



STREAMLINES

A Newsletter for North Carolina Water Supply Watershed Administrators

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Using The High Density Option

Under the Water Supply Watershed Protection Program, high density development is allowed in the critical and non-critical areas of WS-II, WS-III and WS-IV watersheds. There are a number of factors that a local government should take into account in considering the [high density option](#). The following are important factors in the high density decision-making process:

- The local government should consider its economic development goals. Can those goals be achieved by using low density development within watershed areas or by using the [10/70 option](#), which allows high density development on a limited basis in all non-critical watershed areas?
- The local government should look at the location of watershed areas relative to planned growth areas. Is the high density option needed within the entire watershed or could it be limited to specific areas or corridors?
- The local government should consider its capital improvement plans. Are the necessary infrastructure improvements scheduled to serve the area proposed for high density development?
- The local government should consider the cost of high density development. Is funding available for hiring additional staff or consultants, for specialized training of existing staff and/or for long term operation and maintenance of the stormwater controls?

Local governments may have additional considerations to take into account in making the high density decision. Regardless of the number of considerations, this decision should not be taken lightly.

High Density Requirements

The following are the requirements for high density development under North Carolina's Water Supply Watershed Protection Program:

- Issuance of a high density development permit by the local government.
- 100 foot vegetated [buffer](#) on each side of a perennial stream or from the normal pool elevation of an impoundment.
- Stormwater controls that meet a [performance standard](#) of 85 percent (85%) removal of total suspended solids (TSS) and specific discharge rate criteria.
- Posting of financial security by the landowner or developer.
- Enactment and implementation of an operation and maintenance agreement between the landowner and local government.
- Annual inspection of stormwater controls by the local government.

Local governments are responsible for the long term operation and maintenance of the approved stormwater controls and may impose civil and criminal penalties if the landowner or developer does not adequately operate or maintain the stormwater control.

High Density Development Process

A local government that chooses to use the high density option must establish a permit application and approval procedure. The permit application should consist of an official form, which is signed by the property owner; copies of the proposed development plan; plans and specifications for the proposed stormwater control; and applicable fees. The fees assessed by the local government must be related to the cost of reviewing plans, issuing permits, making inspections, enforcing the ordinance and administering the local watershed protection program.

Approval of a high density development permit can be achieved using two procedures. The first consists of review and approval by the watershed review board. In this type of process, the application is reviewed for compliance with the water supply watershed protection regulations and the application is approved or denied accordingly. The second procedure is a "conditional use" type process which, unlike the first process, requires a public hearing and allows the watershed review board to permit high density development consistent with certain conditions. These conditions may be specific to the type of development proposed and may incorporate public health and safety concerns, water quality or quantity concerns, economic development concerns and long range community growth concerns.

The watershed review board, under both procedures, must determine whether the proposed stormwater control meets the required performance standard. The stormwater control must be designed by an engineer or landscape architect registered in North Carolina. The specific area where the stormwater control is contained must be filed as a separate deed. The owner must also post adequate financial security in the form of a performance bond and submit an operation and maintenance plan for approval. An occupancy permit for the development may not be issued until the watershed review board has approved the stormwater control.

The local government should also establish a procedure for the annual inspection of the stormwater controls in their jurisdiction. The first inspection should take place after initial construction of the control. If the structure is installed correctly, an inspection report should be submitted to the watershed review board. At this time, 75 percent of the value of the performance bond may be released. The remaining 25 percent is retained for security in case of default. The developer or landowner may request the remaining 25 percent after one year if the structure is functioning properly.

Urban Runoff: What You Can Do

- Keep litter, pet wastes, leaves, and debris out of street gutters and storm drains -- these outlets drain directly to lake, streams, rivers and wetlands.
- Apply lawn and garden chemicals sparingly and according to directions.
- Dispose of used oil, antifreeze, paints, and other household chemicals properly, not in storm sewers or drains. (Note: If your community does not already have a program for collecting household hazardous wastes, ask your local government to establish one.)
- Clean up spilled brake fluid, oil, grease, and antifreeze. Do not hose them into the street where they can eventually reach local streams and lakes.
- Control soil erosion on your property by planting ground cover and stabilizing erosion prone areas.
- Encourage local government officials to develop construction erosion/sediment control ordinances in your community.

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