

**Elements of a General Plan
For Water Treatment Plant Design and/or Construction projects
Funded Through the Water Supply Revolving Loan Account (WSRLA)**

All applications for water treatment plant design and nominations for construction funding through the WSRLA must include an Ohio EPA Director approved general plan. For director approval, the general plan must be submitted to the Division of Drinking and Ground waters for review and contain the following information, where applicable.

Introduction and Purpose

Discuss why the project is needed and provide documentation of need, including compliance issues or standards violations. Types of projects eligible for funding through the WSRLA are listed in the *Drinking Water Assistance Fund Program Management Plan (PMP)*. Types of specific projects ineligible for funding are listed in *Appendix F of the Drinking Water Assistance Fund PMP*.

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 (this includes treatment, distribution and issues associated with the plant).
- Describe the existing service area and current population to be served.
- Provide the existing water demand presented in residential, commercial, and industrial categories.
- Provide an engineering description of the existing facilities.

Future conditions

- Describe other projects anticipated over the next 20 years.
- Provide the projected average and peak water demands based on population trends presented in residential, commercial, and industrial categories. Projections should be for at least 20 years in five-year increments.
- Describe the projected service area and the projected population to be served.

Alternatives

Describe the project alternatives considered and the rationale for the selected alternative based on the technical, managerial, financial, operational and local decision-making justifications for the selected approach. **A regionalization alternative must be included for projects for new water treatment plants, major plant rehabilitations or plant expansions.** A feasible regionalization alternative must be eliminated before evaluating other alternatives. Where environmental resources (e.g., stream, wetlands, woodlots, etc.) are present, demonstrate how avoidance of impacts to such resources was included in the alternative evaluation and selection process. A cost analysis must include all required construction, operation, maintenance, and ongoing disposal costs.

Selected alternative

The basis for choosing the selected alternative needs to be clearly identified. Discussion should include capital cost, ease of operation, reliability, environmental impacts, and sustainability, thereby helping demonstrate that it is, in fact, the most cost-effective, sustainable alternative. In addition, the selected alternative needs to be described in sufficient detail including the following.

- Provide an engineering description of the facilities to be constructed, including a basic layout (schematic and site plan), sizing of treatment units and a desired approved capacity of the treatment facilities, including accounting for 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 Groundwater Supply Sources, 2) Drinking Water Treatment Plants (WTPs), and 3) Source/WTP Systems*** (Approved Capacity).
- Provide a description of all existing and proposed raw water sources and their desired approved capacity. The methodology for determining approved capacities for raw water sources can be found in the Approved Capacity document.
- Describe the proposed use of existing facilities (if applicable), treatment and disposal to be installed, including the construction phases (if overall project is to be completed in steps).
- Describe how this project will address current and anticipated future compliance issues (i.e. disinfection byproducts, lead and copper corrosion, etc.), if applicable.
- Describe how treatment residuals will be properly disposed of.

Include an accurate schedule for designing, bidding, constructing, and initiating operation of the proposed facility.

Preliminary estimate

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

Public participation

Provide information regarding public participation for the project, to date, such as minutes from council meetings, public meetings, or newspaper articles. Describe future anticipated public participation activities, keeping in mind that more controversial projects require evidence of public involvement and support.

Environmental issues

Describe the project area's major resources (e.g., streams, wetlands, woodlots, historic structures, etc.), the likely impacts of project implementation on these resources, how impacts to these resources can be avoided or minimized, and coordination with other agencies to address these resource issues. Describe anticipated construction-related impacts specific to proposed work (e.g., noise, dust, traffic disruption, erosion, and sediment runoff, etc.) and applicable best management practices to address them. Please contact the Ohio EPA – DEFA for further assistance with these topics.

Funding

Describe all anticipated sources of funding for the project, if known. Otherwise, identify likely funding sources to be pursued.

Compliance schedule

For systems presently out of compliance for drinking water requirements, discuss and submit any compliance schedules the system is required to follow with applicable milestone dates for the significant events that are necessary to attain compliance.

**Elements of a General Plan
For Distribution Design and/or Construction projects
Funded Through the Water Supply Revolving Loan Account (WSRLA)**

All nominations for distribution design and or construction funding through the WSRLA must include project planning documentation. Project planning documentation must contain the following information, where applicable.

Introduction and purpose

Discuss why the project is needed and provide documentation of need, including compliance issues or standards violations. Types of projects eligible for funding through the WSRLA are listed in the *Drinking Water Assistance Fund Program Management Plan (PMP)*. Types of specific projects ineligible for funding are listed in *Appendix F of the Drinking Water Assistance Fund PMP*.

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 (this includes treatment, distribution and issues associated with the plant.)
- Describe the existing service area and current population to be served.
- Provide the existing water demand, presented in residential, commercial and industrial categories.
- Provide an engineering description of the existing facilities.

Future conditions

- Describe other projects anticipated over the next 20 years.
- Provide the projected average and peak water demands by residential, commercial and industrial categories based on population trends. . Projections should be for at least 20 years in 5-year increments.
- Describe the projective service area and the projected population to be served.

Alternatives

Describe the project alternatives considered and the rationale for selected alternative based on the technical, managerial, financial, operational and local decision-making justifications for the selected approach. Where environmental resources (e.g. stream, wetlands, woodlots, etc.) are present, demonstrate how avoidance of impacts to such resources was included in the alternative evaluation and selection process. Discuss potential regionalization alternatives.

Selected alternative

The basis for choosing the selected alternative needs to be clearly identified. Discussion should include capital cost, ease of operation, reliability, environmental impacts, and sustainability, thereby helping demonstrate that it is, in fact, the most cost-effective, sustainable alternative. In addition, the selected alternative needs to be described in sufficient detail including the following.

- Provide an engineering description of the facilities to be constructed, including a basic layout (schematic and site plan), sizing of treatment units and a desired approved capacity of the treatment facilities.

- Describe how this project will address current and future compliance issues (i.e. disinfection byproducts, lead and copper corrosion, etc.), if applicable.
- All proposed facilities must be sized for current needs with a moderate allowance for future growth.

Include an accurate schedule for designing, bidding, constructing, and initiating operation of the proposed facilities.

Preliminary estimate

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

Public participation

Provide information regarding public participation for the project, to date, such as minutes from the council meetings, public meetings, or newspaper articles. Describe anticipated public participation activities, keeping in mind that the more controversial projects require evidence of public involvement and support.

Environmental issues

Describe the project area's major resources (e.g., streams, wetlands, woodlots, historic structures, etc.), the likely impacts of project implementation on these resources, how impacts to these resources can be avoided or minimized, and coordination with other agencies to address these resource issues. Describe anticipated construction-related impacts specific to proposed work (e.g., noise, dust, traffic disruption, erosion, and sediment runoff, etc.) and applicable best management practices to address them. Please contact the Ohio EPA – DEFA for further assistance with these topics.

Funding

Describe all anticipated sources of funding for the project, if known. Otherwise, identify likely funding sources to be pursued.

Compliance schedule

For systems presently out of compliance for drinking water requirements, discuss and submit any compliance schedules the system is required to follow with applicable milestone dates for the significant events that are necessary to attain compliance.