

Site Plan / Subdivision Review: Protecting the environment during development



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Introduction

Whether it's a rural hamlet, a tree-lined suburb, a trendy metropolis or an historic center, the quality of life and economic viability of a community depend on sound land use planning. But due to many decades of haphazard development, many communities suffer from unsustainable, unhealthy and expensive problems that detract from their livability.

What does your town aspire to be and how can it get there? Do your residents want a community where the air and water are clean and life supporting? Where it's easy for everyone to get around, whether by car, bike, mass transit or on foot? Where open spaces are ample and natural resources are protected? Where new development is carefully considered and sustainably built?

New Jersey's Municipal Land Use Law (NJSA 40:55D-1 et seq.) offers three important tools to help your town achieve the vitality and unique identity it aspires to, beginning with the adoption of a municipal master plan. Based on the broad goals and policies set up in the master plan, land use and zoning ordinances enable the town to implement specific requirements for how development can take place. Then, through site plan and subdivision review, your town can make sure that everyone follows the rules whenever something is being built or significantly altered. Let's take a closer look.

The master plan

The municipal master plan guides the use of land in the town to protect the public health and safety and to promote general welfare, based upon physical, economic and social factors. It contains a framework of goals and policies, along with maps and diagrams that comprise a comprehensive plan for present and future development. The master plan should reflect the information in your town's environmental/natural resource inventory (ERI/NRI), which describes the physical features of your municipality, including the environmentally sensitive areas. Municipal planning boards must adopt a land use element of the master plan before the governing body can zone. (For more information on the master plan, see ANJEC's "Environmental Commissioner's Handbook" at www.anjec.org/publications/)

Zoning

Adopted by local ordinance, zoning designates how land may be used in different areas or zones, such as residential, commercial, industrial or mixed use. Your town's zoning regulations also specify certain requirements for each zone, such as lot size, building height, and setbacks. Towns can also adopt ordinances that set standards for development, including protecting natural resources like trees and streams. Without strict environmental protection ordinances, your town will be unable to require applicants to meet environmental standards.

Site plan and subdivision review

The third step determines how the master plan and zoning will be carried out. A site plan shows how an individual lot is to be developed or subdivided into multiple lots. It shows proposed changes to the lot, such as new buildings, driveways, utilities, grading and landscaping. A subdivision plan will indicate new streets and utilities, but not buildings. Once lots are established through subdivision, a town has little ability to prevent development of those lots.

Legal authority for site plan review

The Municipal Land Use Law (MLUL) gives the planning board the authority to review subdivision and site plans, except when the proposed development requires certain types of use variances, when the zoning board of adjustment performs the review. Municipalities with populations of 15,000 or less may enact an ordinance assigning the planning board the powers of the zoning board of adjustment. (NJSA 40:55D-25C) The MLUL also establishes the procedural guidelines for site plan and subdivision review. This is done in two phases: preliminary approval and final approval. Both phases have specific timeframes. (See CHART A on page 3.)

The developer receives preliminary approval after the planning or zoning board holds public hearing(s) and reviews the applicant's plans. The process includes the testimony of the developer's professionals and comments from the municipal engineer, planner, environmental commission, other local agencies and interested citizens. The board may set requirements or conditions that the development must meet before the project receives final approval. Preliminary approval generally establishes the specifics of the project – use, dimensions, design standards, provisions for water supply, drainage, sewerage, utilities, emergency access, stormwater management, erosion control, vehicular and pedestrian circulation and parking, landscaping, lighting, energy conservation, recycling, off-tract improvements and preservation of existing natural resources.

Once a project has received preliminary approval, the plan rarely has any major changes. (NJSA 40:55D-49) This approval controls how the project will be completed and gives the applicant protection from changed zoning for as long as five years.

The developer receives **final approval** to go ahead with the project when all conditions of preliminary approval have been met. (NJSA 40:55D-50)

Commissions should be involved

The environmental commission has both the legal authority and the responsibility for taking part in the site plan review process.

