

DNREC comments on Town of Ellendale Comp Plan

This plan identifies natural resource protection as a priority, and this goal will be accomplished by developing new Town of Ellendale municipal zoning ordinances, subdivision regulations, and related codes (page 21). This is a good approach for preserving and minimizing impacts to natural resources, as voluntary efforts may not provide adequate protection. On page 173-174, *I. Environmentally Sensitive Areas*, the goal is: "Protect the irreplaceable swamp, forest, stream, habitat, floodplain, wetlands, aquifer and historical and cultural resources of the community." Being considered are new Town Code Provisions that address rare species issues, forest protection and the need for 100-foot wetland buffers. DNREC would be pleased to work with the town on ordinances that protect your resources.

Water Quality

Page 173, Wetlands and Water bodies

Please consider substituting the following short narrative on wetland regulatory issues:

"Regulatory protection of wetlands is mandated under Section 404 provisions of the Federal Clean Water Act. Certain other wetlands (mainly in tidal areas) are accorded additional regulatory protection under Title 7 Chapter 66 provisions of the State of Delaware's Code. Compliance with these statutes may require an Army Corps of Engineers approved wetlands delineation and/or official DNREC wetland jurisdictional determination."

Page 175, Total Maximum Daily Loads

Please consider substituting the following narrative on TMDLs:

Under Section 303(d) of the 1972 Federal Clean Water Act (CWA), states are required to identify all impaired waters and establish total maximum daily loads to restore their beneficial uses (e.g., swimming, fishing, and drinking water). A TMDL defines the amount of a given pollutant that may be discharged to a water body from point, nonpoint, and natural background sources and still allows attainment or maintenance of the applicable narrative and numerical water quality standards. A TMDL is the sum of the individual Waste Load Applications (WLA's) for point sources and Load Allocations (LA's) for nonpoint sources and natural background sources of pollution. A TMDL may include a reasonable margin of safety (MOS) to account for uncertainties regarding the relationship between mass loading and resulting water quality. In simplistic terms, a TMDL matches the strength, location and timing of pollution sources within a watershed with the inherent ability of the receiving water to assimilate the pollutant without adverse impact.

A Pollution Control Strategy (PCS) specifies actions necessary to systematically achieve pollutant load reductions specified by a Total Maximum Daily Load for a given water body; and must reduce pollutants to level specified by the State Water Quality Standards. A variety of site-specific best management practices (BMPs) will be the primary actions required by the PCS to reduce pollutant loading(s).

The Town of Ellendale is located within the Mispillion, Gravelly Branch and Broadkill watersheds. The pollutants specifically targeted for reduction in the aforementioned watersheds are nutrients (e.g., nitrogen and phosphorus) and bacteria (See table 1). As mentioned previously, these TMDL pollutant reductions must be met in order to satisfy the water quality goals and criteria in the State Water Quality

Standards (See table 1). The PCS for the Mispillion watershed is projected for completion by the fall of 2011. The PCS for the Gravelly Branch watershed is projected for completion by the end of 2010. No date has been projected yet for the completion of the Broadkill watershed PCS.

Delaware River and Bay drainage	Nitrogen reduction requirements	Phosphorous reduction requirements	Bacteria-reduction requirements
Broadkill	40%	40%	75%
Mispillion	57%, 88% in Kings Causeway Branch	57%, 88% in Kings Causeway Branch	87%
Chesapeake Bay drainage			
Gravelly Branch	30%	50%	2%

Table 1: TMDL Nutrient (Nitrogen and Phosphorus) and Bacteria reduction requirements for the Broadkill, Mispillion, and Gravelly Branch watersheds.

Water Resource Protection Areas

DNREC Water Supply Section, Ground-Water Protection Branch (GPB) applauds the Town’s statements on page 206-207 regarding source water protection. GPB is in agreement with the Town’s strategies to ensure protection of this valuable resource.

Drainage/Stormwater

General Comments

- The Drainage and Stormwater Section appreciates the consideration the Town of Ellendale has given to drainage in the 2009 Comprehensive Plan Update. Please contact us if we can be of assistance as you implement your plan.
- The Drainage and Stormwater Section recommends sub watershed planning within the study area. By utilizing the drainage pattern, the Town may be able to combine habitat protection, recreation, and storm water management. The Town should partner with Sussex County as the watersheds extend out of the Phase 1 and 2 areas identified by the Town.

