STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
STATE PLANNING COORDINATION

December 3, 2007

Doris Adkins
Town of Greenwood
P.O. Box 216
Greenwood, DE 19950

RE: PLUS review – PLUS 2007-10-15; Town of Greenwood Comprehensive Plan

Dear Ms. Adkins:

Thank you for meeting with State agency planners on October 31, 2007 to discuss the update of the Town of Greenwood comprehensive plan.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting.

Office of State Planning Coordination – Contact: Bryan Hall 739-3090

The Office of State Planning wants to extends it thanks for the Town's continued support and efforts to promote proper planning within the community and offers the following comments in support of the proposed draft comprehensive plan update:

Certification Comments: These comments must be addressed in order for our office to consider the plan amendment consistent with the terms of your certification and the requirements of Title 22, § 702 of the Del. Code.

- Please amend Map 1A – Road Map to include all street names for the all streets and roads within the community to clarify references made within the proposed update.

Recommendations: Our office strongly recommends that the Town consider these recommendations as you review your plan for final approval.

- As part of the implementation process, the Town should consider many of the ordinances discussed in this PLUS letter to improve upon environmental protections, address community design and to further preserve the rural farming character of the community.

Division of Historical and Cultural Affairs – Contact: Terrance Burns 739-5685

Greenwood's Comp Plan update references historic aspects of the community, the downtown and the surrounding agrarian landscape as worthy of preserving. A potential historic district was identified in Greenwood that includes a majority of the town as early as 1992, and was supported by a survey completed in 1999. The State Preservation Office offers the town of Greenwood the opportunity to speak with town officials about the potential for listing the eligible sections of the community in the National Register of Historic Places and about the incentives available for private property owners of both income producing and residential properties. Please contact the office at 302-736-7400

Department of Transportation – Contact: Bill Brockenbrough 760-2109

The Town of Greenwood is preparing to update its 2004 Comprehensive Plan. DelDOT comments on the update are as follows:

1) DelDOT congratulates the Town on what appears to have been a very well-attended set of workshops. Such attendance is unusual for a town the size of Greenwood. However, DelDOT does not see how specific findings from the workshops have shaped the update. Such changes should be pointed out so that those who attended can see that their participation mattered.

2) Beaver Street is mentioned at the top of page 58, but DelDOT is unable to locate it on any of the maps in the update. They recommend that the update include at least one map in which all of the municipal streets are labeled.

3) On page 59, there is a statement that "The ultimate objective of the [Plan], and all plans guided by Livable Delaware principles, is to direct growth by fiscally responsible and environmentally compatible means." It is recommended that the Town expand on this point somewhat and consider a different choice of words, to make the full meaning of the words "direct growth" more apparent. As the bulleted list that precedes it suggests, there is more to a Comprehensive Plan than the Future Land Use Map.

4) On page 65, in Section 11.8, and again on page 68, in Section 11.11, DelDOT sees an emphasis on sidewalks and connectivity. They would like to support and encourage the Town in these regards. DelDOT believes these things will serve the town well. .

5) On page 68, in Section 11.11, the Annexation Plan outlines an annexation area of 2,141 acres, which would more than double the size of the town. Before adopting this update, it is recommended that the Town carefully consider the costs and benefits of enlarging the Town boundaries that much.

6) On page 69, again in Section 11.11, the Annexation Plan includes a discussion of Transfer of Development Rights. DelDOT would like to support and encourage the Town's participation in that program.

7) There are two typographical errors on pages 65 and 67. First, in the second sentence of Section 11.9, the Royal Farms is located on the corner of US Route 13 and Delaware Route 16. Second, in the last sentence of Section 11.10, the Ordinance will be reviewed by the Planning Commission and Town Council.

The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071

General Comment on Impacts to Water Resources

Page 54: In general, higher density development consumes less land and is less expensive for the local government to provide services on a per-capita basis. Compact, mixed-use developments cause fewer water resource impacts than conventional, less dense single family large lot subdivisions.

Greenwood appears to have opportunities inside its boundaries for growth that could reduce pressure for development in sensitive areas including wellhead protection areas, excellent ground water recharge potential areas, wetlands, riparian corridors and floodplains. Compact development or conservation design lowers storm water impacts as well.

