DNREC comments on the Town of Georgetown Comprehensive Plan

DNREC reviewers would like to acknowledge the town for incorporating many of its previous suggestions into this version of its comprehensive plan, and for adopting one of the state's more protective source water protection ordinances. Most of our comments concern suggestions for implementation of the plan. If you would like to consult with the Department on specific environmental ordinances or policies suggested here, please contact DNREC's Planning Section: Lee Ann Walling, Kevin Coyle or Jennifer Walls, at 739-9000, and we will facilitate the Department's assistance.

Stormwater/Drainage

General Comments

- The annexation areas shown on the Comprehensive Plan map have drainage concerns associated with them. In the past, the Town has looked to the State Drainage Program for technical assistance and funding to resolve drainage issues. With numerous drainage concerns in the future potential annexation area, the Town should be aware of the limited resources of the Drainage Program to assist the Town with drainage problems.

- The Drainage and Stormwater Section recommends sub-watershed planning within the future annexation areas. 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 beyond the proposed annexation area identified by the Town.

Page 7, Waterways and the 100 Year Floodplain

- Please replace the first two sentences in the first paragraph on page 7 with the following:

  The 100-year floodplain is a graphic representation of the Base Flood on FEMA's Flood Insurance Rate Maps. The Base Flood is the flood having a one percent chance of being equaled or exceeded in any given year. In a 30 year period, there is a 26% chance a structure in the floodplain will be flooded by the 100 year flood event.

  The Town is a participating community in FEMA's National Flood Insurance Program. They have adopted and agreed to enforce a Floodplain Ordinance that regulates construction in the floodplain. (*DNREC Note: There are no State regulations. The Town has adopted FEMA's minimum regulations. We would like to see the Town adopt more stringent regulations for development in the floodplain so that growth and development is directed away from areas that are prone to flooding.*)

- Please replace the first full paragraph on page 8 ("It would be desirable to have detailed floodplain mapping…") with the following:

  The Town has a provision in its Floodplain Ordinance that requires a Base Flood Elevation to be provided for all development greater than 5 acres or 50 lots. All of the floodplains around Georgetown have been approximately located by FEMA. If the Town approves development in the proposed annexation areas that contain floodplains, it is up to the developer to provide

detailed base flood elevation information to the Town. The Town can then provide this information to FEMA to have the map revised.

- The Town should develop a Master Drainage Plan to identify existing open channels and stormwater pipes within the Town boundary, and future annexation areas, as these may require maintenance in the future. The riparian buffers along the channels provide a multitude of benefits to water quality and wildlife along with recreational opportunities. A Master Drainage Plan could also serve as a guide to link future development open space as greenways.

- Streams and ditches will require periodic reconstruction at intervals dependent upon the sedimentation load from upstream. Periodic reconstruction involves the removal of sediment from the ditch bottom to establish or reestablish a design grade. The removed sediment, referred to as spoil, is typically disposed of by spreading or piling alongside the ditch. The Town should develop a Drainage Management Plan if they do not have one. A Drainage Management Plan would include a maintenance plan for drainage conveyances, include points of access for maintenance equipment, and designate spoil disposal areas.

- Existing tax ditch rights-of-way should be protected from development encroachment to allow for routine maintenance and periodic reconstruction. Routine maintenance primarily consists of mowing ditch bank vegetation and the removal of small blockages. Periodic tax ditch reconstruction involves the removal of sediment from the ditch bottom to reestablish the original design grade. The removed sediment, referred to as spoil, is typically disposed of by spreading within the tax ditch right-of-way. The placement of permanent obstructions within tax ditch rights-of-way is prohibited. Any change to the location of the tax ditch, or the existing tax ditch rights-of-way, will require a change to the tax ditch court order.

