SECTION 6

STORMWATER MANAGEMENT PLAN

The purpose of a Stormwater Management Plan is to aid individuals in complying with state and federal regulations dealing with the control of nonpoint source (NPS) pollution. The plan should include a listing of the most effective and practical best management practices (BMP's) designed to minimize pollution resulting from stormwater runoff and off-site sediment deposition during land disturbance activities.

A Stormwater Management Plan should conform to the following outline:

1. A brief narrative

2. Planned BMP's and vegetative practices

3. An operation and maintenance plan for BMPs

4. Drawings and specifications of BMPs

5. A vicinity U.S. Geological Survey quadrangle map

6. A site topographic

7. A site development map

8. A site erosion, sediment, and stormwater control map

9. Name, address, and telephone number of the parties responsible for developing and implementing the plan.

10. Continuing education of all employees to inform them of plan requirements

The specific number of maps, practices, drawings, specifications, and calculations required depends on the size and complexity of the land disturbing activity. The plan should be organized and presented in a clear, concise manner with sufficient design and background information included to facilitate review by the AEA and other reviewing personnel. In general, an acceptable Stormwater Management Plan should contain as a minimum:

1. A brief narrative to include:

   a. Project description (purpose, size of area to be disturbed, location, common address, and a certified legal description of site).

   b. Existing and proposed site description, including topography, principal drainage ways, floodplain/floodway limits, resource protection areas such as wetlands, lakes, ponds, setbacks (stream buffers, drinking water wells, and septic systems), land cover condition, predominant vegetation, landscaping plan, percent of impervious area, limits of clearing, and the associated increase of runoff volume from a 25-year 24-hour storm event.

c. Adjacent property. (This should include the identification of land use and cover conditions.)

d. Mapping of predominant soils from USDA soil surveys as well as location of any site-specific borehole investigations that may have been performed.

2. Planned Best Management Practices to include:

a. Beginning and completion date of construction activities

b. A sequence of all construction-related BMP and vegetative activities. Include any winter shut-downs.

c. Preconstruction conference is recommended and should be scheduled one week prior to land disturbance to orientate contractors to the Stormwater Management Plan. Notice of the preconstruction conference date should be provided to the Office of Pollution Control one week prior to the meeting.

d. A listing of erosion and sediment control BMP's to minimize pollution during construction along with location and installation schedule for each.

e. A listing of stormwater pollution control BMP's to minimize pollution after construction has ended along with location and installation schedule for each.

3. Operation and Maintenance (O&M) plan for BMP's.

a. Temporary measures: a plan for the schedule of maintenance during construction along with any operational criteria. This should also include routine inspection checklists for illicit discharge and on-site construction review (Sections 3.2.1 and 3.3.2).

b. Permanent measures: a plan for the long term maintenance and operation including entities responsible (address and phone number), financial obligations for continued O&M, designated access for maintenance, and schedule of O&M activities.

c. Maintenance during and after construction may include practice reestablishment, repair, sediment removal, mowing, etc.

4. Detailed drawings and specifications of BMP's with supporting calculations.

a. Detailed drawings in manuals can be utilized along with standard engineering drawings of structures and measures so long as site specific elevations, dimensions, etc., are shown on drawings.

b. Support data and calculations should be sufficient to allow reviewers to

reproduce design procedure of structures and measures. Sources of information should be cited.

c. One permanent benchmark will be clearly labeled on drawing if needed to plan measures. If elevations are tied to a USGS benchmark description and elevation of benchmark will be provided.

5. Vicinity USGS Quad map – This map should identify the location of:

   a. Land disturbing activity

   b. Site stormwater discharge

6. Site Topographic Map – This will provide existing and proposed construction site topography while locating drains, property lines, construction work limits, and any utilities. Scale will be no less than 1" = 60', and a minimum of 2-foot contours are recommended. Trees to be preserved will be located on this map.

7. Site Development Map – This map should identify the location of buildings and associated paved areas, raw materials or finish product stock pile areas, equipment storage areas, processing areas, construction entrances, access or haul roads, and finished grades on a duplicate of the site topographic map.

8. Site erosion, sediment, and stormwater control map – This map should identify the location and size of all BMPs (temporary and permanent) on a duplicate of the site topographic map along with the location of all permanent construction and associated paved areas and finished grades. This map should identify all existing and proposed conveyance systems including perennial streams, intermittent streams, grass channels, swales, storm drains, etc.

9. Names, address, and telephone number of the contact personnel responsible for developing and implementing the plan.

10. Continuing education plan for all employees to inform them of plan requirements.

    a. As work progresses and various subcontractors and/or new employees are brought into the work site, each should be familiarized with plan. At the beginning of each workweek, scheduled items of the plan to be implemented during that week should be brought to the attention of the impacted work force.

    b. O & M training will be provided to personnel responsible for continued operation of the completed project. This should include an annual review of schedule for maintenance activities.

