

NR 151 Wetland Protective Areas

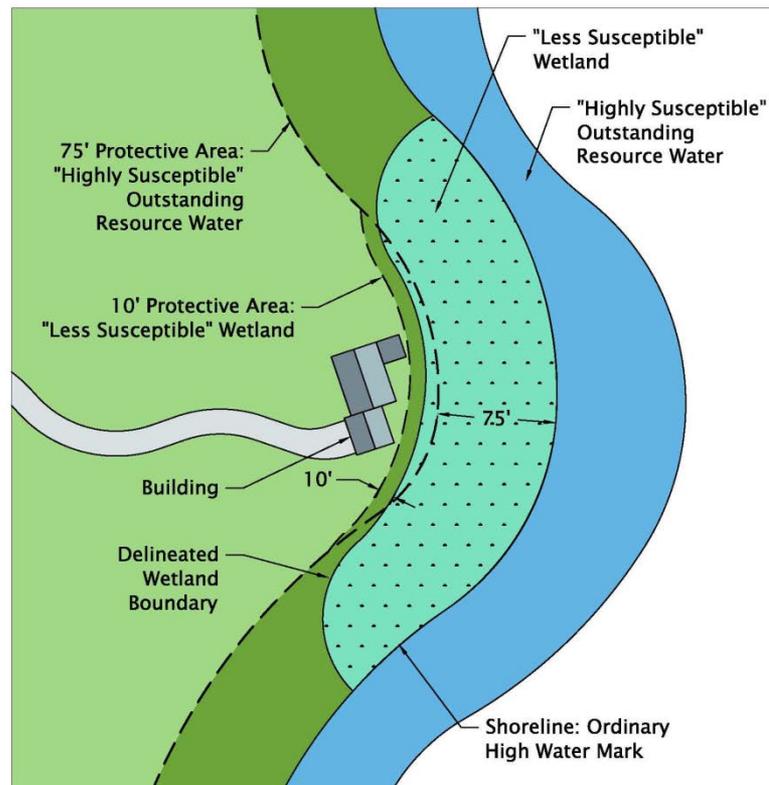


Figure 3: NR 151.125 Protective Area with "Less Susceptible" Wetland beyond Outstanding Resource Water

Tom Nedland
DEPT. OF NATURAL RESOURCES

Wetland Identification Coordinator

NR 151 Protective Area Guidance

NR 151: Runoff Management

- Establishes runoff pollution standards
- Developed “Protective Areas” around waters of the state to minimize runoff impacts
 - TSS
 - Nutrients





NR 151 Protective Area Guidance

Protective Area: *...area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface.*

- NR 151.125
- Does not include land areas which do not contribute untreated runoff to wetlands or waterways



NR 151 Protective Area Guidance

Protective Areas

Based on *sensitivity* of the resource to runoff stressors (eg. nutrients or siltation)

- Sensitivity of resource determined by:
 1. State Designations (eg. ERW and ORW)
 - NR 102
 2. Plant Community - often an indicator of
 - Nutrient Enrichment
 - Sedimentation



NR 151 Protective Area Guidance

Use of Plant Community as Indicator

- Nutrient and Sedimentation Effects
 - Shifts in species composition
 - Increase of aggressive/invasive species

Goal of protective areas

- Protect wetlands that have plant communities most sensitive to nutrient enrichment and sedimentation

NR 151 Protective Area Guidance



United States Environmental
Protection Agency

Office of Water
Washington, DC 20460

EPA-822-R-02-024
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METHODS FOR EVALUATING WETLAND CONDITION #16 Vegetation-Based Indicators of Wetland Nutrient Enrichment





NR 151 Protective Area Guidance

Plant Community Sensitivity Classification

Most sensitive (Highly Susceptible)– 75ft

Least sensitive (Less Susceptible)– 10-30ft

Moderately sensitive (All others)– 50 ft



NR 151 Protective Area Guidance

Plant Community Sensitivity Classification

Highly Susceptible: 75 ft protective area

- Calcareous Fen
- Sedge Meadow
- Bog
- Wet Prairie
- Conifer Swamp
- Hardwood Swamp
- Ephemeral Pond

Must meet plant community descriptions, and have <50% absolute coverage of invasives



NR 151 Protective Area Guidance

Plant Community Sensitivity Classification

Less Susceptible: 10-30 ft protective area

- Invasive species monotypes
- Potpourri of invasives

Must have $\geq 90\%$ absolute coverage of invasives

- Invasive means non-indigenous, exotic species.



