
Capital Improvement Program

BETTER PLANNING AND OVERSIGHT ARE NEEDED TO EFFECTIVELY
IDENTIFY CAPITAL INFRASTRUCTURE NEEDS AND MANAGE
PROJECTS

JUNE 2011

Audit Report
Office of the City Auditor
City of San Diego



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THE CITY OF SAN DIEGO

June 29, 2011

Honorable Mayor, City Council, and Audit Committee Members
City of San Diego, California

Transmitted herewith is an audit report on the City's Capital Improvement Program (CIP). This audit found that better planning and oversight are needed to effectively identify capital infrastructure needs and manage projects within budget and schedule. This report is in accordance with City Charter Section 39.2. The Results in Brief is presented on page 1. The Administration's response to our audit recommendations can be found in Appendix VII, on page 93 of the report. Our comments to the Administration's response can be found in Appendix VIII, on page 107 of the report.

If you need any further information please let me know. We would like to thank staff from the following CIP service departments for their cooperation and assistance during this audit: Engineering & Capital Projects, Financial Management, Comptroller's Office, City Planning & Community Investment, and Purchasing & Contracting. We would also like to thank staff from the client departments and programs, including Airports, Disabilities Services, Fire-Rescue, General Services, Library, Park & Recreation, Police, Public Utilities, and Transportation & Storm Water. Their valuable time and efforts spent on providing us information are greatly appreciated. OCA staff that contributed to this audit report are Erin Noel, DeAndre McCall, Farhat Popal, Kyle Elser, and Chris Constantin.

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Abbreviations

ADA	Americans with Disabilities Act
CDBG	Community Development Block Grants
CIP	Capital Improvement Program
CIPRAC	CIP Review and Advisory Committee
DIF	Developer Impact Fees
E&CP	Engineering & Capital Projects
EVM	Earned Value Management
FBA	Facilities Benefits Assessment
GFOA	Government Finance Officers Association
HUD	Housing and Urban Development
OCA	Office of the City Auditor
PTS	Project Tracking System

Results in Brief

Finding 1 – The City Has Funding Gap for Capital Needs

Considering economic and financial pressures and aging infrastructure, it is critical that the City has an effective process to match identified capital needs with its Capital Improvement Program (CIP) budget.¹ We found that the City invested about \$2.2 billion on capital projects between fiscal years 2007 and 2011 with over half of this amount budgeted for requirements to improve aged and deteriorating water and wastewater infrastructure. However, the City's CIP investments have fallen short of capital infrastructure needs. The City estimates that it has about \$840 million in deferred maintenance for certain assets and about \$1.9 billion in unfunded capital needs, but officials say actual needs could be far greater. The funding gap is largely due to a decline in federal investment in infrastructure, limited available funding which frequently has restrictions for use, and competing priorities within the City.

The City issued its first of three planned deferred maintenance bonds in fiscal year 2010 to fund capital projects, such as asphalt overlay for streets. As the City issues future bonds, it will be important to ensure that it can effectively identify and prioritize capital needs. Without an effective process for identifying capital needs and deferred maintenance, the City cannot develop a plan for addressing these needs and eliminating the backlog. By not sufficiently investing in capital infrastructure, the City's backlog of deferred maintenance will increase and infrastructure will further deteriorate, potentially posing a risk to safety and homeland security. We are recommending that the Chief Operating Officer develop an effective methodology for identifying the City's deferred maintenance and capital needs and include them in future capital plans so that the City can make wise investments over time to address them.

¹ Subregional Planning, *Best Practices Planning and Implementation ToolBox: Capital Improvements Program* (http://subregional.h-gac.com/toolbox/Implementation_Resources/Capital_Improvement_Program_Final.html), 1.

Finding 2 – City Lacks Oversight of CIP to Ensure Projects Are Effectively Identified and Managed, Leading to Impediments Throughout Process

Effective oversight and coordination of departments involved is critical to ensure that funds are spent on the right projects and projects are managed within budget and schedule. We found that the City's process is complex with seven service and nine client departments having varying roles and responsibilities for identifying capital needs and implementing projects. This process lacks coordination and oversight, because no one department or leader is accountable or responsible for the process. Some organizations provide oversight over some aspects of the process, but they are not intended to oversee service department responsibilities or coordinate other stages of the CIP process, such as planning. For example, the Engineering & Capital Projects (E&CP) Department manages project implementation and the CIP Review and Advisory Committee (CIPRAC) ² provides oversight for prioritizing and approving CIP projects for the annual budget process.

We found that the lack of a central CIP office to oversee and coordinate the CIP process has contributed to impediments in the various stages of the process, leading to risks that the City is not effectively (1) identifying capital infrastructure needs and (2) managing quality projects that are within budget and schedule. These issues are addressed throughout this report, including the lack of integrated capital planning; inconsistent processes within client departments for identifying needed capital improvements; and impediments within E&CP for effectively managing projects within budget and scope. Further, we found that issues within service departments delay projects and issues that cut across departments, like Americans with Disabilities (ADA) projects, are not receiving sufficient priority.

By not having a unifying organizational structure that encourages efficiency, collaboration, and proactive management of the CIP, the City cannot ensure that it is making wise infrastructure investments and providing high quality assets in a timely and cost-effective manner. Further, without a central CIP office to communicate with stakeholders, the process will continue to lack transparency and stakeholders may have unrealistic expectations. We are recommending that the Chief Operating Officer establish a capital

² CIPRAC is chaired by the City's Assistant Chief Operating Officer and its membership includes senior-level officials from E&CP, City Planning & Community Investment, Comptroller's Office, Debt Management, Development Services, Disability Services, Financial Management, and the client departments.

program office to (1) coordinate and oversee the various responsibilities of service departments; (2) identify, leverage, and optimize funding sources; and (3) streamline and improve coordination and functionality of CIP related processes. The City should assess the best organizational structure for this office, such as by expanding CIPRAC's roles and responsibilities and providing necessary staff to work with client and service departments.

**Finding 3 – City Lacks
Integrated, Long-term
Capital Planning to
Address Infrastructure
Needs**

A capital improvement plan provides an overall perspective of developments in the City to enable decisionmakers and other stakeholders, including citizens, to take a long-range view of future needs, projects, and priorities. A prudent multi-year capital plan identifies projects beginning in later planning years, estimates the impact on future operating and maintenance costs, and identifies and prioritizes expected needs based on the long-range vision in the strategic plan.³ We found that the City lacks a comprehensive long-term CIP plan, because it uses an annual CIP budget as a “rolling” CIP. However, the fiscal year 2011 CIP budget does not provide a clear view of the City's planned capital improvements over the next five years and lacked projects starting in later years and accurate estimates of CIP project impacts on the City's operating budget. Without a clear and comprehensive capital improvement plan, decisionmakers will not have a view of future projects or an effective tool for identifying Citywide deficiencies or gaps; assessing tradeoffs across asset classes; planning, prioritizing, and arranging financing for major projects; and identifying and accommodating relationships between projects.⁴

We also found that, although the City is taking some steps to review CIP projects for conformance to the City's strategic plan—known as the General Plan—and community plans, the CIP is not primarily based upon these plans and no one department or office is responsible for ensuring that strategies and policies set forth in the General Plan will be implemented by the CIP. Although the City has three methods for linking the CIP with the General Plan and community plans, we identified issues with these methods. For example, the City links the General Plan with the CIP by developing financing plans for its 46 community plans, but we found that these financing plans are in various stages of readiness with only about 29 percent having been revised within the last 5 years. Financing plans are outdated because the City Administration made the decision to

³ Government Finance Officers Association, *Recommended Practice: Multi-Year Capital Planning* (2009), 1.

⁴ Vogt. A. John, *Capital Budgeting and Finance: A Guide for Local Governments* (Washington, D.C.:2004), 37.

suspend updates of financing plans in the fall of 2008 due to the economic downturn, but the impact is that (1) the CIP will not reflect current needs and priorities of communities and (2) sufficient funds will not be collected for capital needs.

Based on our survey of Community Planning Group leaders, 71 and 59 percent believe that the CIP will not enable the City to implement their community plan and the General Plan, respectively. By not developing a CIP plan that is primarily based upon the General Plan and community plans, the City cannot ensure that the policies and strategies within these plans will be fully and effectively implemented. Further, the City is increasing the risk that it will not be fully prepared to manage growth, respond to requirements for reducing greenhouse gas emissions, and address other critical policies outlined in the General Plan. We are recommending that the Chief Operating Officer require the capital program office, the establishment of which we recommended above, to (1) develop a multi-year CIP plan; (2) obtain input and approval of the plan from stakeholders—including community planning groups, the Planning Commission, and the City Council; (3) incorporate the first year of the plan into the annual CIP budget; and (4) update financing plans to ensure that appropriate fees are charged.

Finding 4 – City Is Taking Steps to Implement an Asset Management Approach, but Process for Identifying Capital Needs Is Inconsistent Among Client Departments

Government Financial Officers Association (GFOA) recommended practices establish that the first step in capital planning is identifying needs. Using information, including strategic plans, master plans, and citizen input processes, governments should identify present and future service needs that require capital infrastructure or equipment.⁵ Because the City lacks integrated capital planning, it is relying on client departments to effectively identify needs for its annual CIP budget. The City's Enterprise Asset Management Steering Committee is taking steps to collect and organize basic data on assets which will help officials better identify capital needs, but the City has not codified the asset management approach or linked the committee's efforts with capital planning and programming.

We also found that the extent to which client departments evaluate alternatives and prioritize CIP projects is inconsistent and varies based on the level of planning and available funds. Departments are not consistently evaluating project alternatives because (1) many lack formal processes or requirements for conducting risk assessments and lifecycle cost analysis to assess investment

⁵ GFOA. *Recommended Practice: Multi-Year Capital Planning* (2009), 1.

alternatives and (2) the City lacks an office to provide oversight and coordination to help ensure consistency. The City now has a framework for reviewing and approving capital decisions through CIPRAC and a priority scoring process based on City Council Policy 800-14, but we identified several concerns. For example, officials told us that there is no systematic mechanism for strategically establishing Citywide CIP priorities and the process continues to be subjective and based on the interpretation of the officials who rank the projects.

Without appropriate analysis to justify projects, officials cannot ensure that capital decisions are well-supported to decision makers and the public. By not ensuring that the overall prioritization framework is understood and consistently applied across departments, the City cannot ensure that it is investing resources wisely. While CIPRAC's role has been limited, it is evolving and we believe it will have the opportunity to provide a Citywide view and determine the right mix of projects by reviewing department investment proposals and existing capital assets as a portfolio. We are recommending that the Chief Operating Officer (1) establish a policy for implementing a Citywide asset management program to include a schedule and significant milestones; (2) require all client departments evaluate alternatives to projects based on desired outcomes; and (3) revise the charter for CIPRAC to update its mission, authority, and objectives.

**Finding 5 – E&CP Needs
to Improve Project
Management to Increase
Accountability and
Reduce Risks of Budget
and Schedule Overruns**

Given their scale and cost, capital projects can represent a significant risk for local governments. To mitigate this risk, governments should establish policies and procedures to support effective capital project monitoring and reporting.⁶ E&CP, the department primarily responsible for implementing CIP projects, has made progress centralizing and standardizing project management functions, such as by consolidating project schedule data into one system. However, we found impediments in E&CP's process for managing projects that affect its ability to effectively deliver projects within budget and schedule. For example, E&CP does not have a uniform set of objective goals and measures for assessing the quality of project management either at the Department or project level. The City suspended the reporting of performance goals for fiscal year 2011 while the Business Office revises the Citywide strategy—upon which departmental goals and measures will be based—to reflect

⁶ GFOA, *Best Practice: Capital Project Monitoring and Reporting* (2007), 1.

decreases in services provided due to significant budget reductions.⁷ Officials told us that they plan to establish goals and performance measures for fiscal year 2012. Without performance goals and measures and feedback to monitor results, E&CP cannot build confidence within client departments, the City Council, and the public in its ability to effectively manage the funds it spends on its projects.

Another impediment we identified is that E&CP's process for linking scope, budget, and schedule has limited capability to effectively manage and forecast project performance and does not link all three elements. The Department cannot efficiently integrate project scope, cost, and schedule because project schedules and expenditures are managed using two different systems that do not interface—Primavera 6 to manage projects schedules with the baseline budgets and the City's financial system to manage actual expenditures. The Department has a new system which just came online in the spring of 2011 that officials say will integrate the systems. By not integrating scope, budget, and schedule, project managers cannot efficiently and effectively measure project performance, forecast future performance, and identify performance problems in a timely manner so that they can be addressed.

Further, based on our statistical sample of projects to test the accuracy of Primavera 6 data, we found inaccuracies in about 67 percent of project dates related to the start of construction and about 90 percent of project dates related to the end of construction. Primavera construction dates are not accurate because E&CP does not maintain uniform project reporting requirements and does not have a method for holding project managers accountable for the accuracy of project data. Without creating a uniform procedure for updating project data and an effective internal control process to ensure the accuracy of project data, project managers will not have accurate information to efficiently and effectively manage performance. We are recommending that the Department Director (1) establish department-level performance goals and performance measures; (2) effectively integrate project scope, budget, and schedule, potentially using the Department's new integrator; and (3) establish a uniform procedure for updating project data in Primavera, an effective internal review process, and accountability for the accuracy and timeliness of data.

⁷ The City did not report performance measures in the fiscal year 2011 due to changes resulting from mid-year budget reductions and updates being made to the City's strategy.

Introduction

In accordance with the City Auditor's Fiscal Year 2011 Audit Work Plan, we conducted a performance audit of the City's Capital Improvement Program (CIP), which is implemented by an interrelationship of service and client departments. For example, Engineering & Capital Projects (E&CP)⁸ provides planning, design, project management, and construction management of CIP projects. Other service departments and offices include Financial Management, Comptroller's Office, Purchasing & Contracting, Equal Opportunity Contracting, and Development Services. Our objectives for this audit were to determine the extent to which the City effectively (1) invests resources; (2) provides oversight and coordination of the process for identifying capital infrastructure needs and implementing projects; (3) develops integrated, long-term CIP planning; (4) identifies capital infrastructure needs; and (5) manages CIP projects within budget and schedule. The five major findings in this report correspond to each of these objectives.

We conducted our review from February 2010 through June 2011 and limited our work to those areas specified in the Objectives, Scope, and Methodology section of this report. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We evaluated the internal controls related to our audit objectives. Our conclusions on the effectiveness of these controls are detailed within the following audit results.

The Office of the City Auditor thanks Department staff for their assistance and cooperation during this audit. Their valuable time and efforts spent on providing us information are greatly appreciated.

⁸ Although the City merged E&CP and the General Services Department into the Public Works Department in March of this year, these departments were separate during the time of our audit and we will discuss them in this report by their former titles.