Page 204, Parks and Recreation

- Existing woodland provides valuable wildlife habitat as well as soil erosion protection, water quality filtering, and surface water uptake. Unless managed for timber, wooded areas typically were areas that were unprofitable for farming due to poor drainage. Without trees to absorb the surface water these areas tend to require intensive drainage. The Drainage Program recommends such areas be incorporated into a parks and recreation plan and not be allowed to be cleared for the creation of stormwater management areas.

Page 204, Stormwater Management

- Be advised the Sediment and Stormwater Program is currently undergoing revisions to the sediment and stormwater regulations. It is unclear at this time when the new regulations will be promulgated.
- The Town should pursue drainage easements along waterways, ditches, and storm drains where currently there are none. The Drainage Program is aware that the Town does not want the responsibility of routine maintenance on the conveyances. However, the Town should have the ability to remove blockages -- either natural or manmade.
- The Division of Soil and Water Conservation is requesting that the Town incorporate a requirement for a stormwater and drainage review into the Town's preapproval requirements for new development requests. Proposed development projects should hold a pre-application meeting with the delegated agency, the Sussex Conservation District, to discuss stormwater and drainage prior to the town reviewing and/or approving plans or issuing building permits. The Sediment and Stormwater Program is set to begin requiring a pre-application meeting for all proposed land disturbing activities that require a detailed Sediment & Stormwater Plan within the coming year. These meetings are structured to assist developers in the design process and for early notification of approval requirements. In order to schedule a pre-application meeting, the applicant must forward a completed Stormwater Impact Study (SIS) to the appropriate Delegated Agency. Please contact Elaine Webb with the DNREC Sediment and Stormwater Program if you have any questions regarding this new process. Please note that this process does not replace the State's PLUS process. The SIS Findings report will also be provided through that process.
- Explore the feasibility of stormwater utility to fund upgrades to existing stormwater infrastructure. Upgrades to the stormwater system may reduce pollutant loads and help reach the established total maximum daily load for nitrogen, phosphorus, and bacteria. Reach out to the Sussex Conservation District, Sussex County and the Delaware Clean Water Advisory Council as partners in funding stormwater retrofits.

Page 213, Consider additions to Subdivision Code

- Lines and grades: If the Town does not have a lines and grades requirement for new construction, the Division recommends this be considered to help resolve drainage issues arising from new construction during and post construction. Building inspectors would be able to use approved lines and grades requirement to field verify prior to issuance of Certificate of Occupancy or building permit, as appropriate.
- The Drainage Program recommends that each parcel have a tax ditch right-of-way review conducted on the parcel prior to annexation by the Town. Please contact our Georgetown office at (302) 855-1930 to request a review tax ditch rights-of-way on a parcel. When a development project involves a tax ditch, or tax ditch right-of-way, include the Drainage Program in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch.

- As the Town of Ellendale updates any land use or subdivision codes, the Sediment and Stormwater Program requests that the Town make a note of the Sediment and Stormwater requirements on any construction-related project application checklists, etc.

Natural Areas

The forested portion of land in the southeast corner of Ellendale is currently listed on Delaware's Natural Areas Inventory. Natural Areas contain lands of statewide significance identified by the Natural Areas Advisor Council as the highest quality and most important natural lands remaining in Delaware. Serious consideration should be given to permanently protecting these resources. For more information, please contact the Office of Nature Preserves at 302.739.9235.

Parks and Recreation

The following is an overview of updated information to keep in mind when planning various park facilities.

In May and June 2008, the Delaware Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information and trends on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings are the foundation of the 2009-2011 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed outdoor recreation facilities. The SCORP can be a useful document when addressing parks and recreation facilities and needs within county and municipal comprehensive plans. For the purpose of refining data and research findings, Delaware was divided into five planning regions. The Town of Ellendale is located within SCORP Planning Region 5.

Importance of Outdoor Recreation

When looking at the findings from the 2008 telephone survey, it is apparent that Delawareans place a high importance on outdoor recreation. Statewide, 91% of Delaware residents indicated that outdoor recreation had some importance in their lives, while 64% said it was very important to them personally. These findings are very close to the results of the same question asked in the 2002 public opinion telephone survey, indicating a continued demand for outdoor recreation opportunities throughout the state.

