G. Item 7: Dam Construction Details:
 - a. If no dam is constructed, write “Not Applicable – Pit Reservoir”. Otherwise, describe the method of construction or type of dam. If an earthen dam is constructed, provide the volume of fill material used (yd³).
 - b. State the method and/or material used to protect the dam face from erosion.
 - c. Provide the dam height, measured as the vertical distance between the dam crest elevation and the elevation of downstream toe at the lowest point.

- H. Item 8: Specify the time required (months) to complete construction. The maximum allowable time is 5 years (60 months). Write “Existing” if the facility is already completed.

- I. Item 9: Remarks: include any clarifying information not provided in the previous sections of the application.

2. S. W. 3A: Map and Plans for DAMS (for PIT, turn to page 9)

Completing the Map and Plans section of the S.W. 3A form: (Figure 3)

- A. Fill in the name of the reservoir in the space provided.
- B. In the space provided for the Location Map draw the shape of the proposed reservoir in its proper location. Label with the Township, Range and Section number. Include a north arrow.
- C. Fill in the Capacity Information:
 - (a) Reservoir surface area at the high water line (acres)
 - (b) Reservoir surface area at the outlet (acres) (if no outlet, this will equal the high water line)
 - (c) Maximum water depth minus the freeboard distance (feet)
 - (d) Depth below the lowest outlet (feet)
- D. Fill in the results of the following calculations in the spaces provided:
 - Total capacity calculated as $(a) \times (c) / 3$
 - Inactive capacity calculated as $(b) \times (d) / 3$
 - Active capacity calculated as the total capacity – inactive capacity

A cross-section diagram is provided for use in describing various specifications of the dam. (Cross through if there is no dam). Fill in values for the following items:

- (I) Total height of dam (feet).
- (II) Freeboard distance (feet) measured as the distance between the dam crest elevation and the high water line elevation.
 - Note: If the freeboard is less than 5 feet, a waiver providing adequate justification shall be requested.
- (III) Width and elevation at the top of the dam (feet).
 - Note: For dam height (H) less than 10 feet, a waiver shall be requested if the top width is less than $1/5 * H + 4$
 - For dam height (H) equal to or greater than 10 feet, a waiver shall be requested if the top width is less than either 8 feet or $1/5 * H + 4$
- (IV) Elevation of the high water line which is established by the spillway. If there is no spillway, the dam height should be used to establish the high water line.
- (V) Slope of both dam faces (horizontal: vertical).
 - Note: A waiver shall be requested if upstream slope is steeper than 3H:1V or downstream slope is steeper than 2H:1V
- (VI) Outlet pipe diameter (inches) and the location of the valve or gate (if applicable). Cross through if there is no outlet.
- (VII) Total depth of water.
- (VIII) Depth of water below outlet (if no outlet this will equal the total depth of water).