Background

Our national infrastructure is a complex network of public works, including roads, bridges, airports, parks, public facilities, and utilities. A well-designed and maintained infrastructure anchors our economy and secures the public health and well-being. Investment in infrastructure is vital to productivity, competitiveness, and the economy.⁹ While the federal government plays an important oversight role, the nation's infrastructure is primarily owned and operated by state and local governments and the private sector. For example, local governments own about 77 percent of the nation's roads and highways.¹⁰ Federal, state, and local government investment in infrastructure decreased significantly over the past 30 years and has not kept pace with growing demands and regulatory requirements.¹¹ California spent 20 cents of every dollar on capital projects in the 1950s and 1960s, but that number has dropped to about one cent of every dollar today, despite increasing population growth in the state.¹² Underinvestment in infrastructure results in deferred maintenance, deteriorating infrastructure, decreased performance, and decreased reliability. It also poses a risk to safety and homeland security as evidenced by the recent bridge collapses in Minnesota and Oklahoma and the failure of New Orleans flood walls and levee system during Hurricane Katrina.¹³

The risk of underinvestment is only part of the equation. Of equal or greater concern is that the capital investments made are not the right ones. For example, infrastructure policy often favors new construction even when maintenance, renovation, and improved management may be the most cost-effective solutions. Further, politics often play a larger role in capital decision-making than sound investment strategies.¹⁴ In many cases, governments lack the policy

⁹ American Society of Civil Engineers California, *Infrastructure Report Card 2006: A Citizen's Guide* (California Region 9: 2006), 5.

¹⁰ U.S. Government Accountability Office, *Physical Infrastructure: Challenges and Investment Options for the Nation's Infrastructure*, GAO-08-763T (Washington, D.C.: May 8, 2008), 5.

¹¹ Center for Strategic & International Studies, *Guiding Principles for Strengthening America's Infrastructure* (Washington, D.C.: March 27, 2006), 2; and ASME Innovative Technologies Institute, LLC, *Optimizing Infrastructure Investments for the 21st Century* (Washington, D.C.: Oct. 2009), 1.

¹² American Society of Civil Engineers California, *Infrastructure Report Card 2006: A Citizen's Guide*, 6.

¹³ U.S. Department of the Treasury with the Council of Economic Advisers, *An Economic Analysis of Infrastructure Investment* (Washington, D.C.: Oct. 11, 2010), 18 and Center for Strategic & International Studies, *Public Works, Public Wealth: New Directions for America's Infrastructure* (Washington, D.C.: Nov. 2005), 1-2.

¹⁴ Center for Strategic & International Studies, *Public Works, Public Wealth: New Directions for America's Infrastructure* (Washington, D.C.: Nov. 2005), 2.

structures needed to make the correct choices and investments, resulting in a massive opportunity loss as dollars are diverted or misspent on the wrong projects.¹⁵ Additional concerns about capital programs involve an organization's ability to effectively and efficiently implement projects. The U.S. Government Accountability Office routinely finds that capital projects cost more than planned, fail to meet scheduled milestone dates, fail to meet missions and goals, and ultimately contribute to the perception that the government does not deliver on the services that people want at an acceptable cost.¹⁶

In the City of San Diego, long-term financial challenges, including several years of limited market access and minimal debt issuance, have resulted in about \$840 million of deferred maintenance and capital improvement needs.¹⁷ The City is currently operating under a Consent Decree and State of California Department of Health Services Compliance Order due to violations of the Clean Water Act and California Health and Safety Code, respectively, resulting from aged and deteriorating water and wastewater infrastructure.¹⁸ Further, San Diego's economy is inextricably linked to the convention and tourism industry which are significantly impacted by the quality, condition, appearance and continuity of operation of infrastructure assets and tourist amenities and attractions. As the City deals with unprecedented budgetary and resource constraints; a declining infrastructure; and increasing pressures to demonstrate results, accountability, and transparency, officials must make the best possible investments and effectively and efficiently manage capital projects.

¹⁵ ASME Innovative Technologies Institute, LLC, *Optimizing Infrastructure Investments for the 21st Century* (Washington, D.C.: Oct. 2009), 1; and Center for Strategic & International Studies, *Guiding Principles for Strengthening America's Infrastructure* (Washington, D.C.: March 27, 2006), 1.

¹⁶ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 8; The National Academies, *Capital Asset Management: Tools and Strategies for Decision Making*, Conference Proceedings (Washington, D.C.: 2001), 8.

¹⁷ The City's estimate excludes water and sewer projects. City of San Diego, *Five Year Financial Outlook for Fiscal Years 2012-2016* (San Diego, CA: Feb. 1, 2011), 23; and Standard & Poor's, *RatingsDirect: San Diego, California Appropriation: General Obligation* (New York: NY: May 15, 2008), 8.

¹⁸ Final Consent Decree in the matter of United States, et. al v. City of San Diego (San Diego, CA: July 28, 2007) and California Department of Health Services Compliance Order, Number 04-14-96CO-022, (Sacramento, CA: Jan. 17, 1997).

**Capital Infrastructure
Improvements and Asset
Management**

City officials are responsible for managing a diverse set of capital infrastructure assets from complex underground water distribution and wastewater collection systems to buildings, parks, streets, and bridges.¹⁹ Capital assets are generally large and expensive and expected to last for at least one year but may be required for decades of public use. These assets are subject to deterioration due to aging, climate, geological conditions, or changes in use. The lack of sufficient investment and effective decision-making frameworks can result in assets being neglected or receiving remedial maintenance. As a result, the assets will not last to their originally predicted life, unless they undergo major rehabilitation and renewal.²⁰ Asset managers are faced with many challenges regarding when and how to inspect, maintain, repair, renew, and replace a diverse set of existing facilities in a cost effective manner or face creating potential public safety risks and non-compliance issues that may exacerbate public financial difficulties. In addition, infrastructure projects frequently have implications beyond the immediate asset and require a balance of environmental and economic goals as well as consideration for broader community benefits.

Asset management is a strategic, comprehensive approach that involves the systematic collection of key data and the application of analytical tools to provide officials with a framework for making sound decisions about needed maintenance and replacements of the City's assets. Comprehensive asset management has the potential to help organizations better identify needs and plan future investments.²¹ An asset management strategy can provide proactive management of infrastructure and provide justification and support for capital planning, including investment levels and future requirements.

**San Diego's Capital
Improvement Program**

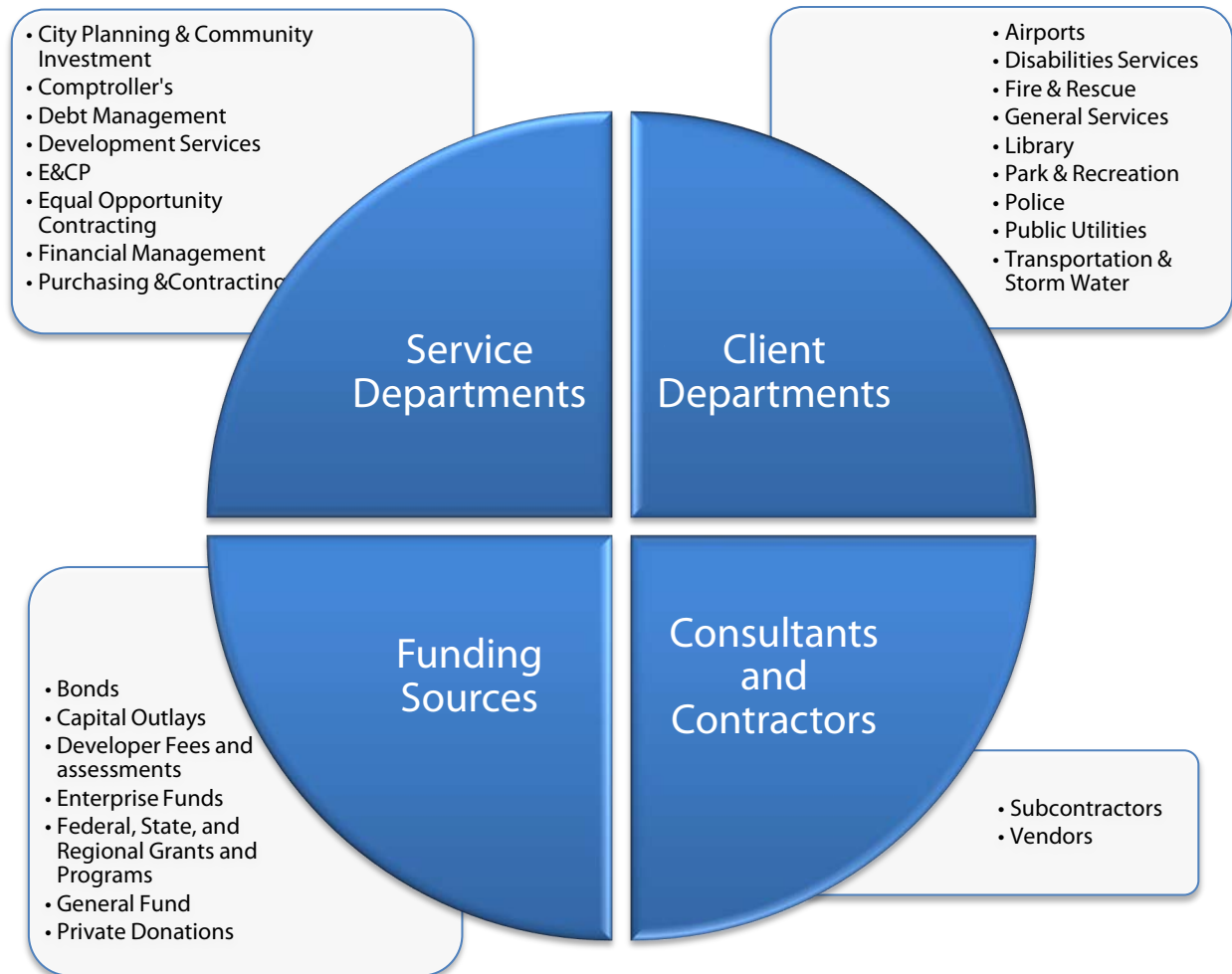
Like many cities, San Diego has a Capital Improvement Program (CIP) for installing new and replacing deteriorating capital infrastructure; however, the amount of work that can be carried out is limited by the City's ability to pay for these and other services that it provides. The City's CIP is implemented through an interrelationship of City

¹⁹ Capital assets are land, structures, equipment, and intellectual property that have an estimated life of two years or more. U.S. Office of Management and Budget, *Capital Programming Guide* (Washington, D.C.: June 2006), 67.

²⁰ National Research Council Canada, *Municipal Infrastructure Investment Planning Report: A Primer on Municipal Infrastructure Asset Management*, B-5123.3 (May 2004), 1.

²¹ U.S. Government Accountability Office, *Water Infrastructure: Comprehensive Asset Management Has Potential to Help Utilities Better Identify Needs and Plan Future Investments*, GAO-04-461 (Washington, D.C.: March 19, 2004), 5.

departments, including both service and client departments; multiple funding sources; and consultants and contractors. See Exhibit 1. Service departments, such as Financial Management and Engineering & Capital Projects (E&CP), have various responsibilities for implementing the CIP. Client departments—such as Public Utilities, General Services, and Park & Recreation—are generally those departments that will manage, operate, or maintain the future asset. Client departments are also responsible for identifying projects and funding sources for their proposed CIP projects during the annual budget development process. The CIP generally does not rely on the City's General Fund, but is funded through a variety of sources which frequently have conditions and restrictions on how the funds can be spent. Some departments, such as Public Utilities, have enterprise funds based on the collection of fees that can only be used for department-specific projects, like the construction of water and sewer pipes. General fund departments rely on developer fees and assessments, capital outlays, and grants, among other sources.

Exhibit 1**San Diego's CIP**

Source: OCA analysis of City documents and information.

CIP Review and Advisory Committee

The City established the CIP Review and Advisory Committee (CIPRAC), which first met in November 2008, to review, prioritize, and approve CIP projects for the annual budget process. The Committee is chaired by the City's Assistant Chief Operating Officer and its membership includes senior-level officials from E&CP, City Planning & Community Investment, Comptroller's Office, Development Services, Disability Services, Financial Management, and the client departments. The Committee reviews and approves CIP projects proposed by client departments initially when the CIP budget is developed and makes a final recommendation to the Mayor after a

final review of the budget in March. The Committee meets regularly to review and prioritize the majority of projects within the City at least three times during the project's lifecycle. Projects that are brought to the City outside of the annual budget cycle do not require CIPRAC approval.

General Plan and Community Plans

The CIP is an important vehicle in managing growth and implementing the adopted General Plan and community plans. The long-range policy implications of the CIP require that it be fully supportive of the planning objectives of the City.²² San Diego's General Plan, revised in March 2008, provides policy guidance to balance the population growth needs with community visions and values, including protecting canyons and open spaces, striving for sustainable use of resources, and preserving a high quality of life for future generations.²³ The policies within the General Plan provide a framework to guide the physical development of the City and will be used as guidance for community plan updates, public projects, master and redevelopment plans, and other implementation programs.

Within the General Plan, the City of Villages strategy focuses growth into mixed activity centers and is designed to sustain the long-term economic, environmental, and social health of the City and its many communities. San Diego has 55 planning areas and 46 community plans, and its community planning program has a long and diverse history dating back to the 1960s. Each community plan includes strategies to implement unique community needs and goals and has an associated financing plan which includes capital needs and, to some extent, funding sources. Financing plans are based on Developer Impact Fees (DIF) for more established communities and Facilities Benefits Assessment (FBA) for newer, developing communities. Development in DIF-based communities primarily involves infill—that is, the creation of infrastructure to address the impacts of new populations to an area that is already developed. DIF generally provide about 8 to 15 percent of funds for needed projects, so other funding sources are required. Developer fees cover 100 percent of capital needs in FBA-based communities. Community planning groups within each planning area represent the community when revising and updating community and financing plans and addressing other planning issues.

²² City of San Diego, *Council Policy 800-06: Capital Improvements Programming* (San Diego, CA: March 6, 1975), 1.

²³ California state law requires cities to adopt and periodically update a general plan to guide future development. *California Government Code § 65300*.

**Americans with
Disabilities Act**

The CIP is also an important vehicle for implementing Americans with Disabilities Act (ADA) projects. Title II of the ADA prohibits discrimination by public entities on the basis of disability by making all activities accessible to persons with disabilities. To enforce compliance with this act, the U.S. Department of Justice required the City to conduct an evaluation and develop a transition plan for completing needed structural changes to make programs and services accessible to persons with disabilities, such as removing physical barriers to accessibility and providing curb ramp retrofits. The City's Transition Plan, developed in 1997, includes needed structural changes to 212 City facilities. The City has funded ADA projects through land sales, developer fees, and Community Development Block Grants (CDBG).

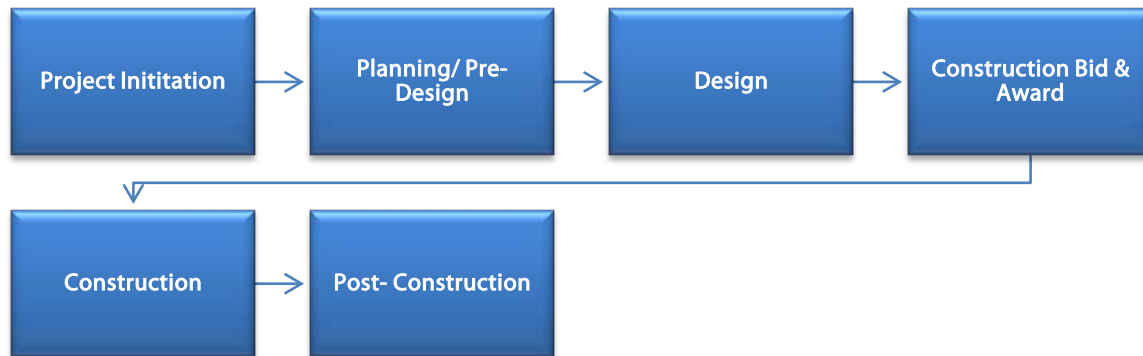
The CDBG program, operated by the U.S. Department of Housing and Urban Development, provides annual grants to state and local governments to address a wide range of development needs.²⁴ To be eligible for funding, City projects must meet at least one of the CDBG program's three objectives: (1) benefit low and moderate income persons, (2) aid in preventing or eliminating slums or blight, or (3) address a need with particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community. The Department of Housing and Urban Development provides guidelines for and monitors the use of the grant funds, including requiring that (1) 20 percent of CDBG funds be spent on the administration of these grants and (2) CDBG-funded projects be completed within a timely manner. In both fiscal years 2009 and 2010, the Department found that San Diego failed to properly administer funds and was not in compliance with regulations.

