



JON S. CORZINE
Governor

State of New Jersey
Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322
(908) 879-6737
(908) 879-4205 (fax)
www.highlands.state.nj.us



JOHN R. WEINGART
Chairman

EILEEN SWAN
Executive Director

PUBLIC NOTICE
HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL
NATURAL RESOURCES COMMITTEE

Please take notice that the Natural Resources Committee of the New Jersey Highlands Council is seeking comments on the Draft Method for Determination of Impervious Surfaces for Redevelopment Waivers. Please submit written comments to the Highlands Council by **Monday, March 3, 2008**.

This method is being developed as a potential modification to the Redevelopment Site Designation Procedures. The draft procedures were provided for public comment on May 4, 2007. A revised version will be developed subsequent to March 3, 2008, based on public comments received on the 2007 draft and this document.

Comments on the public releases can be emailed to James Hutzelmann, Water Resources Engineer, at james.hutzelmann@highlands.state.nj.us. While the Council prefers emailed comments, if you do not have access to a computer at home or at your library, you may mail your comments to the Highlands Council, 100 North Road, Chester, New Jersey 07930, to the attention of James Hutzelmann, PE, Water Resources Engineer.



JON S. CORZINE
Governor

State of New Jersey

Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322
(908) 879-6737
(908) 879-4205 (fax)
www.highlands.state.nj.us



JOHN R. WEINGART
Chairman

EILEEN SWAN
Executive Director

HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL Draft Method for Determination of Impervious Surfaces for Redevelopment Waivers February 4, 2008

Background

The Highlands Act provides a process whereby applicants in the Preservation Area may seek a waiver from NJDEP's Highlands Rules at N.J.A.C. 7:38 for the redevelopment of sites largely covered with impervious surface. Specifically, Sections 9 and 11 of the Highlands Act authorizes the Highlands Council to identify sites "at which at least 70% of the area thereof of covered with impervious surface." The definition of impervious surfaces as defined in Section 2 of the Highlands Act is:

"impervious surface means any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, and includes porous paving, paver blocks, gravel, crushed stone, decks, patios, elevated structures, and other similar structures, surfaces, or improvements"

While the definition includes examples of structures and surfaces that reduces or prevents absorption of Stormwater, the definition is not limited to these examples. Surfaces such as turf grass and lawns that may be normally considered somewhat pervious may actually have infiltration characteristics similar to asphalt or concrete if compaction has changed their soil structure or bulk density. Under the definition of the Act, almost any surface that has been altered from some natural vegetated condition could be considered to reduce or prevent absorption of stormwater. The listed examples are just that – examples. They are not exclusive of other possibilities, such as compacted natural surfaces.

The Highlands Council has been working on several case studies regarding the 70% impervious surface criteria. These case studies have led to the development of a proposed default method to estimate impervious surface. The default method would allow applicants to use the method to estimate impervious surface on a site. This memo illustrates a method for determination of impervious surfaces based on a reasonable interpretation of runoff potential similar to that used in small-scale hydrologic modeling used in stormwater calculations, such as TR-55 or the Rational Method. These methods are commonly used for the hydrologic calculations needed for stormwater management, and are accepted by NJDEP for such purposes. In this approach, runoff potential is used as an inverse surrogate for "absorption of stormwater" (i.e., more runoff, less absorption).

NOTE: The proposed default method is only for the purposes of determining eligibility for the 70% redevelopment site designation and this method is not designed to be applicable for the calculation of impervious surfaces for any new development site, for any impervious surface calculation for a Highlands

Applicability Determination, or the calculation of agricultural impervious cover. Moreover, a site that meets the 70% impervious surface criteria does not imply that the Highlands Council would deem the site appropriate under the Redevelopment Site Designation Procedures. These draft procedures were provided for public comment on May 4, 2007 and require an analysis of numerous other resource and capacity issues before the Highlands Council would approve a site as being approvable.

Proposed Default Approach

The TR-55 model was originally developed by the USDA's Soil Conservation Service (now Natural Resources Conservation Service) and is a commonly used model for small-scale urban hydrology. It is commonly accepted for estimating storm runoff in watersheds ranging from 1 acre to 25 square miles in area. It can estimate, among other things, runoff volumes based on underlying soil types, precipitation amounts, and land use cover. Runoff volumes are calculated by a formula known as the Runoff Equation (see below). Note that the formula yields runoff depth in inches, not a rate in cubic feet per second. To determine runoff *volume*, the runoff depth must be averaged over the drainage area. To determine runoff *rate*, a unit hydrograph must be applied, a step which is not included in this method as the focus is on volume:

$$Q = \frac{\left[P - 0.2 \left(\frac{1000}{CN} - 10 \right) \right]^2}{P + 0.8 \left(\frac{1000}{CN} - 10 \right)}$$

where, Q = runoff depth, (in.)
 P= precipitation depth (in.)
 CN= runoff curve number

The runoff equation is based on the observation that within watersheds, direct runoff approaches rainfall depth as precipitation accumulated in single storms (*NRCS-Curve Number Method: Origins, Applications, and Limitations*). In other words, as rainfall depths increase, the soil becomes saturated and less absorption occurs. Theoretically, runoff volumes approach the precipitation volume during a severe enough event. Conversely, the construction of the runoff equation also dictates that smaller rainfall events yield a lower *percentage* of runoff than larger ones, because certain soil moisture conditions must be satisfied before direct runoff initiates. Characteristics such as soil structure, land cover and compaction can drastically alter this ratio.

The problem regarding the definition of impervious surfaces is that certain surfaces that “reduces or prevents absorption of stormwater” are easy to identify and measure, but others are not. But to be consistent with the definition and requirements of the Highlands Act to encourage redevelopment of developed sites rather than development of greenfield sites, the Highlands Council needs a working method for defining impervious surfaces that is reasonable, feasible and cost-effective.

In comparing the runoff volume from commonly accepted impervious surfaces – hardscapes such as roofs, driveways, sidewalks, patios, parking lots, etc. – from “other impervious” areas, one could ask how much other “impervious area” (e.g., vegetated surfaces not in a natural condition) could be included such that the additional runoff represented a negligible or *deminimus* additional volume. This amount would therefore be a surrogate for the other impervious areas that are not hardscaped but yet significantly reduces absorption of stormwater. This method would not rely upon testing or sampling of physical soil parameters, but rather on a comparison of the runoff potential for these surfaces.

Because runoff depths are dependent in part on the magnitude of the storm event, a design storm must be selected. As noted before, the runoff equation predicts that for any type of surface, hardscape or not, runoff eventually approaches the rainfall depth. In other words, almost any surface behaves like an impervious surface once saturated by enough rainfall. Therefore, large storms (e.g., 50-year or 100-year storms) are not appropriate.

It is important to note that in development of the recharge requirements in NJDEP’s Stormwater Rules (N.J.A.C. 7:8), NJGS developed a normalized series of 79 precipitation events, expressed as a percentage of total annual rainfall. It reveals that the vast majority of storms in any given year (90%) are below 1.25” in depth. Those storms also represent more than 65% of the total rainfall depth in an average year (NJGS-GSR-32). The Stormwater Rules also uses 1.25” as an appropriate design storm for ensuring sufficient water quality treatment. The 1.25” rainfall depth seems appropriate as a reasonable storm to compare runoff behavior between hardscape and other impervious surfaces.

Once a design storm is chosen, the comparisons between hardscape and other impervious surfaces can be made based upon a selected CN number. CN, which is dimensionless and may take values from 0 to 100, is an index of the land condition as indicated by soils, cover, land use, and prior rainfall (NRCS- *Runoff Curve Number Method: Examination of the Initial Abstraction Ratio*). A higher value creates more runoff.

A representative sample of curve numbers for typical hardscapes and other impervious surfaces in the urban environment are shown in the table below (TR-55). For hydrologic soil group (HSG) ‘C’ soils, the dominant soil type within the Highlands Region, they have CN numbers ranging from 87 to 98, while other surfaces have typical ranges from 74 to 86. Curve numbers below 70 generate runoff depths that are more consistent with pervious surfaces, are should not be considered. A recommended minimum threshold of 74 (‘C’ soil, w/ good grass) is recommended. Obviously there exists a continuum of land covers that define hardscape and other impervious surfaces. For example, a lawn in poor condition can have a curve number value almost equal to a dirt road.

	Curve Numbers by HSG			
	A	B	C	D
<u>Other Impervious Areas</u>				
Poor :	68	79	86	89
Fair Condition:	49	69	79	84
Good Condition:	39	61	74	80

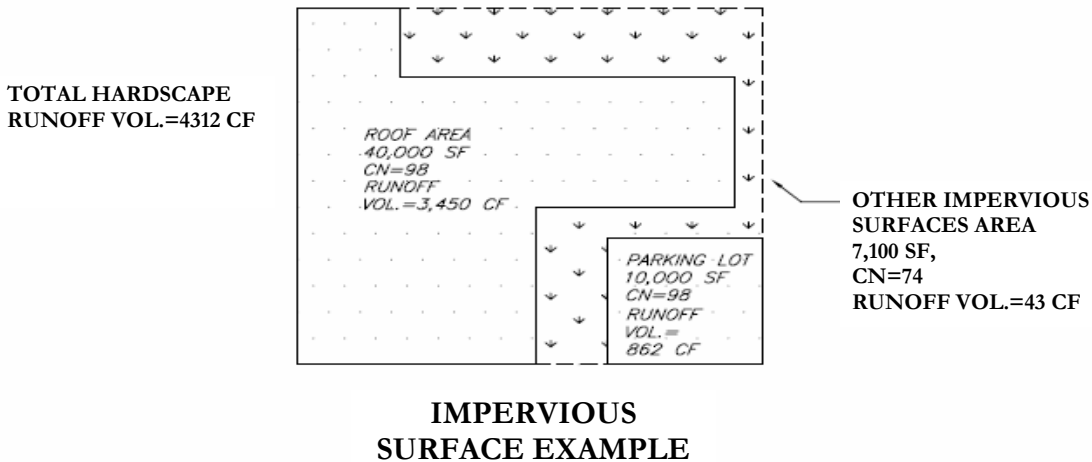
Hardscape Areas

Paved parking lots, roofs, driveways:	98	98	98	98
Gravel roads, incl. ROW:	76	85	89	91
Dirt roads, incl. ROW:	72	82	87	89

Hypothetical Example

To see this approach applied, consider a typical commercial property where roofs and parking areas are surrounded by contiguous areas of maintained turf grass (see schematic below). If the lawn is directly connected to the hardscape area and does not drain to a separate discharge (e.g., drain to another water feature) one could reasonably ask whether their surface or improvements have reduced their absorption capacity of stormwater as defined by the Act. The roof and parking (and, in actual use, the sidewalks and on-site roads) are considered hardscape and assigned a CN of 98. The lawn, depending upon the vegetation cover, could be assigned a value of 74. The question then becomes “how much lawn could be included such that its runoff would amount to only 1% of the runoff volume from the hardscape surfaces?”

Based on the calculation of the runoff equation illustrated in the example below, approximately 7,100 square feet could be added to the roof and parking areas of 50,000 square feet, or about 14% additional area. The total impervious area would then be 57,100 square feet (SF), allowing a maximum redevelopment boundary of 81,571 SF.



The example above is provided to illustrate the method. To demonstrate the method applied to potential redevelopment sites in the Highlands, the following example is also provided. This considers a scenario that will likely be common applications: a commercial/industrial facility with associated parking lots.

Method Application to Typical Commercial/Industrial Site**Hardscape Impervious Surfaces (striped):**

Area = 440,899 SF Roof & Asphalt
 94,750 SF RR Tracks
 RCN = 98 Roof & Asphalt
 85 RR Tracks
 Runoff = 40,399 ft³

Other Impervious Surfaces (yellow):

Area = 65,708 SF
 RCN = 74
 Runoff = 403.9 ft³

Total Impervious Surface
601,357 SF

Total Redevelopment Area
859,081 SF

The example site is a 33-acre parcel with industrial development. As seen in the aerial photograph, the site contains significant areas of hardscape from building roofs and parking lots (RCN 98). Areas of compacted railroad ballast also are included in the hardscape areas (RCN 85), as they meet the statutory definition of impervious surfaces. The footprint of all hardscape surfaces (roofs, parking lots, ballast, etc.) comprise 440,889 SF (shown as striped) and generate a total runoff volume of 40,399 cf.

