

**INFORMATIONAL REQUIREMENTS FOR
PRACTICABLE ALTERNATIVES ANALYSIS
FOR PROJECTS IMPACTING WETLANDS**
(Revised June 7, 2012)

The Practicable Alternatives Analysis is an important process the applicant is responsible for conducting to thoroughly evaluate and verify the proposed project can not avoid wetland impacts and that the project alternative selected minimizes wetland impacts to the maximum extent practicable while meeting the basic project purpose. It is very important to provide as much information and detail as possible on the range of alternatives considered along with supporting documentation as your information is used by Department Permit Review Staff to verify project meets the requirements established in law, Section 281.36, Wis. Statutes, and applicable General Permits eligibility standards.

WI Department of Natural Resources (DNR) and U.S. Army Corps of Engineers (ACOE) permit review staff will conduct an evaluation to determine the environmental impacts of the project, including impacts to wetland water quality standards outlined in NR 103, Wis. Administrative Code. If the project results in significant adverse impacts to wetlands or natural resources, the project does not meet the requirements established in law and a permit can not be granted.

Note: The ACOE requires applicants to complete PAA for those projects that impact not only wetlands, but also other waters, such as lakes, rivers and streams and may utilize this outline for those projects as well.

DIRECTIONS: All questions below must be answered in detail and supported with documentation. This includes information required in a Practicable Alternatives Analysis Supplement, if one is available for the proposed project activity as noted in Section 2 and Section 3 below. Attach your Practicable Alternatives Analysis to your wetland permit application along with the other informational items required for a complete application package.

ASSISTANCE: If you have questions about this PAA outline please contact the [DNR Water Management Specialist](#) or the [U.S. Army Corps of Engineers Project Manager](#) for the county where your project is located for assistance. You may also request a pre-application meeting with DNR and ACOE permit reviewers to help you further understand the PAA process, the minimum project alternatives required and any project specific alternatives that should be considered for your project. Note, agency staff can help provide you with guidance, but the applicant is responsible for preparing and submitting a complete PAA and other application materials.

SECTION 1 – PROJECT BACKGROUND

1. Describe the basic purpose and need for the project.
2. Is your project an expansion of existing work or is it new construction?
3. When did you start to develop a plan for this project (month/year)?
4. Are you the current owner or easement holder of the property? If so, how long have you owned the property? If you are not the property owner, please provide the current owner's name and contact information.
5. Explain what the consequences are of not building the project. Include social and economic consequences, as well as other pertinent information.
6. Explain why the project must be located in or across wetlands.

SECTION 2 – DEVELOPING PROJECT ALTERNATIVES

Your analysis must address the following questions. Certain project types have specific standard “avoid and minimize” alternatives that you are required to consider. The activity-based Practicable Alternatives Analysis (PAA) Supplements are available at <http://dnr.wi.gov/topic/Waterways/construction/wetlands.html> for (1) Private Roads/Driveways; (2) Commercial/Residential/Industrial Structures; (3) Utilities; (4) Recreational Trails; and (5) Solid Waste Disposal Facilities. You are also required to consider avoid and minimize project alternatives that may be unique to your project and/or site. For each alternative analyzed, please show the location of the alternatives on an aerial photograph and clearly label each alternative.

1. How could you redesign or reduce your project to *avoid* wetlands and still meet your basic project purpose?
2. How could you redesign or reduce your project to *minimize* wetland impacts and still meet your basic project purpose?
3. What other sites were considered for this project? Please include properties you currently own, have recently owned, adjacent parcels and properties available for sale in the area. Provide the geographic area(s) you searched for an alternative site and the specific location of other properties considered. For each of these properties considered, indicate why they were not selected whether or not they meet the basic purpose and need identified in Section 1. Available properties that meet the purpose and need should be considered further, particularly if they result in lower wetland impact compared to the selected alternative.” If no other sites were considered, please explain why.

SECTION 3 – EVALUATING PROJECT ALTERNATIVES

For each alternative considered, the following information should be used to evaluate whether the alternative meets or does not meet the basic project purpose. In addition, quantitative and reliable supporting information should also be provided and includes information such as data, reports, studies, economic or cost comparison analysis and other pertinent information. If there is PAA Supplement available for your project type as noted in Section 2, Step 3 of the PAA Supplement outlines common supporting documentation applicants use to evaluate feasibility of an alternative and supply with their PAA submittal. Providing summary tables of the alternatives considered can provide a useful comparison of the alternatives and ease the review process. Each project alternative should be clearly labeled on an aerial photograph showing proposed location.

1. Will the alternative affect wetlands? If so please provide the acreage and type of wetland impacted.
2. Provide resizing or reconfiguration options for each alternative to reduce or eliminate wetland impacts.
3. What are the primary costs for developing the alternative?
 - Primary costs may be converted to a cost/acre, cost/ton, cost/linear-foot or other appropriate figure for comparison purposes. However, please describe whether there is any aspect of an alternative that greatly inflates or reduces the primary costs for that alternative. Sunk costs should not be included in the analysis and include costs associated with the purchase of the property, consultant fees and other preexisting outlays not directly related to the selection of alternatives.
4. What are the logistical reasons that make an alternative not practicable?

Logistical constraints include, but are not limited to:

 - Inability to meet other regulatory standards
 - Construction Limitations
 - Access or transportation concerns
 - Site availability
 - Existing infrastructure

5. What are the technical constraints to an alternative?
 - Technical constraints include inadequate depth to bedrock, inappropriate site geology, inadequate distance to groundwater, proximity to a contaminated area, unfavorable soils, or engineering concerns.
6. Are there impacts to other important natural resources?
 - Archeological or historical sites
 - Habitat for endangered or threatened species
 - Environmental Corridors or Natural Areas
 - Waterways
7. Are there other factors you would like us to consider during our alternative analysis evaluation?

SECTION 4 - PREFERRED PROJECT ALTERNATIVE

1. Indicate how your preferred project alternative meets your project purpose and how it avoids and/or minimizes wetland impacts to the maximum extent practicable.
2. Indicate how you plan to minimize harm to the impacted wetlands and adjacent wetlands that will not be directly impacted by the project. Examples include, but are not limited to erosion control, proper marking of the limits of proposed wetland impact, visible flagging for protection of wetlands that will not be impacted by project, adequate stormwater management, best management practices, etc.