Project Management

Project management is the overall planning, coordination and control of a project from inception to completion aimed at meeting a client's requirements in order to produce a functionally and financially viable project that will be completed on time, within authorized cost, and to the required quality standards. The project manager or managers are responsible for managing every aspect of a project throughout its lifecycle from project intake to post-construction. See Exhibit 2.

²⁴ The CDBG program was established by Title I of the Housing and Community Development Act of 1974 (Public Law 93-383) as amended; 42 U.S. Code 5301.

Exhibit 2

Project Management Phases

Source: OCA analysis of E&CP information in Standard Operating Procedures.

Within San Diego, E&CP is primarily responsible for managing CIP projects for client departments, with the exception of Environmental Services which manages its own specialized needs. Engineering and project management functions were centralized and standardized into E&CP in fiscal year 2008 based on recommendations from the City's Business Process Reengineering Study for Engineering Services, and the City's engineering services went through organizational and procedural changes.²⁵ In prior fiscal years, engineering functions, such as design, planning, and construction, were spread across multiple departments.

²⁵ City of San Diego, *Final Report on Engineering Services Business Process Reengineering* (San Diego, CA: April 26, 2007), 22.

Objectives, Scope, and Methodology

In accordance with the City Auditor's Fiscal Year 2011 Audit Work Plan, we conducted a performance audit of the City's Capital Improvement Program (CIP). Our objectives for this audit were to determine the extent to which the City effectively (1) invests resources; (2) provides oversight and coordination of the process for identifying capital infrastructure needs and implementing projects; (3) develops integrated, long-term CIP planning; (4) identifies needed capital infrastructure requirements; and (5) manages CIP projects within budget and schedule. The five major findings in this report correspond to each of these objectives.

In conducting this review, we focused our scope on the City's process for identifying capital infrastructure needs and managing CIP projects, including all departments and organizations involved. We excluded an audit of contractor practices or performance. We also reviewed best practices and conducted a survey for other cities with similar population sizes to assess their capital improvement programs, such as how they identify needs and manage projects, and compare these with San Diego's processes. In addition, we used these cities to compare CIP contracting processes and contract specialist staffing levels. Cities we surveyed included:

- Austin, TX
- Denver, CO
- Phoenix, AZ
- Portland, OR
- San Jose, CA
- Seattle, WA

To determine the extent to which the City effectively invests resources and provides oversight and coordination of the process for identifying capital infrastructure needs and implementing projects, we analyzed CIP and operating budgets for fiscal years 2007 through 2011. We also reviewed Council Policies, standard operating procedures, reports, and other departmental documents and conducted extensive interviews with service and client department officials and to identify the City's CIP process. We interviewed and/or

surveyed officials from the following departments and programs:

- Airports
- City Planning and Community Investment
- Comptroller's Office
- Debt Management
- Development Services
- Disability Services
- Engineering & Capital Projects
- Equal Opportunity Contracting
- Fire-Rescue
- Financial Management
- General Services Department
- Library
- Park & Recreation
- Police
- Public Utilities
- Purchasing & Contracting
- Transportation & Storm Water

To determine the extent to which the City effectively develops integrated, long-term CIP planning, we reviewed the General Plan and related documents and select community and financing plans; analyzed City Planning and Community Investment Department data on financing plan updates; and assessed Council Policies related to strategic planning and the CIP. In addition, we conducted a survey of community planning group leaders and interviewed Planning Commission members to assess the extent to which the CIP will implement the General Plan and community plans and their level of involvement in developing the CIP.

To determine the extent to which the City effectively identifies needed capital infrastructure requirements, we surveyed client departments and assessed the extent to which they (1) maintain an inventory of capital assets, (2) assess the condition of these assets, (3) evaluate alternatives for capital projects, and (4) develop CIP master plans for their assets. We also reviewed best practices for capital programming and decision making and the management of infrastructure assets, interviewed the City's Enterprise Asset Management program manager, and observed steering committee meetings to identify the status of the committee's efforts. To assess CIPRAC's role for reviewing, approving, and prioritizing capital

projects, we observed meetings, reviewed committee documents, and surveyed client department officials.

To determine the extent to which the City effectively provides program management for CIP projects we interviewed City departments that provide service-related functions for CIP project implementation, including E&CP which provides engineering and project management services and the Office of the City Comptroller that provides accounting services and oversight. We also surveyed and interviewed client department officials that manage and own CIP assets, including Public Utilities and Park & Recreation. We conducted a statistical sample of completed projects to determine construction time, cost, and reliability. We also reviewed engineering, construction, and project management best practices to evaluate the efficiency and effectiveness of E&CP's management and implementation of CIP project.

We assessed the reliability of E&CP's Primavera 6 data by conducting a statistical sample of 53 projects and comparing project construction start and end dates in Primavera 6 with the actual dates from Notice to Proceed and Notice of Completion documents sent by E&CP/Field Engineering Division to the awarded contractor and County Recorder, respectively. While our review found some issues with the data systems as discussed in finding four of this report, we believe our samples provide sufficient and appropriate evidence to determine whether E&CP is effectively managing and monitoring CIP projects and reporting on their status.

Audit Results

Finding 1: City has Funding Gap for Capital Needs

A public agency's capital program typically represents one of its most significant financial obligations and managerial challenges. Considering economic and financial pressures and aging infrastructure, it is critical that the City has an effective process to match identified capital needs with its CIP budget and provides effective oversight to ensure that funds are spent on the right projects and projects are managed within budget and schedule.²⁶ We found that the City invested about \$2.2 billion on capital projects between fiscal years 2007 and 2011 with over half of this amount budgeted for requirements to improve aged and deteriorating water and wastewater infrastructure. However, the City's Capital Improvement Program (CIP) investments have fallen short of capital infrastructure needs. For example, the City estimates that it has about \$840 million in deferred maintenance for certain assets and about \$1.9 billion in unfunded capital needs.²⁷

City's Significant Investment in CIP Is Dominated by Requirements for Water and Wastewater

We found that the City budgeted about \$2.2 billion on capital projects between fiscal years 2007 and 2011. Over half of this amount was for required improvements to water and wastewater infrastructure.²⁸ See Exhibits 3 and 4. The budget almost doubled from \$294 million in fiscal year 2007 to \$587 million in fiscal year 2009 largely due to increased expenditures for required water and wastewater projects. However, the CIP budget decreased to \$300 million in fiscal year 2011, about \$179 million or 37 percent less than the previous year. The decrease is largely due to changes in budget policy. For example, costs which are not capital in nature, such as

²⁶ Subregional Planning, *Best Practices Planning and Implementation ToolBox: Capital Improvements Program* (http://subregional.h-gac.com/toolbox/Implementation_Resources/Capital_Improvement_Program_Final.html), 1.

²⁷ City of San Diego, *Report to the City Council Budget and Finance Committee: Deferred Capital Update*, Report No. 11-037 (San Diego, CA March 8, 2011) and City of San Diego, *Fiscal Year 2011 Adopted Budget: Volume III - Capital Improvements Program* (San Diego, CA).

²⁸ The City is currently operating under both a Consent Decree and State of California Department of Health Services Compliance Order due to violations of the Clean Water Act and California Health and Safety Code, respectively. Final Consent Decree in the matter of United States, et. al v. City of San Diego (San Diego, CA: July 28, 2007) and California Department of Health Services Compliance Order, Number 04-14-96CO-022, (Sacramento, CA: Jan. 17, 1997).

payments to San Diego Gas & Electric for the Utilities Undergrounding Program—which were included under Engineering & Capital Projects (E&CP) budget in previous years—have been moved to the City’s operating budget. Further, the fiscal year 2011 budget includes an additional \$222.5 million of anticipated funding for capital projects which has not been appropriated.²⁹

Exhibit 3

Detailed CIP Budget, Fiscal Years 2007-2011

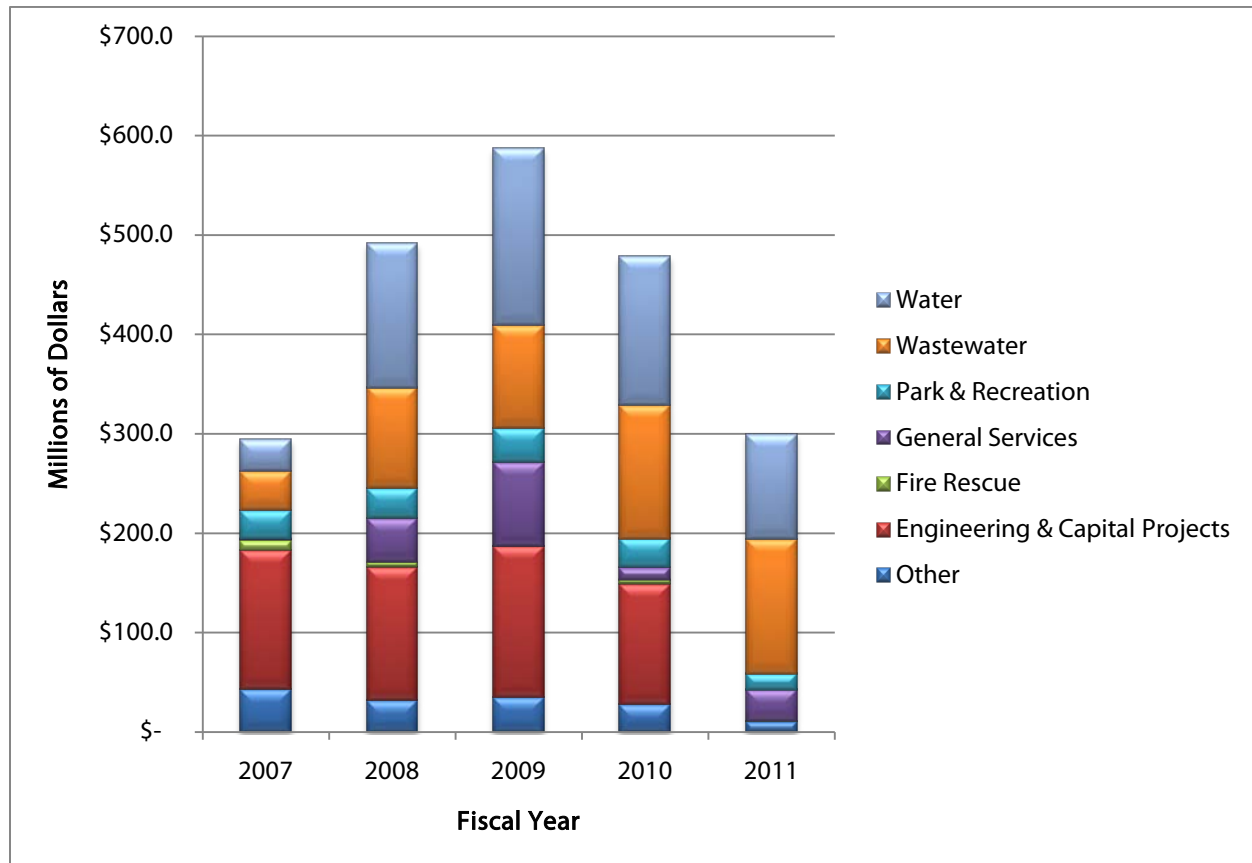
Millions of Dollars

Category	2007	2008	2009	2010	2011	Total
E&CP	140.0	134.5	151.9	121.5	-	547.9
Fire-Rescue	9.5	4.8	-	4.1	0.5	18.9
General Services	2.0	44.0	84.8	12.2	31.4	174.4
Other	43.1	31.4	34.6	27.4	10.3	146.8
Park & Recreation	28.7	30.7	34.6	29.4	16.5	139.9
Wastewater	39.5	100.7	103.1	134.1	135.2	512.6
Water	31.1	145.6	177.9	149.8	105.7	610.1
Total	294.0	492.0	587.0	479.0	299.6	2,150.6

Source: OCA analysis of CIP budget data.

Note: “Other” includes Airports, Comptroller’s Office, City Planning and Community Investment, Development Services, Environmental Services, Library, Office of the Chief Information Officer, OneSD, QUALCOMM Stadium, Real Estate Assets, and Stormwater.

²⁹ This represents funding that was uncertain to be received when the budget was developed but may be appropriated if received.

Exhibit 4**CIP Budget, Fiscal Years 2007-2011**

Source: OCA analysis of City's CIP budget data.

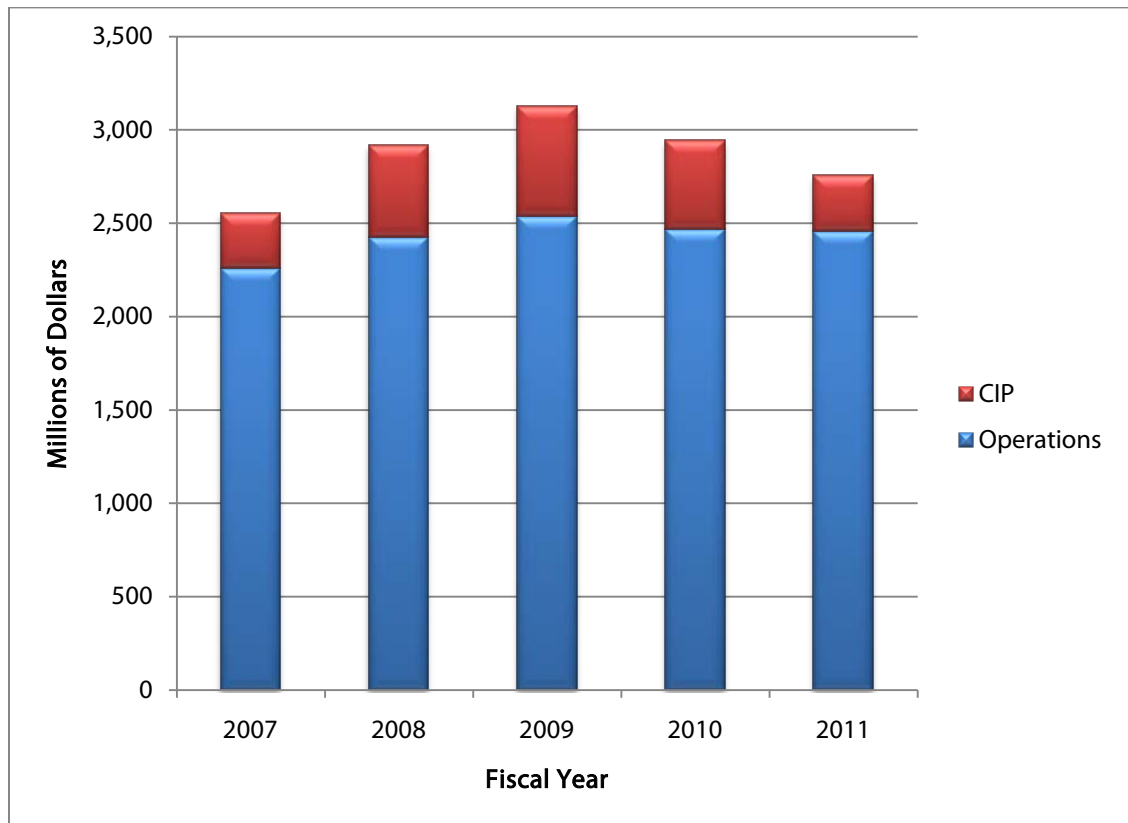
Note: "Other" includes Airports, Comptroller's Office, City Planning and Community Investment, Development Services, Environmental Services, Library, Office of the Chief Information Officer, OneSD, QUALCOMM Stadium, Real Estate Assets, and Stormwater.