Other impervious areas consisting of surrounding turfgrass (shown as yellow in above photo) are addressed in the impervious area calculations. The areas are not in their natural vegetated condition and are constantly in a maintained altered state. These areas are directly adjacent to and are hydrologically connected to the hardscape areas. Based on these observations, these areas would meet the criteria for being included in the IS Determination Method, calculating their runoff such that it did not exceed 404 cf, or 1% of the hardscape runoff volume.

To assign a RCN to other impervious surfaces, the land cover is considered to grass in good condition and the underlying soil is a 'B' hydrologic soil group; this would typically yield a RCN of 61. However, the behavior of a RCN of 61 in a 1.25" storm is not consistent with that of an impervious surface. (e.g., it would require 860 *acres* of this surface to produce the 1% runoff volume). To be more consistent with the methodology, a RCN of 74 is used, based on a 'C' hydrologic soil group.

Conclusion

The proposed default method avoids using in-situ or physical sampling to interpret what surfaces or improvements reduce or prevent absorption of stormwater. The method allows the inclusion of urban features that have been altered from their natural state. If these areas meet the following two criteria: 1) they are adjacent to the hardscape area; and 2) directly connected to the hardscape area, then they may be included in the impervious area determination. The aerial extent of these other impervious surfaces is limited so that their runoff contribution is a maximum of 1% of the impervious runoff volume. Using this approach will help avoid situations where a redevelopment boundary is delineated in a way that makes actual redevelopment activities difficult.

**PROCEDURES FOR HIGHLANDS
HIGHLANDS REDEVELOPMENT SITE APPROVAL**

Revised May 4, 2007

1.1 Purpose and scope.

(a) Establishes the procedures for submitting an application to the Highlands Council to obtain a Highlands Redevelopment Site Approval for any development within the Preservation Area that is also subject to a Redevelopment Waiver in accordance with N.J.A.C. 7:38

(b) Establishes the standards and conditions by which the Highlands Council shall determine whether a site is appropriate for redevelopment consistent with the resource protection and smart growth standards in the Highlands Regional Master Plan

(c) The Highlands Council may designate a property or portion of a property as a Highlands Redevelopment Site providing that the site meets one or more of the following criteria:

1. A site designated as a Highlands Brownfield site in accordance with N.J.A.C. 7:38-6.6;
2. A site which includes at least 70% percent impervious surface.

1.2 Definitions.

Highlands Brownfield – Any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been or there is suspected to have been, a discharge or contaminant that meets the designation of a brownfield site pursuant to N.J.A.C. 7:38-6.6. There are three tracks under which a site may serve as a Highlands Brownfield, provided that the contamination onsite is not the result of a current or previous agricultural use:

1. Track One addresses sanitary landfill sites;
2. Track Two addresses sites that may have already met the NJDEP remediation requirements and legally disturbed areas as of August 10, 2004; and
3. Track Three addresses sites with suspected or confirmed onsite contamination that have not yet received a No Further Action letter.

Highlands Redevelopment - A process to rebuild, restore, or enhance a previously developed area that is appropriate for economic investment and community development consistent with the resource protection and Smart Growth standards of the Highlands Regional Master Plan. Redevelopment activities may include the removal and replacement, adaptive reuse, or the infill of additional structures within areas which were substantially developed as of August 10, 2004

Highlands Regional Master Plan – The Master Plan including all supporting data and technical reports, or any revisions thereof approved or adopted by the New Jersey Highlands Water Protection and Planning Council pursuant to N.J.S.A 13:20-8

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

Highlands Resource Area - Those features of the Highlands that merit special protection pursuant to N.J.S.A. 13:20-1 et seq. and the resource protection policies of the Highlands Regional Master Plan including, but not limited to, open waters; flood hazard areas; prime groundwater recharge areas; source water protection areas; steep slopes; forested areas; rare, threatened or endangered species habitat; scenic and historic features; and unique or irreplaceable land types.

Highlands Resource Area Determination (HRAD) – A process to identify and/or verify the location of any Highlands Area Resources that are subject to the protection requirements under N.J.A.C. 7:38. The HRAD is an approval obtained from the New Jersey Department of Environmental Protection that confirms the presence, absence or location of a Highlands Resource Area on or adjacent to the subject property.

Impervious Surface – Any structure, surface, or improvement that reduces or prevents absorption of stormwater into land, and includes, but is not limited to, porous paving, paver blocks, gravel, crushed stone, decks, patios, elevated structures, and other similar structures, surfaces, or improvements.

Preservation Area – That portion of the Highlands Region so designated by N.J.S.A 13:20-7b

Highlands Redevelopment Site – The portion of a parcel or parcels of land upon within which a Highlands Redevelopment Site Approval is being requested that meets one or more of the criteria for designation of a Highlands Redevelopment Site in accordance with N.J.A.C. 7:38-6.

Smart Growth – A strategic approach to development decisions which uses planning to guide, design, develop, revitalize and build communities for all. Smart growth developments convey a unique sense of community and place; preserve and enhance valuable natural and cultural resources; equitably distribute the costs and benefits of development; expand the range of transportation, employment and housing choices in a fiscally responsible manner; value long-range, regional considerations of sustainability over short term incremental geographically isolated actions; and promote public health and healthy communities.

1.3 Requests for Pre-application Meeting.

(a) For all applications requesting a Highlands Redevelopment Site Approval, a pre-application meeting with staff of the Highlands Council is required. Prior to requesting a pre-application meeting, an interested party may request an informational meeting with the Highlands Council staff. An applicant requesting an informational meeting shall do so in writing and is encouraged to provide as much information regarding the proposed Highlands Redevelopment Site as possible.

