219 - Stream and Wetland Mitigation

219.1 Stream Mitigation:

1. The Kentucky Division of Water and the Army Corps of Engineers will require compensatory mitigation for all permanent stream losses greater than 200 feet in length that occur in Surface Waters. Surface Waters means those waters having well-defined banks and beds, either constantly or intermittently flowing including any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Surface waters are not limited to those shown as blue lines on topographic maps. All drainage features within a project site shall require confirmation of their jurisdictional status by the Army Corps of Engineers. A person qualified to examine the site for aquatic features should prepare a Jurisdictional Determination for concurrence by the USACE.

2. Impacts that result in partial loss of a stream resource will also require mitigation. Partial losses include, but are not limited to, activities that result in elimination of in-stream habitat, armoring of the channel, widening or deepening the channel, and relocations that cannot follow natural channel designs or lack riparian zones. Resource losses associated with the impoundment of streams will be assessed on an individual basis and may require mitigation. Projects that frequently result in impacts to streams, include sewer lines, waterlines, roadways, building sites, bridges, culverts, pipes, or drainage alterations.

3. The 401 Water Quality Certification (WQC) issued by KDOW must certify that what is permitted by the Corps of Engineers meets the Water Quality Standards of Kentucky. Therefore, if the Corps requires compensatory mitigation for impacts less than 200 linear feet, project plans submitted to KDOW must reflect the Corps' requirements.

4. Permanent stream loss shall be not be allowed in streams designated as Outstanding State and National Resource Waters, Exceptional Waters, or Coldwater Aquatic Habitat Waters as defined in 401 KAR 5:026 and 5:030. A list of these Special Use Waters can be found at http://water.ky.gov/waterquality/Pages/SpecialUseWaters.aspx. All projects proposed in streams with these designations, including culverts, bridges and projects under 200 linear feet, will require an individual WQC. The method of construction will be reviewed with the goal of minimizing physical damage and preventing sediment from entering the stream.

219.2 Wetland Mitigation: The following is a proposed outline/checklist for a Wetland Mitigation project:

I. Introduction

- A. Brief summary of overall proposed project and purpose
- B. Impacted wetland acreage
  1. Primary
  2. Secondary

II. Location

- A. Narrative description
  1. Local (i.e., directions to the site using road names, highway numbers and mileage distances)
  2. Relative geographic location within watershed (e.g., headwater, stream order, floodplain, isolated, etc.)

3. Surrounding land use

a. Percentage of land-use types(s) occurring within at least a 1,000 ft band around the wetland area.

b. Significant land use(s) within watershed which would affect the hydrological inputs or be affected by the hydrological outflows from the wetland

4. Proximity to existing wetlands

a. National Wetlands Inventory Map

b. Field observations

B. Maps (8 1/2" x 11")

1. County road map with proposed development site clearly outlined

2. USGS quadrangle map with proposed development site clearly outlined

3. Existing conditions (see Appendix 1)

4. National Wetlands Inventory Map

5. Aerial photography, if available

III. Identification of responsible parties (names[s], titles[s], address [es], and phone number[s])

A. Applicant(s)

B. Contact person(s) if applicant is a company

C. Consultant or preparers of compensatory mitigation plan (include resume with references)

IV. Site characterization

A. Wetland classification (Cowardin et al, 1979) (Brinson 1993)

B. Wetland functions and values (Include copies of completed checklist[s])

1. Hydrology (surface and groundwater)

2. Biogeochemical processes

3. Plant maintenance

4. Habitat maintenance

C. Soils

1. Soils series and description

2. Field characteristics (soil color, texture, composition, percent of organic material and other hydric soil indicators)

D. Vegetation (Refer to wetland delineation)

1.Species composition and indicator status by stratum (overstory, understory, herbaceous) (list by scientific and common names)

2. Community structure

a. Dominant species for each stratum

b. Zonation (if present)

E. Hydrology (utilizing best available data)

1. Surface Water

a. Hydroperiod

i. Gage data

ii. Documented observation

iii. SCS county soil survey

iv. Wetland delineation hydrologic data/indicators

v. Flow conditions (hydrodynamics)

b. Source

i. Overbank flooding

ii. Precipitation

iii. Groundwater seeps

iv. Location and types of inflows and outflows

2. Seasonal groundwater table elevations/fluctuations

a. SCS county soil survey

b. Other published data (e.g. Ky. Division of Water)

c. Wetland delineation hydrology data/indicators

Once the mitigation is complete and monitoring commences additional signs of ecological function may be observed that are not on this list. These observations should be documented and their ecological significance discussed. It is anticipated that such observations may add a great deal of pertinent information to the resource agencies in assessing the mitigation site's success.

Many any of these indicators are temporal in nature (i.e., occur only in spring season when water is on the sites), and notes should be taken during other monitoring visits to document the presence of any of these indicators.

Direct observation of any function (e.g., observation of ponded water during the growing season, groundwater within 12 inches of the surface) should be documented whenever possible.

Indicators on the checklist are marked only as being present or absent. However, observations quantifying any indicator (i.e., depth of water on the site, percent of site covered by water, depth to saturation, percent cover, zonation of surface or groundwater patterns, etc.) should be included whenever possible. This information will assist the Corps and other resource agencies in assessing the ecological development of the mitigation site.

219.3 Post Mitigation Annual Reports: Upon completion of the Stream or Wetland mitigation annual reports are required to be submitted to the USACE annually for a period of 5 years.