CAPITAL IMPROVEMENT PLAN CHECKLIST

**I. GOAL STATEMENT.** A goal statement is required in the CIP. The statement should address the quality of service to be provided, the area to be serviced, and how services will be delivered. The statement should read something like:

"The Town of Smallville will provide high quality drinking water at the lowest effective cost, to citizens within its corporate limits."

"Summerville County will provide wastewater treatment service to customers in

Water and Sewer District A in an efficient manner, with an emphasis on preserving the public health and the natural beauty of the county."

What is the goal statement for this particular capital improvement plan?

**II. DESCRIPTION OF PROJECT AREA.** Two areas need to be covered in the project area description: Demographics, and Land Area Configuration. Refer the most current statistics available.

1. **Demographics.** For demographic information, please cite the source of the data.

What is the population of the project area?

What is the poverty rate?

What is the median household income?

Compare/contrast these numbers with average state data.

1. **Land Area Configurations.** For topography, hydrography, and soil type information, cite the source of the data.
2. **Topography.** What is the landscape?

Hydrography. What creeks and rivers flow nearby? Does groundwater play an important part in the water supply? How does the land drain?

General soil types. What soil types are present in the project area? Do they drain well?

**III. DESCRIPTION OF EXISTING FACILITIES**

**A.** **General Status.** Information about the water and/or sewer systems should include:

When was the original construction date?

What was the historical development?

Were there any upgrades to the system(s)?

What are the dates of the last upgrades?

What is the current number of residential customers?

What is the current number of industrial customers?

What is the current number of commercial customers?

What are the pipes made of?

What range of sizes are the pipes?

What is the age(s) of the treatment plant(s)?

What kind of treatment does the system(s) provide?

What are the current water and/or sewer rates?

What are the projected water and/or sewer rates?

Provide a service area map.

**B. Existing Capacity.**

What is the capacity of the treatment plant(s)?

What is the average daily usage of the plant?

How much excess capacity exists beyond the average daily usage?

Are there any commitments of capacity to other units of local government to be utilized in the future?

Does the water treatment plant or well system have sufficient production capacity for the local government?

Does the wastewater treatment plant have sufficient capacity for the needs of the local government?

1. **Present Condition.**

What is the general operating condition of the system(s)?

For water systems, what is the annual percentage water loss? Anything over 10% annually is excessive.

What is the source of water loss?

Are there any problems with chlorine by-products, bacterial contamination, or naturally occurring mineral deposits (if the water source is a well) such as iron, arsenic, sulfur, fluoride, etc.?

Are there undersized pipes in the system, or piping that will no longer meet state regulations?

What type of water treatment system is there?

For wastewater treatment systems, is there inflow and infiltration?

Where is the source of the inflow and infiltration?

If the system has III problems, has the amount of III been estimated?

What steps have been or will be taken to correct the III?

What was the amount of III reduction from the completed repairs?

What type of wastewater treatment plant does the local government utilize?

Has the unit of local government received any Notices of Violation, Special Orders of Consent (SOC), or other environmental violation citations in the last two years?

What type of discharge (direct, land app, reuse) does the plant utilize?

1. **Previously Completed Studies, Assessments, Etc.**

Have other studies been done that have assessed the condition of the physical infrastructure of the project area?

When were they done? Who performed the study? What were the findings?

Have other studies been done that assessed rate and fee structures in the project area? When were they done? Who performed the study? What were the findings?

Does the project area government have a capital budget? What are its priorities?

Is the Capital Improvement Plan consistent with previously completed studies?

1. **Specific Limitations**

Is the project area in the Central Coastal Plain Capacity Use Area? **If** so, how is the community planning to meet the withdrawal limitations of the Central Coastal Plain Capacity Use Area rules?

Is the project area in the Southern Coastal Plain Capacity use Area? **If** so, how is the community working with other communities to conserve water, and to find alternate water sources?

How does the community plan for drought events?

1. **Long-Term Potential Alternatives.**

Over a 20-year planning period, what long-term changes to service delivery are predicted to occur?

