



Albemarle Resource Conservation and Development Stewardship Development Program

August 2009

Application Guidelines

Purpose:

The Albemarle Resource Conservation and Development Council developed the Stewardship Development Program to honor residential, commercial and public development projects in the Albemarle Region that demonstrate outstanding environmental stewardship through the protection, conservation, improvement and awareness of our natural resources.

Levels of Recognition:

Outstanding Stewardship is the highest level of distinction available in the Stewardship Development Program. This honor is only bestowed on projects that have achieved high marks in all applicable criteria. The project must be sufficiently complete and demonstrate accomplishment or expected accomplishment of project goals in order to receive Outstanding Recognition status.

Significant Achievement is the next level of recognition. If a project is well underway, but is not sufficiently complete or has not yet accomplished all of the expected project goals, the project may qualify for Significant Achievement status.

- Unlike Outstanding Recognition, an approved Project Plan (at any level of the process) may receive a Significant Achievement award.
- If a project falls short on one or more criteria, the Selection Committee may elect to spotlight specific aspects of a project with a Significant Achievement award.

Requirements for Eligibility:

1. A project must be located in Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell and/or Washington Counties.
2. A project must be in compliance with or exceed all applicable local, state and federal regulations, codes or ordinances.
3. The Project Developer/Owner must allow visits to the project site by the Selection Committee, and provide additional information, as requested, for project evaluation.
4. If a project is awarded, it is subject to future periodic evaluation by the Albemarle Resource Conservation and Development Council. The Council, at its sole discretion, reserves the right to revoke recognition for failure to comply with program requirements or criteria.

Selection Process:

An independent Selection Committee, made up of recognized experts in the field, will review all applications and determine the worthiness of projects to receive recognition. The sponsoring agencies will appoint professionals to serve as members of the Selection Committee.

Award Criteria:

Applications will be judged on the overall creativity, design and environmental impacts of the project. Primary emphasis will be placed on the criteria applicable to the project.



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The following criteria are intended to serve as guidelines only. It is not necessary for applications to meet all of the criteria and not all categories will apply to most projects. Check the box(es) to identify the criteria met by the project.

Applications will be evaluated on how well the development plan and site inventory have taken into account the following possible criteria:

- | | |
|--|--|
| 1) Site Inventory & Development Plan | 6) Vegetation Protection/Enhancement |
| 2) Water Quality Protection | 7) Natural Project Amenities |
| 3) Green Building | 8) Long-term Management and Maintenance |
| 4) Wetland Riparian Preservation/Restoration | 9) Community Outreach/Education |
| 5) Habitat Protection/Improvement | 10) Re-use/Revitalization of Existing Site |

Project Criteria #1: Site Inventory and Development Plan

Site Inventory

- Identify soil classes for water runoff infiltration.
- Evaluate presence of wetlands (include on site plan if present).
- Investigate the presence of floodplains, stream beds and riparian zones to design surface water management systems.
- Delineate topography and current surface drainage patterns and features.
- Evaluate the ground water systems.
- Conduct a wildlife survey, unique habitat inventory, native vegetation and tree species inventory.
- Identify cultural/historical resources on site plan, if present.
- Identify public infrastructure, such as public transit, road and street stubs from existing/proposed adjacent development, schools, etc.

Development Plan

Please provide a description to demonstrate that:

- the site inventory was used in the development plan;
- the project was designed in careful consideration of natural features and constraints (highlight any extraordinary efforts made to maintain the natural character of the site);
- efforts were made to respond to the need for connectivity and multi-modal transportation by providing bus stops, connected bicycle/walking trails and pedestrian/bike access between neighborhoods, shopping facilities and schools in the area.

Project Criteria #2: Water Quality Protection

Construction Impacts/Erosion Control and Sediment Reduction

- Limit initial site grading to driveways and streets.
- Maintain natural drainage patterns and incorporate them into the stormwater plan, to the extent feasible.
- Minimize the amount of impervious roadway and parking surface.



