**NOTE TO PREPARER:** This outline is intended to be used as guidance. Every project is different and has differing levels of complexity; therefore, each habitat replacement plan will vary accordingly. However, all habitat replacement plans should be concise and easy to follow. Use tables and/or summarize information under separate headings as much as possible. All maps, drawings, and other supporting information should be included within the plan as a single document. Drafts of the plan should be presented to Reclamation in a Microsoft Word format to facilitate review. A final draft of the plan should be presented to Reclamation as a pdf.**

Title Page

Insert Name of Habitat Replacement Plan

For Name of Salinity Control Project (include cooperative agreement # for project) (If desired, a picture of the project area can be inserted)

Date of plan

Prepared by:

Contractor Contact info

Prepared for:

Irrigation Company Contact info
This habitat replacement project will be maintained to achieve the objectives of this plan for 50 years from approval of this Plan.

**Disclaimer:** Reclamation’s acceptance of the Habitat Replacement Plan does not constitute technical approval of the design. This habitat replacement project is projected to create______ habitat units. This scoring is an estimated projection, and is not a guarantee or a statement of habitat units available to [the irrigation company].
Introduction and Background

Why is this replacement plan occurring? Which irrigation project and habitat loss report is this habitat replacement plan tied to? Provide a brief summary of what habitat loss occurred/will occur with the implementation of the irrigation project and how implementing this plan will compensate for those losses. Explain where this site is located and why this site was selected. Provide a map with location and directions to the site.

Existing Conditions

What does the area look like, right now? Tie the existing conditions back to the current Salinity Control Program: Fish and Wildlife Habitat Evaluation Procedures (“evaluation criteria”) with detailed justification for the rankings as they relate to importance to wildlife/wildlife habitat. Explain using ecological characteristics. What is present and what is missing? The rationale is the backbone on which the entire plan is supported.

- Habitat Type and Wildlife Use
  - What habitat type - should be riparian/wetland, but maybe the project area contains a mixture.
  - Uniqueness/Abundance: explain what wildlife use the area and what wildlife habitat is present. Is it federally designated critical habitat? Mule deer severe or critical winter range? Elk calving area?
  - Connectivity and Alteration: Explain if the area is a connecting corridor between habitats? Is the area fragmented? Is human disturbance prevalent? Look at the project from a larger scale.

- Plant community/Vegetation: Explain what’s there now and how it lacks or provides value to wildlife/wildlife habitat (forage, cover/shelter, etc).
  - Vegetative diversity - species composition, warm/cool season grasses, forbs, shrubs, trees.
  - Stratification - what layers are present
  - Native vs. nonnative
  - Noxious weeds
  - Overall Vegetative Condition/Health

- Hydrology:
  - Water supply - what water sources are currently available in the area (beyond the project boundary)? Are they clean sources of water (selenium issues)? Results of water quality analyses? Is water available year round? What is the delivery system? What is the assurance of the water source?
  - Interspersion of open water with vegetation

- Topography & Soils:
Will soil amendments be needed? Will erosion be a concern due to steep slopes? Does the soil have lots of cobble or a restrictive layer that requires consideration for project planning?

This is important to consider when selecting plant species and when open water features are planned.

→ Provide a summary table of the evaluation criteria scoring with rationale. This could be in an appendix, but the Habitat Quality Score (HQS) should be included in this section.
→ Explain methods used to collect data for the evaluation criteria.
→ Provide map and pictures of the area.
  • “Before” photographs and a map indicating photo locations and the direction/bearing the photographs were taken.
  • Provide Reclamation with UTMs and/or latitude and longitude of photo and data collection points.
  • Provide Reclamation with a GIS file of the project area boundary and photo points.

Desired Conditions
The project goals and objectives are discussed in this section. Clearly define the objectives of the habitat replacement project (e.g., This project has three main objectives: 1) xxx 2) xxx 3) xxx, etc.). What should the area look like when the project is complete? How long is it expected to take to get to the desired condition? Tie the desired conditions back to the evaluation criteria and the value/importance to wildlife/wildlife habitat. Tie the desired conditions back to the habitat which is expected to be lost by implementing the salinity control project.

 brisk Habitat Type and Wildlife Use
  o Habitat type: What habitat type(s) are expected after project construction? Will the habitat type(s) change? Will the area provide or improve value to wildlife that it wouldn’t have provided before the project was implemented? Is wildlife use expected to change in the area?
  o Uniqueness/Abundance: Does the area provide special habitat, such as nesting sites, production area, etc)?
  o Alteration: Is the project area expected to provide a corridor between two non-contiguous habitat areas? Will the project rehabilitate land with degraded habitat due to human activity? Is the habitat project contained within an existing habitat area and, if so, what habitat values will the habitat project provide which do not currently exist?

