National Estuaries Restoration Inventory Inventory Fields

OMB Approval No. 0648-0479 Expires 09/30/2009

Please answer the following questions for your restoration project. For assistance on any of the fields, please see the Inventory Help available at neri.noaa.gov/help. (*required field)

GENERAL INFORMATION

| What is the name of this project? * Note: Name should be a short, descriptive title that includes the specific location of the project and type of restoration being implemented. |
|--|
| What type of project is this? * |
| Funded under the Estuary Restoration Act (ERA)Compensatory (required by state or federal law)All other restoration projects. |
| 1. Provide a topic sentence summarizing this project. * |
| |
| |
| 2. Does this project include monitoring to gauge the success of restoration efforts? *YesNo |
| 3. Does this project's monitoring plan meet ERA Council Monitoring Standards? * Yes No |
| 4. If monitoring data are available on the web, please provide a URL (web address). |
| 5. What is the status of this project? * (Select One): Planning Stage Implementation Stage Implementation Complete Project Terminated |
| 6. Provide the dates for each stage of this project as it occurs. * Note: For projects in the planning stage, provide estimated implementation stage start date. |
| Actual implementation start date: (MM/YYYY) Implementation completion date: (MM/YYYY) |

***Questions for ERA-funded projects only: ***

| 7. What is the size of the area which was/will be directly manipulated? |
|--|
| (Acres) |
| 8. What is the overall size of the area being monitored? |
| (Acres) |
| 9. How were the measurements in questions 6 & 7 obtained (e.g. aerial photography, GIS, land surveys, etc)? |
| |
| 10. Provide the name of project's non-federal sponsor. |
| 11. Provide the name of the lead federal agency. Select One: Army Corps of Engineers (ACE) National Oceanic and Atmospheric Administration (NOAA) U.S. Department of Agriculture (USDA) U.S. Environmental Protection Agency (EPA) U.S. Fish and Wildlife Service (FWS) Department of Transportation (DOT) |
| 12. Provide the date of the ERA funding agreement. |
| (MM/YYYY) |
| 13. Has this project qualified as an innovative technology project as defined by the Council's Strategy? |
| Yes No |
| If yes, please briefly describe the innovative technology. |
| |
| |
| |
| |
| 14. Provide the ERA project number. |

| | DDO JECT ADCTDACT # | |
|---|--|-----------------------------------|
| | PROJECT ABSTRACT * | |
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| CO | ONTACT INFORMATION | |
| | | |
| Provide information for up to two prima | ry project contacts. | |
| NOTE: Contact information may be displayed information, please leave the field blank. If you that their information may be available on-line | d on-line in project queries and reports. If you do not wish ou are adding another person to the contact list, make sure." | to share your e they are aware |
| 1. Information for Contact 1* | | |
| First Name: | Last Name: | |
| Position Title: | | |
| Office: | | |
| Address 1: | | |
| Address 2: | | |
| City: | State/Territory/Province: Zip Co | |
| Phone: | Fax: | ———— |
| E-mail: | | |
| | | |
| Agency/organization/project Web site address | <u> </u> | |
| 2. Information for Contact 2 | | |
| First Name: | Last Name: | |
| D!+! T!+!- | | |
| Office | | |
| Address 1: | | |
| Address 2: | | |
| | State/Territory/Province | |
| City: | State/Territory/Province: Zip Co | ue. ——— |
| Phone: | Fax: | |
| E-mail: | | |
| Agency/organization/project Web site address | | |

GFOGRAPHIC LOCATION

| 1. Where is this pro | oject located? | | | | | |
|------------------------------------|-----------------------------|--|---------------------------------|--|--|--|
| _ | //Province: * | dograps to a minimum of four docimal points): | | | | |
| | * | X coordinate* (longitude) | | | | |
| City: * | | _ | * (latitude) | | | |
| Tribe: | | _ | | | | |
| Region* (see m | ap in Help page): | _ | hic Quadrangle: | | | |
| Zip Code (+4 if | known): | Congressional District: <u>*</u> | | | | |
| USGS 8-digit I | HUC: | _ | | | | |
| | website)? If known, please | | the project site (e.g. GPS, um. | | | |
| Yes | | | tact, please provide: | | | |
| • | | | | | | |
| | | | | | | |
| Contact priorie rian | <u> </u> | macre man | | | | |
| | PROJE | CT BENEFITS | | | | |
| Please provide info | rmation on this project's b | | | | | |
| 1. Project Benefits* (see Table 4) | 2. Description of benefit | 3. If implemented, has this benefit been achieved? | 4. Comments | | | |
| | | Yes No Not yet known | | | | |
| | | Yes No Not yet known | | | | |
| | | Yes No Not yet known | | | | |
| | | Yes No Not yet known | | | | |