NR 151 Protective Area Guidance

Invasives include but not limited to...



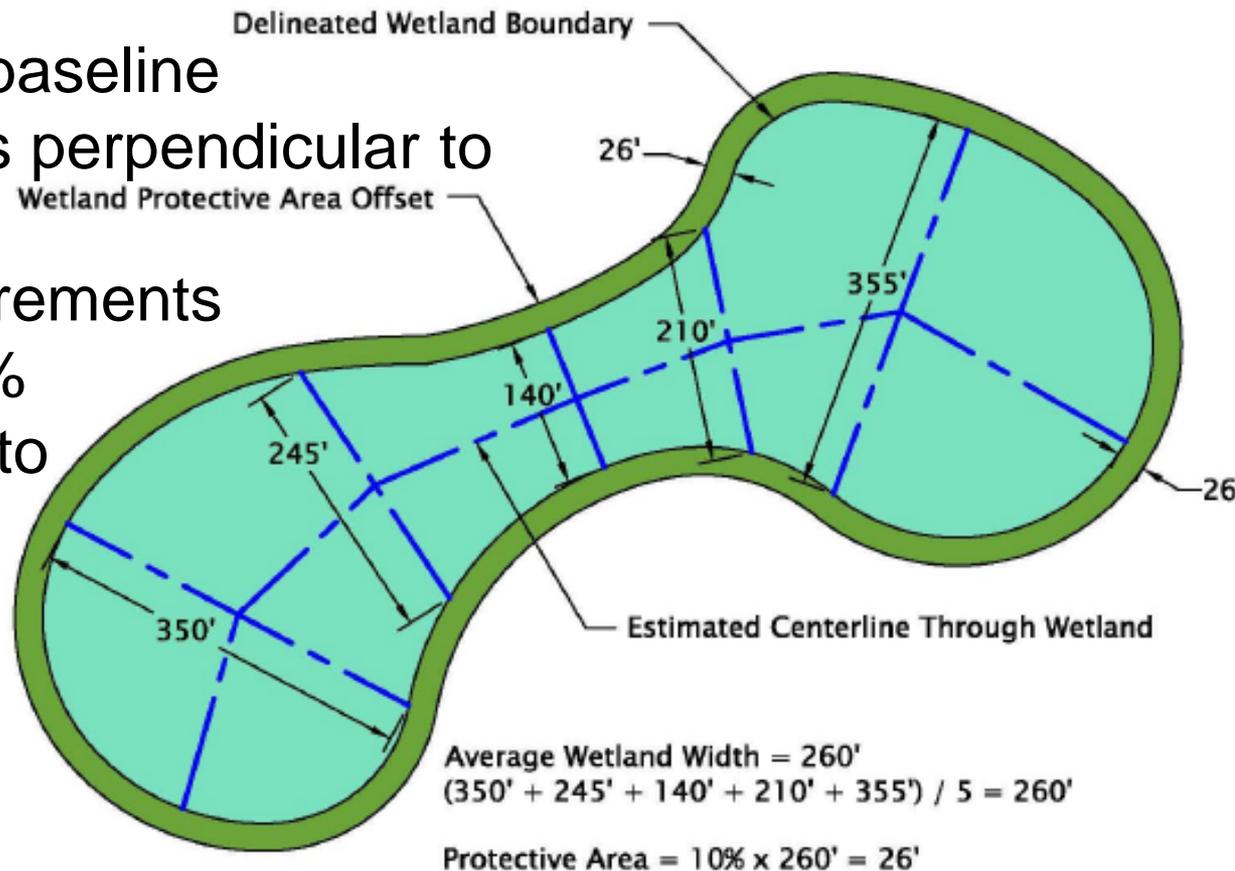


NR 151 Protective Area Guidance

Plant Community Sensitivity Classification

Determining Less Susceptible Wetland Widths

1. Establish lengthwise baseline
2. Take 5 measurements perpendicular to baseline.
3. Average the 5 measurements
4. Protective Area is 10% of average width, not to exceed 30 feet, and no less than 10 feet.





