Guidance for Aquatic Resources that are Difficult to Replace (DTR)

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Definition and Purpose

- DTR: Aquatic resources for which compensatory mitigation through restoration or creation is not feasible or scientifically viable
- Purpose of Interagency Guidance
  - Special emphasis given to protection (avoidance) of DTR aquatic resources
  - Address compensatory mitigation for unavoidable impacts to DTR aquatic resources

Existing Regulations and Policy

- 1990 MOA concerning Determination of Mitigation under CWA Section 404(b)(1) Guidelines between the EPA and the Department of Army
- Clean Water Act 404(b)(1) Guidelines
  - Sequencing (avoid, minimize, compensate)
  - 'Special aquatic sites'
  - Not contrary to public interest
  - Significant environmental degradation

Existing Regulations and Policy

- Clean Water Act 404(b)(1) Guidelines
  - Rebuttable presumptions:
    1) Practicable alternatives are available that do not involve special aquatic sites
    2) All practicable alternatives which do not involve discharge into a special aquatic site are presumed to have less adverse impact

Guidance Development

- National Research Council Report (2001):
  - "Avoidance is strongly recommended for wetlands that are difficult or impossible to restore, such as fens or bogs."
- Mitigation Action Plan (2002):
  - "EPA and the Corps, in conjunction with USDA, DOI, and NOAA, will develop guidance by 2004 for protecting those wetlands for which mitigation, restoration, or creation is not feasible or scientifically viable."
- Coordination: 2003 Forum, ASWM call, interagency review and comment

DTR Guidance Caveats

- **DTR ≠ RARE OR HIGH VALUE**
- DTR aquatic resources are those for which compensatory mitigation through restoration or creation is not scientifically viable, *regardless of rarity or value*
- External characteristics that may make an aquatic resource DTR not addressed (e.g. landscape complexity, scale, surrounding land uses)

Characteristics of DTR

- Complex hydrology (e.g. hillside seeps)
- Long time to reach maturity (e.g. fens)
- Unique underlying geology (e.g. karsitic wetlands)
- Low tolerance for small changes in water level, nutrient, and soil chemistry (e.g. bogs)
- Ecological complexity
- Lack of current scientific knowledge to restore or create specific functions and conditions
- Continuum: difficult → impossible to replace
- Types of aquatic resources considered DTR will change with time

Identification of DTR

- Corps Districts should make regional determinations after MAP complete (2005)
  - Develop regional lists with input from Federal, state, and local agencies, general public (Public Notice process)
  - Lists would be living documents
  - Pro's: 2003 Forum support, predictability, avoid over-application of term
  - Cons: Limit/exclude resources (differing opinions of "DTR"), long and expensive process, limits flexibility (case-by-case determinations)

Protection of DTR

- Best = robust evaluation of alternatives
- Special emphasis on avoiding impacts to DTR since mitigation unlikely to replace
- Guidelines already include rebuttable presumptions (40 CFR §230.10(a)(3))
- Guidance adding sequential rebuttable presumption: alternatives exist that do not involve adverse effects on DTR, and these alternatives should be exhausted first
  - Includes considering alternatives that impact other resources (aquatic or non-aquatic)

Protection: Alternatives Analysis

- Consider likelihood of restoration or creation success
  - Recognize uncertainty of DTR restoration
- May result in choosing alternative that adversely affects larger area of "non-DTR" versus alternative that adversely affects smaller area of DTR
- May result in not authorizing project
  - Contrary to public interest
  - Significant environmental degradation

Protection: Role of Districts

- Programmatic tools
  - Advanced Identification, SAMPs, Regional Special Conditions
- Discretionary authority could include:
  - Require individual permit (versus GP) for activity affecting DTR
  - Modify GPs- add special conditions for DTR
  - Regional conditions for certain GPs
  - Suspending one or more GPs for activities within a region or state

Compensatory Mitigation: Unavoidable Impacts

- Planning and implementation well in advance of impact
- Focus on spatial and temporal loss of functions
- Combination compensation may be best
  - Multiple locations that may be on-site, off-site, in-kind and/or out-of-kind

In-Kind Mitigation

- Establishment (creation) of DTR rarely practicable, but in-kind restoration and/or enhancement may be feasible
- May not reestablish pre-disturbance conditions but replaces functions in-kind
- Out-of-kind compensation fails to replace specialized functions of DTR

In-Kind Mitigation

- In-Kind versus Out-of-Kind?
  - Risk of failure must be weighed against need to replace that particular kind of habitat
- Special attention to:
  - Monitoring, contingency planning, adaptive management, best available science
  - Restoration plan: performance bonds to perform alternative mitigation if in-kind fails
- In-kind may involve higher mitigation ratios, recognizing uncertainty of success

Out-of-Kind Mitigation

- In addition to or instead of in-kind
- Focus on lost functions
  - Preference for aquatic resource types similar to affected aquatic resource
- May involve multiple sites
  - Mitigate for as many functions as possible
  - Combine on-site, off-site, resource types (classes that naturally occur in watershed)
- Not ideal to recreate resource as collection of independent features, each mitigating for one function, but vital to account for all lost functions

Preservation

- Preservation of DTR with high mitigation ratio may be good option for in-kind compensation
  - If demonstrable threat of loss or degradation
  - If approach supports identified needs of watershed
- Broadest compensation: combine out-of-kind mitigation with in-kind preservation

Site Protection

- Site protection is particularly important for DTR aquatic resources
- Compensatory mitigation plans should include description of legal means for protecting site
  - E.g. conservation easements, deed restrictions, title transfer
- All aquatic resources in mitigation project should be permanently protected (RGL 02-2)

Conclusions

- Special emphasis should be placed on avoidance of DTR in alternatives analysis
- If impacts unavoidable, weigh risk of failure versus need to replace that habitat in deciding between in-kind or out-of-kind restoration
- If in-kind fails or is not practicable, out-of-kind should replace as many lost functions as possible, even if requires multiple sites or resource types

Conclusions

- In-kind preservation may be appropriate
- Combination of restoration and preservation may be best approach
- Compensation should be considered in a watershed context
- Corps Districts should work collaboratively in determining DTR aquatic resources in their regions


QUESTIONS?