HABITAT TYPES AND ACREAGE RESTORED

Please provide information on the habitat types which have been restored and/or will be restored by this project. Since a given project may restore multiple habitat types, please provide information for each habitat type restored.

Habitat types and acreage restored:

| 1. Habitat Type | 2. Tidal influence of habitat type: | 3. Specifically describe this habitat type | 4. Estimated acreage to be | For acres already restored, indica acres were: | | | - | | |
|---------------------------|---|--|----------------------------|--|---------|--------------------|--|-----------------------|------------------------|
| Restored* (see Table 1) 1 | | (e.g. comments on tidal influence, photic/aphotic, | restored: * | 5. Restored * (not cou | | (not coun | Benefited counted toward on acre goal) | | |
| | l · | location in estuary, | location in estuary, | | Created | Re- established | Rehabil- itated | Enhanced ² | Protected ² |
| | subtidal intertidal supratidal/spray zone not applicable | | | | | | | | |
| | subtidal intertidal supratidal/spray zone not applicable | | | | | | | | |
| | subtidal intertidal supratidal/spray zone not applicable | | | | | | | | |
| | subtidal intertidal supratidal/spray zone not applicable | | | | | | | | |

NOTES:

| 7. What method (e.g. aerial photography, GIS, land surveys) was used to determine the number of acres reported above as created, re-established, rehabilitated, enhanced and/or protected? |
|--|
| ***In-Stream projects only*** |
| 8. If this project provided fish passage, how many stream miles were opened to anadromous fish? |
| (Miles) |
| 9. For the stream miles reported in #8 above, please provide an estimate of the acres (based on surface area) made accessible to anadromous fish. |
| (Acres) |

¹ For projects providing fish passage, please provide acreage information for habitat actually restored (e.g. via stream channel, restructuring, placement of woody debris, best management practices, etc.), AND for entire stream area opened to fish migration (this information can be provided at the end of this section).

² Acres reported in the "Enhanced" and "Protected" categories should not duplicate acres reported in the "Restored" category. If the same project acreage has been enhanced or protected as well as restored, report those acres only in the "Restored" category.

RESTORATION TECHNIQUES

Please list the restoration techniques used in this project.

| 1. Restoration technique(s) * (see Table 2) | 2. Description of Technique (e.g. materials used, plant spacing) | 3. Success of this technique | 4. Comments on success |
|---|---|--|------------------------|
| | | Very successful Somewhat successful Not successful Not yet known | |
| | | Very successful Somewhat successful Not successful Not yet known | |
| | | Very successful Somewhat successful Not successful Not yet known | |
| | | Very successful Somewhat successful Not successful Not yet known | |

MONITORING AND SUCCESS CRITERIA

Please list the parameters and success criteria that were used in monitoring this restoration project.

| 1. Monitoring Parameter* (see Table 3) | 2. Description (e.g. methods, frequency, etc.) | 3. Monitoring start date (MM/YYYY) | 4. Monitoring end date (MM/YYYY) | 5. Quantitative Success Criteria (e.g. water depth > x for x hours/day) | 6. Have the success criteria been met? | 7. Comments on success criteria |
|--|--|--|--|--|--|---------------------------------|
| | | | | | Not yet known All Some None | |
| | | | | | Not yet known All Some None | |
| | | | | | Not yet known All Some None | |
| | | | | | Not yet known All Some None | |

REGIONAL RESTORATION PLANS

If this project is being carried out in support of an existing regional restoration plan, please provide the following plan information:

| 1. Plan Name | 2. Lead Organizations | 3. Type of Plan (select one) | 4. Date (MM/YYYY) | 5. Plan URL |
|--------------|--------------------------|--|----------------------|-------------|
| | | Business/industry Federal Local government Multistate/regional Nonprofit State/territory/ province Other | | |
| | | _ Business/industry _ Federal _ Local government _ Multistate/regional _ Nonprofit _ State/territory/ province _ Other | | |

