EFA Mandated Everglades BMP Regulatory Program

TOC
April, 2004
Everglades Regulatory Program (ECP)

- Address P at the source through Best Management Practices (BMPs)
  - Everglades Agricultural Area (EAA)
  - C-139 Basin
BMP Program Objectives
EFA Mandates

EAA:
Reduce the annual p load from the EAA by 25% compared to historic levels.
First Compliance Year: WY96

C-139:
Maintain annual P load from the C139 at or below historic levels.
First Compliance Year: WY03
Chapter 40E-63, F.A.C.  
Best Management Practices (BMPs)

Operational or physical enhancements designed to reduce P levels in discharges

EAA: Maintain 25 points at all times

C-139: Minimum of 15 points initially, increasing if out of compliance
EAA Basin Results

- EAA Basin has performed better than 25% load reduction requirement for the 8th year since program initiation
- Three-year trend 57% load reduction
WY03 EAA Basin Results

Goal: 25% Reduction from Historic Load Reduction = 35%

Observed Load (with BMPs)
- 81 tons of phosphorus left the EAA Basin
- 66 ppb average phosphorus concentrations

Compliance Model Predicted Load
(Base Period Prior to BMPs)
- 94 tons predicted with rainfall adjustment
- 173 ppb average phosphorus concentrations
## EAA Annual Phosphorus Loads

<table>
<thead>
<tr>
<th>Water Year</th>
<th>TP Annual Average Conc. (ppb)</th>
<th>Observed TP Load (mt)</th>
<th>Predicted TP Load(^1) (mt)</th>
<th>% TP Load(^2) Reduction</th>
<th>Annual Rain (in)</th>
<th>Annual Flow (kac-ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>98</td>
<td>162</td>
<td>503</td>
<td>68%</td>
<td>53.86</td>
<td>1,336</td>
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<tr>
<td>1997</td>
<td>99</td>
<td>122</td>
<td>240</td>
<td>49%</td>
<td>52.02</td>
<td>996</td>
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<tr>
<td>1998</td>
<td>102</td>
<td>161</td>
<td>244</td>
<td>34%</td>
<td>56.12</td>
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<tr>
<td>1999</td>
<td>123</td>
<td>128</td>
<td>249</td>
<td>49%</td>
<td>43.42</td>
<td>833</td>
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<tr>
<td>2000</td>
<td>119</td>
<td>193</td>
<td>425</td>
<td>55%</td>
<td>57.51</td>
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<tr>
<td>2001</td>
<td>64</td>
<td>52</td>
<td>195</td>
<td>73%</td>
<td>37.28</td>
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<tr>
<td>2002</td>
<td>77</td>
<td>101</td>
<td>227</td>
<td>55%</td>
<td>49.14</td>
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<tr>
<td>2003</td>
<td>66</td>
<td>81</td>
<td>125</td>
<td>35%</td>
<td>45.55</td>
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</tr>
</tbody>
</table>
WY03 C139 Basin Results

Goal: Maintain at or Below Historic Observed Load (with BMPs)

- 77 tons of phosphorus left the C139 Basin
- 279 ppb average phosphorus concentrations

Compliance Model Predicted Load (Base Period Prior to BMPs)

- 39 tons predicted with rainfall adjustment
- 227 ppb average phosphorus concentrations
Strategies for Improvement

- Dedicated Funds for enhancing source controls through BMPs
- Site inspections
- Technical Feedback through extension programs
- Water quality improvement strategies at the sub-region level
- BMP Incentive Program through grants