



Surface Water Applications

Wyoming State Engineer's Office

Submitting a Stock Reservoir Application S. W. 4(Hardcopy)

Stock Reservoir Applications

A stock reservoir application shall be filed for any constructed facility used to store water for livestock watering purposes, where the total reservoir capacity does not exceed 20 acre-feet and the dam height does not exceed 20 feet in dam height. Stock reservoir applications are submitted on the S.W.4 form, which may be downloaded from the Wyoming State Engineer Office (SEO) website. The S.W.4 form must be printed on 8.5” x 14” bond paper in tumblehead format.



1. Stock Reservoir Application

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

Refer to Figure 1 for items 1-5:

- 1) Name of Facility: enter a name for the stock reservoir in space provided. Short, distinct names are preferred. For reservoir enlargements, the name must follow the format “_____ Enlargement of the _____ Stock Reservoir (P_____.0S)”.
- 2) Items 1 and 2: Provide the name, mailing address, phone number, and e-mail address of 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.
- 3) Item 3: The only type of beneficial use that can be applied for using the S.W.4 application is stock watering, which is printed on the application. Use the S.W.3 form for reservoirs having a different or additional use.
- 4) Item 4: Reservoir Details:
 - a. Provide the reservoir surface area (acres) at the high water line (HWL)
 - b. Specify the reservoir capacity (acre-feet) to the HWL
 - c. Give the length, width, and average depth of the reservoir (feet)
 - i. Length is measured as the straight line distance at HWL from dam to the most remote point
 - ii. Width is measured as the HWL distance along the dam
 - iii. Average depth is calculated as the total capacity divided by the area at HWL
- 5) Item 5: 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 must be submitted for the supply facility and the name and permit number (if known) must be specified in the space provided.

Figure 1. Application Items 1-5

NAME OF FACILITY	
THE	Crow
	STOCK RESERVOIR
1. Name(s), mailing address and phone no. of applicant(s) is/are	Reservoir Company, c/o Rez Ervore 799 Swanton Ave., Thermopolis, WY 82443 Ph: 777-777-7777 E-mail address: stkresco@email.com
	<small>(if more than one applicant, designate one to act as Agent for the others)</small>
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	in-place stock watering purposes.
4. (a) The area of the high water line of the reservoir is	5.80 acres. <small>(If a pipeline to additional points of storage will be used, include form SW4-A.)</small>
(b) The capacity of the reservoir is	19.33 acre-feet.
(c) Body of Reservoir: Length	600 Width 420 Average Depth 3.33
5. The source of the proposed appropriation is <i>(stream, ditch, well, etc.)</i>	Crow Creek

Refer to Figure 2 for Items 6 – 10:

- 6) Item 6: 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 surveyed corner tie blank, as this information is not required.
- 7) Item 7: Specify the legal description and owner of any state or federally-owned lands that are involved in the application.
- 8) Item 8: Dam 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 in cubic yards (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.
- 9) Item 9: Complete the map as described in Section 2, page 5.
- 10) Item 10: 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.

Note: Consent to Enlarge: if the application is a reservoir enlargement, written consent must be obtained from the owner(s) of the reservoir. When the reservoir operator is an incorporated company or irrigation district, consent may be made on behalf of the individual landowners where the consent is an excerpt of meeting minutes from said entity. The minutes must show the approval and authority for the individual signing for the entity. Consent forms can be downloaded from the SEO website. <http://seo.wyo.gov/>

Figure 2. Application Items 6-10

6. The outlet of the reservoir is located in NWNE of Section 8,
T. 44 N., R. 97 W. Surveyed corner tie, if available: bearing _____
feet distant from the _____ corner of Section _____, T. _____ N., R. _____ W.
Lot _____ Block _____ Subdivision Name _____
Latitude 44.562981 Longitude -109.564871

7. Are any of the lands covered by the proposed reservoir owned by the State or Federal government? If so, describe lands and designate whether State or Federally owned.
State: NWNE Sec. 8, T.44N, R.97W
Federal (BLM): SENE Sec. 8, T.44N, R.97W

8. (a) The dam is to be constructed as follows Earthen embankment
_____ contents = 4750 cubic yards.
(b) The water face of the dam is to be protected from wave action in the following manner: Rock Riprap

(c) Dam Height 15 feet.