BUDGET INFORMATION

| 1 | Provide | the | original | proposed | project | cost | estimate |
|---|---------|-----|-----------|-----------|-----------|------|---------------|
| | | | 0.19.1101 | p. oposoa | p. oj oot | 0001 | ostii i iato. |

2. Of the total cost estimate, how much will go toward project monitoring?

3. List amount(s) for all applicable funding sources:

| Federal | | | Non-Federal |
|---------|------------------------|----|------------------------|
| \$ | Cash | \$ | Cash |
| \$ | In-kind | \$ | In-kind |
| \$ | Lands, easements, etc. | \$ | Lands, easements, etc. |

4. If desired, provide additional information on the project budget below (e.g., operations and maintenance costs, specifics on in-kind contributions, etc.):

***Question for ERA-funded projects only: ***

5. If project implementation is complete, provide the total actual cost (planning and implementation only) for this project.

PARTNER INFORMATION

Add the following information for project partners:

| 1. Project Partner* | 2. Type of Partner * (select one) | 3. Partner web site | 4. Additional information for partner |
|---------------------|--|---------------------|---------------------------------------|
| | _ Federal _ State/Territory/Province _ Local Government _ Tribal _ Non-profit _ Academic _ Business/Industry _ Private Citizen | | |
| | _ Federal _ State/Territory/Province _ Local Government _ Tribal _ Non-profit _ Academic _ Business/Industry _ Private Citizen | | |
| | _ Federal _ State/Territory/Province _ Local Government _ Tribal _ Non-profit _ Academic _ Business/Industry _ Private Citizen | | |
| | _ Federal _ State/Territory/Province _ Local Government _ Tribal _ Non-profit _ Academic _ Business/Industry _ Private Citizen | | |

PROJECT PHOTOS

You may upload up to 3 pictures of your restoration project to the National Estuaries Restoration Inventory. These photos will be used in on-line project profiles that will appear on the NERI web site once your project has been approved. For each photo, please provide the following information:

| 1. Photo File Name | 2. Photo Caption | 3. Credit | 4. Date of Photo (MM/YYYY) |
|--------------------|------------------|-----------|----------------------------|
| | | | |
| | | | |
| | | | |

NOTICE

Responses to this collection are required of grant recipients to support the Estuary Restoration Act. Collection of estuary habitat restoration project information will be undertaken in order to populate a restoration project inventory mandated by the Estuary Restoration Act of 2000. The inventory is intended to provide information to improve restoration methods, provide the basis for required reports to Congress, and track estuary habitat acreage restored. Estuary habitat restoration project information will be submitted by habitat restoration project managers through an interactive web site, and will be accessible to the public via Internet for data queries and project reports. Responses to this information collection are required to retain funding provided by the Estuary Restoration Act and optional for projects that are not funded through the ERA but meet project requirements for the National Estuaries Restoration Inventory. Confidentiality will not be maintained – the information will be available to the public. Public reporting burden for this collection of information is estimated to average four hours for new responses and two hours to update existing responses in the inventory, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing this burden, to the NOAA Fisheries Office of Habitat Conservation, Restoration Division, F/HC3, 1315 East West Highway, Silver Spring, MD 20910.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

The information collected will be reviewed for compliance with the NOAA Section 515 Guidelines established in response to the Treasury and General Government Appropriations Act, and certified before dissemination.

National Estuaries Restoration Inventory Table 1: Habitat Types

| Habitat Category | Habitat Type |
|------------------|------------------------------|
| WETLAND | Forested Wetland |
| WETLAND | Freshwater Marsh |
| WETLAND | Mangrove |
| WETLAND | Salt Marsh |
| WETLAND | Shrub Swamp (non-mangrove) |
| UPLAND | Beach |
| UPLAND | Dune |
| UPLAND | Maritime Forest |
| UPLAND | Rocky Shoreline |
| UPLAND | Upland |
| SUBMERGED | Coral Reef |
| SUBMERGED | Hard Bottom |
| SUBMERGED | Kelp |
| SUBMERGED | Oyster Reef/Shell bottom |
| SUBMERGED | Pond |
| SUBMERGED | Soft Bottom/Mud |
| SUBMERGED | Soft Bottom/Sand |
| SUBMERGED | Submerged Aquatic Vegetation |
| SUBMERGED | Water Column |
| RIVERINE | In-Stream |
| RIVERINE | Riparian Zone (non-wetland) |