The environmental commission enabling legislation (NJSA 40:56A-1 et seq.) states that an environmental commission has responsibility for "the protection, development or use of natural resources, including water resources, located within its territorial limits." The MLUL also states that "whenever the environmental commission has prepared and submitted to the planning board and the board of adjustment an index of the natural resources of the municipality, the planning board or the board of adjustment shall make available to the environmental commission an informational copy of every application for development submitted to either board." (NJSA 40:55D-27) The index of natural resources, also known as the environmental or natural resource

inventory (ERI/NRI), gives the environmental commission objective environmental information to evaluate development applications.

The environmental commission must have a seat on the planning board.

Both the MLUL and the law enabling environmental commissions require that a member of the environmental commission be a member of the planning board. (NJSA 40:55D-23 and 40:56A-1) The environmental commission legislation gives further authority that "an environmental commission shall have power to study and make recommendations concerning open space preservation, water resource management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance, marine resources and protection of flora and fauna." (NJSA 40:56A-6)

CHART A

Subdivision and Site Plan Review TIME REQUIREMENTS

Application Submissions

Application declared com	nlete or incomplete	
Application acciaica com	ipiete or meompiete	45 days

Time Periods for Planning Board Action^{2, 3}

Decision for minor subdivision, or subdivision of 10 or fewer lots	5 days
Preliminary decision for major subdivision, or subdivision of more than 10 lots	5 days
Final decision for major subdivision 45	; days4
Decision for minor site plan or site plan of 10 or fewer acres 4	5 days
Preliminary decision for major site plan or site plan for more than 10 acres	5 days
Decision on bulk variance for a subdivision, site plan or conditional use	5 days
Final decision on major site plan 45	, days⁴

Time Periods for Zoning Board of Adjustment Action^{2, 3}

Decision on use variance	120 days
Decision on a bulk variance that does not involve	
subdivision, site plan or conditional use	95 days

1 If the municipal agency, authorized committee or designee fails to act within 45 days and the application includes all ordinance-required checklist items, the application is deemed complete and the MLUL applicable time period for action begins.

2 If the board fails to act within the prescribed time period, the application is approved.

3 All times may be extended with the consent of the applicant.

4 After meeting the conditions of preliminary approval (does not apply if applicant seeks both preliminary and final approval at the same time).

Site Plan Review Sequence



Conference should take place before the applicant has completed detailed drawings. The MLUL states that a developer can request an informal review, but it's also to the planning board's advantage to schedule one. At this time the applicant has not invested a lot in engineering and architectural renderings and is more likely to make changes. The informal review can be held by the planning board, a subcommittee and/or the environmental commission to review the concept plan and make recommendations for the project to conform to the master plan, relevant laws and ordinances. (NJSA 40:55D-10.1)



The application

submission should include all information required by the municipal ordinance, including: plans for building layout, vehicular access and utilities and stormwater management. It also may include an environmental impact statement for major development, and delineation of wet--lands, soils, floodplains, steep slopes, location of major trees and other environmental features. (NJSA 55D-38&39) A development application consists of several maps, including: existing conditions, proposed grading, erosion control, utility layout and landscape/ lighting plan.



The site inspection

offers the board and commission the opportunity to walk the area with the applicant and his/her/ their engineer and to compare the maps and reports to conditions on the ground. If the planning board or zoning board does not schedule a site inspection, the environmental commission can hold one. The applicant must agree to allow the planning board or environmental commission on the property. (Sometimes a permission statement is a standard part of the development application.) If a quorum of the board or commission plans to attend the site walk, it must be advertised as an official public meeting.



Public hearings are

an opportunity for the environmental commission and the public to hear the applicant's presentation and to ask questions of the applicant's experts, present comments and make recommendations. Except for minor subdivisions and minor site plans, the applicant and/or the board must publish a public notice of the hearings, giving the date, time, place and nature of matters to be considered. (NJSA 55D-11&12)



Preliminary ap-

proval gives the applicant the right to develop the property as provided in the plans and sets conditions that must be met before final approval will be granted. Although called "preliminary," most decisions are set by this approval.



Final approval is

granted by majority vote of the board after all conditions have been met or financial guarantees posted for their completion. (NJSA 40:55D-4)

Role of the environmental commission

The environmental commission should be involved as early as possible, at the pre-application conference if feasible. Commissions who suggest changes early in the site plan review process have a better chance that the developer and the board will accept their recommendations. Early changes are less costly for developers in terms of design alterations and application process time. In addition, the board knows up front what the environmental concerns are and why the commission is recommending certain modifications. In each step of the process before the board grants preliminary approval, be prepared to ask questions, request more information, make comments, and suggest alternatives. When the application involves specific environmental concerns, invite the developer to make a presentation at a commission meeting so that members can see the plans and ask questions.

REVIEW PROCEDURE

In reviewing an application, the commission can use the Checklist on page 15, which can be amended to fit local conditions and ordinance requirements.







As an environmental commission member, you don't have to be an expert

when reviewing a development plan – just be ready to ask good questions.

1. Review present land uses on and off site.

2. Review existing environmental features and critical areas. Refer to your town's environmental/natural resource inventory (ERI/NRI) data, zoning and design requirements, the municipal master plan, county plans, and other databases, such as the NJ Department of Environmental Protection's (DEP's) GeoWeb containing GIS data, at www.nj.gov/dep/gis/apps.html. (See other sources of environmental information on page 16.)

3. Evaluate the proposed project's impact on existing environmental resources. Remember that the applicant is under oath and the site plan must be factual and accurate.

4. Determine whether the town's water supply, sewer service and road infrastructure are adequate to serve the project.

5. Evaluate the project's use of nonstructural techniques to manage stormwater, required by DEP standards, and your municipal ordinance as of March 2, 2021.

6. Review the applicant's environmental impact statement (EIS) if one is provided. An EIS is usually submitted only if required by local ordi-

nance. The EIS should include site-specific data; for example, soil borings as opposed to generalized information found in soil surveys. Consider not only the data provided, but also what may be omitted.

7. Make a site inspection with all parties involved in review, including the applicant, to compare the maps and reports to the existing conditions. (See Guidelines for Site Inspection Visits on page 12.)

8. Review site preparation and construction phases of project.

9. Prepare a Findings of Fact and Recommendations (See sample **Report Format**, on page 14.) and send it to the planning board early in the review process and well in advance of the board meeting.

10. Present the environmental commission's Findings of Fact and Recommendations report orally at a planning board or board of adjustment public hearing. This makes the report a part of the record and gives it official status. It also gives the board a chance to ask questions and fully understand your recommendations.

11. Continue to follow the application's progress. Be prepared to make additional recommendations based on project modifications. Conditions set as part of the board's Resolution of Approval can be critical to improving a project.

Evaluating environmental impacts

Evaluate the proposed use and development plan for its compatibility with adjacent activities and land uses. Think of its impact now and in the future – even 50 years from now. Compare the layout to existing landforms and topography to see how the proposed development affects the site's desirable natural features and resources. What is the relationship of the project site to its surroundings? Is the proposed development in harmony with adjacent activities and land uses? How does the proposed action impact the surroundings? What adverse impacts cannot be avoided if the proposed project is built? What are the alternatives to the proposed action?

Identify critical resources and suggest ways that they can be protected and/or preserved:

SOILS

- Are the soil conditions suitable for the proposed development? Soil borings submitted by the applicant will provide more accurate site information than soil surveys.
- Is the Soil Erosion and Sediment Control Plan adequate and enforceable?

SLOPES AND GRADING

• Are the existing slopes shown with steep slopes clearly marked? Any slope with an incline greater than 15 percent is considered a steep slope.



- Does the development avoid steep slopes? Significantly altering steep slopes might cause increased erosion and slope instability.
- Is there an adequate, enforceable grading plan?
- Does the proposed layout work with the site topography or against it? Grading should be kept to the minimum, because changes in grading will affect the direction, velocity and quality of stormwater runoff. Extensive grading will involve removal of more trees and vegetation and may require soil importation or removal.
 - What mitigation measures will be taken during construction to reduce erosion and save vegetation?

Significantly altering steep slopes and tree removal can cause increased erosion and instability.

Mapped groundwater recharge areas.

HYDROLOGY

- What is the current water table level? Will the proposed development adversely affect the water table? Will basements, grading, detention/retention ponds, or excavations go below the water table, creating a risk of leaking or flooding?
- If the site is in an area of

high groundwater recharge, how will the recharge area be maintained? What measures will be taken to keep recharge free of contaminants?