(b) An applicant requesting a pre-application meeting shall provide all supporting information contained in the Highlands Pre-Application Meeting Request Checklist to the Highlands Council staff. Any request for a pre-application meeting shall include the following:

1. A completed and signed Highlands Application Form (Attachment 1);

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

2. A completed Highlands Redevelopment Site Approval Pre-Application Meeting Request Checklist form (Attachment 2);
3. A copy of the municipal tax map(s) delineating the subject site by lot(s) and block(s)
4. A United States Geological Survey quadrangle map showing the boundaries of the properties on which the proposed Highlands Redevelopment Site is located;
5. A recent county road map or local street map, with the subject site clearly indicated;
6. Three copies of a recent aerial photograph at a scale of no less than 1"= 200 ft, showing all parcels of land that include the proposed Highlands Redevelopment Site and the following features: i) all properties located within 200 feet of the Highlands Redevelopment Site, ii) existing features including the footprint of all buildings and impervious cover, and iii) the area proposed to be designated as the Highlands Redevelopment Site;
7. A list of properties under common ownership;
8. A narrative description of the existing uses of the site: i) existing land use of the properties including the amount of existing impervious area; ii) a list of any encumbrances, including easements, deed restrictions, and covenants; and iii) a list of any prior enforcement actions;
9. A list of prior approvals or permits from any local, county, regional, or state agency, including dates of issuance and expiration, for properties comprising the proposed Highlands Redevelopment Site;
10. A narrative of the proposed redevelopment project: i) acreage of the proposed Highlands Redevelopment Area and ii) amount of proposed impervious area ;
11. A narrative of how the subject site conforms with existing Municipal Zoning including a description of any prior coordination with the municipality regarding redevelopment of the site
12. Identification of which Highlands Land Use Capability Map zone (Protection, Conservation, or Planned Community) the subject site is located in ;
13. ; A list of all prior engineering or environmental studies conducted on the property (Copies of studies DO NOT need to be included with a request for a pre-application meeting);
14. ;Photographic documentation of the subject site depicting the location of the photograph, direction associated with the photograph (e.g., gravel parking lot taken from driveway mid-point facing southwest), and date;

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

15. A narrative of how the subject site conforms with the Highland Council's conditions that an area is appropriate for redevelopment only if the area is either: i) a Highlands brownfield site designated by the Department of Environmental Protection pursuant to N.J.A.C. 7:38-6.6; ii) A site at which at least 70% percent of the area is covered with impervious surface;
 16. Digital submittals of all required Pre-Application Meeting materials
 17. Copy of minutes of a Pre-Application with NJDEP LURP.
- (c) An applicant requesting a Pre-Application Meeting from the Highlands Council is encouraged to have previously held a pre-application meeting with the NJDEP in accordance with the requirements for approval of a Redevelopment Waiver under N.J.A.C 7:38. In the event that an applicant has attended a pre-application meeting with the NJDEP, the applicant shall provide a copy of the minutes of the meeting along with a list of attendees.

1.4 Pre-application Meeting.

- (a) The Highlands Council shall schedule a Pre-Application meeting within 30 days of receipt of all required documentation in accordance with Section 13 above.
- (b) The Highlands Council may, upon review of the information submitted in request of a Pre-Application meeting, require that the applicant request a public work session with the Planning Board(s) within the municipality in which the proposed redevelopment site is located prior to the pre-application meeting with the Highlands Council.
- (c) Within 30 days of a Pre-Application meeting, the Highlands Council shall provide a checklist of application requirements to be submitted in support of a Petition for Highlands Redevelopment Site Designation in accordance with the requirements of Section 1.5.
- (d) In the event, based on the information submitted in support of a request for a pre-application meeting, the site does not meet one or more criteria for designation as a Highlands Redevelopment Site consistent with a determination under Section 1.6(b), the applicant will be notified of the finding.
- (e) Any statements or recommendations made by any representative of the Highlands Council in the context of a pre-application meeting shall be considered non-binding on the prospective applicant, the constituent municipality, and the Highlands Council, and shall confer no legal rights.

1.5 Petition for Highlands Redevelopment Site Designation.

- (a) Any county, municipality, property owner or designated agent may petition the Highlands Council to designate a property or portion of a property within the Preservation Area as a Highlands Redevelopment Site providing the site meets the requirements under this chapter and having satisfied the requirements for a Pre-Application Meeting under Section 1.4, above;

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

(b) All petitions for Highlands Redevelopment Site Designation shall be submitted to the Highlands Council and shall include the following information:

- 1) A completed and signed Highlands Application Form (Attachment 1);
- 2) A completed Highlands Redevelopment Site Designation Application Checklist Form (Attachment 3);
- 3) A copy of the municipal tax map(s) delineating the subject site by lot(s) and block(s);
- 4) A United States Geological Survey quadrangle map showing the boundaries of the properties on which the proposed Highlands Redevelopment Site is located;
- 5) A recent county road map or local street map, with the subject site clearly indicated;
- 6) Copies of Certified Mail Receipts as proof that the public notice requirements to all of the following entities have been met: a) Proof that the municipal clerk has been sent a copy of the entire application that was submitted to the Highlands Council; b) Proof that a completed copy of the notice letter has been sent to each of the following: i. the municipal environmental commission (if one exists); ii. the municipal planning board; iii. the municipal construction official; iv. the county planning board; the county environmental commission (if one exists) and vi. all owners of land within 200 feet of the boundary of the site. The application must also include a certified list of landowners within 200 feet of the site, obtained from the municipal clerk within 90 days of the date of the public notice;
- 7) A description of the proposed Highlands Redevelopment Area including types of existing and proposed uses;
- 8) Minutes of a meeting with the Municipal Planning Board within which the property is located including a list of attendees;
- 9) A list of all land use approvals and permits obtained and required from any local, county, regional, or state agency for properties comprising the proposed Highlands Redevelopment Area, including dates of issuance and expiration where applicable;
- 10) Three copies of any surveys, professional reports, and/or environmental site assessments performed for the properties comprising the proposed Highlands Redevelopment Area, signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law
- 11) Photographic documentation of the proposed Highlands Area Redevelopment Area depicting the location of the photograph, direction associated with the photograph (e.g., gravel parking lot taken from driveway mid-point facing southwest), and date
- 12) Identification of which Highlands Land Use Capability Map zone (Protection, Conservation, or Planned Community) the subject site is located in;