It is understood that Greenwood needs to generate new sources of revenue and control costs. That is also one of the goals of compact mixed used development. Before considering annexations that could be a long term financial burden on the Town, Greenwood could designate its underdeveloped downtown, as special development

districts, Transfer of Development Rights Receiving Areas or provide other incentives to maximize its use of existing resources. Large lands intending to be annexed may be further subdivided and designed and built in incremental stages as infrastructure becomes available

Total Maximum Daily Loads

Please add the following suggested narrative on Total Maximum Daily Loads **(**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. 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 (WLAs) for point sources and Load Allocations (LAs) 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.

The Town of Greenwood is located within the greater Nanticoke watershed. The TMDL nutrient reduction required for the greater Nanticoke watershed calls for a nitrogen and phosphorus reduction of 30 and 50% from baseline conditions. Additionally, a TMDL for bacteria will require a 2% reduction from baseline conditions.

Water Supply

Page 62: The Town’s current water supply and water allocation appear adequate for the proposed 5-year expansion and population growth.

Source Water Protection Areas

Page 64: The third sentence under Source Water Protection needs to be reworded. Please consider adding:

- The Delaware State Legislature passed the Source Water Protection Law (Title 7, Delaware Code, Chapter 60, Subchapter VI) in 2001.

- The Source Water Assessment and Protection Program (SWAPP), within the Department of Natural Resources and Environmental Control (DNREC), is responsible for administering the program.

- DNREC-SWAPP is responsible for preparing Source Water Assessment Reports for public water systems and delineating wellhead protection areas.

- Wellhead protection areas are the surface and subsurface areas adjacent to public water supply wells where contamination could, if released, travel to the well. Land use activities or impervious cover on wellhead protection areas may adversely affect the quality and quantity of drinking water in these areas.

The second paragraph appears to confuse the hydrogeologic concept of excellent ground-water recharge. The concept includes both geologic materials and soils. Soil scientists characterize soils. Soils could be addressed in a separate section of the Comprehensive Plan.

- The Delaware Geological Survey delineated the excellent ground-water recharge potential areas for DNREC. An excellent ground-water recharge potential area is an area with high percentages of sand and gravel that have "excellent" potential for recharge as determined through a Stack Unit Mapping Analysis delineated by the Delaware Geological Survey and presented in the Report of Investigations No. 66, Ground-water Recharge Potential Mapping in Kent and Sussex Counties, Delaware, Geological Survey, 2004.

- Excellent ground-water recharge potential areas are considered source water protection areas. Protection for this resource is administered as part of the Source Water Protection Program.

Section 6082 of the Delaware Source Water Protection Law encourages municipalities with populations of less than 2,000 persons to adopt by ordinance the overlay maps delineating, as critical areas, source water assessment, wellhead protection, and excellent ground-water recharge potential areas.

The Town of Greenwood may incur additional costs if they do not provide protection for their source water resources until it becomes an urgent issue; to avoid those cost increases, it may benefit the Town to develop source water protection ordinances. Enacting Source Water Protection ordinances before any annexations, permits or approvals are granted by the Town would protect those critical areas from activities and substances that may harm water quality and subtract from overall water quantity.

The Ground Water Protection Branch (GWPB) recommends contacting the Delaware Rural Water Association (DRWA) for assistance in developing ordinances and regulations (302-424-3792). GWPB has been working closely with DWRA in developing language for ordinance development. DWRA is a non-profit organization that provides their services at no cost to their members.

Map of the Town of Greenwood, DE (PLUS 2007-10-15) The wellhead protection areas are shown in purple. Excellent ground-water recharge potential areas are shown in green. The existing municipal boundaries are overlain with Figure 7 provided in the Comprehensive Plan review.

Protecting Water Resources through Annexations

Page 68: These recommended changes may not be practicable in already-developed areas (although the intent is that they should be applied throughout the Town), so they are listed here:

- We recommend adopting a 100-foot upland buffer from all wetlands and water bodies because native vegetated buffers are important for mitigating nutrient and sediment impacts. Research has documented that a buffer width of less than 100

feet is not sufficiently protective of water quality. In fact, existing buffer research has documented that a 100-foot upland buffer is the minimum buffer width necessary, under most circumstances, to protect water quality.

- Reduce surface imperviousness to 20% or less through ordinance. Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical Best Management Practices (BMPs) that could easily be implemented to help reduce surface imperviousness.

