

## II. **SYSTEM PLANNING**

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The Capital Improvements Program (C.I.P) and the Ten Year Needs Assessment are documents listing capital projects that have been identified by each department as necessary to provide satisfactory services to the community as well as meet future needs. The Ten Year Needs Assessment is prepared by City/County Planning and represents each department's best identification of projects necessary within a ten year time frame to meet City goals and policies. It does not require City Council adoption. The Five Year C.I.P. is a more refined document. It lists projects identified as necessary within five years. The Five Year C.I.P is developed from the Ten Year Needs Assessment and further clarifies the scope and financial factors specific to each project. The Five Year C.I.P is submitted to the Budget and Evaluation Department and requires adoption by City Council. The process of identifying and preparing the CMUD portion of these documents is similar and is described below.

### A. **Ten Year Needs Assessment**

The Ten Year Needs Assessment is a long range planning document listing projects required within a ten year time frame. The purpose of this document is to provide a long range planning tool that links the Five Year Capital Improvement Program and the Generalized Land Plan 2005 which is a 20-year planning document. For each project the following information is provided.

1. Project description
2. Cost of the project - broken down to planning/design, land acquisition, construction and equipment costs.
3. Status of the project (i.e. new, revised, returning)
4. Priority
5. The need for the project (i.e. how it relates to City goals or policies, improvements to the system.)
6. The project justification
7. How cost estimates were derived.
8. Impact statement

The Ten Year Needs Assessment is completed biannually in the fall. This document is then utilized as a planning tool for preparing the Five Year C.I.P.

### B. **Five Year Capital Improvement Program**

The Five Year Capital Improvement Program (C.I.P.) document is prepared annually and is a refinement of the Ten Year Needs Assessment. Therefore, the same information is provided for each project with a more accurate scope and cost estimate.

Capital projects basically meet one of five criteria:

1. Project that will serve the public overall, not one entity
2. Rehabilitation or maintenance of existing systems
3. Replacement of existing facilities (capacity)
4. Regulatory or legal requirements
5. Impact by outside agencies (CDOT, NCDOT)
6. Extension of service to developing areas

Every year new projects are added to the C.I.P and existing projects are reviewed and/or revised. Projects are identified mainly through long range studies, computer analysis, facility studies and maintenance of each system. In addition, Planning documents such as the district plans prepared by the Planning Department, the Generalized Land Plan 2005, population projections, the Needs Assessment, and landuse information assist in determining future capacity needs and where extension of service need to be provided. For example, many of the water projects are identified by a water distribution study conducted approximately every five years. Projects are also identified by individuals in the community such as members of the CMUD Advisory Committee, developers and engineers. All projects included in the C.I.P. are for the benefit of the overall community and not any one individual or entity.

Public meetings are held annually during the CIP process to allow the public to ask questions about projects identified and/or suggest projects. Names and addresses of people attending the meeting are taken in order to invite them in the following year. Anyone interested in being placed on this list may contact CMUD and their name and address will be added. Registered holders of this manual will be automatically added to the list of invitees.

Cost estimates are completed or revised on all projects annually. The cost estimate includes engineering, environmental assessment, land acquisition and construction costs. An inflation factor is also added into the estimate. Our goal is to make these estimates as accurate as possible. Several items are considered in sizing and determining cost such as location of project, population, expected population and landuse(or buildout), size of area (acreage) and difficulty of construction.

Each project is prioritized according to need annually in the following areas:

1. Maintenance and Rehabilitation of existing facilities
2. Replacement/Expansion of existing facilities (capacity needs)
3. Regulatory/Legal requirements
4. Improvement of service
5. Extension of service into developing areas

Most projects move up through the five years as originally scheduled. Other projects are accelerated or decelerated due to a change in scope or necessity of the project in order to provide satisfactory service to the community. The planning

tools mentioned previously (computer modeling, system studies, district plans, population projections, landuse information etc.) also assist in determining the priority of projects. An attempt is made to also coordinate scheduling of projects with other departments and agencies such as City Engineering, CDOT and NCDOT and Parks & Recreation.

The C.I.P. document along with overall maps of the existing systems and C.I.P. projects are submitted to Budget and Evaluation Department for review. A hearing is held to discuss the submittal, and the financial factors involved. The hearing usually takes place sometime in February. Further modifications to the C.I.P. are made through March. City Council reviews the C.I.P. for approval in June annually.