**Guidance for Preparing an Environmental Constraints Analysis**
**{N.J.A.C. 7:22-10(b)7.}**

I. Environmental Constraints Map

A. Prepare a base map which differentiates the developed areas and the undeveloped areas and shows the zoning. Provide a key which identifies the allowable density for each zone. Prepare an overlay map showing where all the **Environmentally constrained* areas are.

**Environmentally constrained* areas include the following:

- wetlands
- floodplains
- endangered species sites or designated habitats
- parks and preserves; and
- Agricultural Development Areas/Important Farmland

B. Provide the acreage of developed, environmentally constrained, and developable land per zone.

II. Environmental Constraints Table (see Attachment 1 for an example)

A. Prepare a table with the following information:

- Total developed, environmentally constrained, and developable acres per zone;
- Apply any applicable coverage or waste factors to determine the amount of useable developable land (make a separate column for each);
- In separate columns, using zoning allowances, determine the number of residential units per acre allowed or the square feet of commercial / industrial development allowed;
- In one column list the allowed flow, per unit or square footage, for residential, commercial, and industrial properties based on Treatment Works Approval regulations (aforementioned in the narrative);
- In another column give the flow for each zone;
- In a column list the number of people per unit based on the latest census.
- Determine the future population growth and list this in one column;

III. Projected Residential Development and Population Calculations

A. Calculating the Additional Allowable Population

Using the number of residential units/acre and the figure for the number of persons per dwelling unit from the most current census, multiply to get the *additional allowable population.* This should be added to the existing population to yield the **maximum** population allowed, according to the environmental constraints analysis. If full development is not expected to occur during the design period, an incremental projection must be presented.

B. Projected Future Residential Flow Calculations

New Sewered Areas:

Take the number of new residential units determined above and multiply by the appropriate residential flow contribution from the Treatment Works Approval (TWA) regulations at N.J.A.C. 7:14A-23.3. Add this value to the appropriate existing residential flow contribution also determined by using the aforementioned TWA regulations. This will give you the total future residential flow.

IV. Projected Commercial/Industrial Flow Calculations

The maximum allowable projected commercial/industrial flow must be based on the developable land that is zoned for commercial/industrial use and shall be calculated as follows:

- Multiply the appropriate flow from the TWA regulations (N.J.A.C. 7:14A-23.3.) by the percent coverage for the industrial zones or the number of square feet of projected coverage for the commercial zones. Add this to the existing flow get the total projected flow for each zone.

In practice, the commercial flow increases should not exceed the rate of residential flow increase without justification.

V. Summary of Results

Please present the population and flow results in a table as a summary to the constraints analysis (see Attachment 1).

ATTACHMENT 1

Environmental Constraints Table (example)

| Zones | Total # of Acres | Developed Acres | Environmentally Constrained Acres | Developable Acres | Percent Coverage(c) / Waste(w) | Useable Acreage | # of Units / $ft^2$ per Acre Allowed | # of Units or Square Footage | Flow Allowance (gpd) based on the TWA Regulations | Flow (gpd) | Census (people / unit) | Future Population |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R1 | 100 | 75 | 10 | 15 | 80c | 12 | 4 u/a | 48 units | 300 | 14,400 | 3 | 144 |
| R2 | 100 | 50 | 40 | 10 | 80c | 8 | 1 u/a | 8 units | 300 | 2,400 | 3 | 24 |
| C | 100 | 50 | 40 | 10 | 50w | 5 | 10,000$ft^2$ | 50,000$ft^2$ | 0.125 | 6,250 | --- | --- |
| I | 100 | 25 | 25 | 50 | 25w | 12 | 20,000$ft^2$ | 24,000$ft^2$ | 0.125 | 3,000 | --- | --- |
| Total | 400 | 200 | 115 | 85 | --- | 37 | --- | --- | --- | 26,050 | --- | 168 |

Key: R1 = Residential Townhouses; R2 = Residential Housing Development; C = Commercial; I = Industrial

Flow Summary:

| **Zones** | **Existing Flow (gpd)** | **Future Flow (gpd)** |
|---|---|---|
| Total Residential | 20,000 | 16,800 |
| Total Commercial | 10,000 | 6,250 |
| Total Industrial | 3,000 | 3,000 |
| Total Flow for Project Area | 33,000 | 26,050 |

Population Summary:

| Current Population | Future Population | Maximum Population Allowed |
|---|---|---|
| 300 | 168 | 468 |