 Does the plan show the surface water bodies and any State and municipal required buffer? Is this site in a watershed for a surface water body that supplies drinking water? If so, what special



Floodiing can result from poor stormwater management.



buffering and other measures will be taken to maintain good water quality?

 Are wetlands delineated on the plan? If not, does the environmental/natural resource inventory (ERI/NRI), State wetlands maps or the site walk indicate that wetlands might be present? If so, the developer should be required to get a Letter of Interpretation (LOI) from the DEP. If wetlands are present, has the developer applied for/received a permit?

STORMWATER CONTROL

The stormwater management measures should control erosion, maintain groundwater recharge, and control runoff quantity and quality. The minimum standards for groundwater recharge, stormwater runoff quality and quantity should be met by incorporating green infrastructure (GI). GI manages stormwater close to its source by encouraging infiltration into subsoil, filtering by vegetation or soil, and/or capturing stormwater runoff for reuse.

Examine the plan to be sure it meets the requirements of State and municipal stormwater regulations. Have natural controls – swales, channels, sheet flow over grass – been used whenever possible? Are the stormwater detention features adequate to manage rate and volume of the water and protect its quality? Have

A rain garden at the Bernardsville Library.

vegetated conveyances such as channels or swales. ANJEC and **Rutgers** Cooperative **Extension Water Resources Program** developed an e-learning tool "Asking the Right Questions in

Stormwater Review" (water.rutgers.edu/Projects/ MunicipalOfficialTraining/MOT.html) that gives indepth information on how to evaluate stormwater controls in development plans.

Are setbacks and buffers adequate to protect critical areas, flood hazard areas, watercourses, adjacent lots and streets? Buffers should be free

STREAM BUFFERS



The Manual has many recommendations:

the offsite impacts of stormwater been

considered?

quantity standards.

- Require maximum practical use of low-impact development to minimize changes in hydrology from a site's predevelopment state;
- Maintain water flow rates, preferably by using non-structural processes such as vegetation and landscaping to slow the flow of runoff and to increase infiltration;
- Minimize site disturbance, grading and soil compaction so natural drainage areas are not altered, or overland flow of water concentrated;
- Maintain groundwater recharge through measures such as landscaping and directing roof water to seepage pits;
- Minimize impervious area by requiring the minimum width necessary for streets and sidewalks and having porous pavement or grass pavers for driveways and parking areas;
- Disconnect impervious areas;
- Increase the amount of time the stormwater has to infiltrate into the ground by increasing surface roughness, reducing slopes, or having



of buildings and pavement and be planted with groundcover, bushes or trees to protect watercourses. Evergreens in buffers give adjacent lots optimum protection. The DEP requires 300-foot buffers if the town has Category One streams; 150-foot buffers for trout production and trout maintenance streams and those with threatened or endangered species; and 50-foot buffers are needed for all other streams that have a drainage area of 50 acres or more. (Additional information available at www.nj.gov/dep/landuse/fha/ fha_rz.html)

VEGETATION, TREES and LANDSCAPING

Is there a separate landscape plan, prepared by a landscape architect? Existing vegetation should be preserved where possible. Specimen trees or groves should be marked on the site plan. Are existing trees protected by having snow fencing at the drip line so roots and trunks are not damaged by construction equipment and grading? The town ordinance should require that new landscaping meets standards for aesthetics, stormwater management and erosion control.

Some questions to ask:

- Are the proposed plantings suitable for the locations where they are planted? For example, can the plant species next to roadways withstand increased levels of heat in the summer and road salt in the winter? Will the plantings quickly outgrow the locations where they are planted?
- Are native species being used? If not, suggest a native substitute for the proposed planting. The State stormwater regulations strongly recommend use of native plants. A list is available in NJDEP's manual, Best Management Practices (BMPs) for Control of Nonpoint Source Pollution from Stormwater, available at www.nj.gov/dep/ stormwater/bmp_manual/NJ_SWBMP_7.pdf.
- Strongly recommend that invasive species not be planted. Examples include Japanese barberry, Norway maple, winged euonymus and autumn olive.
- Have lawn areas been minimized and groundcover or shrubs suggested as an alternative? Grass has a much higher runoff rate than groundcover, shrubs or mulch.



