



DC GROUP

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August 9, 2005

Ms. Constance C. Holland, AICP - Director
Office of State Planning and Coordination
State of Delaware
540 DuPont Highway
Thomas Collins Building, Third Floor
Dover, DE 19901

RE: PLUS 2004-11-13
Longwood Lakes

Dear Ms. Holland:

We received PLUS comments from your office dated December 17, 2004 for the project referenced above and have incorporated many of these comments into a revised site plan.

Most notably, the quantity, size, and location of lots have changed. Our original plan for 74 half-acre lots has been reduced to 72 lots. None of the lots in the revised plan are within the 100 foot wetland buffer, and the proposed buffer shall remain wooded.

It should be noted that the applicant had DC Group evaluate a cluster development with a central sewer system for this project. With cost and design input from a licensed wastewater company, it was determined that in order to make the system minimally cost effective we would require no less than a 100 lots for the project. Based on a cluster arrangement, the developer determined that the lots would have to be 10,000 sq.ft in order to keep the project both affordable and marketable. Coincidentally, the price per lot to do a central wastewater system with pre-treatment for 100 lots is approximately \$19,000.00 per lot. Taking into account the area required for the central treatment system, site roads, storm water management improvements, lands dedicated to wetland set backs and other areas for TMDL Best Management Practices, it was determined that the total amount of existing trees to be removed would be far greater for a cluster development than for the current proposed plan for wooded lots. Furthermore, the per lot premium for a cluster development with a central waste treatment would increase the price of housing to the point of making the lots much less affordable to the anticipated target market.

Additionally, based on the concept being presented before the County, the proposed stormwater management areas have been minimized, and the anticipated amount of existing woods to be removed from these areas will be kept to a bare minimum.

Our specific reply comments are as follows:

Design Consultant Services Through Land Use Planning

Office of State Planning and Coordination (OSPC)

The Developer is proposing 72 single-family lots situated on 67.39± acres of land located on the South side of Country Living Road, approximately half a mile east of Lakeview Road. The property is presently zoned Agricultural Residential (AR-1).

This project will be developed according to Future Land Use map in the Sussex County Comprehensive Plan, which supports projects that are being developed in rural areas under its current zoning. This project is about one-fifth of a mile from the Investment Level 1 and 2 areas depicted on the State strategies map for State Policies and Spending. Hence, it is anticipated that future County planning and annexation areas will encompass this subdivision. While the overall character of this project may not be totally in keeping with the Governor's Livable Delaware program, the affordable housing component of the project most certainly is.

Per OSCP concerns, care will be taken to minimize the removal of existing trees from the proposed wooded lots so as to minimize the impact of the development on water quality. The developer will strive to preserve a significant portion of the existing upland woodlands in addition to providing the recommended 100-foot forested wetland buffer per OSCP recommendations. To insure minimal tree removal, the developer has filed for a Conditional Use Permit for a Borrow Pit. We wanted to make sure that the ponds could be excavated and the soil removed offsite without having to stockpile the material onsite which would mean removal of more trees. The borrow pit application is a separate process from the subdivision application and requires extensive soils and engineering work prior to construction.

Because lots will be sold as wooded lots, and because home builder footprints and construction practices are unknown at this time, the actual area of trees to be removed is difficult to quantify. It is anticipated that the total trees to be removed will be much less than that shown on the revised Site Plan, and that most home buyers and builders in the marketplace understand the values associated with wooded lots. Additionally, it can be expected that a homeowner's association will scrutinize proposed home site plans with a bias towards woodland preservation. In concert, these practices should significantly reduce the overall acreage of upland woodlands that are removed.

Per OSCP request and as part of our preparation of landscape architectural plans for this project, we will work with the DDA to develop a tree preservation program.

State Historic Preservation Office (SHPO)

Per SHPO recommendations, 100% of existing woodlands in wetland areas will be preserved

Review of available data indicates the absence of prehistoric archeological site within this subject Property. The developer does not anticipate any issues with regards to Section 106 of the National Historic Preservation Act, but per SHPO request, the developer will contact Anne McCleave if artifacts are found on site.

