INTRODUCTION

The New Jersey Department of Environmental Protection has a goal of protecting 1 million acres of open space by the year 2008 (New Jersey Department of Environmental Protection, 1999, p. A-3). A goal of protecting 1 million additional acres of open space will not be realized unless land currently designated as open space is preserved. Watershed protection is an integral part of preserving open space. A major component of preservation is the preservation of water-supply recharge areas. The continued preservation of open space can help prevent these areas from becoming developed. Preservation of open space can help prevent these areas from being developed, thus preventing commercial and residential development that would destroy groundwater recharge areas. This, in turn, would help preserve open space for future generations.

METHOD OF INVESTIGATION

Deterministic recharge rates (as the map ranges from 0 to 17 inches/year) for land parcels as small as 5 acres. In the study area annual recharge rates range from 0 to 17 inches/year. A required step in verifying the model. A brief description of the major ones follows.

LIMITATIONS

The ground-water recharge calculations are based on several assumptions. These impede some calculations in the study area. Charles and others (1993), for a thorough description of the assumptions made and the resulting limitations. A brief description of the major ones follows.

REFERENCES


Ground-water recharge shown on the map ranges from 0 to 17 inches/year. A required step in verifying the model. The New Jersey Department of Environmental Protection has a goal of protecting 1 million acres of open space by the year 2008 (New Jersey Department of Environmental Protection, 1999, p. A-3). A goal of protecting 1 million additional acres of open space will not be realized unless land currently designated as open space is preserved. Watershed protection is an integral part of preserving open space. A major component of preservation is the preservation of water-supply recharge areas. The continued preservation of open space can help prevent these areas from becoming developed. Preservation of open space can help prevent these areas from being developed, thus preventing commercial and residential development that would destroy groundwater recharge areas. This, in turn, would help preserve open space for future generations.

METHOD OF INVESTIGATION

Deterministic recharge rates (as the map ranges from 0 to 17 inches/year) for land parcels as small as 5 acres. In the study area annual recharge rates range from 0 to 17 inches/year. A required step in verifying the model. The results are available from the N.J. Geological Survey in Trenton. This map does not show land owned by the counties or municipalities because a GIS coverage was unavailable. This is due to the highly urban character of this study area.

EXCLUDED AREAS

Selected open space (shown by white triangles)

Ground-Water-Recharge Rates

Inches/year

Areas omitted from calculations

<table>
<thead>
<tr>
<th>Rate</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 - 17</td>
<td>wetlands</td>
</tr>
<tr>
<td>10 - 13</td>
<td>hydric soils</td>
</tr>
<tr>
<td>1 - 9</td>
<td>no soil survey available</td>
</tr>
</tbody>
</table>

GLOSARY

Area of Detail

Watershed study area boundary

County boundary

Municipality boundary

Major road

Stream

Open water

Selected open space (shown by white triangles)

Ground-Water-Recharge Rates and Selected Open Space in the Rancocas, Pennsauken and Cooper Watersheds, New Jersey

Open-File Map OFM-32

By

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2000