 brisk Plant communities/Vegetation: Explain what plant communities are expected to be there and how they will provide value to wildlife/wildlife habitat (forage, cover/shelter, etc.).
  o Vegetative diversity, species composition, warm/cool season grasses, forbs, shrubs, trees.
  o Stratification-what layers are present and proposed
  o Native vs. nonnative species
  o Noxious weeds
  o Overall vegetative condition/health

 brisk Hydrology:
Water supply – How much water is needed to maintain the project? Will water supply change? Is there an assurance of water delivery and quantity? Will water be available longer than has historically been available? Does the project rely on water rights and, if so, how senior/junior are those rights? Does the water right rely on irrigation return water or agricultural runoff which could potentially diminish due to changed irrigation practices over the next 50 years? Is it a clean source of water (e.g., are there selenium issues)? Results of water quality analyses? Is water available year round? What is the assurance of the water source?

Topography & Soils: If there were issues in existing conditions, how are the issues addressed in the desired conditions?

Provide a summary table of the expected Habitat Evaluation Procedures scoring criteria with rationale. Include measurable standards that Reclamation and the irrigation company will use to determine whether the habitat area is meeting the objectives. This could be in an appendix, but the HQS score should be included in this section.

Project Description and Statement of Work

What actions will occur to get from existing conditions to desired conditions? This should be an easy-to-follow, step-by-step process that a third party can utilize to implement the habitat plan. Ideally, this section could be extracted from the document and handed to a third-party entity to implement the project. Include maps and supplemental information, as needed. Suggested information below can be included in the plan or as an appendix, whichever is most appropriate.

- Detailed written specifications and work descriptions for the project, including (if applicable), but not limited to:
  - Geographic boundaries of the project.
  - Construction methods, timing, and sequence
  - Any required permits
  - Source(s) of water, including connections to existing waters and uplands
  - Methods for establishing the desired plant community
  - Methods to control invasive plant species
  - Engineering designs
  - Proposed grading plan, including elevations and slopes of the substrate
  - Planting/seeding plan
  - Soil management
  - Erosion control measures
- Schedule for implementation. Include who will oversee the implementation of the project and act as a contact for any questions.
- Description and schedule of monitoring, maintenance, and management requirements, including invasive species control, to ensure the continued viability of the resource once construction is complete.

Any deviations from this plan must first be reviewed by the irrigation company, landowner (if applicable), and Reclamation before implementing.
→ As-built project plans or sketches will be provided to the irrigation company, landowner (if applicable), and Reclamation, including drawings and a description of any changes from the original plan.
→ Copies of seed bag tags to document actual final seed mix and lists of planted species.

Monitoring

The monitoring plan should include enough information to be a standalone procedure that anyone can follow and replicate. The following information is recommended so that the irrigation company and Reclamation understand the process and know what is expected:

- Describe the parameters to be monitored and define the success criteria. Success criteria needs to include parameters that are easy to measure or estimate, such as percent canopy cover, percent groundcover, percent nuisance species, number and type of species, etc.
- Include the time period in which the criteria goals should be met.
- Include an anticipated schedule of monitoring activities.
- Monitoring schedule should include an on-site evaluation once a year with Reclamation and FWS (if available) for the first five years after project completion. This includes the issuance of a yearly performance report (form attached) to Reclamation. After the first five years, if the project is meeting or progressing towards the desired conditions, the frequency of monitoring and reporting can be adjusted to 3 to 5 years for the remaining life of the project, upon Reclamation’s concurrence.
- Success criteria is will be used to define any future corrective or maintenance work needed to assure the site will achieve success within the specified period.
- If corrective measures are needed, a schedule of implementation would be requested.
- Include photos taken from the established photo points, preferably with bearings as described under the “Existing Conditions” section above.
- Below is an example of the standardized form to be used for site inspections. A blank copy is provided for your convenience.

**NOTE:** In order for an irrigation company to utilize excess habitat credits towards another salinity project, Reclamation will use the evaluation criteria from the *Salinity Control Program: Fish and Wildlife Habitat Evaluation Procedures* to calculate the “current condition” Habitat Quality Scores of the site. In most cases, only if excess credits exist at the time of the assessment, will they be available for use.**

Following is an example Performance Report for your reference.
EXAMPLE

XYZ Irrigation Company

Clear River Habitat Replacement Site

Performance Report

Cooperative Agreement No. xxx

Reporting Year: 2018

Agreement Recipient/Project Name: ABC Irrigation Ditch

Recipient Contact Person: Jane Doe

Instructions: Please describe the existing conditions of the habitat site, as compared to the desired conditions of the site based on the project objectives and associated success criteria. Attach photographs of the habitat site from each of the project’s established photo points. List any maintenance activities which have occurred since the last reporting period. If the existing conditions are not fully meeting the intended project objectives, list the corrective actions and anticipated implementation date to ensure the success of that project objective.