State stormwater regulations strongly recommend the use of native species in new plantings.

• Have vegetated filters and buffers been used to help manage stormwater?

OPEN SPACE

Does the development include open space? Is it functional in terms of location, size, and design? Are there adequate maintenance provisions? For example, if it is commonly held open space in a subdivision, will a homeowners' association maintain the area? Is there a conservation easement on the open space so that it will be permanently preserved?

TRAFFIC

Does the street and pedestrian pattern design meet projected traffic demand? Are there provisions for pedestrian walkways and bikeways? An effort should be made to link communities, not just have a sidewalk to nowhere. For example, get rights of way designated to allow linkage between cul de sacs, or add sidewalks between two strip malls.

WASTEWATER DISPOSAL

Is there adequate sewer capacity? Is the project in an approved sewer service area? If septic systems are being proposed, has the Board of Health reviewed the application?

LIGHTING

Commercial developments should include plans for exterior lighting that provides sufficient illumination for safety but avoids unnecessary light pollution.

ENVIRONMENTAL JUSTICE

If the development is located in an environmentally overburdened community, State law (S232) requires the DEP to consider whether the project will add to the cumulative adverse impacts on air and water quality before granting permits.

GREEN BUILDING

Is the project being built in a way that conserves energy and water? Are the building materials sustainably sourced? Will the construction debris be recycled? Does the development include facilities for charging electric vehicles? While local ordinances may not require these practices, it is possible to let developers know your community's preference for green building approaches.

Guidelines for site inspection visits

Before preparing comments and recommendations on subdivision and site plan applications, environmental commissions should walk the site, either with the planning board and always with permission of the owner.

The site inspection visit should occur early in the application process. Many planning boards make site inspections part of the process. Often the developer's representative, the board attorney and engineering consultant are also present. Becoming part of this inspection group allows the environmental commission to make all parties aware of concerns early in the application process.

No matter how much familiarity you may have with an area, it is important to view the area in the context of the developer's plans for changing it. As you walk the site and see its features, consider the impact the proposed development will have on the site and its region. This is an important opportunity to field-check all maps and plans for critical environmental areas. You can determine if the site has evidence of wetlands, floodplains and steep slopes that should be preserved. Remember that all maps, even those in the evironmental/natural resource inventory (ERI/NRI) or from the DEP, may not be accurate on a site-specific level.

If a majority of commission members attend a site inspection, unless it's a publicly noticed planning board inspection, it becomes an official commission meeting that must be announced according to the standards of the Open Public Meetings Act or "Sunshine Law." (NJSA 10:4-6 et seq.) Some commissions appoint a rotating three-member site inspection committee; others give the planning board liaison the responsibility for inspecting, reviewing and reporting to the commission. A site inspection is generally not a



During the site inspection, be an advocate for the existing environment. PHOTO BY BILL HANCOCK III

legal proceeding; no testimony is given or taken. Its purpose is to provide an opportunity for onsite observation and to ask questions if the applicant's representatives are present.

PREPARING FOR THE SITE INSPECTION VISIT

- A. Obtain the most current copy of site/ subdivision plan. Use colored markers/pencils to highlight important features on the site plan such as surface water bodies, wetlands, slopes, stormwater runoff patterns, vegetation and vegetative patterns and known rare species habitat.
- B. Request permission of the property owner if an independent commission visit is scheduled. Invite/request the project engineer and applicant to be present.
 - Request the staking or flagging of proposed structures, the center line of all roads, and wetlands, if present.
 - 2. Invite/request the municipal board engineer and planning consultant to attend.
- C. Publish 48-hour notice of any commission meeting/site inspection, if necessary.

MAKING THE SITE INSPECTION VISIT

- A. Bring marked site/subdivision plans.
- B. Invite the applicant to attend and answer questions.
- C. Compare the proposed site/subdivision plan with environmental features of the site. Does the map of existing conditions accurately reflect them?
 - 1. Mention and note inconsistencies.
 - 2. Mention and note questions, concerns and requests for further information.
 - Suggest possible changes to mitigate environmental impacts and to preserve and protect special features and areas during and after construction.
- D. Be an advocate for the existing environment. During the site walk, consider:
 - Is the proposed development in harmony with adjacent activities and land uses?