Does the community expect to experience population growth?

Does the community expect to draw a large, water-using employer, or lose a large, water using employer (EX: textile mill, processing plant)?

Will the community eventually want to regionalize its water and/or wastewater services?

Would the community be open to water reuse, to conserve potable water?

**IV.DESCRIPTION OF KNOWN DEFICIENCIES** (over a six year horizon)

A. Identify capital outlay needs. Using the demographic, land area and facility information detailed above, the local government should identify improvement needs. Consideration should be given to meeting water and sewer demands at specified levels of service and reliability, improving system operations and performance, and recommended enhancements to current operation and maintenance programs. As a guide, it is suggested that local governments with populations less than 5000 consider capital outlays significant when they are over a $20,000 threshold. Local governments with populations greater than 5000 could consider significant capital outlays as those over $50,000.

B. Prioritize the requests. After the needs have been identified, prioritizing the needs establishes a ranking for the local government -a suggested order in which the needs should be addressed over time and as funds become available. Prioritization can be based on a simple ranking system using the judgment of decision-makers, or by a priority ranking system that identifies the degree of urgency or priority of function of each item listed. Other local governments may choose to use a more structured prioritization system, such as a two-tiered ranking system, that looks at both degree of urgency and priority of function. Both approaches are outlined below.

1. Example of a priority ranking system based on the degree of urgency, or priority of function:

1. Repairs or construction to ensure safety of persons or property

2. Construction to complete projects previously authorized

3. Major renovations or additions to provide fuller use of existing facilities

4. New facilities to reduce overcrowded conditions or relieve obsolescence

5. New facilities to meet increases in demand

6. New facilities to provide for improvements in programs

7. New facilities for new programs or services

2. Example of a two-tiered ranking system, using function and degree of urgency as the two tiers

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Function** Urgency  | **Protection** (1 )  | **Environ­mental Protection** (2)  | **Heritage** and Cultural (3)  | **Housing** (4)  | **Trans­**portation (5)  | **General Maintenance** (6)  | **Recreation** (7)  | *General* ***Government*** (8)  |
| Legislation. (1)  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| Hazard (2)  | 2  | 4  | 6  | 8  | 10  | 12  | 14  | 16  |
| Efficiency (3)  | 3  | 6  | 9  | 12  | 15  | 18  | 21  | 24  |
| Std. of Service (4)  | 4  | 8  | 12  | 16  | 20  | 24  | 28  | 32  |
| Economic Advantage (5)  | 5  | 10  | 15  | 20  | 25  | 30  | 35  | 40  |
| Increased or Improved Service (6)  | 6  | 12  | 18  | 24  | 30  | 36  | 42  | 48  |
| *New Service or Convenience* (7)  | 7  | 14  | 21  | 28  | 35  | 42  | 49  | 56  |

**Schedule requests (needs):** Most traditional capital improvement plans extend five to seven years in the future and are updated on an annual basis. This updating each year is generally done as part of the budgeting process for the local government. The process of scheduling requests allows a local government to divide out capital expenditures over the years covered by the CIP and to identify likely sources for funding the needed improvements.

An example of how a schedule can be structured is shown below. The current year (year in which the plan is done) is referred to as "Coming Budget Year". Expenditures from the previous year are referred to as "Prior Year Expenditures". The following years are referred to as "Planning Year One", "Planning Year Two", etc. The following matrix provides a sample schedule.

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| Project Number and Code | Total Project Expenditures  | Prior Year Expenditures | Coming Budget Year | Planning Year One | Planning Year Two | Planning Year Three | Planning Year Four | Planning Year Five | Years Beyond CIP Period |
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**V. FORECAST FUTURE NEEDS** (over a 7 -20 year horizon)

Provide a forecast of future needs and anticipated financial resources. Local governments may use planning-level opinions of probable cost for capital and operations and maintenance based on previous estimates or historical data from comparable work, costing curves, and estimating guides and handbooks. Provide a list and brief description of the needs with estimated costs.