- The Comprehensive Plan could protect open space in the Annexation Areas using its Open Space zoning category with the Town's zoning ordinance. Open space is needed for recreational areas and the protection of environmental quality. These areas can be used for non-structural Best Management Practices (BMPs). Public, Infrastructure, Utility or Institutional may be the best zone for structural Best Management Practices (BMPs), wastewater treatment areas, and some constructed wetlands.

- To protect the Town from issuing approvals that may not agree with federal and State law, we recommend an ordinance requiring all applicants to submit a U.S. Army Corps of Engineers (USACE)-approved wetlands delineation to the Town of Greenwood before any approvals for new development. Additionally, conditional approval of any project should also be tied to a DNREC assessment of impacts to tidally-influenced wetlands and State Subaqueous Lands (if applicable).

In addition, it is recommended that the Town consider:

- An ordinance prohibiting the placement of stormwater management ponds within 100-feet of water bodies and wetlands. That is, all "newly-approved" commercial and/or residential projects should contain a vegetated (i.e., native vegetation) 100-foot upland buffer from all stormwater management ponds and wetlands.

- An ordinance requiring a 100-foot upland buffer (planted with native vegetation) from all wetlands and water bodies.

- An ordinance requiring a best management practice (BMP) implementation plan for all residential and/or commercial development exceeding 20% imperviousness.

- An ordinance requiring that the calculation for surface imperviousness include all forms of constructed surface imperviousness, including rooftops, roads, and sidewalks and stormwater management ponds.

- An ordinance prohibiting the use of structural Best Management Practices (BMPs), such as wastewater treatment areas and wetlands, from consideration as open space.

- An ordinance prohibiting the placement of lot lines within wetlands for all "new" commercial and/or residential developments. Existing or established lots should maximize, to the greatest degree practicable, the distance from building structures and the wetlands line.

- An ordinance requiring the applicant to use "green-technology" stormwater management, whenever practicable, in lieu of "open-water" stormwater management ponds.

Sediment and Erosion Control/ Stormwater Management

1. Specific Comments on the Draft Plan:

   A. Stormwater and water quality

      The Town is to be commended for their inclusion of a Stormwater Management Section in their draft plan. We look forward to providing support and partnering with you in the future as you implement your plan.

   B. Flooding/Floodplain

      The plan identifies the floodplain on the map, but does not provide a section in the document talking about floodplain management.

   C. Cart Branch

      Taking Care of Cart Branch is identified as a need (pages 62-63). The Department has an Ecological Restoration Team that may have information to assist in raising the quality of the stream.

2. Additional Comments and Information for future use:

- The Division of Soil and Water Conservation is requesting that the Town require proposed development projects to 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 will 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. Responsibilities for the various elements of the pre-application meeting shall be as follows:

Applicant

Provide contact information for both owner/developer and consultant.

Submit SIS checklist items.

Record meeting minutes.

Delegated Agency

Schedule the pre-application meeting.

Ensure all relevant topics are addressed during the meeting.

Forward SIS Findings Report to appropriate planning agency.

- Lines and grades: If the Town does not have a lines and grades requirement for new construction, the Division recommends that this be considered to help resolve drainage issues arising from new construction during and post construction. County/municipal 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 Sediment and Stormwater Program will be reviewing and updating the existing Sediment and Stormwater Regulations over the next year. Most of the State and local regulations have focused on new development. However many

existing storm water runoff issues are associated with older developments built prior to the adoption of stormwater regulations in 1990. Managing surface water for quality as well as quantity has become a major focus as well. Awareness of water quality concerns and regulations have required us to explore methods for quality and quantity management in new development as well as opportunities for retrofits and restorations.

- Best management practices: Stormwater management impacts on excellent recharge areas. SWM ponds may be considered impervious cover in these areas. Green technology best management practices which promote infiltration of stormwater are preferred where feasible. Often times, developers prefer the use of ponds for the use of the excavated fill, aesthetics and economics rather than considering alternative practices that may provide better stormwater treatment functions for the site.

- The Division has been seeing more small construction projects without approval from the Delegated Agencies. Sediment and Stormwater Regulations require a Sediment and Stormwater Plan for land disturbing activity 5,000 square feet or greater. Land disturbing activity may be more than the building footprint. Land disturbing activity means a land change or construction activity for residential, commercial, industrial, and institutional land use which may result in soil erosion from water or wind or movement of sediments or pollutants into State waters or onto lands in the State, or which may result in accelerated stormwater runoff, including but not limited to clearing, grading, excavating, transporting, and filling land.