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

- 13) A copy of minutes of a Pre-Application with NJDEP LURP;
- 14) A copy of a Highlands Resource Area Determination (HRAD) approved by NJDEP;
- 15) A letter from the New Jersey Natural Heritage Program issued within 6 months of the date of the application identifying which, if any, rare, threatened or endangered species or significant natural communities occur within or adjacent to the subject property;
- 16) A letter from the US Fish and Wildlife Service issued within 6 months of the date of the application identifying which, if any, rare, threatened or endangered species or significant natural communities occur within or adjacent to the subject property;
- 17) A letter from the State Office Of Historic Preservation issued within 6 months of the date of the application identifying any state or federal listed or eligible historic properties within or adjacent to the subject property;
- 18) A site plan of the subject site signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law, depicting existing conditions (check all that apply): A) Bearings and distances of all property lines; B) Block and lot designations; C) Acreage of the site to the nearest tenth of an acre; D) Location of any known contaminated areas; E) Location, dimensions, and use of all existing impervious surfaces; F) Building footprints, dimensions, and setbacks for all existing structures; G).Location of any easements; H) Location, type, and size of all existing utilities; I) Existing limits of site disturbance; J) Topographic contours at intervals of no more than two feet; K) Location of all Highlands Open Waters and Riparian Areas L) All slopes that are greater than 20%, those ranging from 15% to 20%, and those ranging from between 10% and 15% that occur in the Riparian Area; M) If the property is located within the Highlands Forest Resource Protection Area identify all forests located within the subject property; N) If the property is located within the Agricultural Resource Protection Area identify all Important Farmland Soils on the site as most currently classified and mapped by the US Department of Agriculture Natural Resources Conservation Service O) If the property is located within the Critical Habitat Resource Protection Area identify all Landscape Level 2, 3 4 and 5, and all Natural Heritage Priority Sites located on the subject property; P) Location of all vernal pools; Q) Location of any prime groundwater recharge areas; R) Location of wellhead protection areas; S) Location of any historic or archaeological areas;
- 19) A proposed condition survey map(s) of the subject property signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law, depicting proposed conditions, including at a minimum: A) Bearings and distances of all property lines; B) Block and lot designations; C) Acreage of the site to the nearest tenth of an acre; D) Location, dimensions, and use of existing and proposed impervious surfaces; E) Building footprints, dimensions, and setbacks for all existing and proposed structures; F) Location and dimensions of any easements; G) Location, type, and size of all utilities; and H) Proposed limits of site disturbance including limits of vegetation clearing and grading activities.

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

- 20) A report describing the proposed uses of the site including a description of the type and justification for relief from the standards for protection of a Highlands Resource Area as otherwise required under N.J.C.A. 7:38 or the Highlands Regional Master Plan. This description shall include a table listing the type of existing uses expressed as number and size of each use, and the extent of each existing use type expressed in acres;
- 21) A report describing the water and wastewater utility capacity requirements necessary to serve the proposed uses of the site including a description of the source of water and wastewater capacity and a demonstration that there is sufficient capacity to serve the proposed Highlands Redevelopment Site.

1.6 Preliminary Determination.

(a) Any Petition for Highlands Redevelopment Site Designation that is deemed administratively complete in accordance with Section 1.5 above shall be reviewed against the resource protection and smart growth standards of the Highlands Regional Master Plan, Municipal Zoning Ordinances, and Resource Protection Standards in N.J.A.C. 7:38.

(b) Based upon the criteria set forth below, the Highlands Council staff shall recommend a Preliminary Determination to the Highlands Council to approve, deny or approve with conditions any Petition for Highlands Redevelopment Site designation:

1. The proposed Highlands Redevelopment Site will not impair any Highlands Resource Area located on or adjacent to the Highlands Redevelopment Site;
2. The proposed Highlands Redevelopment Site is found to be substantially consistent with the resource protection and smart growth standards of the Regional Master Plan and will advance the intent and purpose of the Highlands Act;
3. There is sufficient water and wastewater capacity to serve the proposed Highlands Redevelopment Site;
4. Such other unique or mitigating criteria as the Highlands Council deems appropriate.

(c) The Highlands Council shall provide an opportunity for public comment prior to any action on a Petition for Highlands Redevelopment Site Designation prior to making a Preliminary Determination.

(d) The Highlands Council may, at its discretion, require a joint public meeting between the applicant and Highlands Council staff, with that the Governing Body and Planning Board of the municipality within which the proposed Highlands Redevelopment Site is located.

(e) If the Highlands Council issues a Preliminary Determination to approve or conditionally approve a Highlands Redevelopment Site Designation, the Highlands Council may require a public hearing in accordance with the requirements under Section 1.7, below.

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

(f) If the Highlands Council issues a Preliminary Determination denying the Petition for Highlands Redevelopment Site Designation, the applicant shall be notified of the reasons for denial.

(g) If the Highlands Council issues a Preliminary Determination denying the Petition for Highlands Redevelopment Site Designation this determination shall constitute final agency action.

1.7 Requirements for Public Hearing.

(a) Within 30 days of public notification of a Petition for Highlands Redevelopment Site Designation, interested persons may request in writing that the Council hold a public hearing on an application. Requests shall state the nature of the issues proposed to be raised at the hearing.

(b) The Council may issue or deny a Highlands Redevelopment Site Designation without a public hearing. However, the Council may require a public hearing prior to any final action on an application if:

1. There is a significant degree of public interest in the application, based on written requests for a public hearing within the 30 day public comment period set forth in Section 1.5 (b)4 above. In considering the degree of public interest, the Council will consider whether the issues raised in the hearing requests are relevant to the application review; or

2. The Council determines that the public interest would be served by holding a hearing.

(c) If a hearing is to take place, the Council shall notify the applicant within 30 days after the end of the period comment period set forth in (a) above:

1. Set a date and time for the public hearing;

2. Choose a location for the hearing;

(d) At least 30 days before the hearing date the applicant shall provide a certification that the notification that the public notice requirements for a hearing have been satisfied as follows:

1. The municipal clerk and planning board have been sent a copy of the public hearing notice and all application documents submitted to the Highlands Council;

2. The Department of Environmental Protection Land Use Regulation Program have been sent a copy of the public hearing notice and all application documents submitted to the Highlands Council;

3. All persons to whom a notice of an application must be sent under Section 1.5 (b)4;

4. All persons who submitted comments on the application during the hearing request period set forth in (a) above; and

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

5. Publishing a display advertisement in a newspaper of both local and regional circulation of at least four inches containing the completed hearing notice form, in accordance with (e) below.