Placing high importance on outdoor recreation resonates throughout the five SCORP regions. In Region 5 (eastern Sussex County), 91% of residents indicated that outdoor recreation had some importance in their lives, while 64% said it was very important to them personally.

Participation in Outdoor Recreation

In SCORP Region 5 (eastern Sussex County), walking and jogging (86%) was the most participated in household activity followed by swimming at the beach (74%), and visiting historic sites (70%). Region 5 had lower than the statewide average household participation in tennis (13%) but had the highest level of participation in fishing (57%).

Reasons for Participating in Outdoor Recreation

In Region 5, 55% of the residents said that they participate in outdoor recreation for their physical fitness. This is a 9% increase from the same question asked in 2002. This increase is a clear indication of a growing demand for walking paths and trails. Other top reasons for participating in outdoor recreation in Region 5 include; for relaxation (20%), to be close to nature (17%), and to be with family and friends (15%).

Outdoor Recreation Needs/Priorities

Based on the public opinion survey, the most needed outdoor recreation facilities in Ellendale include:

High facility needs:

- Walking and jogging paths
- Bicycle paths
- Public Swimming Pools
- Fishing Areas
- Open Space and Passive Recreation Areas
- Picnic Areas
- Playgrounds
- Hiking Trails

Moderate facilities needs:

- Access for Boating (canoe, kayak, and powerboat)
- Public Golf Courses
- Campgrounds
- Baseball/Softball Fields
- Horseshoe Pits
- Basketball Courts
- Tennis Courts

The Town of Ellendale is encouraged to work toward incorporating and/or continuing to offer some of these opportunities in the development of their Comprehensive Plan.

Town of Ellendale Parks and Recreation Facility Inventory

There is one Park and Recreation facility in the Town of Ellendale:

- Ellendale Town Park

Delaware Land and Water Conservation Trust Fund (DTF)

The Division of Parks and Recreation provides matching grant assistance through the Delaware Land and Water Conservation Trust Fund (DTF) to local governments for land acquisition and for park development. Lands that have received DTF assistance must remain as open space for conservation or recreation purposes in perpetuity. The Town of Ellendale could benefit from this program when incorporating new outdoor recreational facilities or adding amenities to existing parks. For more

information on the Delaware Land and Water Conservation Trust Fund, please contact: Robert Ehemann @ 302.739.9235.

Rare Species

Species of greatest conservation need (SGCN¹) have been documented in areas on Map 9 designated as Phase 2 and 'Study Area'. Not all areas have been evaluated for potential to support SGCN; therefore, additional areas may support these species. When setting priorities for forest preservation, the Town should contact the Natural Heritage and Endangered Species Program (NHESP) of DNREC's Division of Fish and Wildlife to target those areas that support or could potentially support SGCN. A site survey of some properties may be necessary to evaluate habitat and to survey for SGCN.

In addition, when considering development plans, the Town should require applicants of development projects to contact NHESP. In some cases a site visit may be requested in order to provide the necessary information. The Town should then consider requiring implementation of recommendations provided by the NHESP before approving site plans.

Contact information:

c/o Environmental Review Coordinator
Natural Heritage and Endangered Species Program
DNREC-Division of Fish and Wildlife
4876 Hay Point Landing Rd
Smyrna, DE 19977
(302) 653-2880 ext. 101
Edna.Stetzar@state.de.us

Forested Wildlife Habitat

When making land-use decisions, the Town should refer to the Delaware Wildlife Action Plan (DEWAP). Some of the land within Town boundaries and proposed for annexation is mapped as Key Wildlife Habitat. DEWAP is a comprehensive strategy for conserving the full array of native wildlife and habitats – common and uncommon – as vital components of the State's natural resources. This document can be viewed via DNREC's Natural Heritage and Endangered Species Program website at <http://www.dnrec.state.de.us/nhp>. This document also contains a list of species of greatest conservation need as well as species-habitat associations.

