

4.2 DRAINAGE FACILITIES

The City owns, operates, and maintains a system of drains that conveys storm water and urban runoff. The system is managed by the wastewater division of the Department of Public Works, and the City does not maintain a separate budget for drainage maintenance or improvements.

I. Performance Standard

The City does not maintain performance standards for its drainage system. In general, the goal of the system is to prevent flood conditions that would adversely affect residences, businesses, and facilities within the City. The General Plan Circulation Element includes design standards for new roadways, which are to include gutters and proper slopes from the centerline to the edge of the roadway to address drainage and prevent pooling. The drainage system must also conform to standards set forth by National Pollutant Discharge Elimination System permit requirements, Federal Emergency Management Agency requirements, and Imperial Irrigation District requirements.

II. Facility Planning and Adequacy Analysis

Inventory of Existing Facilities

The City has never prepared a master plan for the drainage system. Underground drainage facilities primarily exist in the downtown portion of the City. Some City operated facilities drain into irrigation drains owned and operated by the Imperial Irrigation District. Major improvements were last made to the drainage system in the 1980s. Gutters are required in new streets within the City, with curbs required along the outside edges of the streets and a two percent slope required from the roadway's center line to the curb. These gutters convey storm water and keep water from pooling in the roadway.

Drainage issues are reviewed on a project-by-project basis. As a general policy, the City approves of the installation of retention basins on development projects. Projects developed within the City often contain grass fields or vegetated areas into which development-related flows drain and seep into the ground. Thus, drainage within the City is often self-contained within specific developments and does not flow into one large, City-operated system.

Adequacy of Existing Facilities

At the time of publication of this SAP, a drainage system master plan had been proposed to review the adequacy of the existing drainage system's operation and identify necessary future improvements as the City continues to grow. According to the manager of the Wastewater Treatment Plant, a Department of Public Works employee who oversees the management of the drainage system, the City's facilities are adequate to meet the needs of the City and prevent flood conditions. The age of portions of the underground pipelines may necessitate periodic maintenance of the existing system.

Future Demand for Facilities

As the City continues to grow, additional impervious surface will be constructed over agricultural land or otherwise undeveloped land, disabling storm water and urban runoff from seeping into the ground in its natural drainage pattern. This will require consideration for additional drainage facilities to prevent flood conditions. It is most likely that the City would continue to allow the construction of drainage facilities in each development that contains the flows from the development. Such facilities would be constructed by the developer, which would prevent the

City from needing to conduct major improvements in most parts of the City boundaries and SOI boundaries. Additional underground facilities may be required in the central portion of the City where existing City-maintained underground facilities are located, and improvement of existing facilities may be required. The wastewater division of the Department of Public Works has proposed the preparation of a master plan for the City's drainage system that would determine needs and opportunities for improvement to the system.

Opportunities for Shared Facilities

There are no opportunities for shared facilities.

Phasing

The City does not currently have plans for major improvement to the existing system of drainage facilities. As discussed above, the City is planning to prepare a drainage system master plan that would identify needs for improvements. As development continues within the City boundaries and the SOI, consideration will be given for storm water drainage issues in order to prevent flood conditions. Newly constructed roads associated with new development will be engineered to City standards and will include gutters and adequate slope from the centerline to allow the proper conveyance of storm water.

III. Funding

Current Funding

Within the City and the SOI, these facilities are mostly installed and funded by developers as projects are implemented. The wastewater division of the Department of Public Works is responsible for budgeting and allocating resources for the centrally located City-maintained facilities. Thus, funding currently comes from the Wastewater Capacity Fee Fund and the Wastewater Enterprise Fund. Routine maintenance, operation, and personnel costs are accounted for by the Wastewater Enterprise Fund, while any major improvement projects would be paid for out of the Wastewater Capacity Fee Fund.

Cost Avoidance Opportunities

The City is able to avoid costs for the development of drainage facilities by requiring developers to construct adequate facilities and retention basins on their projects.

Recommended Funding

Funding responsibilities for project-related facilities shall remain with the developers and secured prior to construction. Improvements to the centrally located City-maintained facilities shall remain under the guidance of the wastewater division of the Department of Public Works. As discussed in Section 4.2, the City plans to prepare a master plan for the municipal drainage facilities that would identify necessary improvements to the system. Such a master plan would also identify potential funding sources for large-scale improvements, including any opportunities for funding sources other than the Wastewater Capacity Fee Fund.

IV. Mitigation

In order for the City to assure the adequate provision of storm water and urban runoff drainage within the City boundaries and within the SOI, the City will implement the following measures.

- Prepare a Storm Water System Master Plan. This plan would include a complete inventory of existing facilities, presentation of the City's design requirements for drainage facilities, identification of the improvements that are necessary within the existing system and that would be necessary to accommodate additional growth, estimates of cost for necessary improvement projects, and a discussion of finance mechanisms within the wastewater division of the Department of Public Works that would fund necessary improvement projects.
- Continue to require new roadways within the City boundaries and the City SOI boundaries to meet City requirements for provision of gutter features and slopes to properly convey storm flow.
- Continue to require that new development projects address potential drainage issues and provide adequate facilities to convey storm flow. If developments would drain into facilities of the City's system, require that the developer consult with the Department of Public Works to assure that improvements are engineered and constructed to City standards.

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