Dam Safety

An inventory of dams and Dam Safety Regulations are currently being developed Statewide. Dams will be classified in three hazard classifications based on impact and risk to public health and safety. Failure of a High risk dam will cause loss of like; failure of a dam with significant risk may cause loss of life, and failure of a low risk dam will not cause loss of life, but may have other impacts. Each classification of dams will have different technical requirements that it must meet when the State Regulations are promulgated. If development occurs downstream of a dam, the hazard class could change. A change in the hazard class could require a dam owner (whether public or private) to have to upgrade a dam to meet the higher technical requirements. Some towns have sewage lagoons with dams that may qualify as a regulated dam.

Contacts

The following programs/contacts can be reached with the address and phone number listed below, unless otherwise noted.

Division of Soil and Water Conservation
89 Kings Highway
Dover, DE 19901
302.739.9921 (ph)

- **Drainage and Stormwater Section**
  Jennifer Campagnini, Planner
  Jennifer.campagnini@state.de.us
- **Sediment and Stormwater Program**
  Jamie Rutherford, Program Manager
  Jamie.Rutherford@state.de.us
- **Sussex Conservation District-Stormwater Program***
  Jessica Watson, Program Manager
  Jessica.watson@state.de.us
  23818 Shortly Road
  Georgetown, DE 19947
  302.856.2105
- **Dam Safety Program**
  Dave Twing, Engineer
  David.Twing@state.de.us
- **DNREC Drainage and Tax Ditch Program-Sussex County office**
  Brooks Cahall, Program Manager
  Brooks.cahall@state.de.us
  21309 Berlin Road, Unit #6
  Georgetown, DE 19947
  302.855.1930
- **DNREC Drainage and Tax Ditch Program – Dover Office**
  Bob Enright, Program Manager
  Robert.enright@state.de.us
- **Floodplain Management Program**
  Mike Powell, Environmental Scientist
  Michael.powell@state.de.us

  * denotes Delegated Agency

Drainage

Surface water management and the development of a master drainage plan are key elements that are missing in the comprehensive plan. Tax Ditch Organizations within the Multi-Agency Planning Area for the town are the Cart Branch Tax Ditch, Nanticoke River Tax Ditch, Bee Branch Tax Ditch, White Marsh Tax Ditch, Beaverdam Tax Ditch, and the St. Johnstown Tax Ditch. Along with tax ditches that have an established right-of-way within the Tax Ditch Organization is a network of private ditches, without right-

of-way, that convey surface water to existing tax ditches. Well-organized and maintained tax ditches provide the drainage conveyance framework that enables the area to have productive farmland and desirable residences.

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.

There are several known drainage issues within the area proposed for RPC Zoning. Please work with the Drainage Program to have these problems addressed during subdivision design.

Consider requiring buffers when land is converted from agriculture to urban uses.

- Streams, tax ditches, and private 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 along side the ditch within the tax ditch right-of-way. Tax ditch rights-of-way need to be unobstructed.

- Planting of riparian buffers should consider drainage maintenance. On private ditches, where practical, the buffers should be planted on the south and west side of the ditch to maximize shading. 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. Trees should not be planted within 5 feet of the top of the bank to avoid future blockages from roots. The buffers as well as the channel banks should be planted with herbaceous vegetation to aid in

the reduction of sediment and nutrients entering into the conveyance. Grasses, forbs and sedges planted within this buffer should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities.

- The Town should explore the practice of one-sided construction and maintenance of private ditches and tax ditches providing there is adequate room for maintenance. Work with the DNREC Drainage Program, Sussex Conservation District, and the Cart Branch Tax Ditch, Bee Branch Tax Ditch, Nanticoke River Tax Ditch, White Marsh Tax Ditch, Beaverdam Tax Ditch, and St. Johnstown Tax Ditch Associations to ensure adequate tax ditch right-of-way is retained for the placement of spoil.

Suggested additions to a subdivision ordinance:

- A 20-foot drainage easement for storm drains, 10 feet per side within subdivisions.

- Open channels within subdivisions require a minimum 20-foot drainage easement as measured from top of bank to allow maintenance access and/or reconstruction.

- Maintenance access along open channels should be dedicated open space.

- Swales within subdivisions would require a 20-foot drainage easement measures from the centerline of the swale, or the width of the swale, whichever is greater.

- Prohibit the routing of major stormwater pipes through yards within a subdivision.

- Encourage the elevation of rear yards within subdivisions to direct water towards the streets where storm drains are accessible for maintenance.

- The Drainage Program requests a 15-foot side yard setback on all subdivision lots with a storm drain on the side. A 15-foot side yard setback will allow room for equipment to utilize the entire 10-foot drainage easement and maneuver free of obstructions if the drainage conveyance requires periodic maintenance or future re-construction.

- The Drainage Program requests a 10-foot drainage easement around all catch basins located on private property to ensure adequate room for maintenance.

- Any catch basin or swale placed in rear and side yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, and kennels can hinder drainage patterns as well as future maintenance to the catch basin or swale. Deed restrictions, building setback lines, along with drainage easements recorded on deeds, should ensure adequate future maintenance access.

- Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any subsequent owner of the property, will be fully aware of the drainage easement on their property.

- Drainage easements should be for the Town and recorded as such. This gives the Town the ability to hire a contractor for maintenance for the drainage conveyance.

- Tax ditch rights-of-way should be designated open space.

Suggested additions to a Land Development Code:

- The Drainage Program recommends adding the definition of maintenance access, buffer, vegetative buffer, riparian buffer, tax ditch right-of-way, and other such key words to the planning and zoning code.

- The Town of Greenwood should identify existing open channels within the Town boundary and within future annexation area as these channels may require maintenance in the future. The riparian buffers along the channels provide a multitude of benefits to water quality and wildlife. Most of the channels have trees and wetlands adjacent to the channel. There must be a balance between preserving the riparian buffer and having the capability to access the channel to perform maintenance. A recommended easement width of 20 feet from edge of existing tree line, wetland, or top of bank whichever is greater would allow such access. By identifying such areas now, future development would incorporate the easement into community open space thereby preserving the riparian buffer while allowing for channel maintenance access.

- Water bodies, ponds, intermittent and perennial streams, ditches should be buffered from development. Existing buffers could be enhanced or new buffers planted to obtain 100-foot buffers on each side of the existing water conveyance.

A minimum 50-foot 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 100-foot 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. The construction of pedestrian and bicycle paths within the outer 50 foot of the buffer should be encouraged.

- Wetlands should be protected from development with a 50-foot vegetated buffer. 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.

- Designate all buffers for water bodies, ponds, intermittent and perennial streams, ditches, and wetlands as un-subdivided open space. No portion of any building lot should be within the buffers.

- Designate all wetland buffers as un-subdivided open space. No portion of any building lot should be within the buffers. During prolonged wet periods, the wetland buffers may become too wet for normal residential use. Designation as open space will aid in the prevention of decks, sheds, fences, kennels, and backyards being placed within the buffers thereby reducing nuisance drainage complaints.

- Existing woodland provides valuable wildlife habitat as well as soil erosion protection and water quality filtering. Preserve existing woodland within proposed annexation areas. Do not allow the clearing of woodland to create stormwater management areas. Develop a tree planting guideline, a tree mitigation planting guideline and woodland preservation language to protect the existing woodland from harvest after annexation.

- For new subdivisions, the developer’s engineer should check the existing downstream conveyance and pipes for function and blockages prior to the town’s approval of plans and annexation. The developer should notify downstream

landowners of any change in volume of water released on them. The examination of downstream conveyance and notification to downstream landowners should not stop at the town boundary.

- Evaluate the existing drainage patterns within future annexation areas to ensure adequate drainage for the cumulative stormwater impact upon full build out of the annexation area. The town should be mindful of potential stormwater impacts from the town onto county residents.

- There are tax ditch maintenance restrictions on several downtown parcels that currently have with a small tax ditch right-of-way. When those parcels are proposed for rehabilitation or infill the tax ditch right-of-way, and the building setback lines, should be reviewed to ensure adequate room for tax ditch maintenance.

Minimize impervious surfaces in new developments.

- The development of a master drainage plan in conjunction with an impervious cover overlay would allow for the proper maintenance of drainage conveyances while balancing growth to keep the watersheds below 15 percent impervious surfaces.

Encourage Bicycle and Pedestrian interconnections in new developments.

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

For questions or clarifications, please contact Jim Sullivan at (302) 739-9921.