9. The accompanying map is prepared in accordance with the State Engineer's Rules and Regulations for filing applications and is hereby declared a part of this application.

10. The estimated time required for completion of construction is 6 months

2. Maps and Plans

The back of the S.W.4 form provides spaces to show the reservoir location and specifications. Five elements are required, as described below.

2.1 Location Map

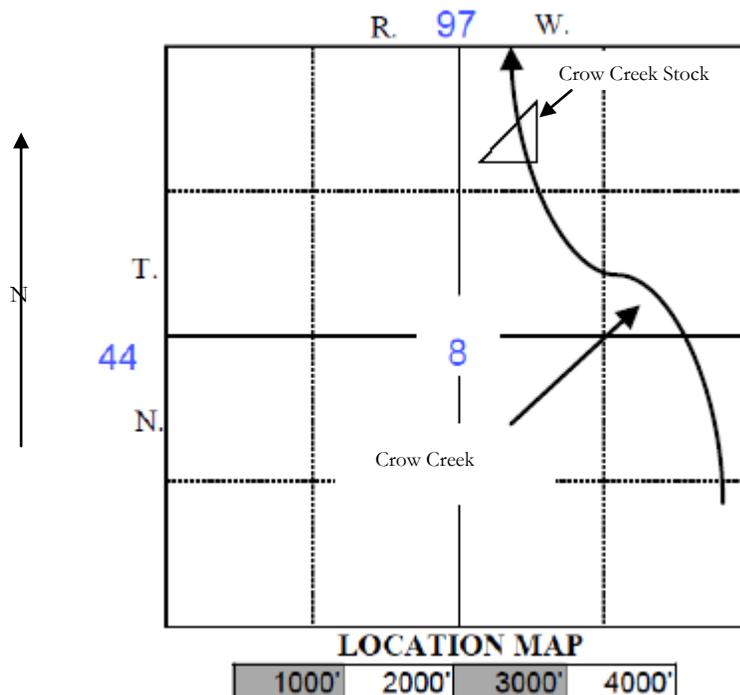
A location map depicting a subdivided PLSS section is provided on the back of the S.W.4 form.

Figure 3 for the following:

The location map shall show the:

- Name of the reservoir.
- High water line (as close to scale as possible).
- Quarter-quarter, section, township, and range that the reservoir is located within. Show lots, tracts, and homestead entry survey boundaries if applicable.
- Location, flow direction, and name of the channel that supplies the reservoir if applicable. Include any manmade conveyance facilities (e.g. ditch, pipeline, or well).
- North arrow.

Figure 3. Location Map Example



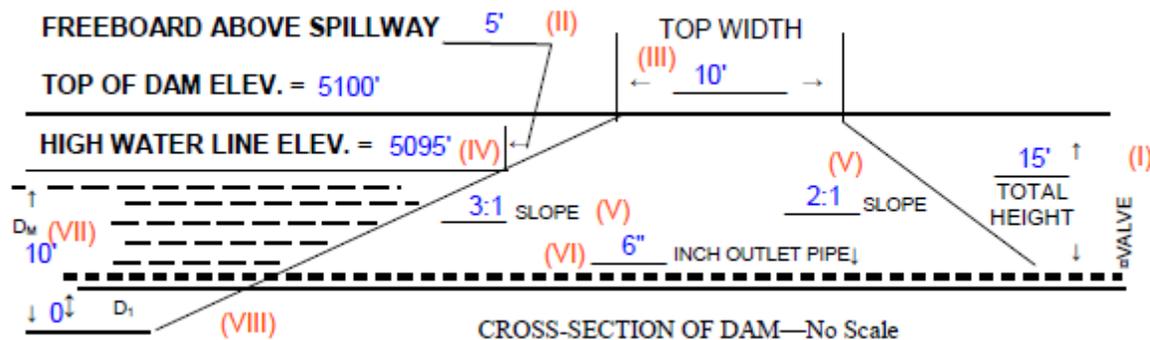
2.2 Dam Cross-Section (for PIT turn to page 9)

A cross-section diagram is provided to enter various specifications of the dam (Figure 4; cross through if there is no dam). Please provide the:

- (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 4. Dam Cross-Section

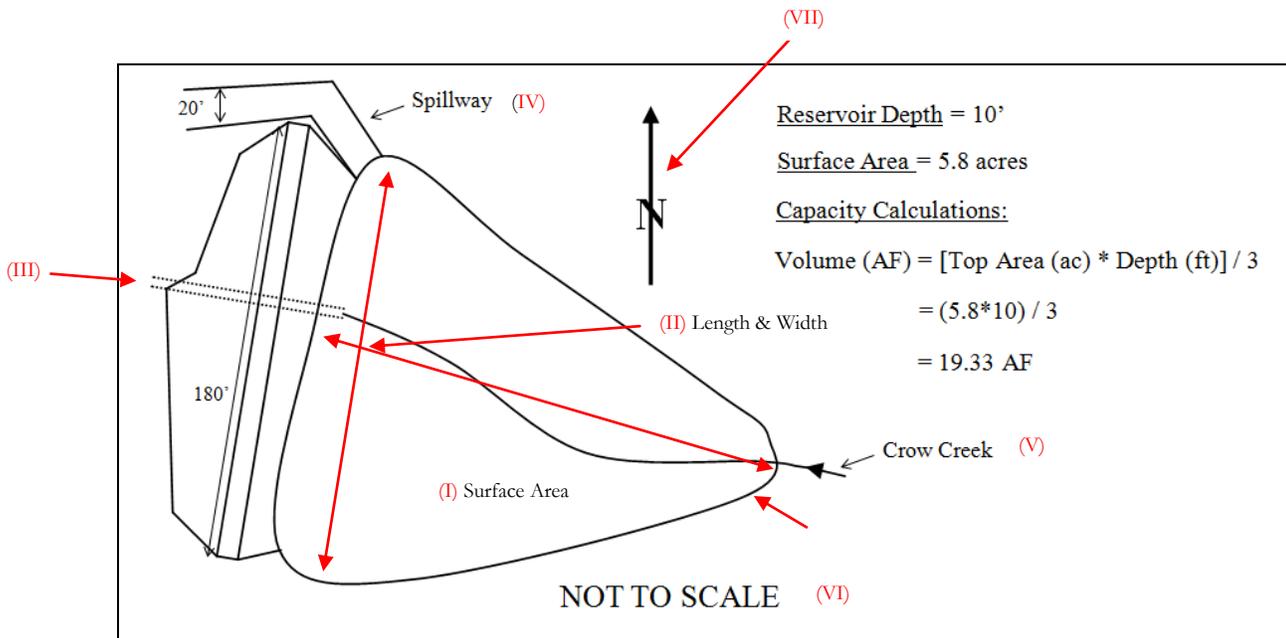


2.3 Show Plan View for Reservoir with a Dam

Below the location map and dam cross-section, a space is provided to show the plan view of the reservoir with a dam (Figure 5). 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 5. Plan View for Reservoirs with a Dam

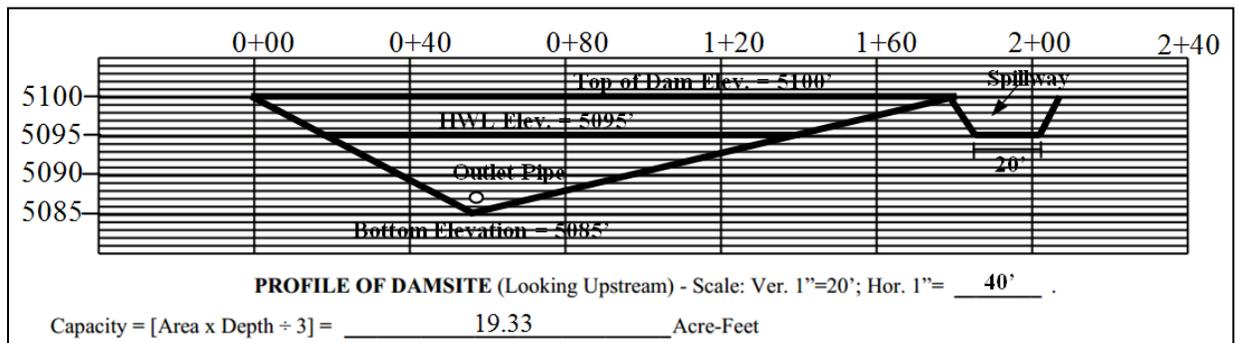


2.4 Dam Profile (figure 6)

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.
- Provide the total capacity (acre-feet) below the profile in the space provided.