The CIP accounted for about 11 percent of the City's total expenditure budget in fiscal year 2011. See Exhibits 5 and 6. Although this represents about a 5.3 percent decrease in the CIP as a percentage of the City's total Operations and CIP budgets from fiscal year 2010, much of the decline is attributable to the shift of non-capital costs to the Operations budget.

Exhibit 5**City's CIP and Operations Budgets, Fiscal Years 2007-2011***Millions of Dollars*

Budgets	2007	2008	2009	2010	2011	Total
Operations	2,263	2,425	2,540	2,466	2,457	12,151
CIP	294	492	587	478	300	2,150
Total	2,556	2,916	3,127	2,944	2,756	14,301
CIP as Percentage of Total	11.5 %	16.9 %	18.8 %	16.2 %	10.9 %	15.0 %

Source: OCA analysis of City's financial data

Exhibit 6**City's CIP and Operations Budgets, Fiscal Years 2007-2011**

Source: OCA analysis of City's financial data

**CIP Investments Fall
Short of Capital
Infrastructure Needs**

A CIP is used by local governments to match their identified capital needs with their budget.³⁰ We found that the City's investment in the CIP has fallen short of capital needs. The City estimates deferred maintenance and capital needs for street pavement, buildings, and storm drains to be about \$840 million.³¹ See Exhibit 7. We identified two issues regarding the City's deferred maintenance and capital needs. First, officials told us that the City has never completed a comprehensive assessment of all City assets to determine the levels of deferred maintenance, so actual needs are likely far greater. For example, officials said that the City has never conducted an assessment of non-building park and recreation assets, and deferred maintenance and capital needs for these assets alone could be more than \$2 billion based on estimates in other cities. Second, the City's estimates of deferred maintenance for storm drain assets are subjective and based on professional judgment and the age of the assets, because condition assessments have only been completed for a portion of these assets.³² Fully assessing the condition of all of the City's storm drain assets is uncertain due to tight financial constraints.³³ To begin to address deferred maintenance, the City (1) established a deferred capital program for street pavement, buildings, and storm drains and (2) planned a series of deferred maintenance bonds, the first of which was issued in fiscal year 2009 and is expected to provide about \$103 million toward the \$840 million of total needs.

³⁰ Subregional Planning, *Best Practices Planning and Implementation ToolBox: Capital Improvements Program* (http://subregional.h-gac.com/toolbox/Implementation_Resources/Capital_Improvement_Program_Final.html), 1.

³¹ The \$840 million was calculated by City officials and presented to the City Council. City of San Diego, *Report to the City Council Budget and Finance Committee: Deferred Capital Update*, Report No. 11-037 (San Diego, CA March 8, 2011). Deferred maintenance generally includes needed improvements and rehabilitation to existing structures and facilities rather than new construction. This figure excludes water and wastewater assets. A Public Utilities official told us that the Department does not have a backlog of deferred maintenance, but its CIP master plans include an extensive planned infrastructure replacement program over the next 20 years. If the Department is unable to secure funding through rate adjustments in the future, then it will start building a substantial deferred maintenance backlog as early as fiscal year 2013.

³² City estimates for deferred maintenance for streets and buildings are based on conditions assessments conducted in 2007 and 2009, respectively.

³³ A contractor is currently assessing the condition of corrugated metal storm drain pipes for the City. The condition of the reinforced concrete pipe portion of the system will be assessed as funding becomes available.

Exhibit 7**City's Deferred Maintenance and Capital Needs**

Category	Millions of Dollars	Percentage of Total
Street Pavement	378	45
Buildings ^a	216	26
Storm Drains	246	29
Total	840	100

Source: OCA analysis of deferred maintenance and capital needs data provided by City officials.

^a The buildings category includes 443 facilities which are maintained and operated using the City's General Fund, such as Park & Recreation and Library facilities. This calculation excludes water and wastewater facilities.

The City also reported about \$1.9 billion in unfunded capital needs in its fiscal year 2011 CIP budget, including existing and new projects with insufficient funding identified to complete the project. About \$1.4 billion or 70 percent of the cost of these projects lack funding sources. However, officials told us that all needs were not assessed and are not included in this figure. Considering tight financial constraints in the City, limited resources, and the significant reported amount of deferred maintenance, it is critical that the City has an effective approach for identifying the condition of its assets and needed infrastructure investments. As discussed later in this report, the City is beginning to implement asset management—an approach that will provide key data on the inventory and condition of assets to help officials make sound decisions about needed maintenance and replacements of the City's assets.

The City's investment has not been sufficient to cover deferred maintenance and capital needs for two reasons. First, the CIP is financed through a variety of sources and the availability of funds from these sources, such as grants, will affect the level of investment the City makes. For example, federal investment in infrastructure has declined over the past three decades while state and local government spending has remained approximately the same which has translated into a deficit in infrastructure investment.³⁴ Second, the City is constrained by limited available funding and competing funding priorities. For example, the various funding sources for CIP projects are frequently non-discretionary and have predetermined conditions and restrictions on how the funds can be used. See Appendix I. Some departments, such as Public Utilities, have

³⁴ Center for Strategic & International Studies, *Public Works, Public Wealth: New Directions for America's Infrastructure* (Washington, D.C.: Nov. 2005), 1.

enterprise funds that are fully self-supporting from revenues generated by rates, fees, and charges, but the enterprise fund is limited to use for department-specific projects. General fund departments, such as Park & Recreation, rely on developer fees and assessments, capital outlays, donations, and grants, among other sources. In some cases, General Fund departments must compete for limited available resources for projects. According to officials, the City may not leverage funds in the most effective manner because each department identifies capital needs and priorities.

City officials also told us that due to (1) the way the CIP is funded through a variety of funding sources which frequently have restrictions on how funds can be spent and (2) competing funding priorities for limited General Fund resources, the City's CIP priorities are driven by federal and state funding sources, such as grant programs. As a result, CIP projects often reflect the requirements of the grant more than the priority needs of the City department, and the City is underinvesting in some critical asset types. According to officials, this approach does not encourage proper and balanced CIP planning.

The issuance of bonds is another source of funds for CIP projects; however, the City faced constraints in using debt to finance capital projects due to limited market access to public bond markets from 2004 through 2008.³⁵ Although San Diego's policy is to initially rely on internally-generated funds and/or grants and contributions from other governments to finance its capital needs, in fiscal year 2010 the City issued its first deferred maintenance bond. Proceeds from the bond provided about \$94 million to fund capital projects, such as asphalt overlay for streets. The City expects to issue new bonds in fiscal years 2012 and 2015 to help address the backlog of deferred capital infrastructure projects.³⁶ The timing of bond issuance depends largely on E&CP's and other service department's capacity to implement projects. Close coordination of capital planning and debt planning is needed to ensure that the maximum benefit is achieved with limited capital funds. Without an effective process for identifying capital needs and deferred maintenance, the City cannot

³⁵ The City was unable to issue bonds in public markets from 2004 through 2008. Standard and Poor suspended its credit rating because it could not evaluate the City's credit due to delays in the release of audits and missing financial statements. Officials told us that during this time period, the City financed about \$600 million for water and wastewater capital needs.

³⁶ According to the City's policy, debt will be issued for a capital project only when it is an appropriate means to achieve a fair allocation of costs between current and future beneficiaries and if a secure revenue source is identified to repay the debt.

develop a plan for addressing these needs and eliminating the backlog. By not sufficiently investing in capital infrastructure, the City's backlog of deferred maintenance will increase and infrastructure will further deteriorate, potentially posing a risk to safety and homeland security.

Finding 2: City Lacks Oversight of CIP to Ensure Projects are Effectively Identified and Managed, Leading to Impediments Throughout Process

Oversight and coordination of departments involved is critical to ensure that the CIP process effectively and efficiently achieves the City's goals. We found that the City's process is complex with 16 departments having varying roles and responsibilities for identifying capital needs and implementing projects. This process lacks coordination and oversight, because no one department or leader is accountable or responsible for the process. As a result, we identified impediments throughout the various stages of the process leading to risks that the City is not effectively (1) identifying capital infrastructure needs and (2) managing projects that are within budget and schedule. For example, issues within service departments delay projects. Further, issues that cut across departments, like Americans with Disabilities (ADA) projects, are not receiving sufficient priority.

**CIP Process is Complex
with Numerous
Departments Having
Varying Roles and
Responsibilities**

Effective capital program development and execution requires a broad range of resources and competencies to ensure that investments are made on the right projects and these projects are well-managed. In San Diego, the formulation of the CIP requires coordination among the various participating City Departments in order to maximize the effectiveness of public investments and commitments.³⁷ The CIP process involves seven service departments and nine client departments and programs with various roles and responsibilities throughout the different stages from planning to post-construction. See Exhibits 8 and 9. For example, E&CP³⁸ provides engineering and project management services for client departments, such as the Public Utilities and Park & Recreation, which are responsible for identifying needed projects and funding sources and will manage, operate, or maintain the future asset.

³⁷ City of San Diego, *Council Policy 800-06: Capital Improvements Programming* (San Diego, CA: March 6, 1975), 1.

³⁸ Although the City merged E&CP and the General Services Department into the Public Works Department in March of this year, these departments were separate during the time of our audit and we will discuss them in this report by their former titles.

*Exhibit 8***Service Departments'/Divisions' Responsibilities in CIP Process**

Department/Division	Responsibilities
City Planning and Community Investment	<ul style="list-style-type: none"> Provides financing to client departments through its Facilities Benefits Assessments and Developer Impact Fees programs. Negotiates reimbursement agreements with developers for turn-key projects. Provides coordination between City staff and the developer during project construction. Prepares General Plan and community plans. Develops Park & Recreation Department CIP.
Comptroller's Office	<ul style="list-style-type: none"> Ensures that all funds are fully accounted for and are available prior to any contractual expenditure of funds from CIP accounts. Capitalizes assets when projects completed.
Debt Management	<ul style="list-style-type: none"> Plans and implements bond programs.
Development Services	<ul style="list-style-type: none"> Issues permits. Reviews and conducts environmental analysis in accordance with the California Environmental Quality Act.
E&CP Project Implementation & Technical Services	<ul style="list-style-type: none"> Provides preliminary engineering services for all CIP projects, with the exception of Environmental Services Department projects. Reviews projects for compliance with Americans with Disabilities Act. Provides community outreach prior to and during project construction. Provides environmental and permitting assistance. Provides quality reviews of plans and specifications and prepares bid packages for the contract Bid and Award phase. Provides mapping into IMCAT for all new CIP's.
Right-of-Way Design	<ul style="list-style-type: none"> Manages the implementation of right-of-way and related horizontal CIP projects. Designs and provides project management for: <ul style="list-style-type: none"> Water and sewer pipelines and storm water drainage. Transportation and street-related projects Utilities undergrounding projects
Architectural Engineering & Parks	<ul style="list-style-type: none"> Manages the implementation of non right-of-way and vertical capital improvement projects. Designs and provides project management for: <ul style="list-style-type: none"> Buildings Parks and recreational facilities Airport-related projects Water and sewer treatment plants, reservoirs, pump stations, and storm water
Field Engineering	<ul style="list-style-type: none"> Provides construction management services. Performs quality control and assurance via inspection of CIP projects. Conducts inspection of private land development and Developer Reimbursement Agreements for public infrastructure. Performs testing of construction materials. Performs land surveying for design and construction of CIP projects.
Equal Opportunity Contracting	<ul style="list-style-type: none"> Manages City's Subcontractor Outreach Program and Small and Local Business Enterprise Program.
Financial Management	<ul style="list-style-type: none"> Prepares and publishes CIP budget based on input from client departments, E&CP, and other sources. Reconciles Capital Outlay Fund from land sales.
Purchasing & Contracting	<ul style="list-style-type: none"> Manages bid and award process for CIP contracts.

Source: OCA analysis of City budget and departments' documents.

*Exhibit 9***Client Departments/Programs and Primary CIP Funding Sources**

Department/Program	Fund		Primary CIP Funding Sources
	General	Enterprise	
Airports		√	<ul style="list-style-type: none"> Revenues from leases and parking, landing, and fuel flowage fees Federal Aviation Administration grants
Disability Services	√		<ul style="list-style-type: none"> Community Development Block Grants Land Sales DIF
Fire-Rescue	√		<ul style="list-style-type: none"> DIF and FBA Community Development Block Grant Redevelopment Funds Tax Increments and Community Donations through the Fire Rescue Foundation
General Services	√		<ul style="list-style-type: none"> Capital Outlay Bond DIF and FBA Golf Course Enterprise Fund Deferred Maintenance Bond
Library	√		<ul style="list-style-type: none"> Redevelopment Funds (Centre City Development Corporation) California State Library Grants Private Donations DIF First 5 San Diego Grants General Fund
Park & Recreation	√ ^a		<ul style="list-style-type: none"> DIF and FBA Park Service District Fees Golf Course Enterprise Fund Federal and State Grants Community Development Block Grant Regional Park Fund Deferred Maintenance Bond Environmental Growth Fund
Police	√		<ul style="list-style-type: none"> Deferred Maintenance Bond Developer Funds (depending on area of City) Land Sales
Public Utilities		√	<ul style="list-style-type: none"> Water and Sewer Enterprise Funds Grants Loans Bond Financing
Transportation and Storm Water	√		<ul style="list-style-type: none"> TransNet Federal and State Programs and Grants DIF and FBA Deferred Maintenance Bond Capital Outlay General Fund

Source: OCA analysis of client survey responses.

^a Park & Recreation is a General Fund department, with the exception of its golf courses.

Notes: We are not including the Environmental Services Department as a client for CIP projects, because it generally does not use E&CP's services due to the unique nature of the projects. E&CP officials told us they may implement an Environmental Services project in the near future.

**Many Aspects of CIP
Process Are
Decentralized and City
Lacks Coordination and
Oversight**

We faced challenges in comprehensively identifying the City's CIP process because it is complex and has not been fully institutionalized or codified in policies. Further, many aspects of the process are decentralized and the City has limited coordination and oversight of all stages. For example, as discussed in more detail in findings three and four of this report, the City's process for identifying needed capital projects is decentralized among the nine client departments. The City's CIP process lacks oversight because no one department or leader is accountable or responsible for the process. Some organizations, such as E&CP and CIPRAC, provide oversight over some aspects of the process. The City's engineering and project management functions were centralized under E&CP in fiscal year 2008 as a result of Business Process Reengineering efforts.³⁹ It came to our attention during the audit that many departments and other stakeholders mistakenly believe that E&CP provides oversight over the entire CIP process; however, the Department's engineering expertise and responsibilities are limited to Project Implementation which is the final stage of the CIP process.

