

**CLEAN WATER REVOLVING LOAN FUND  
PRELIMINARY ENGINEERING REPORT REVIEW CHECKLIST  
For Treatment Projects**

Locality:	Project:
Loan #:	Grant #: Reviewer:

<b>I. Brief Description of Proposed Facilities</b>

<b>II. Permit Status and Effluent Limitations</b>
<ol style="list-style-type: none"> <li>1. Is a permit required for the proposed facility?</li> <li>2. Has a permit been issued for the facility?                  If yes, what is the issuance date: _____ Permit No.: _____                  <b>If no, the PER review process should be suspended until the permit has been issued.</b></li> <li>3. Have effluent limitations for the facility been determined?</li> <li>4. Comments:</li> </ol>

<b>III. Current Wastewater Treatment Facilities</b>
1. Describe existing treatment facility:
2. What information was included on the condition of the existing wastewater treatment plant?
3. Describe sludge management:  Is the selected method of sludge management technically sound and consistent with the permit?

#### IV. Treatment Capacity, Flow Characteristics, and Collection System

1. Existing population served:
2. Existing average wastewater flow in MGD:
3. Average flow contribution percentage from industrial and commercial users:
4. Projected design service population:  
Basis of projection:
5. Does the proposed project include an increase in WWTP design flow?  
If yes, does the VPDES permit include the appropriate effluent flow tier?  
Have effluent limits been determined?  
**If no, contact regional permit staff to discuss the proposed project and effluent flow increase. In addition, a comment letter may need to be sent and PER review should be suspended until the VPDES permit has been updated.**
6. What is the projected design life for the facility?
7. Are projected design flows consistent with the design life?
8. Projected wastewater characteristics:
9. Does the system experience infiltration and inflow that causes:  
frequent sanitary sewer overflows  
hydraulic short-circuiting of treatment plant processes  
discharge exceedance of effluent design flow  
If yes, describe, including any information relating to public health or contaminated groundwater:

10. Does the PER propose an acceptable plan for handling excessive flow?
11. Is the locality currently under enforcement action for exceeding 95% of average design flow for three consecutive months?  
If yes, has a corrective action plan been submitted to DEQ?
12. Does the PER include an alternative that recommends flow equalization?
13. Is flow equalization included with the selected alternative?  
Explain:
  
14. Based upon information included within the PER, does the proposed project include adequate hydraulic capacity to treat existing influent flows including adequate peaking factors?  
If no, has a plan been presented in an effort to mitigate excess volumes of water (I/I) from entering the treatment plant?
15. Comments:

#### V. Development and Evaluation of Alternatives

1. Was optimization of existing facilities evaluated?
2. Are additional facilities still required?  
List the alternatives considered and briefly describe the recommended alternative including the estimated project cost:
  
3. Were a reasonable number of alternatives capable of meeting effluent limits evaluated?
4. Were the costs of the alternatives presented in terms of their present worth value, including both the estimated capital and operation/maintenance cost?
5. Does the proposed treatment plant reliability for the alternatives evaluated satisfy the permit?
6. Were alternative sites evaluated in terms of the advantages, disadvantages, and environmental impacts?
7. Is the locality currently under enforcement action?  
If yes, has a corrective action plan been included and does the proposed project address it?
8. Comments:

VI. Selected Plan

1. Does the selected plan appear capable of meeting the effluent limitations or water quality objectives for the facility?
2. Are a schematic flow diagram and unit process design parameters included?
3. Does the design appear to be in conformance with the Virginia SCAT Regulations?
4. Has a description of the financing plan and cost impacts on the system's users been presented?
5. Have the current and proposed sewer rate structures been provided?
6. Has a projected implementation schedule been presented?
7. Does the selected plan appear to be the most cost effective and environmentally sound?
8. Comments:

VII. Conclusion

Summarize any deficiencies in the PER which should be addressed:

Date of comment letter:

Recommendation:

Reviewed by Project Manager:

Date:

Reviewer by Project Oversight Team Lead:

Date: