# NUTRIENT LOADING SUMMARY

## Basic Watershed Statistics

### Chepachet WHPAs

### Current Land Use

#### LAND USE

<table>
<thead>
<tr>
<th>Total Watershed Area</th>
<th>1,055.4 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forested</strong></td>
<td>511.5</td>
</tr>
<tr>
<td><strong>Wetlands</strong></td>
<td>78.8</td>
</tr>
<tr>
<td><strong>Sewered</strong></td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Surface Water Area</strong></td>
<td>19.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Riparian Area within the Watershed</th>
<th>124.9 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forested</strong></td>
<td>62.9</td>
</tr>
<tr>
<td><strong>Wetlands</strong></td>
<td>21.5</td>
</tr>
<tr>
<td><strong>Sewered</strong></td>
<td>0.0</td>
</tr>
</tbody>
</table>

#### SOILS

<table>
<thead>
<tr>
<th>Over Entire Study Area</th>
<th>Unsewered Watershed Area</th>
<th>Unsewered Riparian Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrologic Soil Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>24.4%</td>
<td>A and B 39.0%</td>
</tr>
<tr>
<td>B</td>
<td>14.6%</td>
<td>C (Non-restrict) 9.8%</td>
</tr>
<tr>
<td>C</td>
<td>59.3%</td>
<td>D (Non-restrict) 1.7%</td>
</tr>
<tr>
<td>D</td>
<td>1.7%</td>
<td>Restrictive 49.6%</td>
</tr>
</tbody>
</table>

#### SEPTIC SYSTEMS

<table>
<thead>
<tr>
<th>Estimated Number in the Watershed</th>
<th>560</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Number situated in &quot;Restrictive&quot; Soils</td>
<td>306</td>
</tr>
<tr>
<td>Estimated Number of Malfunctioning Systems</td>
<td>0</td>
</tr>
</tbody>
</table>

#### HYDROLOGIC BUDGET

<table>
<thead>
<tr>
<th>Before BMP's</th>
<th>After BMP's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mgal/yr</td>
<td>Inches/yr</td>
</tr>
<tr>
<td>Mgal/yr</td>
<td>Inches/yr</td>
</tr>
<tr>
<td>Average Annual Precipitation</td>
<td>1,290</td>
</tr>
<tr>
<td>Average Annual Evapotranspiration</td>
<td>516</td>
</tr>
<tr>
<td>Average Annual Surface Runoff</td>
<td>256</td>
</tr>
<tr>
<td>Average Annual Groundwater Recharge From Precipitation</td>
<td>518</td>
</tr>
<tr>
<td>From Septic Systems</td>
<td>25</td>
</tr>
<tr>
<td>Average Annual Surface Runoff if the watershed were entirely forested</td>
<td>81.6</td>
</tr>
</tbody>
</table>

This suggests an increase in runoff from development of #DIV/0! #DIV/0! of total # Malfunct.
## Complete Watershed Analysis:

### Chepachet WHPAs

#### Current Land Use

**Phosphorus Load (lb P/yr)**

<table>
<thead>
<tr>
<th>SOURCES:</th>
<th>lb P/yr</th>
<th>% of total</th>
<th>Before BMP's</th>
<th>lb P/yr</th>
<th>% of total</th>
<th>After BMP's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverse sources such as fertilizers and pet waste</td>
<td>865.1</td>
<td>99.3%</td>
<td>865.1</td>
<td>99.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct atmospheric deposition on surface waters (not including coastal embayment area)</td>
<td>5.8</td>
<td>0.7%</td>
<td>5.8</td>
<td>0.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malfunctioning septic systems located:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within riparian areas</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outside riparian areas</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on &quot;Restrictive&quot; soils</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on &quot;Non-Restrictive&quot; soils</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL AVERAGE ANNUAL PHOSPHORUS LOAD TO SURFACE WATER</strong></td>
<td>870.9</td>
<td>lb P/yr</td>
<td>870.9</td>
<td>lb P/yr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before BMP's</td>
<td>After BMP's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the watershed were entirely forested.......</td>
<td>117.4</td>
<td>lb P/yr</td>
<td>642%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This suggests an increase in loading from development of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nitrogen Load (lb N/yr)**

<table>
<thead>
<tr>
<th>SOURCES:</th>
<th>lb N/yr</th>
<th>% of total</th>
<th>Before BMP's</th>
<th>lb N/yr</th>
<th>% of total</th>
<th>After BMP's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverse sources such as fertilizers and pet waste</td>
<td>4,585.9</td>
<td>96.7%</td>
<td>4,585.9</td>
<td>96.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct atmospheric deposition on surface waters (not including coastal embayment area)</td>
<td>155.3</td>
<td>3.3%</td>
<td>155.3</td>
<td>3.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malfunctioning septic systems located:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within riparian areas</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outside riparian areas</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on &quot;Restrictive&quot; soils</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on &quot;Non-Restrictive&quot; soils</td>
<td>0.0</td>
<td>0.0%</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL AVERAGE ANNUAL NITROGEN LOAD TO SURFACE WATER</strong></td>
<td>4,741.2</td>
<td>lb N/yr</td>
<td>4,741.2</td>
<td>lb N/yr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before BMP's</td>
<td>After BMP's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the watershed were entirely forested.......</td>
<td>1,866.8</td>
<td>lb N/yr</td>
<td>154%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This suggests an increase in loading from development of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The phosphorus and nitrogen loading coefficients are assumed to include loads from diverse sources such as fertilizers, applied to both lawns and crops. Fertilizers also contribute nutrients to groundwater, which is calculated explicitly in the GROUNDWATER section. Even though the contribution from fertilizers to the surface water load is not explicitly calculated, it is included in the loading coefficients and may have an impact.
Groundwater Analysis:

Chepachet WHPAs

Current Land Use

Total Area Contributing to Groundwater: 1,055.4 acres

Sources:

<table>
<thead>
<tr>
<th>Total Area Contributing to Groundwater</th>
<th>Before implementation of BMP's</th>
<th>After implementation of BMP's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portion of Total Area</td>
<td>lb N/yr</td>
<td>Portion of Total Load</td>
</tr>
<tr>
<td>Unsewered Areas</td>
<td>100.0%</td>
<td>560</td>
</tr>
<tr>
<td>Total # of septic systems in area</td>
<td>560</td>
<td>8,462.2</td>
</tr>
<tr>
<td>Fertilized Lawns</td>
<td>13.5%</td>
<td>1,120.2</td>
</tr>
<tr>
<td>Fertilized Agricultural Areas</td>
<td>3.7%</td>
<td>2,517.3</td>
</tr>
<tr>
<td>Pets in Residential Areas</td>
<td>463.8</td>
<td>463.8</td>
</tr>
<tr>
<td>Unfertilized Pervious Areas</td>
<td>55.3%</td>
<td>700.7</td>
</tr>
</tbody>
</table>

AVERAGE ANNUAL NITROGEN LOAD TO GROUNDWATER

Before BMP's: 13,264.1 lb N/yr
After BMP's: 13,264.1 lb N/yr

If the watershed were entirely forested: 1,148.6 lb N/yr
This suggests an increase in loading from development of 1055%

AVERAGE CONCENTRATION OF NITRATE-N IN RECHARGE

Before BMP's: 2.9 mg/l of NO₃-N
After BMP's: 2.9 mg/l

If the watershed were entirely forested: 0.2 mg/l
This suggests an increase in loading from development of 1374%

(assuming that nitrogen behaves conservatively once it reaches the groundwater, and that the nitrogen is in the form of nitrate)

Land Use/Soils Tables

Summary Table 1:
Land Use/Hydrologic Soil Group Distribution

Chepachet WHPAs

Current Land Use

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Area (acres)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] HD Res. (&gt;8 /ac)</td>
<td>6.1</td>
<td>6.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6%</td>
</tr>
<tr>
<td>[2] MHD Res.(4-7.9/ac)</td>
<td>68.5</td>
<td>19.5</td>
<td>0.8</td>
<td>48.2</td>
<td>0.0</td>
<td>6.5%</td>
</tr>
<tr>
<td>[3] MD Res.(1-3.9/ac)</td>
<td>173.4</td>
<td>53.4</td>
<td>27.0</td>
<td>93.0</td>
<td>0.0</td>
<td>16.4%</td>
</tr>
<tr>
<td>[4] MLD Res.(0.5-0.9/ac)</td>
<td>4.2</td>
<td>1.6</td>
<td>0.6</td>
<td>2.0</td>
<td>0.0</td>
<td>0.4%</td>
</tr>
<tr>
<td>[5] LD Res.(&lt;0.5/ac)</td>
<td>1.6</td>
<td>1.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2%</td>
</tr>
<tr>
<td>[6] Commercial</td>
<td>55.8</td>
<td>23.3</td>
<td>2.4</td>
<td>29.9</td>
<td>0.3</td>
<td>5.3%</td>
</tr>
<tr>
<td>[7] Industrial</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>[8] Roads</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>[9] Airports</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>[10] Railroads</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>[11] Junkyards</td>
<td>8.3</td>
<td>0.0</td>
<td>0.0</td>
<td>4.8</td>
<td>3.5</td>
<td>0.8%</td>
</tr>
<tr>
<td>[12] Recreation</td>
<td>30.0</td>
<td>30.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.8%</td>
</tr>
<tr>
<td>[13] Institution</td>
<td>17.5</td>
<td>0.0</td>
<td>0.0</td>
<td>17.5</td>
<td>0.0</td>
<td>1.7%</td>
</tr>
<tr>
<td>[14] Pasture</td>
<td>26.7</td>
<td>0.2</td>
<td>14.8</td>
<td>11.6</td>
<td>0.0</td>
<td>2.5%</td>
</tr>
<tr>
<td>[15] Cropland</td>
<td>26.6</td>
<td>2.7</td>
<td>3.3</td>
<td>20.6</td>
<td>0.0</td>
<td>2.5%</td>
</tr>
<tr>
<td>[16] Orchards</td>
<td>12.4</td>
<td>2.6</td>
<td>7.1</td>
<td>2.8</td>
<td>0.0</td>
<td>1.2%</td>
</tr>
<tr>
<td>[17] Brush</td>
<td>10.1</td>
<td>0.5</td>
<td>1.7</td>
<td>8.0</td>
<td>0.0</td>
<td>1.0%</td>
</tr>
<tr>
<td>[18] Forest</td>
<td>511.5</td>
<td>106.5</td>
<td>91.8</td>
<td>302.8</td>
<td>10.5</td>
<td>48.5%</td>
</tr>
<tr>
<td>[19] Barren</td>
<td>4.3</td>
<td>3.7</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4%</td>
</tr>
<tr>
<td>[20] Wetland</td>
<td>78.8</td>
<td>4.4</td>
<td>3.9</td>
<td>68.9</td>
<td>1.6</td>
<td>7.5%</td>
</tr>
<tr>
<td>[21] Water</td>
<td>19.4</td>
<td>1.6</td>
<td>0.2</td>
<td>15.8</td>
<td>1.8</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Total (acres): 1,055.4

24.4% 14.6% 59.3% 1.7%
### Summary Table 2:

#### Land Use Distribution in Sewered and Unsewered Portions of Watershed

**Chepachet WHPAs**

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>Sewered Area (acres)</th>
<th>Total Unsewered Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.1</td>
<td>6.1</td>
</tr>
<tr>
<td>[1] HD Res.(&gt;8/ac)</td>
<td>68.5</td>
<td>68.5</td>
</tr>
<tr>
<td>[2] MHD Res.(4-7.9/ac)</td>
<td>173.4</td>
<td>173.4</td>
</tr>
<tr>
<td>[3] MD Res.(1-3.9/ac)</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>[4] MLD Res.(0.5-0.9/ac)</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>[5] LD Res.(&lt;0.5/ac)</td>
<td>55.8</td>
<td>55.8</td>
</tr>
<tr>
<td>[6] Commercial</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>[7] Industrial</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>[8] Roads</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>[9] Airports</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>[10] Railroads</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>[12] Recreation</td>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td>[13] Institution</td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>[16] Orchards</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>[17] Brush</td>
<td>10.1</td>
<td>10.1</td>
</tr>
<tr>
<td>[18] Forest</td>
<td>511.5</td>
<td>511.5</td>
</tr>
<tr>
<td>[19] Barren</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>[20] Wetland</td>
<td>78.8</td>
<td>78.8</td>
</tr>
<tr>
<td>[21] Water</td>
<td>19.4</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>Total (acres)</strong></td>
<td><strong>1,055.4</strong></td>
<td><strong>1,055.4</strong></td>
</tr>
</tbody>
</table>

### Summary Table 3:

#### Land Use Distribution in the Riparian Areas of the Surface Watershed

**Chepachet WHPAs**

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>Total Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] HD Res.(&gt;8/ac)</td>
<td>0.0</td>
</tr>
<tr>
<td>[2] MHD Res.(4-7.9/ac)</td>
<td>8.4</td>
</tr>
<tr>
<td>[4] MLD Res.(0.5-0.9/ac)</td>
<td>0.0</td>
</tr>
<tr>
<td>[5] LD Res.(&lt;0.5/ac)</td>
<td>0.0</td>
</tr>
<tr>
<td>[6] Commercial</td>
<td>5.6</td>
</tr>
<tr>
<td>[7] Industrial</td>
<td>0.0</td>
</tr>
<tr>
<td>[8] Roads</td>
<td>0.0</td>
</tr>
<tr>
<td>[9] Airports</td>
<td>0.0</td>
</tr>
<tr>
<td>[10] Railroads</td>
<td>0.0</td>
</tr>
<tr>
<td>[11] Junkyards</td>
<td>0.9</td>
</tr>
<tr>
<td>[12] Recreation</td>
<td>0.0</td>
</tr>
<tr>
<td>[13] Institution</td>
<td>1.0</td>
</tr>
<tr>
<td>[14] Pasture</td>
<td>2.5</td>
</tr>
<tr>
<td>[15] Cropland</td>
<td>1.1</td>
</tr>
<tr>
<td>[16] Orchards</td>
<td>3.2</td>
</tr>
<tr>
<td>[17] Brush</td>
<td>2.2</td>
</tr>
<tr>
<td>[18] Forest</td>
<td>62.9</td>
</tr>
<tr>
<td>[19] Barren</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total (acres)</strong></td>
<td><strong>124.9</strong></td>
</tr>
</tbody>
</table>
### SUMMARY TABLE 4:
Average Annual Volume of Runoff to Surface Water (% of Total Runoff)