Figure 6. Dam Profile Example

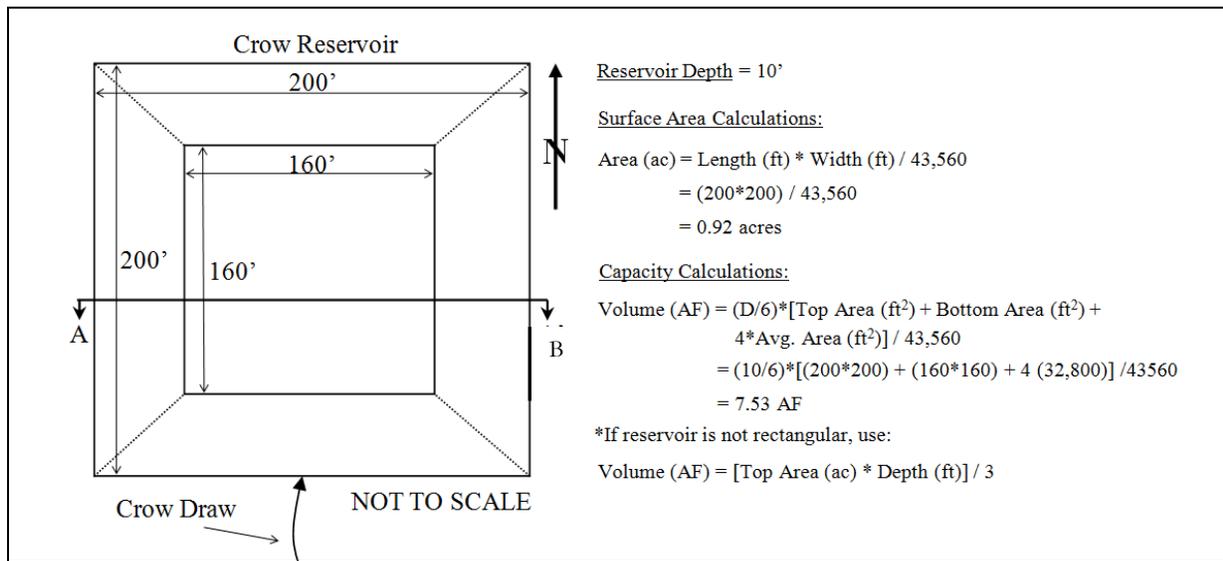


2.5 Show Plan View for Pit Reservoir (figure 7)

Provide a drawing of the reservoir high water line to the largest scale that will fit. The drawing shall include:

- Pit Reservoir capacity formula.
- 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 7. Plan View for Pit Reservoirs

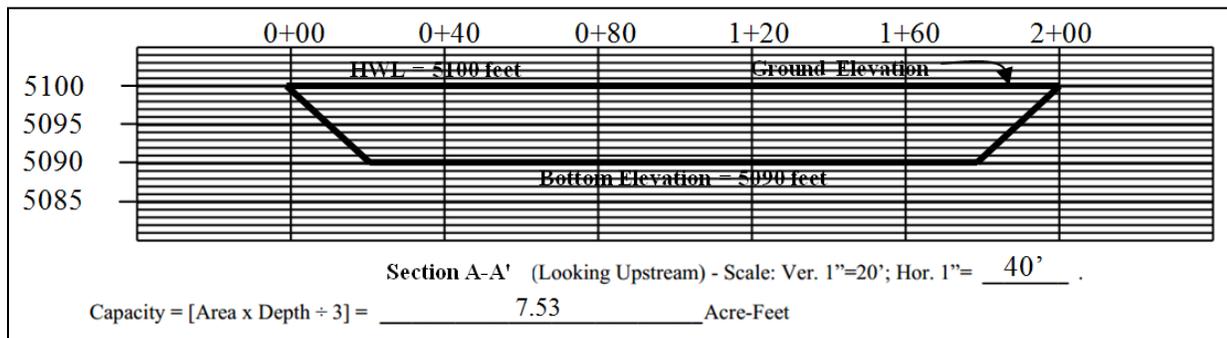


2.6 Cross Section of Pit (Figure 8)

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

- Profile of the reservoir. The profile must correspond to **Cross section** of plan view (see figure 7).
- 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 8. Pit Cross Section Example



Once all necessary information is entered, please print, sign and date the application (figure 9). 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 9: 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