In addition, the City established CIPRAC to provide oversight for prioritizing and approving CIP projects for the annual budget process. While CIPRAC has improved the approval process, as discussed later in this report, it is comprised of senior level officials from each of the client departments and is currently not intended to oversee service department responsibilities or coordinate other stages of the CIP process, such as planning.⁴⁰ City officials agreed that CIPRAC cannot conduct planning, management, and oversight of the CIP unless its roles and responsibilities are revised. Further, they said that overall CIP planning and prioritization must be a facilitated collaborative process through CIPRAC but then managed by a department such as a central CIP office mentioned above or CIPRAC itself if upgraded to assume these new roles.

To better explain the issues associated with the CIP process, we broke it down into four major stages. See Exhibit 10. Highlights from these stages include:

- *Planning* – Client departments may develop master CIP plans, and the City Planning and Community Investment Department

³⁹ City of San Diego, *Final Report on Engineering Services Business Process Reengineering* (San Diego, CA: April 26, 2007), 22.

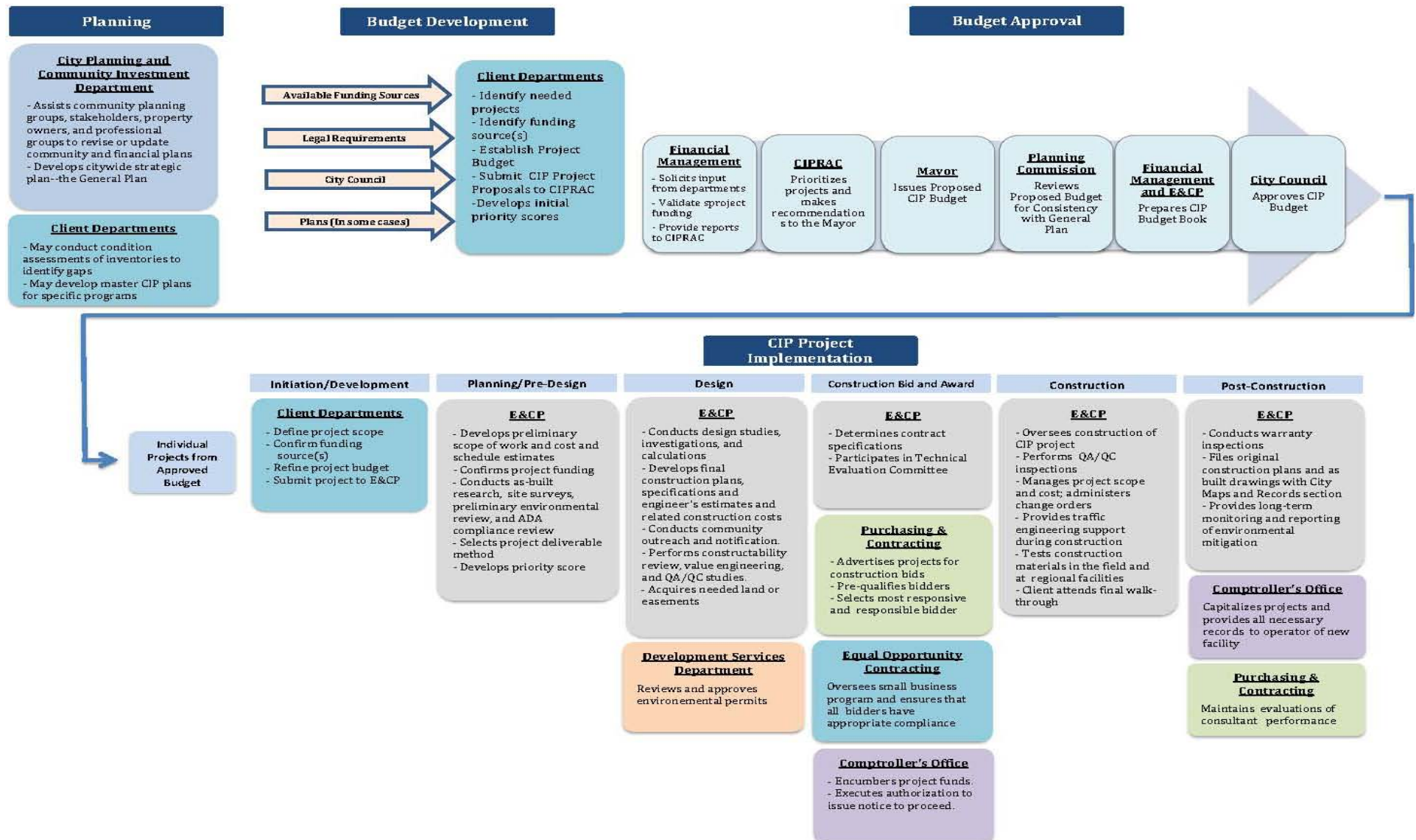
⁴⁰ CIPRAC is chaired by the City's Assistant Chief Operating Officer and its membership includes senior-level officials from E&CP, City Planning and Community Investment, Comptroller's Office, Debt Management, Development Services, Disability Services, Financial Management, and the client departments.

works with community planning groups to revise and update community and financing plans.

- *Budget Development* – Client departments identify capital needs, identify funding sources, and prepare CIP annual budget submissions. Note that CIP projects can also be brought to the City Council for approval outside of the budget cycle and this is not included in our diagram.
- *Budget Approval* – Financial Management compiles CIP budget based on input from client departments, and CIPRAC reviews and approves projects and makes recommendations to the Mayor.
- *Project Implementation* – Client departments define project scope, confirm funding, and submit project to E&CP for implementation; E&CP provides engineering and project management services from planning to post-construction; and Purchasing & Contracting manages the bid and award process for consultant and construction contracts.

Exhibit 10

Overview of City's Process for Identifying and Implementing CIP Projects



Source: OCA analysis of documents and information obtained from service and client department officials

Lack of Oversight Has Contributed to Impediments in the Various Stages of the Process

We found that the lack of a central CIP office to oversee and coordinate the CIP process has contributed to impediments in the various stages of the process, leading to risks that the City is not effectively (1) identifying capital infrastructure needs and (2) managing projects that are within budget and schedule. These issues are addressed below and throughout this report, including the lack of integrated capital planning; inconsistent processes within client departments for identifying needed capital improvements; and impediments within E&CP for effectively managing projects within budget and scope. By not having a unifying organizational structure that encourages efficiency, collaboration, and proactive management of the CIP, the City cannot ensure that it is making wise infrastructure investments and providing high quality assets in a timely and cost-effective manner. Further, without a central CIP office to communicate with stakeholders, the process will continue to lack transparency and stakeholders may have unrealistic expectations.

City Faces Challenges Using CDBG Funds for CIP Projects

Limited oversight and coordination of the CIP has also affected the City's ability to effectively use Community Development Block Grant (CDBG) funding for projects. For example, the City has had challenges complying with the U.S. Department of Housing and Urban Development's (HUD) requirements for CDBG funds and recently reprogrammed \$11.6 million and cancelled projects to avoid the loss of HUD funding.⁴¹ The City's issues stem from noncompliance with two of HUD's requirements. First, HUD requires that 20 percent of CDBG funds be spent on the planning and administration of the program to ensure that it is effectively managed. Previously, the City was not expending the full 20 percent on its own planning and administration and E&CP was using a portion of funds for its soft costs, such as fees for architects and consultants.

While HUD allows funds to be spent for design or planning of projects, this would have affected the 20 percent cap, so the City's CDBG program office is no longer allowing E&CP to spend into this portion of the funding. E&CP officials told us that some of the cancelled projects lacked the needed funds to get them started. For example, the Mission Beach Community Clinic, Alzheimer Family Center, and Barrio Youth Facilities projects were funded in the fiscal year 2009 budget only with CDBG funds. As a result, E&CP lacked the funds needed for planning and design of the projects, so the City

⁴¹ The \$11.6 million includes both CIP and other projects funded by CDBG. Of this total, about \$1.2 million was reprogrammed for ADA projects and at least five ADA projects were cancelled as a result of this issue.

reprogrammed the CDBG funds to pay off HUD loans.

Second, HUD requires that projects be implemented in a timely manner. The timeliness requirement is based on an expenditure ratio of 1.5—that is, if the amount of grant funds available cannot be more than 1.5 times the entitlement grant amount for the program year. In August 2010, the City’s balance of CDBG funds was \$33 million which equals a 2.2 expenditure ratio. The City told the HUD Director that the large balance of CDBG funds was due to delays in projects. City officials also told us that projects were delayed because the City Council was awarding small amounts of funds toward many projects which resulted in the banking of funds year after year until it was fully funded.

The City Council developed a policy to ensure the City’s compliance with HUD requirements, for example by requiring that funds allocated to projects must be used within 18 months of the allocation.⁴² This policy also included a requirement that no banking of funds is allowed. E&CP officials told us that the City’s rules for the use of CDBG funds have changed and that they were not informed in a timely manner of the changes. The City Planning & Community Investment Office that administers CDBG funds told us that E&CP was notified of the changes but reluctant to accept them until the City issued a formal memorandum. E&CP officials acknowledged that the Department has a responsibility to know and administer funding in accordance with funding source requirements and a responsibility to ensure that federal and state laws are followed. City Planning & Community Investment officials told us that through CIPRAC they have developed a new process in which projects that are past the design phase and construction ready can compete for CDBG funds. By not having an office to coordinate and oversee the CIP process with sufficient authority, the City will not be prepared to meet requirements and leverage funding sources, such as from CDBG. Further, the City will risk cancellation of projects and potential loss of funds which is particularly concerning in the current fiscal environment of deferred maintenance and limited available funds.

*Issues that Cut Across
Departments Are Not
Receiving Sufficient Priority*

We found that issues that cut across client departments are not receiving sufficient priority. For example, while new projects and renovations are moving forward with ADA improvements, the City is not dedicating funding in fiscal year 2011 for ADA-specific projects,

⁴² City of San Diego, *Council Policy 007-02: Community Development Block Grant Program* (San Diego, CA: Nov. 24, 2009), 2.

even though 60 or about 28 percent of the 212 projects identified in the City's 1997 Transition Plan have not yet been initiated.⁴³ ADA projects have generally been funded by land sales, Community Development Block Grants (CDBG), and Developer Impact Fees (DIF). The City is not providing funding for ADA-specific projects for three reasons. First, while the City sold real estate in fiscal year 2010 in part to finance ADA projects, these funds are not yet available, because the Financial Management Department has not reconciled the City's Capital Outlay Fund—a necessary step in making these funds available for use.⁴⁴

Financial Management did not reconcile funds in a timely manner because it lacked (1) a dedicated management analyst for reconciling the Capital Outlay Fund due to budgetary constraints and (2) an effective process for reconciling funds and communicating their availability to applicable client departments.⁴⁵ Department officials told us that the Financial Management's CIP Coordinator is now working on reconciling the history of the funds, but that it is complicated due to the changes in the City's financial system and lack of record keeping prior to the Financial Management taking on this responsibility. If the City had better oversight and coordination of the CIP process, the effect of the delay in reconciling land sales on the City's ability to fund ADA projects would likely have been identified and potentially addressed earlier.

Second, the City's Disability Services Director told us that she did not apply for CDBG funds for fiscal year 2011 because she did not believe these projects could be implemented within the time restrictions, and did not want to risk cancellation of projects as discussed above. Third, as discussed later in this report, DIF funds are limited and may not be available for use for ADA projects if the financing plans have not been updated since ADA was established. City officials told us that newer financing plans address ADA compliance more generically so that a wide array of ADA projects can be funded using DIF, but older plans do not. By not sufficiently prioritizing ADA projects and ensuring they are fully funded, the City risks noncompliance with Department of Justice ADA requirements.

⁴³ The City was required to develop and implement a Transition Plan for retrofitting existing infrastructure for ADA accessibility by the U.S. Department of Justice. *Americans with Disabilities Act, Title II*.

⁴⁴ Financial Management has not completed the reconciliation of the Capital Outlay Fund. According to City officials, when cash balances were reviewed in June 2010 the fund was over committed by about \$17 million.

⁴⁵ Disabilities Services' analyst position for monitoring ADA projects and funds was cut in fiscal year 2010 due to budgetary constraints.

*Issues within Departments
Delay Projects*

Compounded by the lack of oversight, we found that complex and lengthy issues within service departments can delay projects and ultimately increase costs. For example, City officials estimate that the contracting process for CIP projects—which the City centralized in the Purchasing & Contracting Department as a result of Business Process Reengineering—generally takes six months to complete.⁴⁶ Although there are several databases and systems for tracking contracts, we found the data to be inconsistent and, in some cases, unreliable; therefore, we were not able to corroborate this timeframe. However, several department officials told us that the lengthy time associated with the bid and award process was one of their biggest challenges. See Appendix II for a diagram of the bid and award process for construction contracts.

The City recently developed recommendations for improving contracting, such as using the City's financial system to replace manual forms. However, we identified several issues with Purchasing & Contracting that we believe may impact the efficiency and effectiveness of the bid and award process, including a lack of both written policies and procedures, the lack of easily accessible contracts files because these are not maintained electronically, and the potential understaffing of Contract Specialists. We are planning to examine these and other issues in more detail by including a performance audit of the City's contracting process in our Annual Risk Assessment and Work Plan for Fiscal Year 2012.

*Lengthy and Complicated
Requirements Delay Projects*

We also identified required processes which are lengthy and complicated and impact the ability of E&CP to deliver projects on time and within budget, including environmental and historical reviews and the process for obtaining City Council approval for projects. See Appendix III for diagrams of these processes. Although these processes are required, it is important to ensure that the processes are as efficient as possible. For example, departments are generally required to obtain City Council approval for projects twice—first when the project is initiated and a second time when the contract is awarded.⁴⁷ However, there are numerous other factors that could require additional approval, such as when land is acquired, environmental impact or grant requirements, hiring a consultant,

⁴⁶ City of San Diego, *Final Report on Contracting Reengineering Study* (San Diego, CA: March 10, 2006), 3.

⁴⁷ The Mayor can approve the award of contracts under \$1 million at his own discretion, but E&CP officials told us that most CIP contracts are over \$1 million and require City Council approval to award the contract.

change orders, and program and/or project fund transfers.⁴⁸ The process for obtaining City Council approval includes initiating paperwork and obtaining approval within client departments, getting on the City Council's docket, and obtaining Council and Mayoral approval. Based on our sample of 16 projects that went to both Council Committee and the full Council for approval in fiscal year 2010, we found that it took an average of 90 days each time a project went to Council, with about half of this time required to get through the City Council docketing process. See Exhibit 11. Note that in January 2011, City Council changed the requirements and all projects are no longer required to go to Council Committee.

Exhibit 11

Process for Obtaining City Council Approval, Average Number of Days



Source: OCA analysis of sample of 16 projects that went to City Council Committee and the full Council for approval in fiscal year 2010.

By not identifying the actual cost and benefits of taking things to Council, such as assessing City staff time and Council staff time and the impact of the docketing process, the City cannot ensure that projects will be completed on time. By not assessing and streamlining required processes, the City cannot ensure that funds will be spent effectively and efficiently.

⁴⁸ One reason that projects are required to obtain the approval of City Council is when changes are made to the contract. In San Diego, changes over \$200,000 trigger the need for City Council approval. We reviewed the dollar thresholds for changes in public works contracts of six similar cities—Austin, Denver, Long Beach, Portland, San Jose, and Seattle—and found that San Diego and San Jose have the highest approval threshold of \$200,000.