NR 151 Protective Area Guidance

Plant Community Sensitivity Classification

Moderately Susceptible: 50 ft protective area

- Tall Shrub Wetland
 - Shrub-carr, alder thicket, scrub-shrub
- Floodplain Forest
- Forest Wetland dominated by pioneer species
 - Box elder, cottonwood, and trembling aspen
- Fresh wet meadow
- Marsh



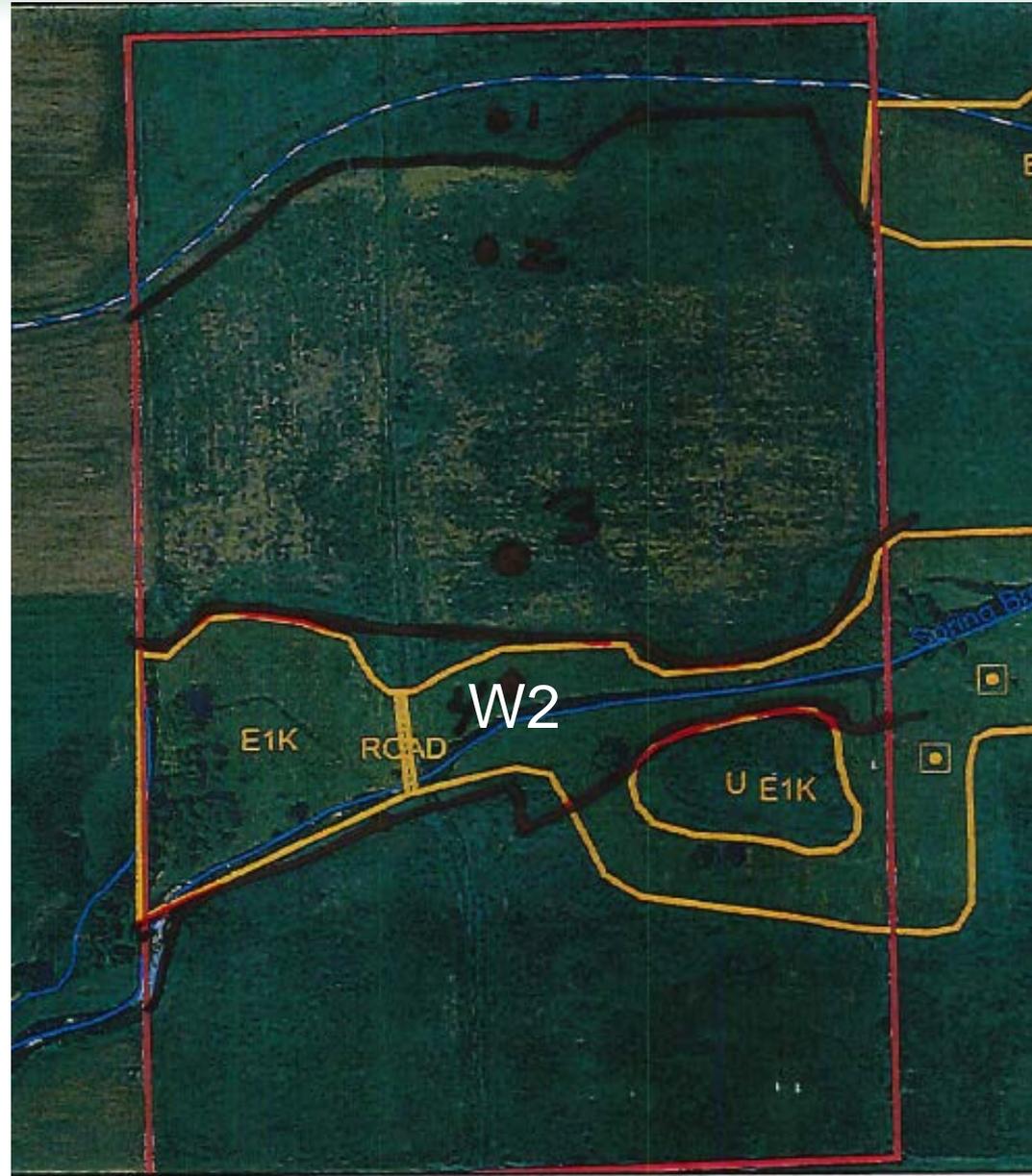
NR 151 Protective Area Guidance

How to Determine Protective Areas

- Not asking for significant increase data collection. Don't need to do a comprehensive plant survey.
 - Determine species composition through combination of data forms and general observations
- More than one plant community present?
 - Use recent air photos, or other available mapping to help with designations