- 2. Does the proposed layout recognize and preserve the site's desirable natural features?
- 3. Are there significant trees or other vegetation? Is existing vegetation preserved where possible? Do the soils, vegetation or standing water show evidence of wetlands? If so, has the applicant gotten a Letter of Interpretation (LOI) from the DEP?
- 4. If there are steep slopes, does the proposed layout work with the site topography or against it?
- 5. Are the soil conditions suitable for the proposed development?
- 6. Are there streams, ponds or other surface water bodies? Does the development allow adequate setbacks and buffers from the watercourses?
- D. Note offsite features that impact the site or that the development might impact.
- E. Note what is proposed and how it appears to impact the existing landscape.
 - 1. Short-term: during construction
 - 2. Long-term: post-construction
- F. Note questions and concerns on site plan.

AFTER THE SITE INSPECTION VISIT

- A. Review notes/minutes with the full environmental commission.
 - 1. Focus on concerns and agreements made by the applicant.
 - 2. Determine whether further information is needed.
 - 3. Decide what comments and recommendations to include in commission report.
- B. If warranted, invite the applicant to meet with commission to discuss concerns, questions, requests, suggestions and recommendations.
- C. Prepare the commission's Findings of Fact and Recommendations report. (See Report Format on this page.)



Environmental commission reports

Once the commission has studied the plan, done its research and conducted a site walk, it is time to make a formal report for the board.

Be prepared to compromise – give on the little things, stand your ground on the big ones. Commend the applicant for addressing environmental concerns and/or agreeing to mitigate, preserve, protect, modify or change plans to reduce adverse impact to the existing environment.

Submit the report to all members of the planning or zoning board and secretary. Be sure details have been discussed with the commission liaison. Be prepared to read the report into the board meeting record, to answer questions and to defend positions taken.

Report format FINDINGS OF FACT

(Include commission's sources of information, i.e., the commission site inspection report, relevant meeting dates, plans and materials reviewed.)

- Description of application or proposed action
- Current site description
- Current surrounding local conditions
- Current regional conditions
- Conditions on- and offsite during construction
- Conditions following occupancy
- Applicable ordinances
- Permits required from other agencies.

FINDINGS OF IMPACT BASED ON FACTS PRESENTED

(Note sources of expertise.)

- Local impacts positive and negative
- Regional impacts positive and negative.

RECOMMENDATIONS

Based on the Findings of Fact and Impact, the commission can make recommendations to mitigate the project's negative effects. Note if the site plan shows inconsistencies with the actual site or if the commission needs additional information. Also note where the application is not in compliance with applicable ordinances.

Suggest:

- Local and regional conditions to be met to mitigate impacts during construction and over the life of project
- Permits that must be in hand before action starts.

The commission can conclude that the project should be approved, rejected, approved with conditions, or redesigned (include rationale and expert testimony leading to this decision).

Caution: Some planning board attorneys have ruled that if the commission reaches a conclusion, the common member may not be allowed to vote on the application. Not all attorneys agree with this opinion so check to see what your local policy is.

CHART B

ENVIRONMENTAL COMMISSION SITE PLAN / SUBDIVISION CHECKLIST



- 1. Project Information
 - A. Project Name:______
 - B. Applicant Name: ______
 - C. Street Location: ______
 - Tax block and lot_____
 - D. Date when application deemed complete:_____
 - E. Project Description (single family, townhouse, commercial; acreage; size of structure, nature and use, etc.)

2. Information Received:

- A. Application
- B. Plans
- C. Variance Request(s) Describe _____
- D. Environmental Impact Statement Yes__ No__ Waiver requested __ N/A__
- E. Soil erosion & sediment control plans Yes__ No__ Waiver requested __ N/A__
- F. Stormwater calculations Yes__No__Waiver requested __N/A__
- G. Septic; wastewater management plans Yes__ No__ Waiver requested __ N/A__

H. State permits: wetlands, flood hazard area; wastewater management amendment, sewer extension; coastal area facility review *Applied for____ Received___*

