

APPENDIX 1: WSRLA PLANNING INSTRUCTIONS

GENERAL PLAN FOR WATER TREATMENT PLANT DESIGN AND/OR CONSTRUCTION LOANS

An Ohio EPA approved general plan is required with the nomination for design and/or construction loans for new, replaced, rehabilitated, upgraded or expanded water treatment plants and their components. The general plan approval is required prior to detail design work.

At a minimum, the general plan should contain the following information:

1. Introduction and purpose – Describe the overall project and why it’s needed. Include any compliance-related issues. For a HAB-related project, include all HAB incidents at the public water system.
2. Existing situation – Describe the raw water sources, capacities, and water quality data. Discuss all existing drinking water problems in the study and/or service area, including treatment, distribution, and plant issues. Describe the existing service area and current population to be served. Describe the existing water demand by residential, commercial, and industrial categories. Provide an engineering description of the existing facilities.
3. Future conditions – Describe other projects anticipated over the next 20 years. Provide the projected average and peak residential, commercial, and industrial water demands based on population trends for at least the next 20 years (in five-year increments). Describe the projected service area and the projected population to be served.
4. Alternatives – Describe the project alternatives considered and the rationale for the selected alternative. This description should include the technical, managerial, financial, operational and local decision-making rationale for the selected approach. Where environmental resources (e.g., stream, wetlands, woodlots, etc.) may be present, it will be important to demonstrate how avoidance of impacts to such resources was included in the alternative evaluation and selection process. A regionalization alternative must be included for new water treatment plants, major plant rehabilitations, or plant expansions. A cost analysis must include any required construction, operation, maintenance, and ongoing disposal costs.
5. Selected alternative – Describe the basis for choosing the selected alternative, including lowest capital cost, greater ease of operation, most reliable, fewest environmental impacts, etc. Also include all the following:
 - a. An engineering description of the proposed facilities to be constructed, including a basic layout (schematic and site plan), sizing of treatment units and the desired approved capacity of the treatment facilities. All proposed facilities must be sized for current needs with a moderate allowance for future growth. The methodology for determining approved capacities for treatment facilities can be found in the document titled *Approved Capacity Planning and Design Criteria for Establishing Approved Capacity for: 1) Surface Water and Ground Water Supply Sources, 2) Drinking Water Treatment Plants (WTPs), and 3) Source/WTP Systems* (Approved Capacity).
 - b. A description of all existing and proposed raw water sources and their desired approved capacities. The methodology for determining approved capacities for raw water sources can be found in the Approved Capacity document.
 - c. An engineering description including proposed use of the existing facilities (if applicable), treatment and disposal to be installed, and the construction phases (if overall project is to be completed in phases).

- d. A description of how this project will address current compliance issues, if applicable.
- e. A description of how any water treatment residuals will be properly disposed of, whether on-site, via a publicly-owned wastewater treatment facility, or to a receiving stream, following proper treatment and in compliance with the appropriate discharge permit.
- f. An estimated schedule for designing, bidding, constructing, and initiating operation of the proposed facilities.

6. Preliminary estimate – Provide a preliminary estimate of the proposed project’s cost and the associated impact on local user rates. If rates will have to be increased to support the project, include the estimate increase.

7. Public participation – Provide information regarding public participation for the project, such as minutes from council or public meetings, or newspaper articles. Describe proposed future public participation activities if the project is controversial.

8. Environmental issues – Describe the project area’s major resources (e.g., streams, wetlands, woodlots, historic structures, etc.), the impacts, if any, of project implementation on these resources, how impacts can be avoided or minimized, and other agencies that may be involved in these resource issues. Construction-related impacts specific to the type of work proposed should be identified (e.g., noise, dust, traffic disruption, erosion and sediment runoff, etc.), along with applicable best management practices to address them. (Please contact Ohio EPA – DEFA for further assistance with these topics).

9. Funding – Describe all anticipated or currently pursued sources of funding for the project in addition to the WSRLA.

10. Compliance schedule – For systems out of compliance with drinking water requirements, submit a detailed compliance schedule with applicable milestone dates for the significant events that are necessary to attain compliance.

PROJECT PLANNING INFORMATION FOR DISTRIBUTION SYSTEM DESIGN AND/OR CONSTRUCTION LOANS

All nominations for distribution design and/or construction funding must include project planning documentation. At a minimum, project planning documentation should contain the following:

- 1. Introduction and purpose – Describe the overall project and why it’s needed. Included any compliance-related issues.
- 2. Existing situation – Describe the raw water sources, capacities, and water quality data. Discuss all existing drinking water problems in the study and/or service area, including treatment, distribution, and plant issues. Describe the existing service area and current population to be served. Describe the existing water demand by residential, commercial, and industrial categories. Provide an engineering description of the existing facilities.
- 3. Future conditions – Describe other projects anticipated over the next 20 years. Provide the projected average and peak residential, commercial, and industrial water demands based on population trends for at

least the next 20 years (in five-year increments). Describe the projected service area and the projected population to be served.

4. Alternatives – Describe the project alternatives considered and the rationale for the selected alternative. This description should include the technical, managerial, financial, operational and local decision-making rationale for the selected approach. Where environmental resources (e.g., stream, wetlands, woodlots, etc.) may be present, it will be important to demonstrate how avoidance of impacts to such resources was included in the alternative evaluation and selection process. A cost analysis must include any required construction, operation, maintenance, and ongoing disposal costs.

5. Selected alternative – Describe the basis for choosing the selected alternative, including lowest capital cost, greater ease of operation, most reliable, fewest environmental impacts, etc. Also include all the following:

- a. An engineering description of the proposed facilities to be constructed, including a basic layout (schematic and site plan), sizing of treatment units and the desired approved capacity. All proposed facilities must be sized for current needs with a moderate allowance for future growth.
- b. A description of how this project will address current compliance issues, if applicable.
- c. An estimated schedule for designing, bidding, constructing, and initiating operation of the proposed facilities.

6. Preliminary estimate – Provide a preliminary estimate of the proposed project's cost and the associated impact on local user rates. If rates will have to be increased to support the project, include the estimate increase.

7. Public participation – Provide information regarding public participation for the project, such as minutes from council or public meetings, or newspaper articles. Describe proposed future public participation activities if the project is controversial.

8. Environmental issues – Describe the project area's major resources (e.g., streams, wetlands, woodlots, historic structures, etc.), the impacts, if any, of project implementation on these resources, how impacts can be avoided or minimized, and other agencies that may be involved in these resource issues. Construction-related impacts specific to the type of work proposed should be identified (e.g., noise, dust, traffic disruption, erosion and sediment runoff, etc.), along with applicable best management practices to address them. (Please contact Ohio EPA – DEFA for further assistance with these topics).

9. Funding – Describe all anticipated or currently pursued sources of funding for the project in addition to the WSRLA.

10. Compliance schedule – For systems out of compliance with drinking water requirements, submit a detailed compliance schedule with applicable milestone dates for the significant events that are necessary to attain compliance.