NR 151 Protective Area Guidance

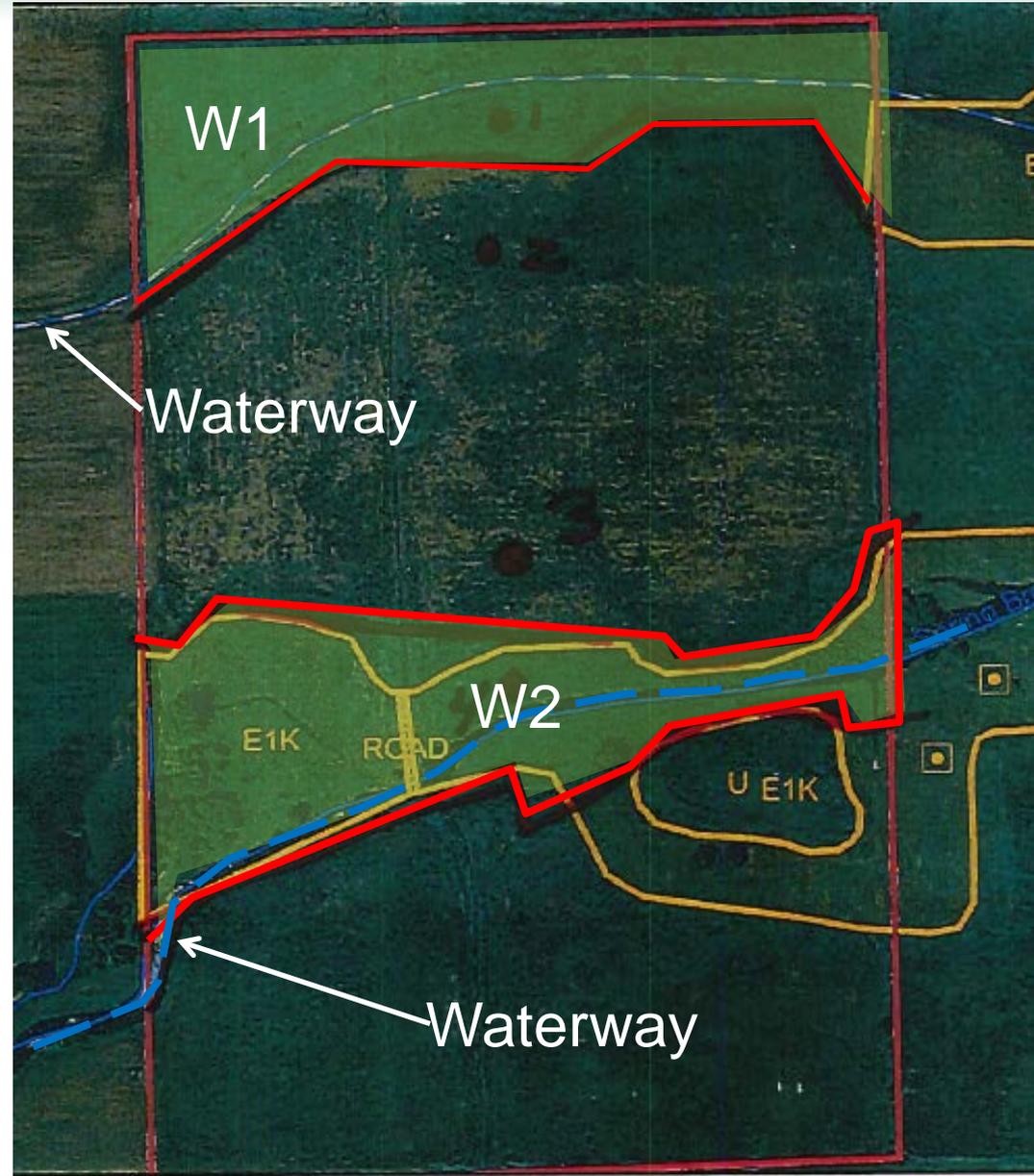
Example



NR 151 Protective Area Guidance

Example

Step 1 Delineate Wetland

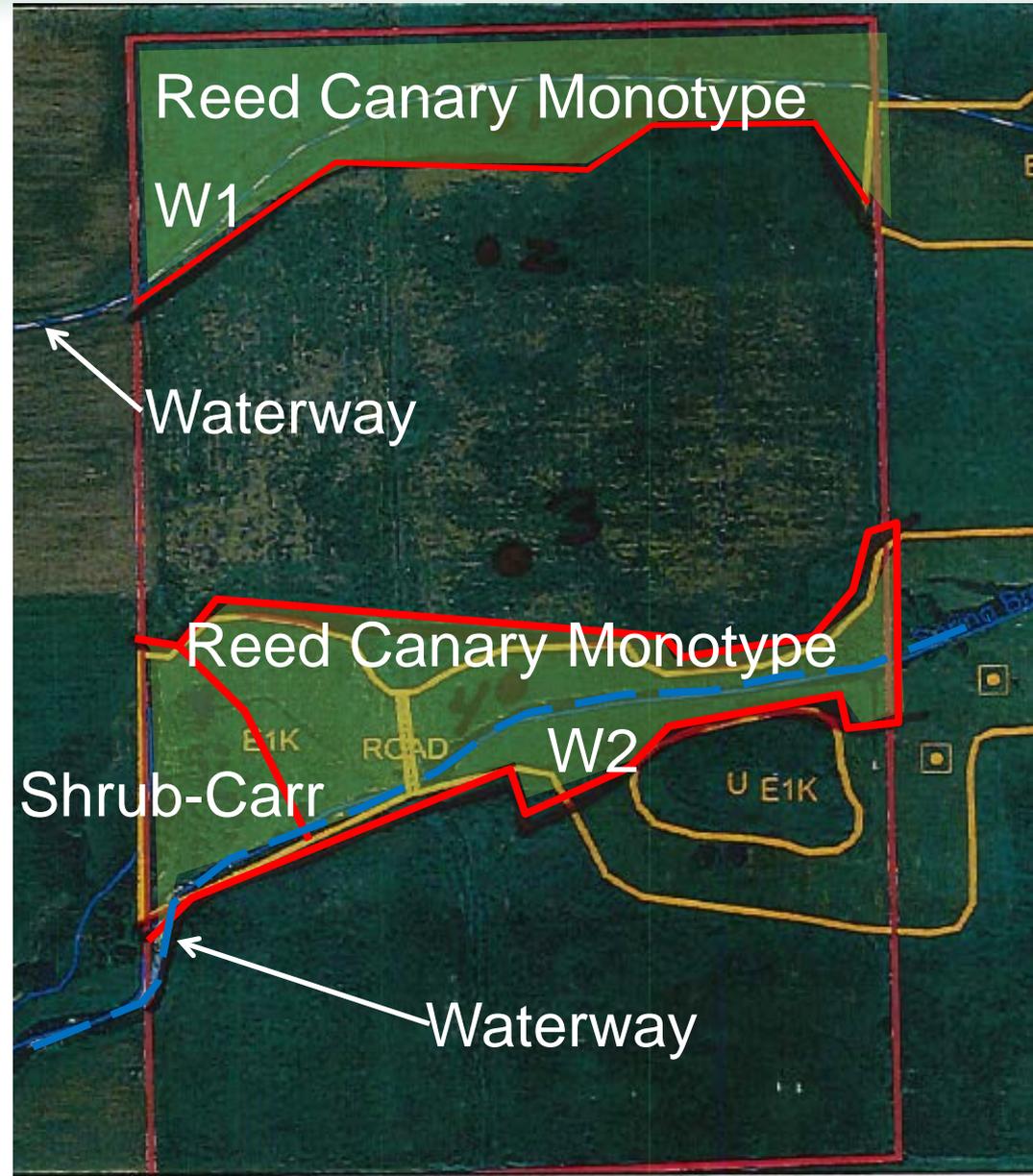


NR 151 Protective Area Guidance

Example

Step 1 Delineate Wetland

Step 2 Identify different plant communities in wetland based on data forms and other observations (air photos, etc.)