A priority action listed on page 22 is to work with various entities in implementing "land conservation programs." The Landowner Incentive Program (LIP) within the DNREC-Division of Fish and Wildlife could contribute to this goal. This incentive-based program is available to private landowners who desire to

¹ Species of greatest conservation need (SGCN) are identified in the Delaware Wildlife Action Plan (DEWAP). In a broad sense, SGCN, as defined for DEWAP, are indicative of the overall diversity and health of the State's wildlife resources. Some may be rare or declining, others may be vital components of certain habitats, and still others may have a significant portion of their population in Delaware.

manage wildlife habitat on their land. Shelly Tovell can be contacted at (302) 735-3600 for more information.

On Page 134, under *H. Development Activity*, a development proposed by Integrity Associates LLC on the W. side of Rt. 113, both north and south of Rt. 16 is discussed. This development was also the subject of PLUS 2008-01-06, an amendment to the Town's Comprehensive Plan. A letter dated December 5, 2007 from Nutter Associates (which were representing the Town) to Constance Holland of the Office of State Planning Coordination declared that forested areas on tax parcels 230-26.00-15.00 and 230-26.00-99.00 will be preserved and 100-foot wetland buffers will be required by the Town. If these parcels are annexed and developed in the future, the Town should follow through with these actions.

Cumulative forest loss and fragmentation throughout the State is of utmost concern to the Division of Fish and Wildlife which is responsible for conserving and managing the State's wildlife (see www.fw.delaware.gov and the Delaware Code, Title 7). In Delaware, there is an overall lack of protection for forested wildlife habitats that are not managed "working forests." The Town has an opportunity to lead efforts in developing ordinances designed specifically to protect forest habitat. A document that may be of use in this effort is "Protecting Delaware's Forests for Biodiversity. December 2003. The Environmental Law Institute, Washington, D.C. ISBN No. 0-0000-00-0 ELI Project No. 972513". There are forest conservation laws adopted by adjacent states that are working in terms of providing conservation while allowing for economic growth.

Developments that are permitted to occur on forested parcels should include a conservation element, such as: required retention of a percentage of forest cover, mitigation plan, requirement that every reasonable effort to minimize cutting or clearing of trees first be exhausted prior to allowing clearing to occur, and submission of a conservation plan for the site.

Plan Implementation

The Plan should offer more specific "actionable" environmental protection strategies than currently offered. Within the Environmental Concerns section, we strongly recommend proposing an ordinance or ordinances which would:

- a) Require all applicants to submit to the City a copy of the development site plan showing the extent of State-regulated wetlands (as depicted by the State Wetland Regulatory Maps), and a United States Army Corps of Engineers (USACE) approved wetlands delineation as conditional approval for any new commercial and/or residential development. Additionally, the site plan should depict all streams and ditches which are jurisdictional pursuant to the Subaqueous Act (7 Del. C., Chapter 72) as determined by DNREC.
- b) Help protect freshwater wetlands where regulatory gaps exist between federal and state jurisdictions (i.e., isolated wetlands and headwater wetlands).
- c) Require a 100-foot upland buffer width from all wetlands or water bodies (including ditches).

Based on a review of existing buffer research by Castelle et al. (1994), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer

(planted in native vegetation) from the landward edge of all wetlands and water bodies (including all ditches).

- d) Require an impervious surface mitigation plan for all residential and commercial developments exceeding 20% imperviousness. In commercial developments, it is strongly recommended that pervious paving materials be required on at least 50% of the total paved surface area(s).
- e) Require the calculation for surface imperviousness (for both commercial and residential development) take in to account all constructed forms of surface imperviousness - including all paved surfaces (roads, parking lots, and sidewalks), rooftops, and open-water stormwater management structures.
- f) Require the assessment of a project's TMDL nutrient loading rate through use of the Department's nutrient budget protocol. The applicant should be further required to use any combination of approved Best Management Practices (BMPs) to meet the required TMDLs for the affected watershed(s) in question.
- g) Exclude structural Best Management Practices (BMPs) such as community wastewater treatment areas, open-water stormwater treatment structures and natural areas containing regulated wetlands from consideration as open space.
- h) Prohibit development on hydric soil mapping units. Proof or evidence of hydric soil mapping units should be provided through the submission of the most recent Natural Resources Conservation Service soil survey mapping of the parcel, or through the submission of a field soil survey of the parcel by a licensed soil scientist.
- i) Require the applicant to use "green-technology" stormwater management in lieu of "open-water" stormwater management ponds whenever practicable.