Department of Transportation (DelDOT)

As part of plan submittals for this project, entrance plans describing existing and proposed traffic volumes will be finalized and submitted to the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori for approval.

Per DelDot requirements, a right-of-way dedication for an additional 5 ft is provided

Per DelDot requirements, a 15' easement for a multimodal path is provided

Per DelDot recommendations, information on projected truck traffic as part of the conditional use application will be provided in the Conditional Use Plan.

Per DelDOT request, pedestrian paths will be included in the development plan. In order to reduce pavement for TMDL reductions, however, sidewalks will not be provided for this project. It should be noted that the ½ acre lots generally result in a low level of utility for sidewalks and pedestrian activity. Streets will only be 20 feet wide, which will help to calm any traffic. Because traffic volumes on these types of subdivision roads are typically very low (<500 ADT), pedestrian ambulation can be accommodated along the road edge or grassy shoulders.

Department of Natural Resources and Environmental Control (DNREC)

Soils

No specific plan change recommendations by DNREC regarding soils.

According to Sussex County Recent Soil Update for 2002 soils mapped at the property include the following:

- 1) Pepperbox-Rosedale complex with slope ranging from 0 -2; 2-5 percents
- 2) Longmarsh and Indiantown soils

Pepperbox is moderately drained soils and Rosedale is well-drained soils. These soils have few limitations for development, with fluctuating water tables ranging from 30 to 40 inches below the surface. These soils also have a rapidly permeable sandy surface and slowly permeable subsoil. The subsoil is conducive to nutrient leaching via groundwater or surface runoff as a result of the shallow water tables.

Longmarsh and Indiantown are very poorly-drained soils associated with floodplain wetlands (Hydric soils) and have severe limitation for development. Environmental Resources, Inc. mapped the soils in the vicinity of this development as follows:

- (1) Typic Hapludults – soils of this mapping unit pose slight to no limitation for development and location of OWTDS. 90-95% of on-site soils comprises of this unit.
- (2) Aquic Hapludults – soils within this mapping unit pose moderate limitations for development and location of OWTDS due to shallower depths to seasonal high water tables.

Wastewater

No specific plan change recommendations by DNREC regarding waste water systems.

Individual on-site Wastewater Treatment and Disposal systems (OWTDS) are proposed for this development. Detailed soil feasibility studies conducted by Environmental Resources, Inc. indicate that on-site soils are suitable for septic systems. More than 90% of these onsite soils have fluctuating water table greater than 48 inches and nutrient leaching via groundwater or surface runoff is not anticipated. Based on soils suitability, the Ground Water Discharge Section of DNREC issued a non-binding letter dated 05/24/2004 indicating the feasibility of proposed residential development under current Regulation Governing the Design, Installation and Operation of on-site Wastewater Treatment and Disposal Systems.

Wetlands

Per DNREC recommendations, a vegetative buffer of 100 ft is provided from the wetlands line, and no portion of lot area shall occur within the buffer.

Wetlands and waters of the United States boundaries within the subject parcel were delineated in the field by Environmental Resources, Inc and were reviewed in the field by Corps of Engineers. The presence of approximately 1.72 acres of non-tidal wetlands was identified within the Property. A wetland delineation report was submitted to the Philadelphia District U.S. Army Corps of Engineers (USACE) to obtain a jurisdictional determination on the wetland boundary. A letter, verifying the extent of these non-tidal wetlands on-site was issued by USACE on March 21, 2005. Wetlands provide water quality benefits by attenuating flooding and providing important habitat for plants and wildlife, with 100% of wooded wetlands preserved.

ERES Waters

No specific plan change recommendations by DNREC regarding ERES waters. Refer to comments above. It should be noted that Best management Practices (BMPs) will be implemented to the greatest degree practicable as part of an overall site pollution control strategy.

TMDLs

This Property lies in the High Reduction Zone of the Inland Bays Watershed (specifically, the parcel is situated on the Indian River Watershed for which DNREC has not yet established a TMDL in accordance with the Section 303(d) of the Clean Water Act.). As proposed (but not approved), the Total Maximum Daily Loads - as a "pollution runoff mitigation strategy" to reduce nutrient loading on the Inland Bays Watershed - prescribe reductions of 85% in Total Nitrogen (TN) and 65% in Total Phosphorus (TP) levels for this property.