- The Plan recommends thick natural vegetation be preserved and/or planted along major waterways. The Drainage and Stormwater Section agrees with the establishment of such areas. However, the planting of such areas should consider future drainage maintenance. When applied in conjunction with a Drainage Management Plan, existing buffers should be enhanced or new buffers planted to obtain riparian buffers on each side of the existing water conveyance. A tree and shrub planting on buffers with the tallest trees planted on the south and west side of the water conveyance will maximize shading of water. Trees and shrubs should be native species, spaced to allow for mechanized drainage maintenance at maturity. Tree and shrub planting in this manner will provide a shading effect promoting water quality while allowing future drainage maintenance. Do not plant trees closer than 5 feet of the top of the bank to avoid future blockages from tree roots. Plant the balance of the buffer, as well as stream and ditch banks, with herbaceous vegetation to aid in the reduction of sediment and nutrients entering into water conveyance. Grasses, forbs and sedges planted within these buffers should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Remove invasive vegetation prior to the planting of native species.

Page 9, Important Natural Areas, and Page 53, 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 39, Strengthening the Community Character of Georgetown, and Page 53, Parks and Recreation

- Explore the use of drainage ways and other open space set aside for drainage maintenance for bicycle and pedestrian interconnections in new developments.

Page 59, 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 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 Assessment Study (SAS) 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.

Page 69, 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 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.

Rare, Threatened and Endangered Species

Habitat within current Town boundaries or in areas to be annexed has not been evaluated by our Division scientists for the potential to support species of greatest conservation need (SGCN[1]). A few SGCN have been documented in areas designated as 'Future Low Density Residential'.

Recommendations:

- We highly recommend that the Town require developers, or applicants of development projects, to contact the Natural Heritage and Endangered Species Program (NHESP) of DNREC's Division of Fish and Wildlife to determine if their project activities will impact a State-rare or federally listed species. 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

- We recommend the Town refer to the Delaware Wildlife Action Plan (DEWAP) when making land-use decisions. 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.

Forest Preservation/Wildlife Habitat Protection

The Plan briefly mentions the importance of mature woodlands and forested headwater riparian areas, but it is unclear how the Town will provide protection for those areas. The goals of the cluster/open space option and 'wetland deletions' on Page 24 is a good step towards providing some habitat protection in areas to be developed. These small areas of open space will provide food and cover for some species, but forest dependent species that require larger, connected areas for breeding won't be able to persist in smaller, fragmented forested areas. The Town should consider preserving some larger forested areas as open space. Fairly large connected blocks of forest occur within areas designated as "Future Low Density Residential," "Mixed Residential" and "Developing Area." Clearing within these forest blocks will fragment habitat. Forest fragmentation separates populations, increases road

[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.

mortality, and increases "edge effects" that can leave many forest-dwelling species vulnerable to predation and infiltration by invasive species.

Equally important are forested areas along water courses which not only protect water quality but also provide wildlife with habitat for breeding, resting, foraging and migrating. Wetland buffers are mentioned in the plan, but a 25-foot buffer is not ecologically sufficient to protect water quality or to provide habitat for some wetland dependent species.

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).

Recommendations:

- The Town should make an effort to implement measures that will aide in forest protection within areas that support SGCN as well as larger connected forest blocks.

- The Town should consider requiring at least a 100-foot buffer in areas that are not currently developed. Where feasible, if the existing buffer zone is less than 100 feet, planting native species to a width of 100 feet is highly encouraged. Efforts by the State to implement protective buffer requirements have been mostly unsuccessful in Sussex County. We urge the Town to ensure that wetlands and waterways within current boundaries and those to be annexed are protected.

- Expansion of the airport will entail clearing of a fairly large area of woodlands. Our program is working closely with airport personnel and their representatives to evaluate habitat and potential for SGCN. The Town should consider the impact of this project on natural resources and implement recommendations brought forth to minimize those impacts.

Transportation Plan

The NHESP works directly with DelDOT to ensure that road and bridge projects do not adversely impact SGCN or supporting habitat. NHESP understands that DelDOT is likely to choose an on-alignment alternative for the Route 113 improvements in the Georgetown area. Construction of this alignment is not likely to impact any rare, threatened or endangered species. Transportation consultants hired by Georgetown should coordinate with NHESP during the planning process for new roads proposed within town limits.