(e) The applicant shall submit a certification or affidavit of publication of the newspaper advertisement as proof that public notice of the hearing has been provided in accordance with this section. This proof of publication shall be submitted to the Council at least ten (10) days prior to the public hearing.

(f) The applicant shall pay for a court reporter to record the proceedings at the public hearing and shall provide the Council with a verbatim transcript free of charge.

(g) The Council shall maintain a copy of the verbatim transcript of the hearing and all written comments received. The transcript and written comments shall be made part of the official record on the application.

(h) The presiding official at the non-adversarial public hearing shall have broad discretion with respect to oral and written presentations by interested persons. This discretion shall be exercised to allow every person the opportunity to speak, to reasonably limit the length of individual testimony, and to ensure the maintenance of an orderly forum. At the conclusion of statements by interested persons, the applicant shall be afforded the opportunity to speak on the statements offered by interested persons.

(i) Any interested person may submit information and comments concerning the application. The information and/or comments must be submitted in writing within 15 days after the hearing.

1.8 Final determination.

(a) The Highlands Council shall make a final determination to approve, approve with conditions, or deny a Highlands Redevelopment Site Designation following the conclusion of a public hearing in accordance with the requirements of Section 1.7 above, within such period of time as the Highlands Council shall deem necessary to address issues raised during the public hearing.

(b) In cases where the Highlands Council determines that a proposed Highlands Redevelopment Site is appropriate for redevelopment, the final determination may include specific conditions to define, restrict or condition the design, construction or conduct of any activities on the property. These conditions may include, but are not limited to, requirements for prior Municipal and State agency approval, conservation deed restrictions, design requirements or limitations, site maintenance or restoration requirements and other mechanisms necessary to mitigate for any impacts that may otherwise result from the Highlands Redevelopment Site Designation and to ensure consistency with the goals and requirements of the Highlands Act and Regional Master Plan.

(c) The final determination by the Highlands Council shall constitute final agency action.

(d) A Highlands Council Highlands Redevelopment Site Determination does not preclude or prejudice any subsequent action by any other local, state or federal agency or governing body that

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

has independent authority under the Municipal Land Use Law or any other state or federal statutory authority.

(e) Any applicant that receives a Highlands Redevelopment Site Designation within the Preservation Area shall be required to also obtain a Highlands Preservation Area Approval from the Department of Environmental Protection in accordance with N.J.A.C. 7:38-6.

1.9 Denial of application; revocation of final determination.

(a) The Highlands Council may deny any application, revoke any final determination, or modify any final determination issued in the event it finds the applicant, its consultants, or its agents failed to meet any requirements of the Highlands Council or that any information submitted in support of an application is subsequently determined by the Highlands Council to be misleading, erroneous, or inaccurate.

1.10 Failure to Act.

(a) If the Highlands Council fails to act within any time limitations specified in this Chapter, the application shall not be deemed approved by virtue of the failure to act.

1.11 Requirements for Digital Submissions

(a) All materials submitted to the Highlands Council in accordance with the requirements under this Chapter shall be in both hard copy and digital formats.

(b) Digital submissions shall meet the following minimum requirements:

1. All digital documents including reports, narrative descriptions and tables shall be submitted in Word©, Excel© or compatible format.
2. All digital maps shall be submitted as GIS shape files in NAD83 state plane coordinates in an ARCGIS© compatible format.

(c) Any application submitted for review by the Highlands Council that does not satisfy the requirements of this Chapter shall be deemed incomplete and no further action shall be taken.

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

(ATTACHMENT 1)

HIGHLANDS APPLICATION FORM

For all applications requesting a Highlands Redevelopment Site Approval, it is required that an applicant submit a completed Highlands Application Form.

PLEASE PRINT OR TYPE THE FOLLOWING: (Complete all sections unless otherwise noted)

A: APPLICANT INFORMATION

Applicant Name: _____
Email: _____
Address: _____ City: _____ State: ____ Zip: _____
Daytime Phone: _____ Ext.: _____
Cell Phone: _____

Agent Name: _____ **Firm:** _____
Email: _____
Address: _____ City: _____ State: ____ Zip: _____
Daytime Phone: _____ Ext.: _____
Cell Phone: _____

Property Owner Name: _____
Email: _____
Address: _____ City: _____ State: ____ Zip: _____
Daytime Phone: _____ Ext.: _____
Cell Phone: _____

B: PROJECT LOCATION

Project Name: _____
Municipality: _____ County: _____
Block(s)/Lot(s): _____
N.A.D. 1983 State Plane Coordinates (feet) 6 digits only:
E (x): _____ N (y): _____
Nearest Waterway: _____
Watershed Management Area: _____ HUC14Subwatershed: _____

C: PROJECT DESCRIPTION

____ Highlands Redevelopment Site Pre-Application Meeting Request
____ Highlands Redevelopment Site Designation Application

Project Description:

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

.....
D: APPLICANT/PROPERTY OWNER CERTIFICATION

Both the Applicant and Property owner's section must be filled out

Applicant Certification

I certify under penalty of law that the information provided in this document is true and accurate. I am aware that there are significant civil and criminal penalties for submitting false or inaccurate information. (If corporate entity, print/type the name and title of person signing on behalf of the corporate entity.)

Signature of Applicant/Owner Signature of Applicant/Owner: _____

Date: _____

Print Name: _____

Print Address: _____

Property Owner's Certification

I hereby certify that the undersigned is the owner of the property upon which the proposed work is to be done. This endorsement is certification that the owner grants permission for the conduct of the proposed activity. In addition, I hereby give unconditional written consent to allow access to the site by representatives or agents of the Highlands Council for the purpose of conducting a site inspection or survey of the project site.