*Please submit this performance report to Reclamation by December 1st of each calendar year for the first five years after project construction. After five years, if the project is meeting or progressing towards the desired conditions, the frequency of reporting can be adjusted to every three to five years for the remaining life of the project, upon Reclamation’s concurrence. Photos from each established photo point should accompany the report.

*Site assessments should be conducted during the growing season to best determine the condition of the habitat area.

Progress Achieved in Accomplishing Project Objectives during this reporting period:

Objective No. 1: Provide an open water feature.

Planned Progress: This objective will be met by managing the pond to ensure no more than 15% of the pond surface is encroached upon by cattails. The pond will retain a diameter of 50 feet and a depth of 8 feet. In the event the dimensions of the pond decrease, sediment will be removed and placed offsite in an upland area.

Actual Progress: Cattails have established around the pond and appear to cover approximately 7% of the total pond surface. Cattail cover hasn’t changed since last year’s monitoring report. The pond is functioning well.

Objective No. 2: Increase plant diversity and stratification throughout the habitat sites.
Planned Progress: Establish 50 plantings of four species of shrubs (15 sumac; 15 native plum; 10 golden currants; 10 chokecherries) within three fenced planting exclosures. 70% of each group of plantings must successfully establish.

Actual Progress:

Exclosure 1: Two species present (cottonwoods and willows). 15 of the 50 plantings are surviving.

Exclosure 2: Three species present (cottonwoods, willows, and river birch). 35 of the 50 plantings are surviving.

Exclosure 3: Four species present. 40 of the 50 plantings are surviving

Objective No. 3: Control weeds.

Planned Progress: Control weeds so they compose less than 3% of the area. Weed species of interest: Canada thistle, Russian olive, tamarisk, knapweed

Actual Progress: There are two larger tamarisk trees which were sprayed last year but did not die. There are two patches of Canadian thistle within the project area boundary. No other noxious weeds are present.

Difficulties Encountered:

Problem(s): Mortality of shrubs was a result of a blocked ditch.

Resolution or corrective actions planned and schedule: Cleaned the ditch, and will plant 20 shrubs consisting of species which are not currently present in Exclosure 1. Plantings will occur this fall.

Notes or other comments: Reclamation and FWS met with us on-site this year for a joint review of the habitat area.

Name of person completing report: John Doe

Date: July 15, 2018
Appendices [separate page(s)]

Appendices should include, but are not limited to, the following (as applicable):.

- Maps
- Supporting baseline data, water quality samples, etc.
- Habitat quality score sheet and maps
- Schedule for each phase of the project: Construction, Ongoing Maintenance, Management, and Monitoring
- Noxious weed treatment methodologies
- Copy of recorded Conservation Easement, if applicable
- Copy of any third-party agreement, if applicable
- Planting list and methods, if plantings are planned for the project
- As built drawings (to be added after implementation)
- Performance Report with project objectives and planned progress sections completed (blank form to be used)
- Seed bag tags (to be added after implementation)
Date:  

Irrigation Company: Habitat Site:  

Performance Report  

Cooperative Agreement No.  

Agreement Recipient: (Ditch/Canal Name)  

Recipient Contact Person:  

Instructions: Please describe the existing conditions of the habitat site, as compared to the desired conditions of the site based on the project objectives and associated success criteria. Attach photographs of the habitat site from each of the project’s established photo points. List any maintenance activities which have occurred since the last reporting period. If the existing conditions are not fully meeting the intended project objectives, list the corrective actions and anticipated implementation date to ensure the success of that project objective.  

*Please submit this performance report to Reclamation by December 1st of each calendar year for the first five years after project construction. After five years, if the project is meeting or progressing towards the desired conditions, the frequency of reporting can be adjusted to every three to five years for the remaining life of the project, upon Reclamation’s concurrence. Photos from each established photo point should accompany the report.  
*Ssite assessments should be conducted during the growing season to best determine the condition of the habitat area.  

**Progress Achieved in Accomplishing Project Objectives during this reporting period:**  

**Objective No. 1:**  

Planned Progress:  
Actual Progress:  

**Objective No. 2:**  

Planned Progress:  
Actual Progress:  

**Objective No. 3:**  

Planned Progress:  
Actual Progress:  

**Difficulties Encountered:**  

Problem(s):
Resolution or corrective actions planned and schedule:

______________________________Notes or other comments:

______________________________
Name of person completing report

Date_________________________