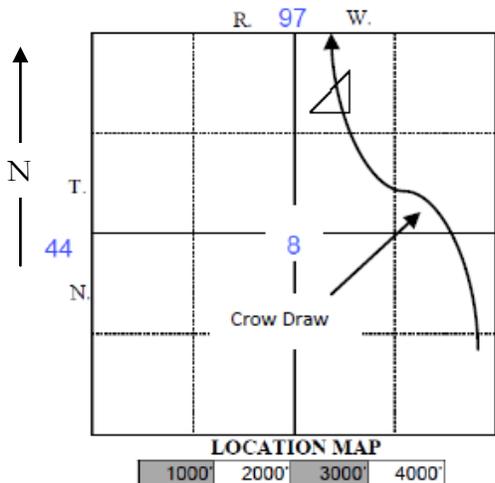
Figure 3. Maps and Plans

Form S.W. 3-A
Rev. 7/15/2017

RESERVOIR APPLICATION SUPPLEMENTAL SHEET

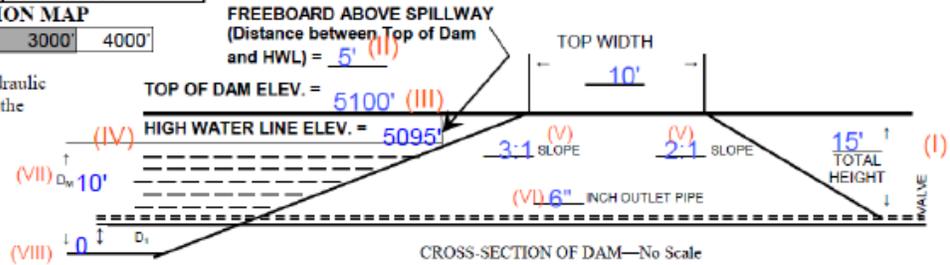
(For use with Form S.W. 3)
for

THE Crow RESERVOIR, Temporary File No. _____ R



Show Cross-Section and Hydraulic Properties of the Spillway in the space provided below:

CAPACITY
 Area at High Water Line (HWL): (a) 5.8 acres
 Area at elevation of Outlet (invert): (b) 0 acres
 (D_M) Maximum water Depth (less freeboard): (c) 10 feet
 (D_I) Water Depth below Outlet: (d) 0 feet
 TOTAL CAPACITY = (a) x (c) + 3 = 19.33 acre-feet
 INACTIVE CAPACITY = (b) x (d) + 3 = 0 acre-feet
 ACTIVE CAPACITY = TOTAL CAPACITY - INACTIVE CAPACITY = 19.33 acre-feet



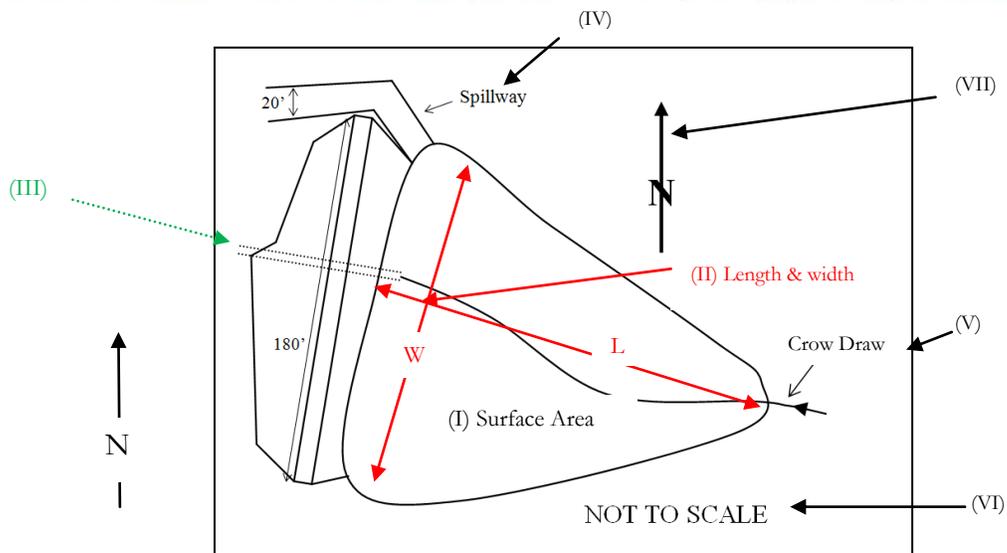
Show Plan View for Reservoir with a Dam (figure 4)
(for Pit reservoirs, see page 9)

Below the dam detail section and reservoir capacity information, a space is provided to show the plan view of the reservoir. Fill in values for the following items:

- I. Surface area (acres).
- II. Reservoir length and width (feet).
- III. Location of the outlet pipe (if applicable).
- IV. Location and extent of the primary spillway, including the bottom width (feet).
- V. Stream location, flow direction, and stream name. Do the same for manmade conveyance facilities (e.g. ditch or pipeline) that supply the reservoir.
- VI. Scale of the drawing. Write "Not to Scale" if the drawing is not to scale.
- VII. North arrow.

