

# General Permit Practicable Alternatives Analysis Informational

## SUPPLEMENT 4 WASTE DISPOSAL FACILITY EXPANSION ALTERNATIVES TO AVOID & MINIMIZE WETLAND IMPACTS (June 2012)

This document outlines the Wisconsin Department of Natural Resources (DNR) supplemental information required from the applicant for Section 2 of the Informational Requirements for Practicable Alternatives Analysis for Projects Impacting Wetlands (PAA) specifically for expansion of existing waste disposal facilities. This information will also be used by the U.S. Army Corps of Engineers (ACOE) during the federal review process. The information you provide for this supplement is in addition to the information you are required to provide as outlined in the four sections of the PAA. Your PAA will be used by DNR and ACOE staff to assist with their responsibility to determine the overall project purpose and need, and least environmentally damaging practicable project alternative.

The term “practicable” means reasonably available and capable of being implemented after taking into consideration cost, site availability, available technology, logistics and proximity to the proposed project site, in light of overall purpose and scope of project.

Note: Should your project impact other aquatic resources regulated by the ACOE, such as lakes, rivers, and streams, you may use this supplement to describe practicable alternatives to impacting those resources.

**DIRECTIONS:** For proposed waste disposal facility expansions applicants are required to consider the following avoid and minimize project alternatives outlined below. The alternatives listed below are the minimum set of project alternatives the applicant must consider. Given that each site and project is different there may also be project specific alternatives the applicant should consider, in addition to the standard alternatives listed below. For each alternative analyzed, please show the location of the alternatives on an aerial photograph and clearly label each alternative.

**TIP:** If federal, other state or local requirements limit your ability to avoid and minimize wetland impacts, it can be helpful to request a meeting with all parties to determine possible options available to avoid and/or minimize wetland impacts that may be acceptable to the parties.

**ASSISTANCE:** If you have questions about this PAA Supplement please contact the [DNR Water Management Specialist](#) and/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.

### **DEVELOPING PROJECT ALTERNATIVES**

#### **STEP 1: PROJECT ALTERNATIVES THAT AVOID WETLAND IMPACTS**

The first step in the alternatives analysis process is to determine if a practicable alternative is available that completely avoids wetland impacts. If a practicable avoid alternative exists that meets the overall project purpose, this is the project alternative the applicant should select, unless this alternative would result in other significant adverse environmental consequences. The overall project purpose is expansion of an existing solid waste facility.

The following project alternatives should be analyzed by the applicant to determine if the project can avoid wetlands, even if these are not your preferred alternatives. In Section 3 of the PAA you will be

asked to evaluate and provide information as to why each of the alternatives analyzed is or is not practicable to meet your overall project purpose.

1. **Existing Solid Waste Facility.** Are there other facilities within same service area that have the capacity to accept waste, have received a feasibility determination from the department or that have the capacity to expand an existing solid waste facility and avoid wetland impacts?
2. **Relocate proposed expansion.** Are there other locations on the same property where the expansion could be moved that would avoid wetland impacts? Are there other locations on adjacent property where the expansion could be moved that would avoid wetland impacts?
3. **Reconfigure the proposed expansion and/or associated infrastructure.** Can the proposed expansion and any other associated infrastructure be shifted or reconfigured so as to avoid wetlands?
4. **Reduce expansion footprint.** Decreasing the footprint, may be enough to avoid wetland impacts. For example, facility expansion could be reduced from a 15-year to a 10-year expansion to decrease the footprint.
5. **Other Properties.** What other properties were considered at the time the project plans were first considered that would have avoided wetland impacts? These properties include properties you currently own or lease or recently have owned or leased and other properties that are 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 the properties considered, indicate why they were not selected. If no other sites were considered, please explain why.

