

II. PURPOSE OF HABITAT ANALYSES

A. Legislative and Policy Requirements. Legislative requirements under the National Environmental Policy Act (NEPA) and pertinent Corps of Engineers regulations require that the environmental impacts of major Federal actions be fully assessed and that reasonable alternatives be put forward to avoid or minimize adverse impacts. The purposes of the site-specific analyses were to evaluate potential site-specific construction impacts of the proposed alternatives and to identify possible avoid and minimize measures or opportunities for restoration.

B. Objectives. The study objectives were defined as follows:

1. Determine resources of concern within the study area (UMR-IWW System) and those of concern by site (lock and dam).
2. Quantify aquatic and terrestrial impacts from construction of small-scale, large-scale or associated measures.
3. Identify restoration and enhancement opportunities.
4. Determine a preliminary, general approach and costs for habitat replacement.

C. Nature of Anticipated Impacts. In addition to the “footprint” impacts of major construction measures, the following potential impacts were also evaluated:

1. Loss of benthic and riparian habitat in and adjacent to the construction site.
2. Changes in the lock and/or dam structure that could alter tailwater velocities, depth or substrate composition.
3. Changes in lock approach patterns that could cause towboats to increase bank erosion or benthic disturbance, or require dredging for new channel alignment.
4. Changes to terrestrial or shoreline areas due to bankline excavation, borrow or staging area placement.

Dredged material placement sites were not evaluated because potential locations at the time of the analysis were very speculative. Currently, upland placement in agricultural fields is sought to help avoid environmental impacts. It is anticipated that a selection and evaluation process similar to current Corps of Engineers long-term dredged material planning would be utilized at the time of detailed analysis following a recommended plan.