A detailed nutrient budget analysis was prepared using DNREC's Nutrient Budget Protocol. The Protocol analysis estimates that proposed nutrient reduction levels will not be attainable for this development. This is because pre-development conditions are impossible to improve upon (i.e. the parcel is entirely wooded). However, a combination of best available technologies and best management practices (BATs, BMPs) will be employed to mitigate nutrient impacts associated with this development. After meeting with the DNREC on this project, it was concluded that proposed BMP applications are satisfactorily in order to reduce pollution down to an acceptable level.

It should be noted that the DNREC Protocol model does not take into consideration by-right uses of wooded parcels such as this property, and only looks at the existing site conditions when evaluating pre-development nutrient loads. By-right uses for the subject property include forestry and agriculture. For a \$25 application fee, the owner can obtain a permit to clear cut the entire site. After which, the owner may use the site for agriculture. The owner is entitled to all of these activities by-right. Pollution levels resulting from such by-right utilization of the land

are most always worse than those for a proposed subdivision. In the case of this property, assuming the hypothetical by-right land utilization, the project will result in pollution reduction levels of 62% for TN.

It should also be noted that the Protocol's estimations for TP are presently under scrutiny and evaluation by DNREC in conjunction with peer-review. One issue with regards to TP estimation accuracy is that the Model does not consider the binding capacity of site soils and the resultant immobility of Phosphorus. A second issue is that the Model's baseline assumptions for Phosphorus pollution levels are too low, and yet a third issue relates to the way the Model accounts for Phosphorus pollution that results from the application of chicken manure.

Water Supply

No specific plan change recommendations by DNREC regarding water supply.

As part of our preparation of site utility plans for approval by Sussex County Engineering, a CPCN will be obtained. Should a dewatering permit be needed during construction, the developer will follow all necessary procedures to obtain this permit from the Water Supply Section prior to the construction of well points.

Sediment and Erosion Control/ Storm Water Management

No specific plan change recommendations by DNREC regarding ESC/SWM.

Storm water structures are one of the most effective techniques for providing channel protection and pollutant removal prior to discharging into the existing streams or discharge points. Stormwater structures are among the most adaptable, effective and widely employed stormwater treatment practices in developing areas. The popularity of stormwater structures can be attributed to their proven ability to attenuate runoffs from stormwater. Stormwater structures and wetlands are common practices for treating stormwater runoffs.

The fact that this site has both existing wetlands and stream, with the land use cover (forest) that presently exists indicates that the wetlands, forest and streams on site are acting as a water quality practices prior to the runoff draining through this site.

With the introduction of single family lots, permanently vegetated landscape, open areas, and additional ponds, the amount of pollutants leaving the site will decrease, thus the runoff will be reduced prior to entering the existing aquatic resource areas.

If the existing stream and wetlands are to be used for stormwater discharge the designers will obtain all County, State and Federal permits prior to construction.

No specific plan change recommendations regarding Erosion Control and Storm Water Management. As part of our preparation of site storm water and grading plans for approvals by Sussex County Engineering (SCE) and the Conservation District (SCED), all comment requirements will be addressed.

Floodplains

Per DNREC recommendations, all lots and/or building finished floors shall be located outside the floodplain on grades above the base flood elevation for 100-year storm events.

Forests

No specific plan change recommendations by DNREC regarding Forests and Open Space. The developer acknowledges that forests provide important water quality, air quality and wildlife benefits both for the site and for the region. Hence, efforts will be made to preserve as much of the site's forested woodlands as possible. In order to maximize the existing buffering capacity and wildlife habitat on-site, lot lines and other infrastructure (such as stormwater management ponds) will be removed from the forested area and tree removal implemented strategically to maintain contiguity with existing forest blocks. Forested areas remaining on-site will be reserved as a community asset and will be managed appropriately.

