



AgWRAP SITE ASSESSMENT FORM



Agricultural Pond REPAIR/RETROFIT

This site assessment does NOT constitute a formal soil or geologic investigation or a pond design, and should not be used for construction. The information on this form represents a preliminary site assessment to evaluate the feasibility of a potential pond repair/retrofit, and assist in determining the priority for engaging engineering services for a more thorough site investigation and design. This form should be completed by a Division Engineer.

COOPERATOR INFORMATION

First Name

Last name

Street Address

City

County of Pond Site

Tract - Field

Pond Site Coordinates (decimal degrees):

LAT LONG

Primary Purpose of Pond:

Irrigation

Livestock Watering

Other

SITE CHARACTERISTICS

Type of Pond:

Excavated

Embankment

Combination

Watershed Drainage Area (ac)

Calculate Watershed Drainage Area using GIS or <https://streamstats.usgs.gov/ss/>

Pond Surface Area (ac)

Maximum Water Depth (ft)

Pond Volume (ac-ft)

Pond volume = Pond Surface Area X Max. Water Depth X Reduction Factor*

*Excavated/Dug pond - Reduction Factor = 0.7

*Embankment/dam pond - Reduction Factor = 0.4

Embankment Height* (ft)

Embankment Length (ft)

*Measured from highest point on embankment to lowest point of downstream toe.

Does the dam appear to be in sound, structural condition? If no, please provide an explanation below.

YES

NO

PRINCIPAL SPILLWAY

Type of Spillway

Material

Spillway Size

If the spillway is a drop structure specify size of riser and barrel:

Riser Pipe Diameter (in)

Barrel Pipe Diameter (in)

Does the principal spillway need to be replaced? If yes, please describe why (rusted, collapsed, leaking etc.).

YES

NO

Are there any other concerns regarding the existing primary spillway? Please explain.

YES

NO

AUXILLARY SPILLWAY

Type

Width

Is the auxillary spillway eroding? If yes, please provide an explanation regarding severity.

YES

NO

Is the auxillary spillway adequate? If no, is there a suitable location for one to be installed.

YES

NO

Are there any other concerns regarding the existing auxillary spillway? Please explain.

YES

NO

EMBANKMENT

Is there evidence of erosion on the embankment? If yes, please provide an explanation regarding location and severity.

YES

NO

Does the erosion appear to be from overtopping?

YES

NO

Is there any indication that the pond is leaking? If yes, describe the type, location and severity of the leak.

YES

NO

Are there any other concerns regarding the existing embankment? Please explain.

YES

NO

VEGETATION

Are there trees or large bushes growing on or in close proximity to the embankment? If yes, please describe.

YES

NO

Are any of the trees larger than 6" in diameter?

YES

NO

If yes, approximately how many?

AgWRAP WATER BALANCE

What percent of demand will be met by this pond? (This figure must be calculated using the AgWRAP Water Balance Tool)

SOIL SUITABILITIES AND LIMITATIONS

List the predominant soil(s) present in and around the pond impoundment area*:

Map Unit Symbol	Map Unit Name	Pond Reservoir Area Rating	Embankments, Dikes, Levees Rating

Has a backhoe soil investigation been completed on this site?

YES

NO

Are there any geologic or soil features that may require special design or construction such as rocky soils, shallow soils, shallow bedrock, deep sands, or other local pond failures? If yes, please explain.

YES

NO

Is there an adequate borrow area with in 1/2 mile of the site?

YES

NO

NA

Is there an adequate place onsite to place spoil?

YES

NO

NA

PERMITTING & HAZARD CLASSIFICATION

Hazard classification when originally constructed:

Current hazard classification:

If the pond is not currently classified, please complete the information below.

Distance of road/hazard downstream

Elevation difference from hazard to floodplain:

Culvert/Bridge Dimensions

Most recent annual average daily traffic count

<https://ncdot.maps.arcgis.com/apps/webappviewer/>

Predicted Hazard Classification

TECHNICAL RECOMMENDATION

Are there any special design and construction considerations that will significantly increase project costs and potentially impact project implementation? If YES, please provide an explanation below.

YES

NO

NA

Please provide any additional information or observations regarding the suitability of this pond repair or retrofit.

TECHNICAL REPRESENTATIVE

Name

Agency

Date

JOB APPROVAL AUTHORITY

Name

Agency

Signature

Date