National Estuaries Restoration Inventory Table 2: Restoration Techniques

Construction

native plant nursery construction reef construction: artificial materials reef construction: natural materials

stream pool construction

terracing

Fauna

bird habitat enhancement

coral reattachment

coral stabilization

coral transplant

fish hatchery construction

fish passage

fish exclusion devices

stock enhancement

disease control: fauna

invasives removal: fauna

oyster gardening

species reintroduction (non-plant)

Hydrological Manipulation

berm/dike modification (including replacement)

berm/dike removal

bulkhead removal

culvert modification (including replacement)

culvert removal

dam modification (including replacement)

dam removal

stream channel rehabilitation/creation

stream flow modification

weir construction

weir removal

tide gate installation

tide gate removal

tide gate modification (including replacement)

storm water/runoff controls

Physical/Chemical Manipulation

beach nourishment

contaminant removal/remediation

daylighting

debris removal

erosion control

fill removal

large woody debris/structure placement

nutrient management

placement of dredge material

prescribed burn

substrate modification

Protection

fencing/netting

land acquisition

signage

water rights acquisition

Vegetation

planting

disease control: vegetation invasives removal: vegetation

National Estuaries Restoration Inventory Table 3: Monitoring Parameters

Physical Characteristics Channel characteristics

Hydrology Light penetration/secchi

Temperature

Topography/Geomorphology

Turbidity

Pool/riffle ratio

Water Column Characteristics

Chlorophyll concentration in water

Dissolved Oxygen

Fecal coliforms

Nitrogen

Nutrient cycling

Phosphorus

Silicon

рΗ

Salinity

Toxics

Soil and Substrate Characteristics

Bulk density

Moisture levels and drainage

Nitrogen (pore water)

Nutrient cycling

Phosphorus (pore water)

Silicon

Organic content

pH (pore water)

Salinity (pore water)

Sediment texture

Sedimentation rate and quality

Vegetation

Abundance

Composition

Basal area

Biomass

Canopy areal extent and structure

Density

Diversity

Edge to area ratio

Herbivory/disease

Litter fall

Growth rate

Percent cover

Productivity rate

Ratio of vegetation to open water

Recruitment

Survival

Woody debris

Amphibians

Abundance

Biomass

Density

Disease

Distribution

Diversity

Growth

Population age composition

Predation

Recruitment

Size

Survival

Birds

Abundance

Biomass

Density

Disease

Distribution

Diversity

Growth

Population age composition

Predation

Recruitment

Size

Survival

Fish

Abundance

Biomass

Density

Disease

Distribution

Diversity

Growth

Population age composition

Predation

Recruitment

Size

Survival

Invasive Species (Fauna)

Abundance

Biomass

Density

Disease

Distribution Diversity

Growth

Population age composition

Predation

Recruitment

Size

Survival

Invasive Species (Vegetation)

Abundance

Biomass

Distribution

Growth

Population age composition

Recruitment

Size

Invertebrates

Abundance

Biomass

Density

Disease

Distribution

Diversity Growth

Population age composition

Predation

Recruitment

Size

Survival

Mammals

Abundance

Biomass

Density

Disease

Distribution Diversity

Growth

Population age composition

Predation

Recruitment

Size

Survival

Mixed Assemblage

Abundance

Biomass

Density

Disease

Distribution Diversity

Growth

Population age composition

Predation

Recruitment

Size Survival

Reptiles

Abundance

Biomass Density

Disease

Distribution

Diversity Growth

Population age composition

Predation

Recruitment

Size

Survival

Debris Qualitative assessment

Other

National Estuaries Restoration Inventory Table 4: Project Benefits

Benefits

improve/provide habitat for migratory birds

improve/provide habitat for fish/shellfish

improve/provide habitat for Threatened & Endangered species

improve/provide habitat for other wildlife (general)

wildlife corridors/benefit to nearby habitat areas

improved water quality

increased water quantity

improve/restore natural hydrology

erosion control

flood control

increase/improve recreational opportunities

community revitalization/citizen participation

compensation for injuries to natural resources