Figure 4. Plan View for Reservoirs with a Dam

SHOW PLAN VIEW IN THE SPACE PROVIDED - SCALE: 1"= _____ (Use as large a scale as possible)

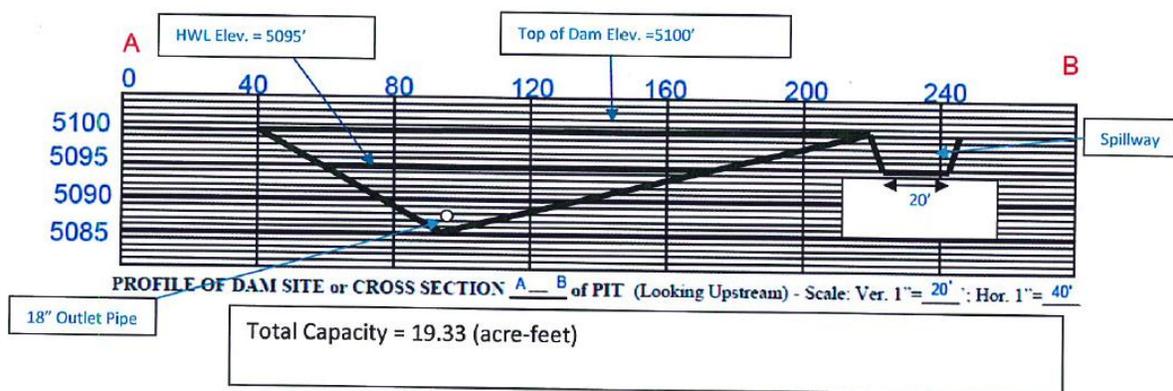


Profile of Dam Site For reservoirs with a dam (figure 5)

A drawing of the profile of the dam site shall be provided below the plan view. The drawing shall include:

- Top of the dam
- High water line
- Principle spillway
- Emergency spillway (if applicable)
- Bottom width of the spillway (feet)
- Location and size of outlet pipe, if applicable (inches)
- Bottom elevation
- Horizontal and vertical scale.
- Total capacity (acre-feet) below the profile in the space provided.

**Figure 5. Dam Profile
Example**



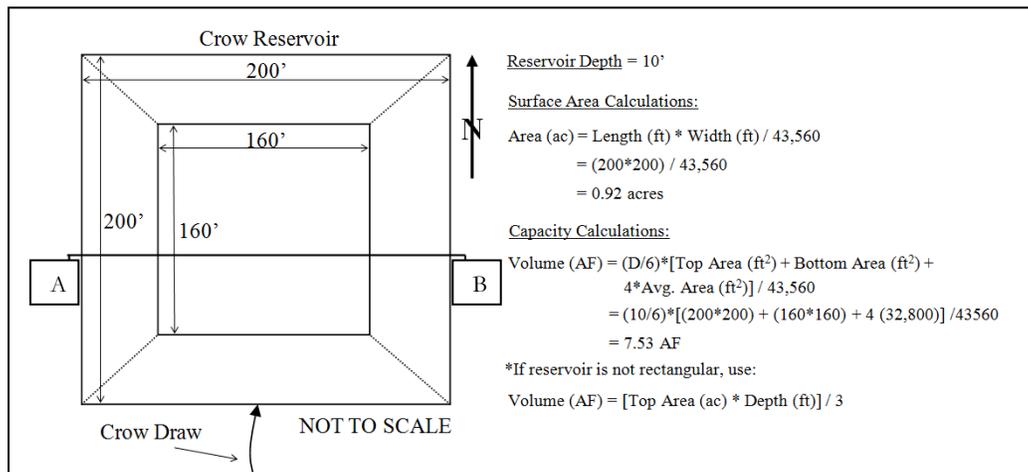
Show Plan View for Pit Reservoir (figure 6)

