



**US Army Corps  
of Engineers**  
Fort Worth District

# 404(b)(1) Guideline Alternative Analysis Guidance

February 1999



## 1. General.

Under the Section 404(b)(1) guidelines, the U. S. Army Corps of Engineers may only permit discharges of dredged or fill material into waters of the United States that represent the least damaging practicable alternative, so long as the alternative does not have other significant adverse environmental consequences. Also, under TNRCC rules at 30 TAC Section 279.11(c), TNRCC may certify discharges of dredged or fill material into waters of the United States only after practical alternatives which have less adverse impact on aquatic ecosystems have been evaluated.

## 2. Alternative Analysis. Describe the alternatives that would meet your overall project purpose considering the following:

- a. The proposed alternative.
- b. Alternatives that would involve no discharges of dredged or fill material into waters of the United States, including wetlands (no action, off-site, on-site).
- c. Alternatives that would involve discharges that would have less adverse impact to waters of the United States, including wetlands (on-site, off-site).
- d. Alternatives that would involve discharges that would have greater adverse impact to waters of the United States, including wetlands (on-site, off-site).

Consider alternatives that would involve both smaller and larger areal coverage as well as alternatives that would be sited in different locations. Focus this analysis on potential alternatives that might have less adverse impact on the aquatic ecosystem, but consider alternatives that would have more impact on the aquatic ecosystem but less adverse impact on the environment overall.

## 3. Practicability.

Address the practicability of the above alternatives. Practicability depends on cost, technical, and logistic factors. To be practicable, an alternative must be available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded, or managed in order to fulfill the overall purpose of the proposed activity should be considered. Technical and logistical factors that should be considered include, but are not necessarily limited to: access, transportation needs, utilities, topography, and available construction techniques. Address the consequences on the applicant and the public of not implementing the project.

## 4. Environmental Impact.

Assess the impact (adverse and beneficial) of each alternative on the aquatic ecosystem and the environment overall. Compare the impact of the alternatives and identify which, in your view, is the least

environmentally damaging practicable alternative and why. Identify practicable alternatives that have no significant or easily identifiable difference in impact from the least environmentally damaging practicable alternative.

#### 5. Mitigation.

If the alternative you have identified as the least environmentally damaging practicable alternative still has adverse impacts to the aquatic ecosystem, identify how you propose to further minimize those impacts and provide compensatory mitigation for any remaining unavoidable adverse impacts.