NRCS REVIEW GUIDELINES

FOR PROPOSED DEVELOPMENT ADJACENT TO

WATERSHED PROJECT DAMS

There is a need for statewide uniformity when there are proposed changes that will have an impact to the function and maintenance of a watershed dam or adjacent pertinent areas.

Definitions of terminology used herein include:

A dam is an artificial barrier, together with any associated spillways and appurtenant works, across a watercourse or natural drainage area, which does or may impound or divert water.

The top of dam is the lowest elevation along the centerline of the dam. This does not include any elevations within the auxiliary spillway.

The auxiliary spillway is the spillway designed to convey excess water through, over, or around a dam. The auxiliary spillway is usually an excavated channel through one or both of the abutments.

The control section in an open channel spillway is that section where accelerated flow passes through critical depth.

The impoundment area is the portion of the reservoir allotted to the temporary storage of floodwater. Its upper limit is the top of dam elevation.

An easement is a legal document granted to the Sponsoring Local Maintenance Organization(s), which covers the impoundment area and the auxiliary spillway(s) return flow to the waterway downstream from the dam.

All NRCS watershed dams within the State of Georgia have a Sponsoring Local Maintenance Organization(s) (Sponsor) with most being in one of the below categories.

1. The Local Soil and Water Conservation District (district),
2. The district and the County or City,
3. The County or City. (Some Sponsors own the dam and impoundment area)

The actual easement elevation varies with each watershed structure. Easements can reference the top of dam elevation, the auxiliary spillway control section elevation, or the auxiliary spillway control section elevation plus flow depth. Also, some easements contain special provisions. Easements belong to the Sponsor. Assistance is available to the Sponsor from the State Attorney General through the State Soil and Water Conservation Commission for legal problems related to easements and landrights.

The Sponsor is responsible for proper operation and maintenance of the dam and issuing or denying requests for changes within the impoundment area.

The Sponsor should notify the Natural Resources Conservation Service (NRCS) when proposed changes are planned that will have an impact to the functioning and maintenance of a watershed dam.

Proposed changes of concern include but are not limited to:

1. Any roads, sewer lines, or other utilities across, on or through the dam, auxiliary spillway or within the impoundment area.
2. Any plans that include earthfill within the impoundment area.
3. Any plans which propose structures, buildings, fences, play areas, trails or other items within the impoundment area, auxiliary spillway, or on the dam.
4. Any plans to utilize the impoundment area as stormwater detention.

When the above or similar proposed changes are planned, the designer must submit two sets of drawings, specifications and any applicable hydrology and hydraulic reports to the Sponsor for routing to NRCS Engineers through the designated District Conservationist. Any submittals for proposed earthfill or stormwater detention within the impoundment area shall include calculations to verify compensation of effected volumes. All submittals shall include a designated contact person. NRCS Engineers will make reviews as to compliance with NRCS criteria and provide recommendations and comments regarding the proposed changes to the Sponsor.

Changes that include installation of sewer lines, water lines, or any modifications to the dam, principal spillway or auxiliary spillway must be submitted by a professional engineer experienced with design and construction of dams. This experience must be documented as part of the design submittal. Depending on the design complexity and hazard classification of the Dam, the NRCS State Conservation Engineer may require that the design engineer be recognized by the State of Georgia EPD Safe Dams Program as an "Engineer of Record." Once construction is complete NRCS will require as-built drawings certified by the engineer for any permanent modifications to the dam or appurtenances.

Upon completion of the review the NRCS Engineer will provide final recommendations and comments to the NRCS District Conservationist for routing to the Sponsor. The Sponsor decides whether to permit proposed changes or deny proposed changes if these changes will have adverse impacts on maintenance, liability or proper functioning of a dam.

Development activities that should not be allowed in areas adjacent to the easement, impoundment area, auxiliary spillway or dam include:

1. Any activity that decreases flood storage volume such as any modification to the principal spillway riser that would increase normal water surface elevation.
2. Erection of structures, buildings, signs, fences, or landscaping features on the dam or in the auxiliary spillway which would interfere with the proper functioning of the structure or inhibit maintenance activities such as annual mowing of these areas.
3. Docks, picnic tables or other potential floating items should not be permitted unless anchored in such a way that they cannot float loose with fluctuations in the lake level.

The State of Georgia classifies dams as Category I if a failure of that dam would cause probable loss of life downstream. The State of Georgia EPD Safe Dams Section must approve plans for proposed changes through or near the dam or auxiliary spillway of Category I dams. Examples include sewer lines, roads, or structures that require rock blasting near the dam or other significant topographic changes.

General NRCS recommendations to Sponsors and Designers:

1. Enforce the State of Georgia Erosion and Sediment Control Law within the drainage area of the watershed dam to keep sedimentation accumulation in the impoundment area to a minimum. Generally, water quality ponds will not be permitted within the easement.
2. Enforce Storm Water Management Requirements on new development sites within the drainage area of a watershed dam and prohibit increases in peak runoff into the impoundment area.
3. Proposed development adjacent to the lake should construct detention pond(s) according to local stormwater ordinances with the top of dam elevation above the NRCS structure's top of dam. The detention ponds should be designed so that there is no water surface elevation increase in the flood pool during the 100 year-24 hour storm. In cases where a detention pond is not feasible, a volume equal to the increased runoff amount for the 100 year-24 hour storm event may be excavated between the auxiliary spillway crest elevation and normal pool. Justification for not using on site detention should be included in proposal. NRCS will depend upon the County or Local City Government(s) to insure that all disturbed areas are properly re-vegetated in a timely manner.
4. Designers should submit plans to sponsors. Sponsors should forward plans for areas being developed adjacent to the impoundment area to NRCS for comment with enforcement responsibilities remaining with the Local Government
5. Not allow construction of houses in the dam breach zone. Such construction would cause the dam to become Category I leaving the Local Government and or others responsible for expensive modifications.
6. Not allow any structures, such and houses or commercial buildings, to be constructed in the impoundment area, unless the lowest finished floor elevation of the structure is above the design top of dam elevation.
7. All manhole covers should be watertight and exposed no more than 3-feet.
8. Boat docks should be fixed to piers. If dock is floating, then design should include provisions to allow the dock to rise to the flood pool elevation.
9. No blasting is to take place within 1,000 feet of the dam unless a blasting plan has been reviewed and approved by a geotechnical engineer experienced in blasting. The plan must also be submitted to the sponsor for approval and reviewed by NRCS and Georgia Safe Dams Program. The geotechnical engineer shall recommend acceptable ground speed accelerations in the vicinity of the dam so the stability of the dam will not be affected. Vibration monitoring will be required.
10. Installation of utility lines across or through the dam or emergency spillway is strongly discouraged. Expect an additional 90 days for NRCS and Georgia Safe Dams Program to complete the design review process for structural changes to the dam. Boring through the dam or emergency spillway to install utilities will not be permitted.
11. Development surrounding the dam shall include access for the sponsor and NRCS to conduct periodic inspections and maintenance.