<table>
<thead>
<tr>
<th>Current Land Use</th>
<th>Hydrologic Soil Group</th>
<th>% of Total Runoff by land use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>[1] HD Res.(&gt;8/ac)</td>
<td>1.87%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[2] MHD Res.(4-7.9/ac)</td>
<td>3.63%</td>
<td>0.17%</td>
</tr>
<tr>
<td>[3] MD Res.(1-3.9/ac)</td>
<td>5.86%</td>
<td>3.65%</td>
</tr>
<tr>
<td>[4] MLD Res.(0.5-0.9/ac)</td>
<td>0.12%</td>
<td>0.05%</td>
</tr>
<tr>
<td>[5] LD Res.(&lt;0.5/ac)</td>
<td>0.08%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[6] Commercial</td>
<td>5.56%</td>
<td>0.71%</td>
</tr>
<tr>
<td>[7] Industrial</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[8] Roads</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[9] Airports</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[10] Railroads</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[11] Junkyards</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[12] Recreation</td>
<td>1.43%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[13] Institution</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[14] Pasture</td>
<td>0.01%</td>
<td>0.83%</td>
</tr>
<tr>
<td>[15] Cropland</td>
<td>0.19%</td>
<td>0.42%</td>
</tr>
<tr>
<td>[16] Orchards</td>
<td>0.06%</td>
<td>0.39%</td>
</tr>
<tr>
<td>[17] Brush</td>
<td>0.00%</td>
<td>0.03%</td>
</tr>
<tr>
<td>[18] Forest</td>
<td>0.00%</td>
<td>1.46%</td>
</tr>
<tr>
<td>[19] Barren</td>
<td>0.09%</td>
<td>0.09%</td>
</tr>
<tr>
<td>[20] Wetland</td>
<td>0.00%</td>
<td>0.06%</td>
</tr>
<tr>
<td>[21] Water</td>
<td>0.77%</td>
<td>0.09%</td>
</tr>
</tbody>
</table>

% of Total Runoff by Hydrologic Soil Group: 19.7% 8.0% 69.5% 2.9% 100.0% of Total runoff volume before BMP's

### SUMMARY TABLE 5:
Average Annual Phosphorus Export to Surface Water

<table>
<thead>
<tr>
<th>Current Land Use</th>
<th>Hydrologic Soil Group</th>
<th>% of Total P by land use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>[1] HD Res.(&gt;8/ac)</td>
<td>2.56%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[2] MHD Res.(4-7.9/ac)</td>
<td>4.98%</td>
<td>0.23%</td>
</tr>
<tr>
<td>[3] MD Res.(1-3.9/ac)</td>
<td>8.02%</td>
<td>5.00%</td>
</tr>
<tr>
<td>[4] MLD Res.(0.5-0.9/ac)</td>
<td>0.17%</td>
<td>0.07%</td>
</tr>
<tr>
<td>[5] LD Res.(&lt;0.5/ac)</td>
<td>0.10%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[6] Commercial</td>
<td>2.67%</td>
<td>0.42%</td>
</tr>
<tr>
<td>[7] Industrial</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[8] Roads</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[9] Airports</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[10] Railroads</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[11] Junkyards</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[12] Recreation</td>
<td>1.72%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[13] Institution</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[14] Pasture</td>
<td>0.01%</td>
<td>0.91%</td>
</tr>
<tr>
<td>[15] Cropland</td>
<td>0.15%</td>
<td>0.70%</td>
</tr>
<tr>
<td>[16] Orchards</td>
<td>0.12%</td>
<td>0.76%</td>
</tr>
<tr>
<td>[17] Brush</td>
<td>0.00%</td>
<td>0.02%</td>
</tr>
<tr>
<td>[18] Forest</td>
<td>0.61%</td>
<td>1.05%</td>
</tr>
<tr>
<td>[19] Barren</td>
<td>0.02%</td>
<td>0.01%</td>
</tr>
<tr>
<td>[20] Wetland</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>[21] Water</td>
<td>0.06%</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

% of Total P by Hydrologic Soil Group: 21.2% 9.2% 67.9% 1.8% 100.0% of Total P exported to surface water before BMP's