Below the dam detail section and reservoir capacity information, a space is provided to show the plan view drawing of the pit reservoir. The drawing shall include the following information:

- Pit capacity formula (Figure 6).
- For a rectangular pit having a flat bottom, show the top and bottom dimensions (feet).
- A-B cross-section.
- Reservoir depth (feet).
- Reservoir length and width (feet).
- Stream location, flow direction, and stream name. Do the same for manmade conveyance facilities (e.g. ditch or pipeline) that supply the reservoir.
- Scale of the drawing. Write “Not to Scale” if the drawing is not to scale.
- North arrow.

Figure 6. Plan View for Pit Reservoirs

SHOW PLAN VIEW IN THE SPACE PROVIDED - SCALE: 1"= _____ (Use as large a scale as possible)

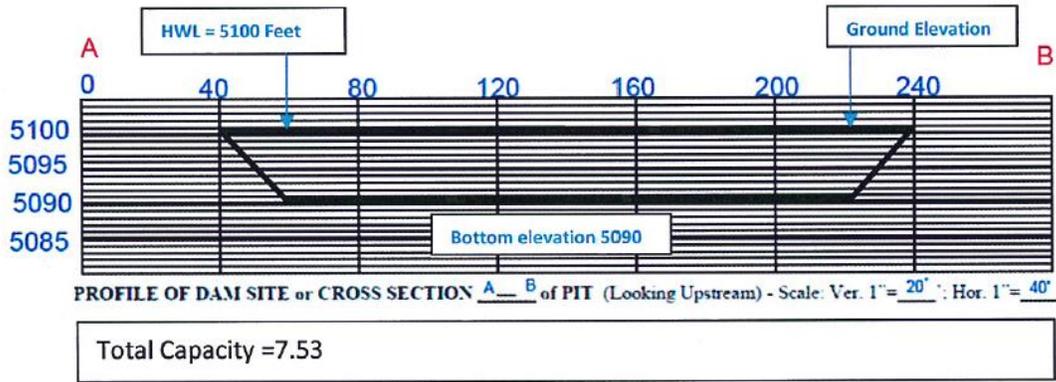


Cross Section of PIT (figure 7)

A drawing of the cross section of the pit site shall be provided below the plan view. The drawing shall include:

- Profile of the reservoir. The profile shall correspond to **Cross section** of the plan view (see figure 6).
- High water line elevation, ground elevation, and reservoir bottom elevation.
- Horizontal and vertical scale.
- Total capacity (acre-feet) below the profile in the space provided.

Figure 7. Pit Cross Section Example



Once all necessary information is entered, please sign and date the application (Figure 8). For the application to be accepted the appropriate fee shall accompany the application. A comprehensive fee schedule can be viewed on the Wyoming State Engineer Office website. <http://seo.wyo.gov/>

Figure 8. Application Notes and Signature

NOTE: The location map shown above is not required if the application is accompanied by an aerial photograph or a U.S.G.S. quadrangle map, prepared in accordance with the State Engineer’s Rules and Regulations. However, the area map, cross-section of dam, profile of dam site and capacity computation must be completed.

CONSENT TO ENLARGE (if applicable): Consent to enlarge must be requested from all owners of reservoirs described in existing water rights, permits or applications for permits for the facility to be enlarged before the State Engineer will consider approval of the application. Where the reservoir operator is an incorporated company or irrigation district, consent may be made on behalf of the individual owners by that entity where the consent is an excerpt of meeting minutes showing approval and authority for the individual signing for the company or district to act in such capacity. Forms are available on the State Engineer’s website or may be obtained from the State Engineer’s Office.

DECLARATION

I declare that I have examined this application/map and to the best of my knowledge and belief it is true, correct and complete.

Rex Ervore Alex Ervore
 Printed Name and Signature of Applicant or Agent

06/30/2017
 Date