Open Space

Refer to previous comments regarding existing woods

Rare/ Threatened/Endangered Species

No specific plan change recommendations by DNREC regarding species preservation. In maximizing the existing buffering capacity and wildlife habitat on-site, lot lines and other infrastructure (such as stormwater management ponds) will be removed from the forested wetland area. Vegetated buffers of no less than 100 feet will be employed from the edge of the wetland complex and other waterbodies on site. As construction might contribute more rainwater runoff to flood hazard areas, development will be kept out of wetland area by maintaining 100-foot setback and on grades above base flood elevation.

Revegetation/ Landscaping

Per DDA preferences, landscape architectural specification of plant species for revegetation of disturbed areas will consist of Delaware natives or sturdier varieties of such native plants. Per DDA recommendations and as part of our preparation of landscape architectural plans for this project, our office will work with DDA to develop a tree preservation and maintenance program for this project.

Nuisance Waterfowl

Per DNREC recommendations and as part of our preparation of landscape architectural plans for the site, native plantings and other edge treatments will be specified around proposed water bodies to deter nuisance waterfowl. Furthermore, recreational paths will encourage canine owners to walk their dogs in these areas, providing a supplementary passive strategy towards dissuading nuisance waterfowl habitation of the pond areas.

State Resource Areas/ Natural Areas Inventory

No specific plan change recommendations by DNREC regarding State Resource Areas. The preservation of existing wetlands and significant decrease in tree removal will adequately protect these outlying natural areas.

Recreation

Per DNREC recommendations, passive recreation space in the form of improved landscape areas, trails, and related amenities shall be provided throughout the site. These will provide opportunities for neighbors to interact within the community and to engage in leisurely activities.

It should also be noted that the single entrance provided in this plan is the result of a DelDOT policy on subdivision entrances, and only reflects the preferences of the developer from the standpoint of expediting DelDOT entrance permit approval.

Air Quality

No specific plan change recommendations by DNREC regarding air quality. Refer to the reply comments directed to OSPC regarding existing trees. The developer will consider incorporating energy efficiency standards into the covenants and restrictions for this subdivision. However, the operational efficiency of new homes will ultimately be determined by the choices made by individual home builders and residents over time.

State Fire Marshal's Office (DSFMO)

No specific plan change recommendations by DSFMO. Per DSFMO comments, detailed plans will be submitted in accordance with Delaware State Fire Prevention Regulation (DSFPR) for Fire Marshal approval.

Department of Agriculture (DDA)

No specific plan change recommendations by DDA. Most environmentally sensitive issues have been addressed and incorporated into our revised site plan. Refer to the comments above to OSPC and other agencies.

Public Service Commission (PSC)

No specific plan change recommendations by PSC.

Delaware State Housing Authority (DSHA)

No specific plan change recommendations by DSHA. It should be noted that this project is about 0.2 miles from the Investment Level 1 and 2 areas depicted on the State strategies map for State Policies and Spending. Hence, the resident of this development will reside within a reasonable proximity of services, markets, and employment opportunities within Investment Levels 1 and Level 2 areas of Millsboro.

Delaware Emergency Management Agency (DEMA)

No specific plan change recommendations by DEMA. Per DEMA request, the developer will notify all emergency response agencies and organizations of the project status and apprise them of all pertinent development activities. It should be noted that the number of lots was reduced from 74 to 72. Refer to our reply comments to DNREC regarding the existing FEMA flood line and lot locations.

Department of Education (DOE)

No PLUS comments offered by DOE.

Sussex County (SC)

Per SC recommendations and as part of our overall submittal to the County for approval, stub road access to the adjacent property will be provided. This application has been through the County's Technical Advisory Committee (TAC) and all comments have been addressed and will be resubmitted to the County prior to the Public Hearing.

With these reply comments, we are forwarding copies of the revised plan. If there are any questions regarding this letter or about the revised plan, please do not hesitate to contact us at (302) 684-8030.

Respectfully Yours,

Handwritten signature of Mark H. Davidson in cursive, with the word "FOR" written in capital letters to the right of the signature.

Mark H. Davidson
Owner

Handwritten signature of John Dickson in cursive.

John Dickson, PhD
Environmental Scientist

Handwritten signature of Paul Westhelle in cursive.

Paul Westhelle – RLA, ASLA
Director of Land Planning