Parks and Recreation

General Comments

We commend the Town of Georgetown for their efforts to connect parks, recreation, and open space areas through bike and pedestrian pathways and their enthusiasm in providing additional outdoor recreation opportunities for their residents. Outdoor recreation can encompass a variety of activities, from organized team sports to a picnic in the park. As new parks and recreation areas are planned within the Town, thought should be given to the appropriate use of the land in specific areas. Protecting open space (wetland and wooded areas with buffers around them) can serve a dual purpose by

providing important passive recreational opportunities and at the same time protecting valuable wildlife habitat.

Parks and Recreation

We are in support of the planning and development of a regional park area. 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 2008-2011 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 Georgetown is located within SCORP Planning Region 4.

Town of Georgetown Parks and Recreation Facility Inventory

There are six small parks within the Town of Georgetown:

1. Wilson Park- Located at the intersection of Market Street and Railroad Avenue
2. Georgetown Circle- Located in the downtown core area and historic block
3. Bedford Park- Located along Edward and Front Street
4. Rosa Street Park- Along Rosa Street and Kimmey Street
5. Kimmey Park- At the intersection of Kimmey Street and Tracey Street
6. Layton Park- Just west of the airport south of Railroad Avenue

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 4 (western Sussex County), 87% of residents indicated that outdoor recreation had some importance in their lives, while 60% said it was very important to them personally.

Participation in Outdoor Recreation

In SCORP Region 4 (western Sussex County), walking and jogging (81%) was the most participated in household activity followed by picnicking (66%), visiting historic sites and passive recreation in the outdoors (both 62%). This areas' household participation in golf (20%) and tennis (12%) were well below the statewide average while boating by powerboat (29%) and hunting (23%) were above the statewide average.

Reasons for Participating in Outdoor Recreation

In Region 4, 52% of the residents said that they participate in outdoor recreation for their physical fitness. This is a 12% increase from the same question asked in 2002. Other frequent responses include both to be with family and friends (22%) and to be close to nature (22%).

Outdoor Recreation Needs/Priorities

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

High Facility needs:

- Walking/Jogging Paths
- Swimming Pools
- Open Space/Passive Recreation Areas
- Picnic Areas
- Playgrounds
- Fishing Access
- Bicycle Paths
- Access to Historic Sites

Moderate Facility Needs:

- Hiking Trails
- Camping Areas
- Nature Programs
- Boat Access
- Baseball/Softball Fields
- Basketball Courts
- Football Fields
- Soccer Fields

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

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. Four areas in Georgetown have received funding through the DTF program. They include: Bedford Park, Kimmey Park, Layton Park, and the Sussex Central High School Tennis Courts. The Town of Georgetown could further benefit from this program when incorporating new outdoor recreational facilities (particularly when planning or developing a regional park) 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.

Town of Georgetown Land Use Map

Lands that have received funding through the DTF program must remain as open space for conservation or recreation purposes in perpetuity. Lands that have received funding through the DTF program should be reflected as Permanently Preserved Lands on the Town's Land Use Map. These four parcels include:

1. Kimmey Park- Parcel #135-014-2002-4100
2. Layton Park- Parcel #135-020-0001-7403
3. Bedford Park- Parcel #135-014-2001-3900
4. Sussex Central Tennis Courts- Parcel #135-019-0000-6905

Source Water Protection

We commend the Town for adopting a source water protection ordinance that protects the resource. The comprehensive plan references the ordinance and contains discussion of the Town's intent to continue to protect the resource.

Water Allocation

The Town currently provides water for a population of 5,157 people with water from 6 wells. Although the capacities of the wells are not accurately presented in the table "Georgetown Wells" on page 58 of the Plan, the current allocated well capacity is adequate to serve more than double that population on an annual average basis, at the current consumption of 136 gallons per day per person (gpdc). Even so, it would benefit the Water Department to learn the permit limits on their wells so they don't accidentally exceed their daily allocations.