Signature of Owner: _____

Date: _____

Print Name: _____

Print Address: _____

.....
E. APPLICANT'S AGENT

I _____, the Applicant/Owner, authorize to act as my agent/representative in all matters pertaining to my application the following person:

Name: _____

Occupation/Profession: _____

Signature of Applicant/Owner: _____

.....
F. AGENTS CERTIFICATION

Sworn before me this day of _____ 20 ____

I agree to serve as agent for the above-mentioned applicant

(Signature of Agent)

Notary Public

.....
G. STATEMENT OF PREPARER OF APPLICATION

I certify under penalty of law that I have personally examined the information submitted in the document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature: _____

Type Name: _____

Date: _____

Position: _____

Name of Firm: _____

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

(ATTACHMENT 2)

HIGHLANDS REDEVELOPMENT SITE APPROVAL PRE-APPLICATION MEETING REQUEST CHECKLIST

For all applicants seeking a Highlands Redevelopment Site Approval, a pre-application meeting with the Highlands Council is required.

NOTE: The person who signs the Highlands Application Form as the applicant must be the owner of the site, or a person with legal authority over the site to carry out all requirements of any authorization issued.

NOTE: Please provide **two copies** of each item listed below, unless additional copies are specified. Check all that apply.

PRE-APPLICATION REQUIREMENTS

The applicant shall submit as much of the following information as possible prior to the pre-application meeting regarding the specific request for redevelopment approval:

- 1) ___ A completed and signed Highlands Application Form;
- 2) ___ A completed Highlands Redevelopment Site Approval Pre-Application Meeting Request Checklist form
- 3) ___ A copy of the municipal tax map(s) delineating the subject site by lot(s) and block(s);
- 4) ___ A United States Geological Survey quadrangle map showing the boundaries of the properties on which the proposed Highlands Redevelopment Site is located;
- 5) ___ A recent county road map or local street map, with the subject site clearly indicated;
- 6) ___ Three copies of an aerial photograph at a scale of no less than 1"=200 feet clearly identifying the following features:
 - i) All property lines within 200 feet of the subject property
 - ii) Existing features including the footprint of all buildings and impervious cover
 - iii) The area proposed to be designated as the Highlands Redevelopment Site
- 7) ___ A List of Properties under Common Ownership
- 8) ___ A narrative description describing the existing uses of the site:
 - i) Existing land use of the properties including the amount of existing impervious area;
 - ii) A list of any encumbrances, including easements, deed restrictions, and covenants;
 - iii) A list of any prior enforcement actions;
- 9) ___ A list of prior approvals or permits from any local, county, regional, or state agency, including dates of issuance and expiration, for properties comprising the proposed Highlands Redevelopment Site
- 10) ___ A narrative of the proposed redevelopment project:
 - i) Acreage of the proposed Highlands Redevelopment Area;
 - ii) Amount of proposed impervious area
- 11) ___ A narrative of how the subject site conforms with existing Municipal Zoning including a description of any prior coordination with the municipality regarding redevelopment of the site;
- 12) ___ Identification of which Highlands Land Use Capability Map zone (Protection, Conservation, or Planned Community) the subject site is located in;
- 13) ___ A list of all prior engineering or environmental studies conducted on the property (Copies of studies DO NOT need to be included with a request for a pre-application meeting);
- 14) ___ Photographic documentation of the subject site depicting the location of the photograph, direction associated with the photograph (e.g., gravel parking lot taken from driveway mid-point facing southwest), and date
- 15) ___ A narrative of how the subject site conforms with the Highland Council's conditions that an area is appropriate for redevelopment only if the area is either:
 - i) A Highlands brownfield site designated by the Department of Environmental Protection pursuant to N.J.A.C. 7:38-6.6;
 - ii) A site at which at least 70% percent of the area is covered with impervious surface.
- 16) ___ Digital submissions of required materials;
- 17) ___ Copy of minutes of a Pre-Application with NJDEP LURP

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

(ATTACHMENT 3)

HIGHLANDS REDEVELOPMENT SITE DESIGNATION APPLICATION CHECKLIST

A Highlands Redevelopment Site Designation approval is required for all redevelopment activities within the Highlands Preservation Area prior to obtaining approval for a Highlands Redevelopment Waiver in accordance with the requirements of N.J.A.C. 7:38-6

NOTE: The person who signs the Highlands Application Form as the applicant must be the owner of the site, or a person with legal authority over the site to carry out all requirements of any authorization issued.

NOTE: Please provide **three copies** of each item listed below, unless additional copies are specified. Check all that apply.

APPLICATION REQUIREMENTS

To be deemed administratively complete, an application for a Highlands Redevelopment Area Approval must include all of the following items:

- 1) ___ A completed and signed Highlands Application Form;
- 2) ___ A completed Highlands Redevelopment Site Designation Application Checklist Form
- 3) ___ A copy of the municipal tax map(s) delineating the subject site by lot(s) and block(s);
- 4) ___ A United States Geological Survey quadrangle map showing the boundaries of the properties on which the proposed Highlands Redevelopment Site is located;
- 5) ___ A recent county road map or local street map, with the subject site clearly indicated;
- 6) ___ Copies of Certified Mail Receipts as proof that the public notice requirements to all of the following entities have been met:
 - ___ A. Proof that the municipal clerk has been sent a copy of the *entire application* that was submitted to the Highlands Council;
 - ___ B. Proof that a completed copy of the *notice letter* found in Attachment A has been sent to each of the following:
 - ___ i. The municipal environmental commission (if one exists);
 - ___ ii. The municipal planning board;
 - ___ iii. The municipal construction official;
 - ___ iv. The county planning board;
 - ___ v. The county environmental commission (if one exists) and
 - ___ vi. All owners of land within 200 feet of the boundary of the site. The application must also include a certified list of landowners within 200 feet of the site, obtained from the municipal clerk within 90 days of the date of the public notice;
- 7) ___ A description of the proposed Highlands Redevelopment Area including types of existing and proposed uses;
- 8) ___ Minutes of a meeting with the Municipal Planning Board within which the property is located including a list of attendees;
- 9) ___ A list of all land use approvals and permits obtained and required from any local, county, regional, or state agency for properties comprising the proposed Highlands Redevelopment Area, including dates of issuance and expiration where applicable
- 10) ___ Three copies of any surveys, professional reports, and/or environmental site assessments performed for the properties comprising the proposed Highlands Redevelopment Area, signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law
- 11) ___ Photographic documentation of the proposed Highlands Area Redevelopment Area depicting the location of the photograph, direction associated with the photograph (e.g., gravel parking lot taken from driveway mid-point facing southwest), and date
- 12) ___ Identification of which Highlands Land Use Capability Map zone (Protection, Conservation, or Planned Community) the subject site is located in;
- 13) ___ Copy of minutes of a Pre-Application with NJDEP LURP;