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Construction Impacts/Erosion Control and Sediment Reduction (*continued*)

- Prepare and follow site and grading plans to minimize filling, cutting and areas of soil compaction.
- Reserve HSG Type A & B soils in-situ on the site, and utilize those soils for infiltration of runoff.

Stormwater Management

For Streets:

- Install minimum required street width (as the maximum).
- Minimize cul-de-sac radii or utilize “doughnut” cul-de-sacs or other alternatives, such as “T”s”.
- Use shared driveways with grassy strip design.
- Utilize pervious paving materials for low flow traffic areas, driveways, and walkways.

For Sidewalks:

- Install sidewalks of minimum width on one side of street, only where safety permits.
- Utilize pervious paving materials or other BMPs for sidewalks and paths

For Buildings:

- Use multiple-story design for houses and buildings with parking areas under buildings.

For Stormwater Drainage Systems:

- Avoid use of curb and gutter to encourage diffuse flow of runoff over the landscape in lieu of concentrated flow.
- Include the use of on-site infiltration, percolation and/or reuse of runoff by installing stormwater Best Management Practices (BMPs) such as:
 - cisterns and rain barrels
 - vegetated open swales with a permeable soil base
 - rain garden/bioretention areas/infiltration trenches
 - dry wells
 - vegetated buffers and filter strips
 - vegetated roof systems, tree box filters and constructed wetlands
 - direct flow from gutter downspouts to vegetated, stable areas
 - utilization of detention practices such as check dams in conveyance channels
 - pervious pavement and pavers



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Project Criteria #3: Green Building

Construction Materials and Site Design

- Minimize construction site waste; use job-site recycling dumpsters.
- Protect trees and other features from construction damage.
- Make an effort to use “sustainable” building materials (certified forest products)
- Design energy efficient buildings that use fewer resources and minimize land disturbance.
- Employ LEED rating system and LEED accredited design professional.

Water Efficiency

- Install systems to use rainwater for landscape irrigation purposes.
- Emphasize native plant species and xeriscaping to minimize need for irrigation water.
- Install gray water system for flushing toilets or irrigation.
- Install low flow fixtures, faucets and shower heads.
- Install timer and moisture sensors on irrigation system.

Energy Efficiency

- Employ passive solar design or integrate other renewable energy sources.
- Construct buildings that are Energy Star rated.
- Use high efficiency heating and air conditioning systems.
- Use highest “R” rated insulation packages (thermal windows/attic/floor insulation) or substitute unique building materials.
- Arrange building for optimal solar orientation and prevailing breezes.
- Install solar panels for water heating, space heating and electricity generation.
- Integrate green roofs/roof gardens into project.

Indoor Environmental Quality

- Use low toxicity building and interior design materials.
- Ensure proper ventilation and employ “small area” thermal controls.
- Maximize use of natural light and provide views.

Project Criteria #4: Wetland Riparian Preservation/Restoration

- Preserve existing topography and natural features.
- Maintain or enhance riparian buffers by adding woody vegetation to the buffer.
- Plant absorptive ground cover under the woody canopy.
- Utilize the natural floodplain to spread surface flow from the developed area.
- Maintain or enhance the pre-developed stream or wetland character and function (i.e. natural stream meanders).
- Protect and/or enhance existing wetlands and vegetated buffer zones.



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Project Criteria #5: Habitat Protection/Improvement

- Integrate the natural landscape into the lot design consistent with onsite patterns.
- Develop a management plan to preserve unique habitats identified in the site inventory.
- Enhance the vegetated buffers around aquatic resources with native vegetation.
- Maintain contiguous woodland to provide the best bird habitat and to benefit wildlife.
- Create interconnecting greenways/wildlife corridors and connections.
- Use alternatives to road crossings and fencing that will not impede wildlife access.
- Construct a guided nature trail with bird feeding stations and nest boxes.
- Promote a backyard habitat program.

Project Criteria #6: Vegetation Protection/Enhancement

- Protect native vegetation and use native vegetation in landscaping plan.
- Eradicate invasive exotic plant species.
- Develop and implement a forestry management plan and a tree preservation plan to minimize tree loss and damage.
- Preserve site's existing trees and vegetation (ie. minimize clearing of native vegetation, underdeveloped land, forests, wetlands, etc.).
- Create vegetative buffers that enhance view without removing large woody species.