Finding 3: City Lacks Integrated, Long-Term Capital Planning to Address Capital Infrastructure Needs

A capital improvement plan provides an overall perspective of developments in the City to enable decisionmakers and other stakeholders, including citizens, to take a long-range view of future needs, projects, and priorities. The plan should provide a blueprint for local governments to fund their capital improvements in the most efficient and cost-effective manner. A prudent multi-year capital plan identifies projects beginning in later planning years, estimates the impact on future operating and maintenance costs, and identifies and prioritizes expected needs based on the long-range vision in the strategic plan.⁴⁹ We found that the City lacks a comprehensive long-term CIP plan. Instead, the City uses its annual CIP budget that covers six years of funding as a “rolling” CIP. However, the budget does not provide a clear view of the City’s planned capital improvements over the next five years. For example, the fiscal year 2011 budget did not include projects starting in later years or accurate estimates of project impacts on the City’s operating budget. We also found that, although the City is taking some steps to review CIP projects for conformance to the General Plan and community plans, the CIP is not primarily based upon these plans and no one department or office is responsible for ensuring that strategies and policies set forth in the General Plan will be implemented by the CIP. Finally, we found that the City’s process for identifying needed CIP projects for its annual budget is decentralized in the nine client departments with differing approaches and levels of master planning.

City Lacks Comprehensive Capital Improvement Plan that Includes Projects Starting in Later Planning Years

The Government Finance Officers Association (GFOA) recommends that local governments develop comprehensive multi-year capital plans to ensure effective management of capital assets. A prudent multi-year capital plan identifies projects beginning in later planning years.⁵⁰ The capital budget should be directly linked to and flow from the multi-year CIP plan.⁵¹ We found that the City lacks a comprehensive capital improvement plan and instead uses its annual CIP budget that covers six years of funding as a “rolling” CIP. See Exhibit 12. Officials told us that the budget is intended to provide a five-year outlook of the CIP by including projects starting in future

⁴⁹ GFOA, *Recommended Practice: Multi-Year Capital Planning* (2009), 1.

⁵⁰ GFOA, *Recommended Practice: Multi-Year Capital Planning* (2009), 1.

⁵¹ GFOA, *Best Practice: Incorporating a Capital Project Budget in the Budget Process* (2007), 1.

years, but the fiscal year 2011 CIP budget did not include this information because the City changed financial systems and was not able to convert the data. Officials said that it is a work in progress to rebuild the data from the old system. Guidelines for the fiscal year 2012 CIP budget state that projects scheduled to begin in fiscal years 2013 through 2016 be included to reflect a five-year plan of activity. However, providing this information will be challenging for some departments that lack master plans, as discussed later in this report.

Exhibit 12

Levels of Planning



Source: OCA analyses of City plans.

We identified two issues with using a budget format rather than a planning document to present information on planned projects. First, although the CIP budgets for fiscal years 2009 and 2010 included projects starting in future years to some extent, they did not provide a clear schedule of the City's planned capital improvements

over the future years in the planning period, because project totals for all future years were aggregated in the financial summaries. Budgeted amounts for the future years were included in individual project sheets in some cases, but not in a comprehensive, easily understood schedule for all projects.⁵² Officials told us that the fiscal year 2012 proposed budget will include projects beginning in future years in the financial summary schedules, but not in individual project sheets. Second, planners are generally not involved in the development of the City's CIP budget; however, a planner has the conceptual and analytical skills needed in preparation of the CIP.⁵³ Without a clear and comprehensive capital improvement plan, decisionmakers and other stakeholders will not have a view of future projects and the process will continue to lack transparency. Further, City officials will not have an effective tool for identifying Citywide deficiencies or gaps; assessing tradeoffs across asset classes; planning, prioritizing, and arranging financing for major projects; and identifying and accommodating relationships between projects.⁵⁴

**City Has Not Fully
Assessed Future
Operating Costs of
Projects**

Because the impact of CIP projects on present and future operating budgets can be significant, these impacts should be estimated and included in the CIP plan to enhance decision making and transparency.⁵⁵ The City has had a longstanding requirement that departments assess the impact on operating budgets for all projects and report these in the annual budget, but officials told us that it was not consistently provided by departments and the accuracy and quality of the estimates could not be verified. For example, although the fiscal year 2011 CIP budget includes a category for operating budget impact, we found that it is frequently reported as "None," and no additional explanation is provided even in cases where projects will apparently require future maintenance. In many cases, the impact on the operating budget is reported as "None" for projects that are completed and will be closed in fiscal year 2011 which prevents transparency over the full impacts. Financial Management officials said that they have been pushing to improve the data, for example, they made significant progress with Park & Recreation officials in including estimated operating budget impacts in the fiscal year 2011 budget. And, they plan to continue to work with other departments to improve estimates in future budgets. Of great

⁵² The Fiscal Year 2010 CIP budget was the first to include detailed information on all CIP projects.

⁵³ Bowyer, Robert A., *Capital Improvement Programs: Linking Budgeting and Planning*, American Planning Association PAS No. 442 (Chicago, IL: Jan. 1993), 5.

⁵⁴ Vogt, A. John, *Capital Budgeting and Finance: A Guide for Local Governments* (Washington, D.C.:2004), 37.

⁵⁵ *Capital Budgeting and Finance*, 33 and 39; and City of San Diego, *Council Policy 000-02: Budget Policy* (San Diego, CA: Nov. 1, 2010) 11.

concern, City officials told us that historically departments have been instructed not to identify future operating expenditures, because future budgets will not increase and any increased operating costs will be absorbed by future budgets.

The U.S. Office of Management and Budget reported that ownership costs for infrastructure—such as operations, maintenance, energy use, and disposition—often account for more than 80 percent of the lifecycle costs of capital assets.⁵⁶ CIP projects can add recurring expenditures and new positions, potentially creating the need for additional revenues to offset the new operating expenses. Assessing lifecycle costs of projects is not just important for transparency, but is also crucial for comparing alternative project options and making decisions about affordability. Without consistent and effective estimates of the impact on the operating budget and assessing the cumulative impact of all projects across future years, the City cannot accurately determine whether it will be able to afford to operate and maintain future facilities. Without considering the impact on future operations and maintenance costs, the effect on the general fund will not be accurate, and the City will not be prepared to operate and maintain new facilities.

CIP Is Not Primarily Based on General Plan or Community Plans

Leading organizations develop long-term plans to guide implementation of goals and help decision makers establish long-term priorities that are based on the long-range vision embodied in the strategic plan. Strategic planning guides the decision-making process for all spending.⁵⁷ The City's General Plan establishes a long-range vision and policy framework for how the City should plan for projected growth and development and provide public services, and community plans establish recommendations and objectives in a given community for future land uses and public improvements.⁵⁸ The CIP is an important vehicle in managing growth and implementing the General Plan and community plans.⁵⁹ Although the City has three methods for linking the CIP with the General Plan and community plans, we identified issues with these methods and found that the CIP budget is not primarily based on these policies and strategies. Further, no one department or office is responsible for ensuring that strategies and policies set forth in the General Plan will be implemented by the CIP.

⁵⁶ U.S. Office of Management and Budget, *Capital Programming Guide* (Washington, D.C.: June 2006), 53.

⁵⁷ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 46.

⁵⁸ City of San Diego, *General Plan* (San Diego, CA: March 10, 2008).

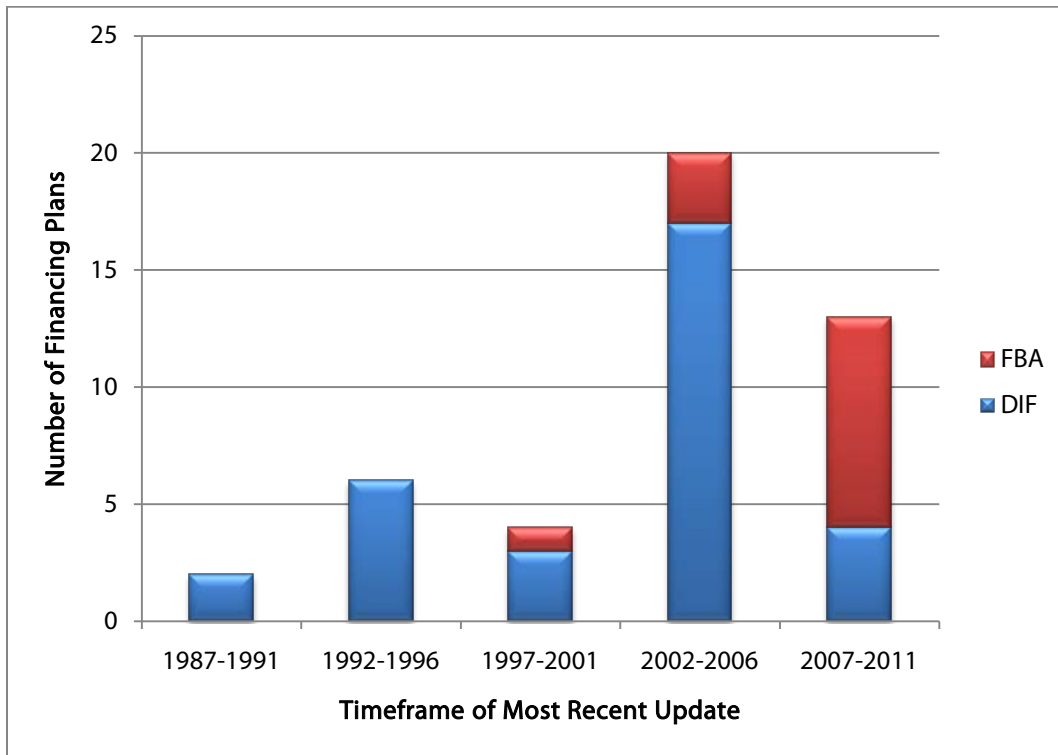
⁵⁹ San Diego City Council, *Capital Improvements Programming Policy 800-06* (San Diego, CA: March 6, 1975), 1.

The first method the City uses to connect the CIP with the General Plan is by developing a financing plan for each of the 46 community plans, which includes a list of needed projects and funding sources. Financing plans are based on Developer Impact Fees (DIF) for more established communities and Facilities Benefits Assessments (FBA) for newer, developing communities.⁶⁰ We identified two concerns with financing plans. First, based on our survey of community planning group leaders, 65 percent reported that they do not believe the City follows recommendations made in their community's financing plan to prioritize CIP projects. City planning officials told us that this occurs in DIF-based communities because high priority projects are often expensive and communities frequently don't have sufficient funding for these projects, so lower priority, less expensive projects are conducted instead. Even though projects are included in financing plans, they will not be implemented unless it can be fully funded by a community's DIF or a combination of DIF and other funds, or other funds altogether. This situation occurs because financing plans are currently used to assess DIF and FBA monies only. While the plans list other potential funding sources available for financing public facilities, it does not specify using those funding sources for specific improvements. As a result, communities are not able to effectively plan for all projects.

Second, we found that financing plans are outdated and in various stages of readiness with only about 29 percent having been revised within the last 5 years. See Exhibit 13 and Appendix IV for the status of community and financing plans. The City Administration made the decision to suspend updates of financing plans in the fall of 2008 due to the economic downturn. Although requirements for updating financing plans depend upon whether the community is DIF- or FBA-based, the impacts of not updating these plans in a timely manner are that (1) the CIP will not reflect current needs and priorities of communities and (2) sufficient funds may not be collected for capital needs.⁶¹ Further, City officials told us that delaying updates to the financing plans will impact the accuracy of the City's capital needs estimates discussed earlier in this report.

⁶⁰ Development in DIF-based communities primarily involves improvements to existing infrastructure and DIF generally provide about 8-15 percent of funds for needed projects, so other funding sources are required. Developer fees cover 100 percent of capital needs in FBA-based communities, but can only be used for capital infrastructure and the City is responsible for funding operations and maintenance of the asset.

⁶¹ City Planning and Community Investment Department officials told us that DIF-based financing plans are anticipated to be updated concurrently with community plans every 10 to 20 years, but may be updated periodically to reflect updated cost information, revised project priorities, and other changed circumstances.

Exhibit 13**Timeframe of Most Recent Financing Plan Updates for Developer Impact Fee- and Facilities Benefits Assessment-Based Communities**

Source: OCA analysis of City Planning and Community Investment Department data.

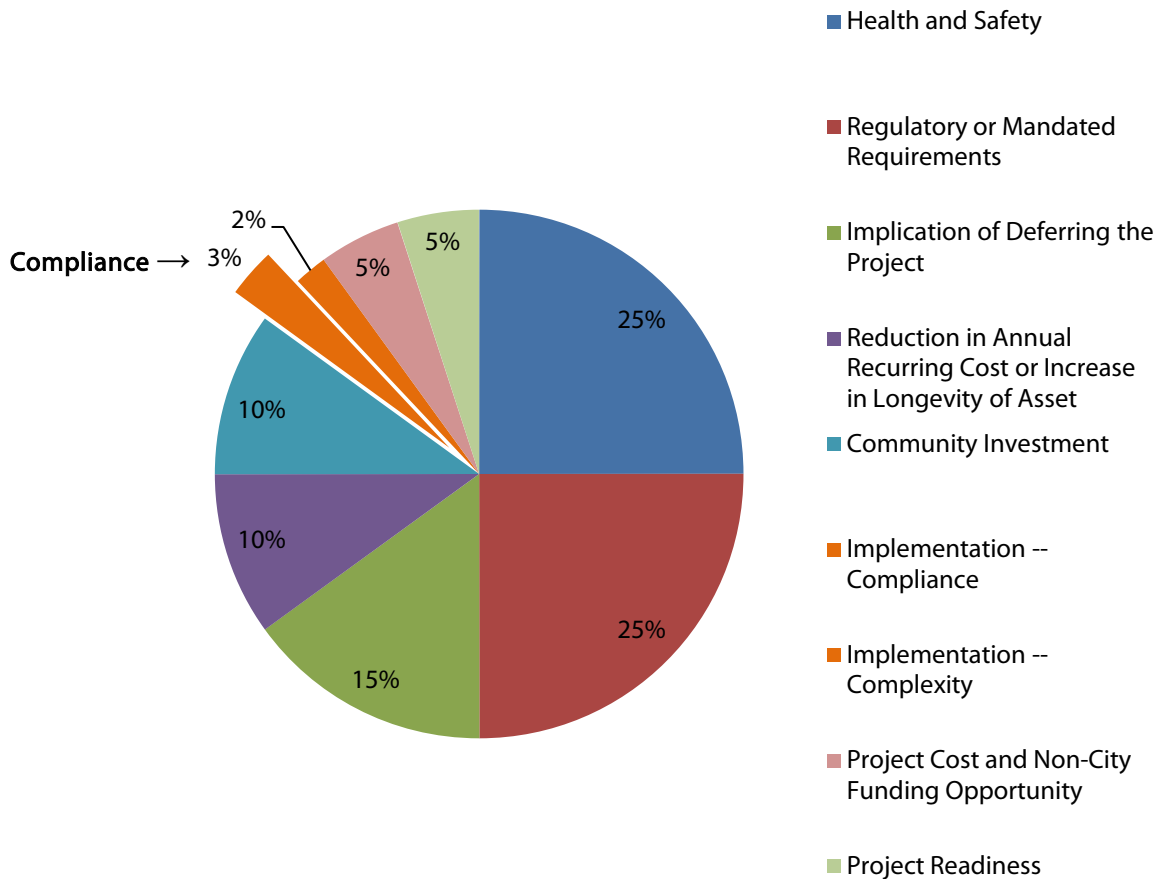
Although City Planning and Community Investment Department officials included an automatic cost escalator in all DIF-based plans in September 2009 to address the risk of under collecting revenue for future projects, this is not retroactive. In many cases, fees in older DIF-based communities are so low that the escalator will not sufficiently address the deficiency. As discussed earlier in this report, another concern is that financing plans for DIF-based communities that have not been recently updated will not allow the use of funds for ADA projects. The community and financing plans are the primary method that enables community planning groups to provide input on needed projects and priorities. Based on our survey, about 60 percent of leaders reported that they are not involved in the development of the annual CIP budget. When citizens, community leaders, and governing officials are involved in assessing needs and planning, the resulting capital projects frequently have community and political support.⁶² By not having updated community and

⁶² *Capital Budgeting and Finance*, 116.

financing plans or obtaining input from community planning groups on the CIP, the City's investments will not reflect current needs and priorities of communities.