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

- 14) ___ A copy of a Highlands Resource Area Determination (HRAD) approved by NJDEP;
- 15) ___ A letter from the New Jersey Natural Heritage Program issued within 6 months of the date of the application identifying which, if any, rare, threatened or endangered species or significant natural communities occur within or adjacent to the subject property;
- 16) ___ A letter from the US Fish and Wildlife Service issued within 6 months of the date of the application identifying which, if any, rare, threatened or endangered species or significant natural communities occur within or adjacent to the subject property;
- 17) ___ A letter from the State Office Of Historic Preservation issued within 6 months of the date of the application identifying any state or federal listed or eligible historic properties within or adjacent to the subject property;
- 18) ___ A site plan of the subject site signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law, depicting existing conditions (check all that apply):
 - ___ A. Bearings and distances of all property lines;
 - ___ B. Block and lot designations;
 - ___ C. Acreage of the site to the nearest tenth of an acre;
 - ___ D. Location of any known contaminated areas;
 - ___ E. Location, dimensions, and use of all existing impervious surfaces;
 - ___ F. Building footprints, dimensions, and setbacks for all existing structures;
 - ___ G. Location of any easements;
 - ___ H. Location, type, and size of all existing utilities;
 - ___ I. Existing limits of site disturbance;
 - ___ J. Topographic contours at intervals of no more than two feet;
 - ___ K. Location of all Highlands Open Waters and Riparian Areas
 - ___ L. All slopes that are greater than 20%, those ranging from 15% to 20%, and those ranging from between 10% and 15% that occur in the Riparian Area;
 - ___ M. If the property is located within the Highlands Forest Resource Protection Area identify all forests located within the subject property;
 - ___ N. If the property is located within the Agricultural Resource Protection Area identify all Important Farmland Soils on the site as most currently classified and mapped by the US Department of Agriculture Natural Resources Conservation Service
 - ___ O. If the property is located within the Critical Habitat Resource Protection Area identify all Landscape Level 2, 3 4 and 5, and all Natural Heritage Priority Sites located on the subject property;
 - ___ P. Location of all vernal pools;
 - ___ Q. Location of any prime groundwater recharge areas
 - ___ R. Location of wellhead protection areas
 - ___ S. Location of any historic or archaeological areas
- 19) ___ A proposed condition survey map(s) of the subject property signed, sealed, and dated by a New Jersey-licensed professional engineer, professional land surveyor, professional planner, or registered architect, as required by law, depicting proposed conditions, including at a minimum:
 - ___ A. Bearings and distances of all property lines;
 - ___ B. Block and lot designations;
 - ___ C. Acreage of the site to the nearest tenth of an acre;
 - ___ D. Location, dimensions, and use of existing and proposed impervious surfaces;
 - ___ E. Building footprints, dimensions, and setbacks for all existing and proposed structures;
 - ___ F. Location and dimensions of any easements;
 - ___ G. Location, type, and size of all utilities; and
 - ___ H. Proposed limits of site disturbance including limits of vegetation clearing and grading activities.
- 20) ___ A report describing the proposed uses of the site including a description of the type and justification for relief from the standards for protection of a Highlands Resource Area as otherwise required under N.J.C.A. 7:38 or the Highlands Regional Master Plan. This description shall include a table listing the type of existing uses expressed as number and size of each use, and the extent of each existing use type expressed in acres;

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

- 21) ___A report describing the water and wastewater utility capacity requirements necessary to serve the proposed uses of the site including a description of the source of water and wastewater capacity and a demonstration that there is sufficient capacity to serve the proposed Highlands Redevelopment Site.

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

MODEL PUBLIC COMMENT NOTICE

(NOTE: A copy of a property location map must be attached to this notice)

(Highlands Council File Name and Number)

Date: _____

Dear Interested Party:

Please be informed that an application for a Highlands Redevelopment Site Designation has been submitted to the New Jersey Highlands Water Protection and Planning Council under the Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq. for the following Property:

(Street address of property)

(Block and lot of property)

(Town and County)

The application requests **(provide description of Highlands Redevelopment Site designation request)**

The Highlands Council welcomes comments on the application. Comments should be submitted to the Council in writing within 30 days of the date of this notice. During this time a request for a public hearing may be submitted in writing along with an explanation of the nature of the issues proposed to be raised at the hearing. Comments cannot be accepted by telephone.

Please submit any comments in writing, along with a copy of this notice, to:

The Highlands Council
100 North Road (Route 513)
Chester, New Jersey 07930
Attn: Redevelopment Application

All documentation associated with the subject application is available for inspection at the Highlands Council offices during regular business hours by appointment by calling (908) 879-6737. Comments cannot be accepted by telephone.

For your convenience, copies of the application are also available at the office of the Municipal Clerk located at (provide address).

Should you have any questions about the application please do not hesitate to contact me at:

(Applicant's name and address)

(Applicant's phone number)

Procedure For Highlands Redevelopment Site Approval

Preliminary Working Draft, May 4, 2007

MODEL NOTICE OF PUBLIC HEARING

PLEASE TAKE NOTICE that _____ (**Applicant's name**) is applying to the New Jersey Highlands Water Protection and Planning Council for a Highlands Redevelopment Site Designation for the following Property.

(**Street address of property**)

(**Block and lot of property**)

(**Town and County**)

The applicant is requesting _____ (**provide description of Highlands Redevelopment Site designation request**)

A public hearing will be held on this application on _____ (**Provide Date**) at the _____ (**Specify Location and Time**). Any party in interest may appear in person or by agent to comment on the application. Written comments may also be submitted prior to the time of the hearing. Written comments may be submitted within 15 days of the public hearing. All documentation associated with the subject application is available for inspection at the Highlands Council offices during regular business hours by appointment by calling (908) 879-6737. Comments cannot be accepted by telephone.

Please submit any comments *in writing, along with a copy of this notice*, to:
The Highlands Council
100 North Road (Route 513)
Chester, New Jersey 07930
Attn: Redevelopment Application

Questions about the application may be addressed to:

(**Applicant's name, address and telephone number**)