Forested Habitat Protection

There is no mention of forested land in the plan. Also, the plan does not address forest protection for lands proposed for annexation. There are large connected areas of forest that are proposed for both high density and low density residential development. Several parcels with purchased development rights have forested areas. 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 State Code, Title 7). Because of an overall lack of forest protection, we have to rely on applicants and/or the entity that approves projects (i.e. counties and municipalities) to implement measures that will aide in forest loss reduction.

Recommendations:

1) The existence of forested areas should be acknowledged in the plan.

2) Efforts should be made to describe specific measures that would result in the preservation of a large portion of these forested areas. Conversion of wildlife habitat by development has been identified in the Delaware Wildlife Action Plan (DEWAP) as the most significant threat to species of concern.

3) A large area outside current town limits is designated as a 'Multi-Agency Planning Area'. Our agency would like to see a map included in the plan that depicts key wildlife habitat occurring within this planning area.

4) Measures should be put in place to minimize forest loss on parcels with purchased development rights.

Effect of Forest Loss/Fragmentation on Wildlife Resources

Forest loss that has occurred over the last decade has led to a corresponding loss of forest-dependent species. For migratory birds, it is extremely important to conserve large tracts of forests in the State of Delaware due to its position within the Atlantic flyway. Forest fragmentation resulting from development separates wildlife populations, and increases "edge effects" that leave many forest-dwelling species vulnerable to predation and infiltration by invasive species. When forested areas are cleared, wildlife must either co-exist with new human residents or disperse into surrounding areas. Either scenario can result in human/animal conflicts including interactions on the roadways. Greater pressure is placed on nearby protected lands such as wildlife areas, state forests and state parks as displaced wildlife compete for finite resources. Crowding wildlife into smaller and smaller 'islands' of habitat can also lead to an increase in disease related mortality.

Forests also provide environmental services that benefit humans directly such as water quality protection (erosion control and sediment, nutrient, biological and toxics removal), climate moderation, aesthetic value and recreational opportunities.

State Fire Marshal's Office – Contact: Duane Fox 856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. The Delaware State Fire Marshal's Office has the responsibility to review all commercial and residential subdivisions for compliance with the Delaware State Fire Prevention Regulations. This

Agency asks that a MOU be established between the Delaware State Fire Marshal's Office and the Town of Greenwood. The State Fire Marshal's Office would be issuing approvals much like DelDOT, Kent Conservation, and DNREC. This Agency's approvals are based on the Delaware State Fire Prevention Regulations only.

Additionally, all new development served by the Town's Water Department shall meet the standards set forth in the Delaware State Fire Prevention Regulations.

Department of Agriculture - Contact: Scott Blaier 698-4500

The Department would like to commend and congratulate the Town on a well conceived draft comprehensive plan, especially with regard adhering to the "Livable Delaware" principles and farmland preservation. The Department offers the following comments.

11.9 Economic Development

> The Department encourages the city to develop and promote agricultural business whenever possible, such as: farm markets, agricultural processing facilities, agricultural support businesses (i.e. fertilizer/pesticide dealers), etc. The Department now has a fully staffed marketing section, and we encourage the town to contact them at (302) 698-4535 to see how they can help.

11.10 Land Use and Zoning Ordinance

> The Department appreciates the Town's desire to retain their rural character through low density, single family detached housing. However, from the Department's perspective, this in not the most efficient way for the state to grow in a way that protects the state's diminishing farmland. Because the town has infrastructure such as water and sewer, as well as other services, it is an area best able to accommodate higher density growth. By placing more people within municipalities, where infrastructure and services are available, we can reduce sprawl into rural farm areas, where new residences often require one acre or larger lots to accommodate septic systems and wells. It is this large consumption of land in rural areas to accommodate large-lot single family homes that most threatens the future of agriculture most in Delaware. Land consumption at the current rate is simply unsustainable in a small state like Delaware, where scattered large-lot subdivisions will soon replace the state's farmland. In addition, uncoordinated low-density development creates traffic congestion, school overcrowding, and all the other problems associated with sprawl.

The Department would prefer that municipalities be receiving areas for the transfer of development rights (TDRs). This would preserve rural farming areas, while the increased density within municipalities would increase the municipality's tax and rate-payer base, and all the other benefits of planned and coordinated growth. It also provides affordable housing for many working Delaware residents who are often priced out of the prevalent large-lot single-family homes being constructed today.