3. Application deficiencies, inadequate items, discrepancies_____

- 4. Existing conditions: environmentally sensitive features
 - A. Steep slopes (over 15%) Yes__ No___ Yes__No___ B. Wooded areas Yes__ No___ C. Surface water Yes__ No___ D. Aquifer recharge areas E. Wellhead protection areas Yes__No___ F. Flood Hazard Area Yes__No___ G. Wetlands Yes__ No___ Yes__ No___ H. Limestone areas I. Drainage pattern Yes__ No____ J. Significant trees or other vegetation Yes_ No___ K. Types of habitat Yes__No___ L. Dunes Yes__No___ M. Conservation easements Yes__No___

5. Impacts of proposed development on the existing conditions during and after construction

Have the requirements of NJ's regulations and the town's environmental ordinances been met?

- A. Grading
 - 1. Change of slope
 - 2. Erosion, sedimentation and surface water
 - 3. Source of fills
 - 4. Preservation of topsoil
- B. Stormwater management (roads, buildings and other)
 - 1. Relationship to municipal requirements
 - 2. Impervious cover amounts
 - 3. Stream buffer, if applicable
 - 4. Green infrastructure.
- C. Flood Hazard Area
- D. Wetlands fill or disturbance
- E. Buffering
 - 1. Proposed or needed
 - 2. Vegetation in buffers
- F. Landscaping/limits of disturbed areas
 - 1. Preservation of significant trees or other landscaping
 - 2. Appropriateness of new species; natives or invasives?
- G. Habitat fragmentation for plants and wildlife
- H. Hazardous substances
 - 1. Storage
 - 2. Generation
 - 3. Existing underground storage tanks
- I. Air, light or noise pollution
- J. Off-site secondary impacts:
 - 1. Surface runoff and flooding
 - 2. Non-point source pollution
 - 3. Sedimentation and erosion
 - 4. Water supply quality and quantity
 - 5. Traffic congestion
 - 6. Air pollution
 - 7. Habitat fragmentation

Consistency with existing plans

- A. Municipal master plan
- B. Conservation Element in master plan
- C. County master plan
- D. Other regional plans
- E. State Development and Redevelopment Plan

Environmental justice concerns _____

Additional Resources

- Your town's environmental (or natural) resource inventory (ERI/NRI) and Master Plan.
- DEP's Info Finder at www.nj.gov/dep/infofinder/ topics/directories.htm.
- DEP's NJ-GeoWeb at www.nj.gov/dep/gis/ apps.html contains dozens of GIS (Geographic Information System) map layers, covering open space, regulatory boundaries, sensitive lands, watersheds, surface water quality standards, Category One waters, groundwater contamination areas, aquifers, wellhead protection areas, landscape layers, legislative and congressional districts.
- DEP's Natural Heritage Program offers a comprehensive inventory of distribution, biology, status, and preservation needs of rare plant and animal species at www.nj.gov/dep/ parksandforests/natural/heritage/
- Federal Emergency Management Agency (FEMA) maps for 100-year flood/flood hazard elevation lines are available at *www.fema.gov/ flood-maps*, or contact your municipal engineer.

- The Natural Resources Conservation Service (NRCS) has an extensive online soils database (www.nrcs.usda.gov/wps/portal/nrcs/main/soils/ survey/) and can supply digital data relating to soils.
- Applicant's environmental impact statement (EIS) if required.
- NJ's Environmental Justice law www.nj.gov/ dep/ej/policy.html#ejlaw
- Rutgers University's "New Jersey Green Building Manual" – http://greenmanual.rutgers.edu/
- ANJEC's "Stormwater Management for Municipalities: Green Infrastructure designs and options" – http://anjec.org/wp-content/uploads/ 2020/04/GIToolKit-StormwaterManagement.pdf
- ANJEC's "Environmental Commissioners Handbook" – https://anjec.org/wp-content/uploads/ 2019/07/EnvCommissionersHandbook-2017.pdf
- NJ Conservation Blueprint is a data-driven mapping tool that identifies the most crucial open space, farmland and community green spaces in NJ – njmap2.com/blueprint/



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ANJEC is a statewide nonprofit organization that provides leadership, education, and support for environmental commissions and other local boards and public officials, and partners with other organizations for strong state and regional environmental policy.