

Strategies for Success

Wetlands Training Workshop for Consultants

December 6, 2007



Please Note: This presentation is for a training workshop only and is not meant to be a substitute for the Freshwater Wetlands Act or the *Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act*.

Wetland Edge Requirements

Wetland Definitions, Delineation
Techniques, and Pitfalls to Avoid

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Rule 7.04

Wetland Edge Requirements

- All site plans must accurately depict wetland edges and limits
- Wetland edge flags (where applicable) must be sequentially numbered/lettered, close enough to each other for easy visibility
- The flags must be survey-located accurately onto the site plans

Exceptions to required flagging

- Well-defined edges (i.e. toe-of-slope) provided edges are otherwise accurately depicted;
- Project is within disturbed area and sufficient fixed-reference points available to confirm depicted wetland limits;
- Watercourses, perimeter & riverbank wetlands, floodplain;

Swamp

- Three acres or greater in size
- Where groundwater is near or at surface for significant part of the growing season or where surface water drainage collects frequently
- Dominated by woody growth

Pond

- Quarter acre or greater in size.
- Natural or Manmade.
- Open standing or slowly moving water present for at least 6 months a year.

Marsh

- One acre or greater in size.
- In standing or running water during the growing season.
- Dominated primarily by herbaceous emergents.

Bog

- No minimum size, with standing/slowly moving water near or at surface during a normal growing season.
- 50% ground or water surface covered by Sphagnum moss.
- Specific species of vegetation listed.

Other vegetated wetlands

- Forested Wetlands
- Shrub Wetlands
- Emergent Plant Communities
- Submergent Plant Communities

Delineation of The Edge

- Look for presence of a vegetative community with predominance of hydrophytic vegetation (Appendix 2(A))
- Where vegetation is inconclusive, use other hydrologic indicators (Appendix 2(A)(4))
- 1987 Army Corps of Engineers Delineation Manual (Appendix 2(A)(5))

Special Aquatic Sites

- Open standing water, manmade or natural
- < 1/4 Acre in Size (not a pond)
- Water present during most years as documented on site or by aerial photographs
- Presence of aquatic life forms or habitat features necessary to support aquatic life forms (excluding biting flies)
- Appendix (2)(C)(1)

Perimeter Wetlands

50 Foot Perimeter Wetlands Apply To:

Swamps

Marshes

Wetland
Complexes

Ponds

Bogs

Measurement

- Measured from the landward edge
- Measured without regard to topography

Special Cases

- Wetland Complexes
- Wetlands Separated by Physical Barriers
 - 4+ lane highways
 - 2 lane roadways
 - Driveways
 - Other barriers (e.g. railroad)



Special Cases (continued)

- Wetlands Not Separated by Barriers
 - Connected only by ASSF
 - Connected only by river or stream, where wetland is entirely within the banks
 - Connected by clear wetland corridor along any watercourse type
 - Separated by *natural* barrier with suspected subsurface hydrological connection

Flowing Bodies of Water =

Rivers

Streams

Riverbank Wetlands

Riverbank Wetlands Apply To:

- ...basically any watercourse except Areas Subject to Storm Flowage
 - If < 10 feet wide, RBW = 100 feet
 - If = or > 10 feet Wide, RBW = 200 feet

“Ditches”

When Are They Regulated?

- Areas Subject to Storm Flowage
- A swale or channel
- Flows only during storm events
- Flows into, out of, and/or connects freshwater or coastal wetlands

**Determination of a
Riverbank Wetland can
be broken up into
three general steps:**

1. Identification of the Edge of the Channel

- Using recorded hydrologic data from specific planning & design documents, in-stream flow studies, stream gauge data, or RIDEM file data; or
- Demarcation of the edge caused by flowing water based on scouring, vegetative density or water marks on rocks, walls, etc.

2. Measure width along channel.

- Choose midpoint near midpoint of project or area of concern;
- Measure width at the midpoint, and at least 5 points upstream & downstream, at even intervals of 20-50 feet.
- Don't artificially break up a stream segment
- Calculate the arithmetic average.

3. Determine Riverbank Wetland based on Arithmetic Average

- Greater or equal to 10 feet = 200 foot riverbank wetland
- Less than 10 feet = 100 foot riverbank wetland
- Measured without regard to topography.