The second way the City connects the General Plan with the CIP is using a scoring process to prioritize CIP projects during annual budget development; however, the total ranking percentage associated with consistency with the General Plan and community plans does not appear to be a priority since it is only 3 percent.⁶³ See Exhibit 14. City officials told us that all projects must be in conformance, so the small percentage assigned during the priority scoring process is not an issue. However, the City lacks an effective system for reviewing projects to ensure they are in compliance, such as having projects reviewed by the planning department which has the expertise to make this judgment. City officials told us that currently, departmental evaluations of conformance are subjective and allow for almost any project to be rationalized as compliant and that better criteria are required.

⁶³ This ranking is based on Council Policy 800-14 for prioritizing CIP projects under factor 6 (Implementation).

*Exhibit 14***Project Priority Ranking Percentages**

Source: OCA analysis of Council Policy 800-14 non-transportation and non-Public Utilities scoring guidelines.

Finally, the City links the CIP with the General Plan through the Planning Commission reviewing the annual CIP budget to assess whether projects are consistent with the General Plan. When a project is inconsistent, it is either rejected or the General Plan or applicable community plans are amended. However, Planning Commission members told us that they lack sufficient time and information on CIP projects to make educated decisions about consistency. For example, projects do not have specific references to sections in the General Plan. As a result, Commissioners look for issues that stand out rather than conducting a thorough review.

Council policy states that, to ensure the integration of long-range

planning, the development of the multiyear CIP budget shall be primarily based upon the adopted General Plan, community plans, and growth strategies.⁶⁴ Although the City is taking some steps to review CIP projects for conformance to the General Plan and community plans, the CIP is not primarily based upon these plans and no one department or office is responsible for ensuring that strategies and policies set forth in the General Plan will be implemented by the CIP. The City Planning and Community Investment Department developed a General Plan Action Plan which includes key General Plan implementation actions and a Monitoring Report which indicates the status of implementation (no action, underway, or complete). However, both documents lack specific information on actions taken or any linkage to CIP projects. Based on our survey of Community Planning Group leaders, 71 and 59 percent believe that the CIP will not enable the City to implement their community plan and the General Plan, respectively. See Appendix V for a summary of survey results.

By not making a central office responsible for developing a CIP plan that is primarily based upon the General Plan and community plans, the City cannot ensure that the policies and strategies within these plans will be fully and effectively implemented. Further, this increases the risk that the City will not be fully prepared to manage growth, respond to requirements for reducing greenhouse gas emissions, and address other critical policies outlined in the General Plan.

**Department-Level
Master Planning Is
Inconsistent**

Master planning is important for identifying and prioritizing needed capital projects in departments over the long-term and should be used in developing a Citywide CIP plan. We found that the City's process for identifying needed capital projects for the annual CIP budget is decentralized in the nine client departments with differing approaches and levels of planning.⁶⁵ About 44 percent of the client departments lack comprehensive CIP master plans, and many of the master plans that are developed are done so only due to requirements for grant funding. See Exhibit 15. Departments that lack master plans generally develop internal lists of capital needs, and officials told us that the lack of dedicated staff and guidelines and policies for planning affect their ability to develop successful master plans.

⁶⁴ City of San Diego, *Council Policy: Budget Policy*, 000-02 (San Diego, CA: Nov. 1, 2010), 5 and City of San Diego, *Council Policy: Capital Improvements Programming*, 800-06 (San Diego, CA: March 6, 1975), 1.

⁶⁵ As discussed earlier, the City lacks a long-term CIP plan and instead uses its annual CIP budget as a "rolling" CIP. As a result, client departments identify capital needs for the annual budget.

*Exhibit 15***Client Departments and Level of CIP Master Planning**

Department/Program	Department-wide Master CIP Plan		Current Plans and Date
	Yes	No	
Airports	√		<i>Draft Brown Field Master Plan Update, May 2010</i>
Disabilities Services	√		<i>ADA Transition Plan, June 1997</i>
Fire-Rescue	√		<i>Fire Station Master Plan, February 27, 2009^a</i>
General Services/Facilities		√ ^b	
Library	√		<ul style="list-style-type: none"> Branch Library Facilities Report, <i>November 1998</i> Library Facility Improvement Plan, <i>November 8, 2002</i>
Park & Recreation		√	<i>Golf Five-Year Business Plan, June 26 2006</i>
Police		√	
Public Utilities	√		<ul style="list-style-type: none"> Water Department Capital Improvement Program for Fiscal Years 2011-2022 (includes Water Facilities Master Plan), <i>June 30, 2010</i> Wastewater Facilities Master Plan, <i>November 16, 2010</i>
Transportation and Storm Water		√	<ul style="list-style-type: none"> TransNet Extension Expenditure Plan, <i>updated March 19, 2004</i> Bicycle Master Plan, <i>May 2002^c</i> Pedestrian Master Plan, <i>December 2006^d</i>

Source: OCA analysis of client survey responses.

a A consultant completed the Fire Service Standards of Response Coverage Deployment Study in February 2011 which is intended to replace the existing master plan, but this study has not been approved by City Council.

b General Services/Facilities maintains facilities, so have a plan of long term maintenance needs/condition assessment, which is typically the first step of a master plan.

c The City has a draft Bicycle Master Plan Update, dated March 2010. Public comments have been incorporated into the document, but the plan will remain in draft until the environmental impact report, which has not yet begun, is complete.

d The City is continuing development of this plan in each of its community planning areas beginning with the Pedestrian Master Plan Phases 2 & 3 Project which will address the first seven communities: Greater North Park, Southeastern San Diego, Greater Golden Hill, Uptown, Normal Heights, Barrio Logan, and City Heights.

Note: The Environmental Services Department also implements CIP projects for landfills and supporting structures, but only uses E&CP on a limited basis because of the unique nature and requirements of the projects.

We also found that, while the General Plan requires the development of a master plan for the City's vast network of parks, the City has deferred the development of this plan several times due to budgetary, staff, and reorganizational considerations.⁶⁶ Department officials told us that the City has not had a master plan for the City's park system for more 56 years, and that the lack of a master plan is one of their biggest challenges in identifying capital improvement

⁶⁶ City of San Diego, *General Plan* (San Diego, CA: March 10, 2008), SF-22.

needs. As a result, officials have developed their own processes for engaging the community in planning through park advisory committees to biannually identify unfunded park needs.⁶⁷

The lack of integrated long-term capital planning is due to the lack of requirements and guidelines for (1) a comprehensive Citywide CIP plan and (2) consistent department-wide master planning. Further, the City has a decentralized process for identifying capital needs and, as discussed earlier in this report, lacks an office to oversee and coordinate CIP planning and ensure that the CIP implements the General Plan and community plans. Without a long-term CIP plan, the City cannot fully justify investments in capital infrastructure and effectively support budget submissions. By not making a central office accountable and responsible for developing a CIP plan that effectively links the CIP to the General Plan and community plans, the City cannot ensure that the policies and strategies within these plans will be fully and effectively implemented.

⁶⁷ These lists are available on the Park & Recreation Department's web page, <http://www.sandiego.gov/park-and-recreation/pdf/parkdesign/10unfundedparkimprovementslist.pdf>

Finding 4: City is Taking Steps to Implement an Asset Management Approach, but Process for Identifying Capital Needs is Inconsistent Among Client Departments

GFOA recommended practices establish that the first step in capital planning is identifying needs. Using information, including strategic plans, master plans, and citizen input processes, governments should identify present and future service needs that require capital infrastructure or equipment.⁶⁸ Because the City lacks integrated capital planning, it is relying on client departments to effectively identify needs for its annual CIP budget. The City's Enterprise Asset Management Steering Committee is taking steps to collect and organize basic data on assets which will help officials better identify capital needs, but the City has not codified the asset management approach or linked the committee's efforts with capital planning and programming. Further, the extent to which client departments evaluate alternatives and prioritize CIP projects is inconsistent and varies based on the level of planning and available funds. Finally, we found that the City now has a framework for reviewing and approving capital decisions, but improvement is needed for objectively prioritizing projects.

City Is Taking Steps to Collect Basic Data on Assets, Which Will Help Officials to Better Identify Needs

Comprehensive asset management is an effective approach for identifying needed maintenance and planning capital investments because it will provide key data on the inventory and condition of assets and an evaluation of alternatives to help officials make sound decisions.⁶⁹ See Exhibit 16. Leading organizations have an extensive inventory of assets that include evaluations of the conditions and performance of those assets.⁷⁰ We found that the process for identifying capital needs is inconsistent across client departments. The City has not maintained a Citywide database of assets with the level of detail needed for client departments to make informed decisions regarding capital needs, and only 58 percent of client departments conduct an inventory of CIP assets. An official from the General Services Department's Facilities Division, which conducts an inventory of City facilities, told us that the process is challenging

⁶⁸ GFOA. *Recommended Practice: Multi-Year Capital Planning* (2009), 1.

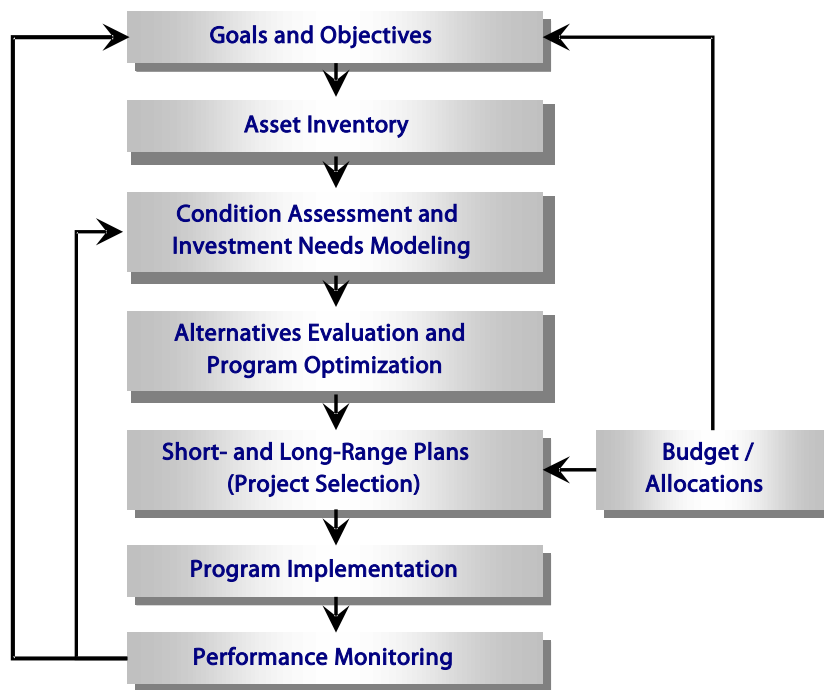
⁶⁹ U.S. Government Accountability Office, *Water Infrastructure: Comprehensive Asset Management Has Potential to Help Utilities Better Identify Needs and Plan Future Investments*, GAO-04-461 (Washington, D.C.: March 19, 2004), 4.

⁷⁰ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 17.

because departments use different inventory databases. In addition, at least 25 percent of departments do not conduct condition assessments of their assets and those departments that do have varying approaches and levels of completeness. For example, some departments, such as Public Utilities, hire consultants to conduct formal conditions assessments for water pipes. Other departments, like Fire Rescue, conduct visual inspections and use maintenance requests to assess the conditions of assets. City officials told us that their ability to conduct condition assessments is affected by budgetary constraints in the City.

Exhibit 16

Components of Asset Management



Source: U.S. Department of Transportation Federal Highway Administration Officials.

The process for identifying infrastructure needs varies across departments because it is decentralized and no one department or leader is accountable or responsible for coordinating and overseeing the process. Despite the inconsistent approaches across client departments, we found that the City's Enterprise Asset Management Steering Committee—comprised of asset managers from 16 City departments and offices—has recently taken steps toward

implementing a Citywide asset management framework.⁷¹ For example, the Steering Committee has (1) established goals and objectives and (2) developed a Citywide index of assets as a first step toward a Citywide asset inventory. The index will be used as part of the framework to develop asset maintenance plans; streamline processes where appropriate; and determine the feasibility of asset acquisition, maintenance, and replacement. The Steering Committee's efforts have also included identifying asset owners, establishing a standardized language for assets, and linking this to the City's financial database. The Steering Committee plans to ultimately integrate the departments' various asset inventory and maintenance systems into one Enterprise Asset Management System which is linked to the City's financial system.⁷² The goal is to develop asset management plans for each department, including identifying the condition of assets.

While the committee's intent is to improve the management and maintenance of the City's assets, it will also provide officials with consistent approaches for identifying needs and reliable, accurate information on assets which will ultimately improve capital decision making. However, City officials told us that the steering committee needs to make more progress before contributing to capital planning and that asset management needs to be a primary function for departments. Further, the Park & Recreation Department is one of the least prepared departments for asset management because it lacks funding for both staff and technical implementation.

The City has not codified or required that departments participate in Enterprise Asset Management or taken the step to link these efforts with capital planning and programming. For example, the Enterprise Asset Management Coordinator was not a member of CIPRAC until April 2011, after the City received our draft report. The Steering Committee's successful efforts are largely due to the personalities involved, their recognition that the City needs this information, and their belief that implementing asset management is an effective way of improving the services the City provides at the lowest cost. Further, some departments, such as Public Utilities, recognize the

⁷¹ Sixteen city departments and offices participate on the Enterprise Asset Management Steering Committee, including Airports, City Planning & Community Investment, Comptroller's Office, Development Services, Disability Services, E&CP, Environmental Services, Fire Rescue, General Services, Library, Park & Recreation, Police, Public Utilities, Real Estate Assets, Risk Management, and Transportation & Storm Water.

⁷² The Transportation & Storm Water Department's Streets Division currently uses a maintenance management system—called Enterprise Asset Management—for maintenance of infrastructure, such as replacing street lights and pothole repairs. For example, with the integrated GIS/SAP system, when staff receives notification of an inoperable streetlight, they can pinpoint the location on a map and dispatch a technician.

value of implementing asset management and have created strategic asset management groups within their departments. By not collecting, sharing, and analyzing data on capital assets, managers cannot make informed decisions on how to best manage the assets, such as whether to rehabilitate or replace aging assets. Without a capital program office that provides a Citywide view of infrastructure assets and links Enterprise Asset Management efforts with capital planning, the City cannot capitalize on the steering committee's efforts. Further, without codifying or requiring a Citywide asset management approach, the City cannot ensure that the effective efforts made by the Steering Committee will continue.