The Department understands that many residents and communities associate higher density with "ugly" architectural design and many other problems. The Department believes that it is the unattractive appearance, perceived poor building quality, and lack of open space and landscaping that citizens are most opposed to, not the higher density per se. The Office of State Planning can provide the town and potential developers with a number of examples of attractive and affordable housing options that have been constructed, that many residents would be proud and comfortable to live in. Therefore, we would encourage the town to re-consider at least some of its zoning decisions both in its existing incorporated area, and especially in its future annexation area, to support higher density projects that utilize TDRs.

11.11 Annexation Plan

It is the Department's understanding from discussions at the PLUS meeting held on October 31st that the area encompassed within the "Multi-Agency Planning Area" on Figure 7 (Annexation Areas and Proposed Land Use) is also the future annexation area of the Town. If this is the case, then several farm parcels that are permanently preserved (via deed easement) by the Agricultural Lands Preservation Program will be included within the Town's limit. As a general policy, the Department opposes farms preserved by our program from being annexed into municipalities. The primary reason for this policy is the prospect of condemnation of the property by the municipality in order to change its use. The Department also understands that the town does not want enclaves within the municipal boundary. Therefore, the Department suggests the town use preserved farms to delineate the town's outer "greenbelt" boundary, as a transitional boundary to the surrounding rural areas.

And finally, the Delaware Forest Service would like to work with the Town of Greenwood to develop a comprehensive urban forestry plan that would address relevant issues within the Town. Trees should be considered a part of the Town's infrastructure just as roads and utilities. Planning to include tree conservation during development, and tree canopy goals would dovetail with goals already stated in the current update of the

comprehensive plan. Please contact the Delaware Forest Service at (302) 659-6705 for more information.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Delaware State Housing Authority – Contact Vicki Powers 739-4263

DSHA has reviewed the Municipal Comprehensive Plan for the Town of Greenwood to determine how the Municipality has incorporated the State's goals, policies, and strategies as they relate to affordable housing. Since the Town of Greenwood population is less than 2,000, the Comprehensive Plan is required to include goals and recommendations for providing sound and affordable housing for its residents. The DSHA strongly recommends that the Town of Greenwood add a statement that will include goals for providing sound affordable housing. For informational purposes, the most recent real estate data collected by DSHA indicated the median home price in Sussex County is

$258,500. However, families earning 100% of Sussex County's median income only qualify for mortgages of $169,101, thus creating an affordability gap of $89,399.

Department of Education – Contact: John Marinucci 735-4055

The DOE supports the State Strategies for Policies and Spending, to the extent possible and practicable within the limits of the Federal and State mandates under which the Department operates.

1. In its review of Comprehensive Plans and Comprehensive Plan Amendments, the DOE considers:
    - Adequate civil infrastructure availability within the region to accommodate current and future educational facilities.
    - Transportation system connections and availability to support multimodal access within the community, to include but not limited to walk paths, bike paths, and safe pedestrian grade crossings.
    - Transportation road system adequacy to accommodate bus and delivery vehicle traffic to current, planned or potential educational facilities.
    - Recreation facilities and opportunities within the community and their respective proximity to current and planned or potential education facilities.

The DOE also recognizes the potential that the educational facilities are to be considered recreational facilities by and within the community.

2. The DOE *typically* considers industrial/commercial development incompatible with educational facilities, however, residential development and educational facilities *are typically* considered to be compatible. As a result, the DOE is interested in the proximity of current and planned or potential education facilities to commercial/industrial development zones.

3. The DOE recognizes the integral role of educational facilities within communities. As such, the DOE seeks to assure that residential growth, that generates additional demand on educational facilities, is managed with adequate educational infrastructure being made a part of sub-division plans as appropriate.

4. The DOE offers its support to assist and participate by coordinating with Slaughter Beach, the local school districts the County, the Office of State Planning Coordination as well as other school districts and stakeholders as future development and annexations may be considered.

5. DOE has no objections or comments regarding the draft Comp. Plan under consideration.

Following receipt of this letter, the Town should make any certification changes noted in this letter and review all other comments for consideration. The plan should then be resubmitted to this office for review before final adoption by the Town. A written response regarding the changes made to the plan should accompany the resubmitted plan.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

Constance C. Holland

Constance C. Holland, AICP
Director

CC: Davis, Bowen & Friedel