COURTNEY LN

WOOLLE ALTON RD

RIVER VIEW CHURCH

BUCKNAM RD

HOMESTEAD RD

91

91



COURTNEY LN

WOODVILLE ALTON RD

RIVERVIEW DR
THE ADORER

BUCKNAM RD

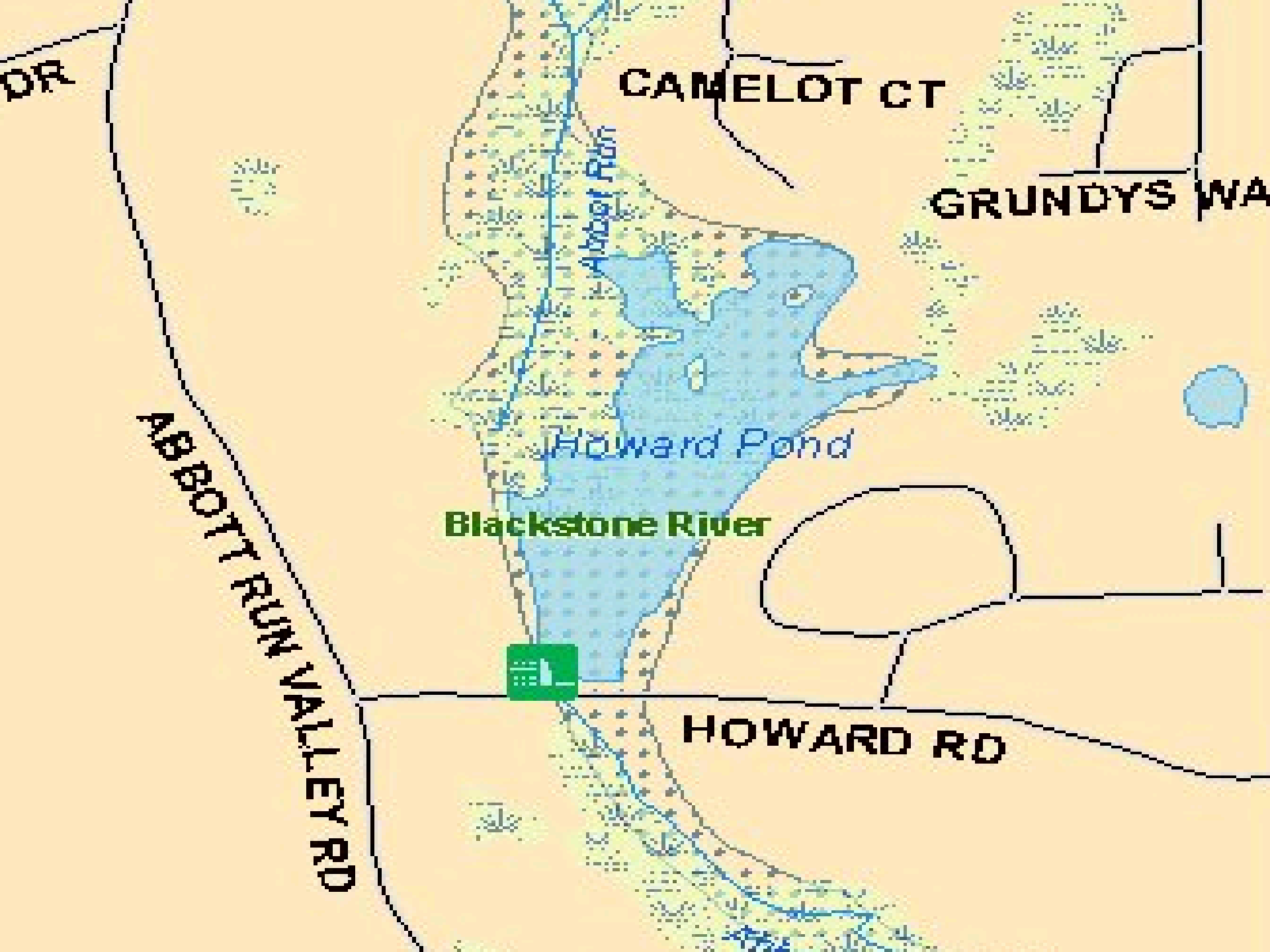
HOMESTEAD RD

AS RD

RIVER CHURCH

91

1,620 Feet



DR

CAMELOT CT

GRUNDYS WA

ABBOTT RUN VALLEY RD

Abbott Run

Howard Pond

Blackstone River

HOWARD RD





Carr
Pond

GILBERT STUART RD

GILBERT STUART RD

SNUFF MILL RD





Floodplain

Identification/Delineation

- Most recent flood profile data available from FEMA
- As established by a widely accepted hydrologic and hydraulic model (e.g. HEC-RAS)
- As calculated based on design storm of 7" rainfall in 24-hours (Type III rainfall per NWS)

Transposing boundaries from FEMA maps using horizontal scaling is not acceptable

Exceptions to Identifying Floodplain Elevation

- No flowing body of water is on or adjacent to the site, or
- Documentation is provided from a Registered Professional Engineer demonstrating that all site work is above any probable floodplain