The Town's water conservation program and outside factors have contributed to a decline in per person water use, from 163 gpdc in the year 2000, to 136 gpdc in 2007. The maximum daily water use limit of 2.38 million gallons per day (MGD) is also adequate for the foreseeable population growth, given that the reported peak day factor is only 1.375 times the average day (page 59). The projected 2025 population of 6,626 inhabitants would need 1.239 MGD peak day at the same rates (136 gpdc and 1.375 peak factor). The Town's population growth does not require any new wells, unless the older wells begin to fail. Water conservation, well maintenance and leak detection would be wiser investments at this time.

Other Water Resources comments

Thanks for incorporating many of our previous comments.

Page 7, Natural Features Conservation, 5th paragraph: We suggest rewriting the section ("The Town should work to minimize…") section as follows:

The Town is strongly encouraged to implement an ordinance(s) requiring an impervious surface mitigation plan for all commercial and residential development(s) project to exceed a 20% threshold

level of surface imperviousness. This mitigation plan should implement specific BMPs that reduce surface imperviousness, including: 1) the use of pervious paving material in lieu of conventional paving materials (i.e., asphalt or concrete); and/or, 2) protection of more undeveloped open space. Additionally, commercial developments should be required, wherever practicable, to use pervious paving materials in lieu of conventional paving materials for 50% of their total paved surface area(s).

Page 8, Wetlands, 3rd paragraph: It is incorrect to assert that drainage ditches are not regulated. Perennial and intermittent streams/ditches are, in fact, regulated by DNREC via statutes under the State Subaqueous Lands Act and must be field verified by a State wetlands scientist. Moreover, isolated wetlands can only be verified through a US Army Corps of Engineers-approved jurisdictional delineation. We suggest the following rewrite of this paragraph:

Wetlands are defined by the presence of three criteria: 1) wetland hydrology, 2) hydric soils, and 3) hydrophytic vegetation. Wetlands help maintain and improve water quality, reduce or mitigate flooding impacts, and provide habitat for a variety of plant and animal species.

"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. It should also be noted that compliance with these statutes may require an Army Corps of Engineers approved wetlands delineation and/or DNREC wetland jurisdictional determination.

Page 9, Water Quality Issues, 4th paragraph: We suggest the addition of the following paragraph:

The PCS for the entire Inland Bay drainage was approved on November 11, 2008, and is now an enforceable regulatory directive. After this sentence, we suggest adding the following table on TMDL nutrient and bacterial reduction requirements:

Delaware River and Bay drainage	**N- reduction requirements**	**P-reduction requirements**	**Bacteria-reduction requirements**
Broadkill watershed	40%	40%	75%
Chesapeake Bay drainage			
Upper Nanticoke watershed	30%	50%	2%
Inland Bays/Atlantic Ocean drainage			
Indian River Bay watershed (high reduction zone)	85%	65%	40%

Table 1: TMDL Nutrient (Nitrogen and Phosphorus) and Bacteria reduction requirements for the Broadkill, Nanticoke, and Inland Bays (high reduction zone) watersheds.

Potential Brownfield Sites

DNREC's Site Investigation and Restoration Branch (SIRB) encourages the development of brownfields and can provide assistance when investigating and remediating brownfield sites. Although SIRB has no specific comments regarding the proposed comprehensive plan at this time, if any future development occurs on sites with previous manufacturing, industrial, or agricultural use, SIRB recommends that a

Phase I Environmental Site Assessment be conducted prior to development, due to the potential for a release of hazardous substances. If a release or imminent threat of a release of hazardous substances is discovered during the course of future development (e.g., contaminated water or soil); construction activities should be discontinued immediately, and DNREC should be notified at the 24-hour emergency number (800-662-8802). In addition, SIRB should be contacted as soon as possible at 302-395-2600 for further instructions.

Additional plan implementation suggestions

- *Wetlands.* Consider requiring 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 Lands Act (7 Del. C., Chapter 72) as determined by DNREC.

- *Impervious cover.* Consider requiring 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).

  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.

- *TMDL protocol.* To protect water quality, consider requiring 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.

- *Open space.* 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.

- 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 NRCS soil survey mapping of the parcel, or through the submission of a field soil survey of the parcel by a licensed soil scientist.

- Require the applicant to use "green-technology" stormwater management in lieu of "open-water" stormwater management ponds whenever practicable.