Project Criteria #7: Natural Project Amenities

- Protect portions of the site with outstanding landscape views.
- Create communal opportunities for all residents to enjoy view and/or access to water.
- Build the amenities and finishes to be consistent with the landscape character.
- Minimize visual impact of driveways, off street parking, garage and carports.
- Preserve views and privacy of others, and include in open space plan.
- Include passive recreation opportunities that emphasize natural amenities.
- Protect the historical and cultural resources identified on the site inventory.

Project Criteria #8: Long-term Management and Maintenance

- Formally record conservation easements for the preserved areas, such as wetlands, riparian buffers and flood plains and areas with unique biological communities.
- Insert the habitat management plan into the homeowners association (HOA) by-laws.
- Provide buffers near areas of human activity to protect/enhance wildlife areas.
- Include in the by-laws and/or rules the ability of the managing agency to:
 - Provide measures to prevent attracting nuisance animals (geese, raccoons, etc.); &
 - Prevent domestic pets from roaming freely while providing designated areas where people can exercise their pets with a workable pet waste management policy.
- Provide assurance that the HOA, or other entity charged with the management of the natural and cultural features of the development, has the funding to implement the management plan for resource protection and the maintenance of the facilities.



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Project Criteria #8: Long-term Management and Maintenance (continued)

- Construct the HOA by-laws to ensure access by the general public to nature trails, historical, archaeological, and cultural sites.

Project Criteria #9: Community Outreach/Education

Pre-construction Options ~ Developer Responsibilities

- Create an environmental stewardship mission statement for the development.
- Involve neighboring landowners in the site inventory and project design.
- Explain the benefits of low impact development on the surrounding owners.
- Involve cooperative opportunities to resolve community problems, such as traffic, drainage, wildlife, and water quality.
- Provide interpretive signage or information for historical and cultural resources.

Construction ~ Developer Responsibilities

- Post mission statement at the main entrance to the development.
- Publicize the environmental benefits of this stewardship project (e.g., protection of natural space, wildlife and habitat protection, water quality).
- Incorporate environmental benefits in marketing literature.
- Actively participate with builders in siting and landscaping on individual lots.
- Install pet waste stations and educational signage regarding pets.
- Provide educational signage for residents and visitors regarding the BMPs on site.
- Develop an informational program for purchasers/residents to encourage development and maintenance of site amenities with information on:
 - Stormwater BMPs;
 - Wildlife conservation and the use of native plants that have value for wildlife;
 - Volunteer opportunities and cost share programs that provide financial and technical assistance.

Active sales period ~ Developer/Marketing Agent Responsibilities

- Distribute specific environmental information to potential buyers and builders by publicizing the financial and community benefits of low impact development, such as:
 - Visual attractiveness of the development;
 - Quality of life benefits from active and passive open space, wildlife protection, surface water management, and maximum tree cover;
 - Short-term cost savings to developer from low impact development;
 - Benefits to homeowners from energy and water operating efficiencies; or
 - Reduced long-term costs to society from low impact development.
- Emphasize the natural environment features in the “Parade of Homes” competition and/or neighborhood/community meetings or special events.



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Project Criteria #10: Re-use/Revitalization of Existing Site

- Conduct an environmental assessment and design the development project to preserve, integrate and enhance:
 - Outstanding specimen trees and native vegetation;
 - Existing storm water management features and drainage patterns; and
 - Role of the site in the natural and physical systems of the surrounding properties.
- Evaluate the following elements in the site design:
 - Service needs and blending effectiveness with existing community and developments (such as small, first order shops to minimize need for automobile travel by creating/enhancing public transit opportunities);
 - Strategies to re-establish or augment the functioning of natural systems, such as covered swales and streambeds or restoring filled wetlands;
 - Compatibility of the new architecture with the surrounding built environment;
 - Mitigation of known environmental problems, e.g. subsurface storage tanks;
 - Re-use of existing materials in order to minimize waste or recycle construction site waste.