Specific maps, practices, drawings, specifications, and/or calculations may be required depending on the size and complexity of the land disturbing activity. In addition to the minimum measures mentioned above, the following requirements are recommended for inclusion when available and applicable for review:

1. Existing and proposed structural elevations (e.g., invert of pipes, manholes, etc).

2. Representative cross-section and profile drawings and details of structural stormwater management practices and conveyances (i.e., storm drains, open channels, swales, etc.).

3. Existing and proposed condition analysis for time of concentration, runoff rates, volumes, velocities, water surface elevations, and routing showing the methodologies used and supporting calculations.

4. Final sizing calculations for structural stormwater management practices including, contributing drainage area, storage, and outlet configuration.

5. Stage discharge or outlet rating curves and inflow and outflow hydrographs for storage facilities (e.g., stormwater ponds and wetlands).

6. Final analysis of potential downstream impact/effects of the project.

7. Dam breach analysis

8. Additional Operation and Maintenance Plan items which could include:

    a. Description of applicable easements

    b. Description of funding source

    c. Testing and disposal of sediments that will likely be necessary

        i. Evidence of acquisition of all applicable local and non-local permits

        ii. Evidence of acquisition of all necessary legal agreements (e.g., easements, covenants, land trusts)

        iii. Waiver requests

The "Planning & Design Manual for the Control of Erosion, Sediment & Stormwater" provides a sample erosion, sediment, and stormwater control plan which can be followed when creating the Stormwater Management Plan explained in this chapter.

APPENDIX A

DIRECTORY

DIRECTORY OF DESIGNATED STORMWATER PHASE II ENTITIES

DeSoto County

Contact	Title of Contact	Address	Phone Number
Jessie L. Meldin	District 1 Supervisor	365 Losher Street, Hernando, MS 38632	662-429-5590
Gene Thach	District 2 Supervisor	365 Losher Street, Hernando, MS 38632	662-429-5590
Bill Russell	District 3 Supervisor	365 Losher Street, Hernando, MS 38632	662-429-5590
Allen Latimer	District 4 Supervisor	365 Losher Street, Hernando, MS 38632	662-429-5590
Tommy Lewis	District 5 Supervisor	365 Losher Street, Hernando, MS 38632	662-429-5590
Michael Garriga	County Administrator	365 Losher Street, Suite 300, Hernando, MS 38632	662-429-1460
Russell Dorris	County Road Manager	2339 Gwyn Road, Nesbit, MS 38651	662-429-1466
Andy Swims	County Engineer	365 Losher Street, Suite 300, Hernando, MS 38632	662-429-1347
Scott Young	Assistant County Engineer	365 Losher Street, Suite 300, Hernando, MS 38632	662-429-1347
Sam Russell	GIS Manager	365 Losher Street, Suite 300, Hernando, MS 38632	662-429-1306

Horn Lake

Contact	Title of Contact	Address	Phone Number
Nat Baker	Mayor	3101 Goodman Road West, Horn Lake, MS 38637	662-342-3502
Amy Lay	Ward 1 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Chris Sheley	Ward 2 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Tim Smith	Ward 3 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Tom Polzin	Ward 4 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Derek Downing	Ward 5 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
John Jones	Ward 6 Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Donnie White	At Large Alderman	3101 Goodman Road West, Horn Lake, MS 38637	662-280-7420
Gerald Davis	Interim City Engineer	8849 Hamilton, Southaven, MS 38671	662-342-7273

DIRECTORY OF DESIGNATED STORMWATER PHASE II ENTITIES (continued)

Olive Branch

Contact	Title of Contact	Address	Phone Number
Samuel P. Rikard	Mayor	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-3166
Aubrey Coleman	Ward 1 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-5744
Randy Cowgill	Ward 2 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-890-4504
Joyce Haslip	Ward 3 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-5488
Maurice Wallace	Ward 4 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-2602
Stephen Benson	Ward 5 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-893-5667
Dale Dickerson	Ward 6 Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-2543
George Collins	At Large Alderman	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-895-3308
Steve Bigelow	City Engineer	9200 Pigeon Roost Road, Olive Branch, MS 38654	662-892-9350
David Haines	Director of Public Works	10175 HWY 178, Olive Branch, MS 38654	662-895-2827
Don Sappington	Water Services Manager	10175 HWY 178, Olive Branch, MS 38654	662-893-5200

Southaven

Contact	Title of Contact	Address	Phone Number
Greg Davis	Mayor	8710 Northwest Drive, Southaven, MS 38671	662-393-6939
Lorine Cady	Ward 1 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
James Stark	Ward 2 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Jim Loftis	Ward 3 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Paul Ollar	Ward 4 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Ricky Jobes	Ward 5 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Randy Huling MD	Ward 6 Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Greg Guy	At Large Alderman	8710 Northwest Drive, Southaven, MS 38671	662-418-7001
Ron Smith	City Engineer	8710 Northwest Drive, Southaven, MS 38671	662-393-6530