## **STEP 2: PROJECT ALTERNATIVES THAT MINIMIZE WETLAND IMPACTS**

If wetland impacts are not avoidable, the second step in the alternatives analysis process is for the applicant to determine if there is a practicable alternative available that minimizes wetland impacts and still meets the overall project purpose. The following project alternatives should be analyzed by the applicant to determine how the project can minimize fill into the wetland and limit project impacts to the lower quality and functioning wetlands on the site. To qualify for the wetland general permit, the applicant is required to select the project alternative that minimizes wetland impacts to the maximum amount practicable if no avoid alternative is available to meet the overall project purpose.

The project alternative that results in the least amount of impact to wetlands will likely include a combination of the alternatives listed above and below. For example, the applicant selects a project alternative that avoids wetland encroachment to the maximum extent practicable and the impact is minimized to occur along the edge of the wetland and/or within a degraded portion of the wetland complex (e.g. dominated by non-native invasive plants such as reed canary grass).

1. **Existing Solid Waste Facility.** Are there other facilities within same service area that have the capacity to accept waste, have received a feasibility determination from the department or that have the capacity to expand an existing solid waste facility which would minimize wetland impact?
2. **Reconfigure Expansion Footprint or Other Proposed Structures.** Can the proposed expansion and any other associated infrastructure be shifted or reconfigured so as to minimize wetland impact?
3. **Reduce Expansion Footprint.** Can the expansion footprint be reduced to minimize wetland impacts?
4. **Limit Impacts to Degraded Wetlands & Avoid High Quality Wetlands.** Using the most accurate wetland information available, such as a wetland delineation, and in consultation with a DNR Water Management Specialist and/or ACOE Project Manager determine which wetlands on the site are considered degraded and those that are high quality, including rare or difficult to replace wetlands and shoreland wetlands. Limit the temporary and permanent impacts to the wetlands or portions of wetlands that are degraded, for example, dominated by non-native invasive plants such as reed canary grass and avoid intact wetland communities such as a forested wetland.
5. **Low Impact Construction Methods and Practices.** Are there construction methods that could be utilized to minimize impacts to the wetlands?
6. **Maintain Wetland Hydrology.** To minimize impacts to wetland hydrology are there stormwater or drainage feature that could be utilized to maintain the wetland hydrology at the remaining wetlands at the site?



### **STEP 3: EVALUATING THE ALTERNATIVES**

In Section 3 of the Informational Requirements for PAA you are required to evaluate each of the alternatives considered and explain why the alternative would or would not meet the overall project purpose and address the following issues, including, but not limited to cost, location, access, transportation, technological concerns and other logistics. **Please reference the detailed outline in Section 3 of the PAA for more detailed requirements.**

To verify the reasons outlined for why an alternative is or is not feasible, you are also required to submit quantitative and reliable supporting documentation. Below are a few examples of supporting documentation that are typically provided for utility crossings:

- Cost Comparison
  - Primary costs may be converted to a cost/ton figure for comparison purposes.
  - Please describe whether any aspect of an alternative greatly inflates or reduces the primary costs for that alternative.
  - Sunk costs are generally not considered appropriate and include the costs associated with the purchase of the property, consultant fees and other preexisting outlays not directly related to the selection of alternatives
- Logistical Constraints
  - Inability to meet the location, performance, design or construction criteria under Ch. NR 504, Wis. Adm. Code.
  - Access or transportation route concerns
  - Site availability
  - Existing infrastructure
- Technological Constraints
  - Inadequate depth to bedrock, site geology or distance to groundwater
  - Proximity to a contaminated area
  - Poor or inadequate clay content
  - Engineering concerns associated with the liner
  - Other Safety Requirements, Hazards or other Concerns
- Other Important Resource Impacts
  - Archeological or historical sites
  - Habitat for endangered or threatened species
  - Environmental Corridors or Natural Areas
  - Waterways
- Needs Assessment (include pertinent information on existing facilities, capacity, etc.)
- Applicable Local, State or Federal Requirements
- Contact with Adjacent Landowners for Purchase of Property