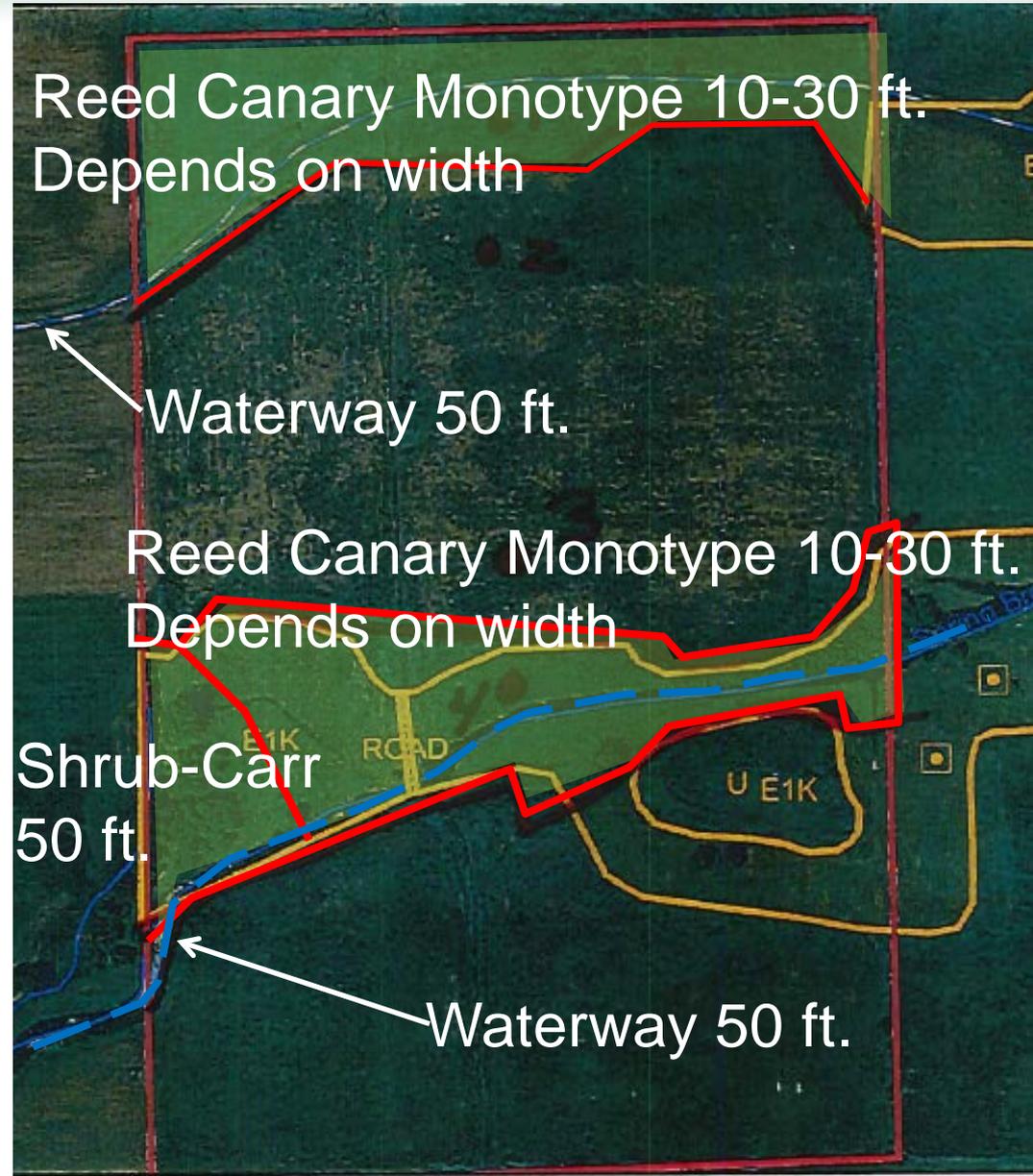
NR 151 Protective Area Guidance

Example

Step 1 Delineate Wetland

Step 2 Identify different plant communities in wetland based on data forms and other observations (air photos, etc.)

Step 3 Provide opinion of NR 151 category in delineation report.





NR 151 Protective Area Guidance

Example Language

Final authority on NR 151 protective areas rests with DNR, but the following is Company X's opinion of each wetland's NR 151 protective area category.

W1 is dominated by a monotype of reed canary grass, and meets the less susceptible category.

W2 is comprised of a shrub-carr and a monotype of reed canary grass. The reed canary grass monotype portion meets the less susceptible category, while the shrub-carr portion meets the moderately susceptible category.

Two waterways are present in the project area. If deemed navigable by DNR, the waterways are also subject to NR 151 protective area standards.



NR 151 Protective Area Guidance

Closing Thoughts

1. Not asking for additional figure
 - Might be helpful to your client
2. Make determination based on data forms and other general observations
3. In delineation report make recommendation on protective areas based on NR 151 guidelines
 - Clearly state that final authority on protective areas rests with DNR



Questions

