Species Protective Measures for Farm Service Agency-type Practices

Construction or expansion of poultry houses, dwellings, barns, shop buildings, disposal facilities, stacking sheds

1. Incorporate properly installed and maintained erosion and sediment best management practices until all exposed soils are permanently stabilized.

2. Ensure proper use, installation, and maintenance of energy dissipaters (e.g., hay bales, etc.) and silt fence. Silt fence should be installed around the project area perimeter. Install as specified by manufacturer. Maximum length of slope draining to any point along the silt fence should not exceed 100 feet. Do not place silt fence in areas with concentrated flow. A 15 foot gap in the silt fence to accommodate traffic is permissible. Silt fence should be inspected and repaired if necessary following 0.5 inch rainfall/48 hour period or 0.25 inch rainfall/one hour. Remove sediment when buildup against silt fence is at or near 40 percent capacity.

3. Sediment traps should be constructed with adequate capacity for storm events and accumulated sediment, with 75 percent removal efficiency. Traps should have both inflow and outflow.

4. For commercial construction, install detention basin(s) sized to capture first one inch of a rainfall event. Constructing detention basins in a stream is not permissible. Line bottom of detention basin with a textile or bentonite type material to capture rain and not allow infiltration. This material should be covered by one to two feet of gravel. At least once every 5 years, the basin should be drained and if necessary dredged to its original depth. After capture of first 1 inch of rainfall, flow should be directed to 50 – 100 foot bioretention treatment area consisting of a vegetated strip, sand bed, organic or mulch layer, planting soil, or hydrophilic plants.

5. Within 24 hours following precipitation events at project site, all erosion and sediment control measures must be maintained and either repaired or replaced.

6. Revegetate site within 30 days following construction completion.

Fencing

1. Fencing should limit livestock access to streams to designated crossings when possible.

2. Fencing should allow a riparian buffer based on slope. Maintain riparian habitat within 100 to 150 feet of perennial and intermittent stream banks (areas with 0 to 15 percent slope = 100 feet; 16 to 35 percent slope = 125 feet, greater than 35 percent = 150 feet), including backwater sloughs, springs, and seeps. Maintain riparian habitat within 30 feet of ephemeral drainages.

Grade stabilization structures, conservation structure restoration (dam and pond), pond construction with dam

1. Divert flow around the construction area by constructing a temporary structure (dam) upstream and downstream of the project area.

2. Restore embankments and approaches with seed, mulch, fertilizer, and implementing erosion control measures such as silt fences, straw bales, matting, and sediment traps. Soil stabilization immediately after earth work is complete is critical.

Livestock crossing facilities

1. Underlay crossing with geotextile filter fabric, gravel filter blanket, or equivalent best available technology.

2. Stabilize approaches and adjacent streambanks

3. Restore damaged areas, particularly bare erodible soils, to pre-work conditions.

4. Employ sediment and erosion controls during and post-construction until site is revegetated.

Riparian buffers

1. Vegetation native to the ecoregion should be used in the establishment or enhancement of riparian buffers.

2. Riparian buffers should be established on stable streambanks.

3. Mulch and prompt revegetation should be used to minimize erosion of exposed soils.

4. Erosion and sediment control measures (e.g., silt fences, straw bales, matting) should be implemented.

5. Maintain riparian habitat within 100 to 150 feet of perennial and intermittent stream banks (areas with 0 to 15 percent slope = 100 feet; 16 to 35 percent slope = 125 feet, greater than 35 percent = 150 feet), including backwater sloughs, springs, and seeps. Maintain riparian habitat within 30 feet of ephemeral drainages.

Road construction

1. In areas with higher levels of traffic expected or on roads crossing slopes, proper crown and cross-slope should be part of the design.

2. If culverts are placed as part of the road construction, installation considerations include inlet elevation, outlet elevation, grade, adequate compacted cover, and inlet/outlet protection.

3. Roads on a slope should use drainage control measures such as grade breaks or other appropriate water dissipation measures to prevent loss of road material by erosion of the road surfaces and prevent sediment from entering waterbodies.

Please note that these avoidance and minimization measures for road construction adhere to applicable best management practices described in the Arkansas Unpaved Roads Program administered by the Arkansas Department of Rural Service.

Sediment retention

1. Sediment traps or basins should be constructed with adequate capacity for storm events and accumulated sediment, with 75 percent removal efficiency. Traps should have both inflow and outflow.

2. Detention basins should not be constructed in a stream. Line bottom of detention basin with a textile or bentonite type material to capture rain and not allow infiltration. This material should be covered by one to two feet of gravel. At least once every 5 years, the basin should be drained and if necessary dredged to its original depth. After capture of first 1 inch of rainfall, flow should be directed to 50 – 100 foot bio-retention treatment area consisting of a vegetated strip, sand bed, organic or mulch layer, planting soil, or hydrophilic plants.

Wetland restoration

1. Wetland restoration sites with hydrologic connectivity to riverine systems should employ erosion and sediment reduction measures during construction.

2. Wetland restoration plans should be reviewed by an experienced professional.