Extent to Which Client Departments Evaluate Alternatives Varies, and Improvement Is Needed for Effective Project Prioritization

Client Departments Are Not Consistently Assessing Alternatives to CIP Projects

Needs assessments should not be based solely on the condition of existing infrastructure but also on the desired outcome and the costs and benefits of alternative approaches.⁷³ Leading organizations conduct analyses and consider a wide range of alternatives to satisfy their needs, including noncapital alternatives before choosing to purchase or construct a capital asset.⁷⁴ For example, managers use life-cycle cost analysis to evaluate investment alternatives, not just to compare the initial cost of a project, but also installation costs, operating efficiency, and frequency of repairs. Managers also use risk assessments to determine how critical assets are for their operations—for example, considering the likelihood that the asset will fail and the cost and impact on the organization's desired level of service—to set priorities and target resources.⁷⁵

We found inconsistencies across client departments in evaluating alternatives to capital projects. At least 30 percent of departments do not formally conduct analyses or consider alternatives to satisfy their needs before choosing to construct a capital asset. Of those departments that do evaluate alternatives, the extent of analysis varies and is generally related to master planning and available funding. For example, the Public Utilities Department requires that each potential project be subjected to an internal business case evaluation. This planning-level study identifies alternative project

⁷³ U.S. Government Accountability Office, *U.S. Infrastructure: Funding Trends and Federal Agencies' Investment Estimates*, GAO-01-986T (Washington, D.C.: July 23, 2001), 16; Center for Strategic & International Studies, *Public Works, Public Wealth: New Directions for America's Infrastructure* (Washington, D.C.: Nov. 2005), 6; and The Brookings Institution, *America's Infrastructure: Ramping Up or Crashing Down* (Washington, D.C.: Oct. 10, 2007), 5.

⁷⁴ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 28.

⁷⁵ U.S. Government Accountability Office, *Water Infrastructure: Comprehensive Asset Management Has Potential to Help Utilities Better Identify Needs and Plan Future Investments*, GAO-04-461 (Washington, D.C.: March 19, 2004), 19-20.

solutions, including “no action,” and evaluates the alternatives based on cost- and non-cost factors such as operability and reliability issues and compatibility with regulations and requirements. On the other hand, Park & Recreation officials told us that they lack formal processes for evaluating project alternatives, except in the context of the Golf Five Year Business Plan where they evaluated alternative projects and schedules in concert with business-related objectives.

Departments are not consistently evaluating project alternatives because (1) many lack formal processes or requirements for conducting risk assessments and lifecycle cost analysis to assess investment alternatives and (2) the City lacks an office to provide oversight and coordination to help ensure consistency. Without appropriate analysis to justify projects, officials cannot ensure that capital decisions are well-supported to decisionmakers and the public. Further, City officials noted that an advantage to increasing the empirical nature of capital decision making is that the process may be less political both internally and externally.

*City Now Has a Framework
for Reviewing and
Approving Capital Decisions,
but Improvement Is Needed
for Objectively Prioritizing
Projects*

Leading organizations establish a framework for reviewing and approving capital decisions based on pre-established criteria and a relative ranking of investment proposals and determine the right mix of projects by reviewing investment proposals and existing capital assets as a portfolio.⁷⁶ The City lacked effective prioritization until fiscal year 2008 when (1) Council Policy 800-14 was revised to establish guidelines for priority ranking of all CIP projects⁷⁷ and (2) the City established CIPRAC to provide a cross-functional review of the prioritization process to ensure guidelines were followed. The purpose of the prioritization policy is to establish an objective process for ranking projects so that officials have a basis for selection. CIPRAC developed a tool for scoring projects based upon the narrative criteria contained in Council Policy 800-14. The tool was initially created to prioritize transportation projects and was expanded by CIPRAC in 2011 for application to other types of projects. City officials told us that additional work is needed on this tool to improve its application on a wider variety of CIP types, and it may be beneficial to develop separate prioritization tools for each client department. See Exhibit 17.

⁷⁶ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 32 and 40.

⁷⁷ Council Policy 800-14 was adopted for transportation projects in fiscal year 2007 and revised in fiscal year 2008 to incorporate the prioritization of all CIP projects. The scoring system for transportation projects includes additional ranking factors, such as capacity and service and revitalization.

Exhibit 17**Priority Ranking Factors for CIP Projects**

Total Percentage	Overall Ranking Factor	Sub-factors and Percentages	
25	<i>Factor 1</i> – Health and Safety Effects	15	What is the imminent severity of the risk to health and safety by not conducting this project?
		10	Does this project eliminate or reduce risk to health and safety?
25	<i>Factor 2</i> – Regulatory or Mandated Requirements	25	Is this project required in part or in whole by legal mandate?
15	<i>Factor 3</i> – Implication of Deferring the Project	4	If deferred, will this project’s total cost increase?
		3	If deferred, will operations and maintenance costs increase?
		4	If deferred, will this project have negative public perception?
		4	If deferred, will this project cause delays to other projects?
10	<i>Factor 4</i> – Reduction in Annual Recurring Costs or increase in longevity of the capital asset	10	What are the lifecycle increases and operations and maintenance costs or savings?
10	<i>Factor 5</i> – Community Investment	10	Once constructed, does this project contribute to improved economic growth?
5	<i>Factor 6</i> – Implementation	3	Does this project comply with the General Plan, community and financing plans, and master plans?
		2	Is the project straightforward and can it be executed in a reasonable timeframe?
5	<i>Factor 7</i> – Project Cost and Non-City Funding Opportunity	3	What is the degree to which the project is funded?
		2	Can this project be funded with non-City sources?
5	<i>Factor 8</i> – Project Readiness	2.5	What is the timeline to complete the current phase of the project?
		2.5	What milestones have been completed in the current phase of the project?

Source: OCA analysis of Council Policy 800-14, non-Transportation and non-Public Utilities scoring guidelines.

San Diego conducts priority scoring on at least two levels--within client departments and by E&CP once projects are initiated. We found that all departments have some way of prioritizing CIP projects, but their prioritization processes vary depending on the type of assets and programs they administer. For example, Public Utilities uses the Council Policy 800-14 priority ranking factors in addition to criteria included in its Water Facilities Master Plan, such as minimizing service disruptions and reducing the potential for damages to property or current structures. In addition, Fire-Rescue prioritizes projects for new construction of fire facilities in its master plan based on factors such as response time compliance and annual incident response volume. Police Department officials told us that they prioritize projects based on operational need and the condition of existing facilities.

Despite the new priority scoring process, based on our survey of community planning groups, 76 percent do not believe the City effectively prioritizes CIP projects. In addition, based on our survey of client departments and input from City officials, we identified several concerns with regard to project prioritization:

- There is no systematic mechanism for strategically establishing Citywide CIP priorities, such as implementing a department's master plan.
- Elements of priority scoring criteria are useful but the criteria and percentage distribution are slanted toward traditional gray infrastructure projects and are not as useful in evaluating green and human services infrastructure.
- The ranking process continues to be subjective because factors are open to interpretation by the client department officials who rank projects. Further, projects may be ranked by various staff with differing interpretations of the ranking criteria, and there is currently no process to review ranking for consistency and accuracy after completed.
- Project scores and rankings are revised over the course of their development, for example by CIPRAC, E&CP, and even City Council offices, and ultimately may not reflect client department priorities.
- Funding limitations are a major challenge with regard to prioritizing CIP projects, for example, officials do not have funds to fully assess the conditions of their facilities, which makes prioritization more difficult.
- Officials face challenges in ensuring that their unique

operational needs are considered when projects are prioritized and limited funding is allocated.

- CIP projects stay in the queue for extended periods of time, in many cases only receive partial funding, and funding is sometimes shifted from one project to advance other projects.
- While public safety elevates the priority score, there is currently no means to score an urgent need that is not considered an emergency.

Once projects are prioritized within departments, they are forwarded to CIPRAC for review and approval. Although CIPRAC provides a framework for reviewing and approving capital decisions, it has received mixed reviews from client departments and other stakeholders. According to one City official, CIPRAC's role has vastly improved since it was established by getting various department officials together to (1) share information on CIP projects and (2) recognize the potential for leveraging CIP projects and assets. Other officials told us the committee is a work in progress and has been more involved in approving rather than prioritizing projects.

CIPRAC's role has been limited for three reasons. First, many projects' funding is non-discretionary because they have use restrictions or are legal requirements for the City and may not warrant CIPRAC's involvement beyond review and approval. For example, in accordance with a Consent Decree with the U.S. Environmental Protection Agency and local environmental groups, the City is required to replace 250 miles of sewer main between fiscal years 2007 and 2013.⁷⁸ Second, CIPRAC has not taken a more proactive role in prioritizing CIP projects because it is newly formed and has a very limited charter to establish its authority and objectives, among other things. For example, the committee does not require extensive justifications or supporting analyses when making project approval decisions, but relies on the information provided by each department representative. Third, CIPRAC does not set priority scores, but largely relies on the client departments and to some extent E&CP for setting priorities. Generally, priorities established within departments are not challenged by this committee. City officials told us that there is a sense that they don't want to upset another department because their support may be needed in the future.

⁷⁸ Final Consent Decree in the matter of United States, et. al v. City of San Diego (San Diego, CA: July 28, 2007), 20.

While some degree of department-specific prioritization criteria may be necessary given the wide variety of assets, by not ensuring that the overall prioritization framework is understood and consistently applied across departments, the City cannot ensure that it is investing resources wisely. Ideally, this type of prioritization will provide a Citywide perspective, explore various financing options, and facilitate project coordination.⁷⁹ However, without a Citywide CIP plan, even prioritization conducted by CIPRAC may not reflect the City's long-term priorities. City officials told us that CIPRAC has identified important issues and streamlined the CIP process by providing a venue for senior-level staff to share thoughts and ideas related to their own projects. As CIPRAC's role evolves we believe it will have the opportunity to provide a Citywide view and determine the right mix of projects by reviewing department investment proposals and existing capital assets as a portfolio.

⁷⁹ City of San Diego, *Council Policy 800-14: Prioritizing CIP Projects* (San Diego, CA: May 30, 2008), 1.

Finding 5: E&CP Needs to Improve Project Management to Increase Accountability and Reduce Risks of Budget and Schedule Overruns

Given their scale and cost, capital projects can represent a significant risk for local governments. To mitigate this risk, governments should establish policies and procedures to support effective capital project monitoring and reporting.⁸⁰ E&CP, the department primarily responsible for implementing CIP projects, has made progress centralizing and standardizing project management functions. For example, they have consolidated project schedule data into one system. However, we found impediments in E&CP's process for managing projects that affect its ability to effectively deliver quality projects within budget and schedule. As discussed in finding two of this report, we identified issues within other service departments that affect E&CP's ability to effectively implement projects; however, this finding addresses issues that relate directly to E&CP. We found that E&CP lacks:

- department-level goals and performance measures;
- efficient integration of scope, budget, and schedule to manage and forecast project performance;
- reliable project data;
- requirements for timely execution and completion of required project closeout tasks; and
- formal processes for identifying lessons learned after project completion.

We also found that the City Comptroller's Office is not using the most effective criteria for determining when to capitalize assets.

E&CP Lacks Departmental Goals and Performance Measures

According to the National Academy of Sciences, the purpose of performance measurement is to help organizations understand how decision-making processes or practices led to success or failure in the past and how that understanding can lead to future improvements. Key components of an effective performance measurement system include:

- Clearly defined, actionable, and measurable goals that cascade from organizational mission to management and program levels;

⁸⁰ GFOA, *Best Practice: Capital Project Monitoring and Reporting* (2007), 1.

- Cascading performance measures that can be used to measure how well mission, management, and program goals are being met;
- Feedback systems to support continuous improvement of an organization's processes, practices, and results.⁸¹

We found that E&CP does not have a uniform set of objective goals and measures for assessing the quality of project management either at the Department or project level, including the Department's ability to meet project budgets and schedule. In fiscal year 2007, the Business Process Re-engineering team, in conjunction with E&CP, developed new performance goals and measures for the Department that focused on customer satisfaction, project delivery cost, project delivery timeliness, and project quality.⁸² The City linked performance goals to the annual budgeting process in fiscal years 2009 and 2010, which provided transparency over goal achievement. However, the City suspended the reporting of performance goals for fiscal year 2011 while the Business Office revises the Citywide strategy—upon which departmental goals and measures will be based—to reflect decreases in services provided due to significant budget reductions.⁸³ As a result, E&CP is not currently tracking and monitoring its Citywide performance goals. Officials told us that they plan to establish goals and performance measures for fiscal year 2012. The lack of performance measures promotes unclear service expectations and compromises accountability to keep budget growth to a minimum and stay within baseline schedules. For example, we found that 10 or about 34 percent of the 29 CIP projects that we sampled were over the original project cost estimate.⁸⁴ Without performance goals and measures and feedback to monitor results, E&CP cannot build confidence within client departments, the City Council, and the public in its ability to effectively manage the funds it spends on its projects. Further, the absence of objective

⁸¹ National Academy of Sciences, *Measuring Performance and Benchmarking Project Management at the Department of Energy* (Washington, D.C.: 2005), 7.

⁸² City of San Diego, *Report to the City Council Engineering Business Process Reengineering Final Report*, 07-081REV (San Diego, CA: April 26, 2007), pp 6-7

⁸³ The City did not report performance measures in fiscal year 2011 due to changes resulting from mid-year budget reductions and updates being made to the City's strategy.

⁸⁴ We used original project cost estimate of our initial sample of 53 projects to identify overruns. Based on documentation provided to us by the Comptroller's Office, 29 of the 53 projects in our sample were started after fiscal year 2008 when E&CP was created. However, E&CP officials told us that this was not a fair measure because these are not estimates prepared by E&CP but by the client department and some estimates only include seed money to get a project started. Our analysis excludes emergency projects because officials told us that initial estimates for these cases are not solid as they are made just to get the project started, for example to hire a consultant to determine the extent of the issues so a more firm estimate can be made.

performance measures prevents the identification of best practices and impedes widespread improvement in project management throughout the agency.

E&CP Lacks Clear Understanding of Clients' Expectations and Project Needs

An essential element in effective project management is to have a good understanding of the client's objectives and priorities, both for the organization as well as for specific projects.⁸⁵ The Department's Quality Management Plan indicates that a partnering relationship with the client department will help assure project deliverables meet the client's needs and expectations.⁸⁶ E&CP maintains either a service level agreement or a memorandum of understanding with client departments to define the roles, responsibilities, and expectations of the client and service departments when implementing projects.⁸⁷ We identified two major issues with the current process. First, we found that E&CP either lacks or has an outdated agreement with six of nine client departments/divisions. See Exhibit 18. Officials told us that the Department is only required to have agreements with enterprise-funded clients. However, the Department lacks an agreement with Airports which is enterprise funded. According to E&CP officials, they only develop agreements to outline roles and responsibilities for project implementation with client departments that have a large number of CIP projects, because developing and updating an agreement requires a great deal of time and effort and does not add value for clients that have few CIP projects. We believe that effective project management requires a good understanding of a client's needs, priorities, and expectations, whether the project is large or small and whether the client has many projects or just a few.

⁸⁵ H.T. Ong, *Effective Project Management: Essential Elements for Success*, Master Builders 4th Quarter (2007), 1.

⁸⁶ The Quality Management Plan Standard Operation Procedure documents how E&CP will plan, implement, and assess the effectiveness of its Quality Assurance and Quality Control operations. (San Diego, CA: Aug. 14, 2009), 1.

⁸⁷ Service Level Agreements are developed with enterprise funded departments, and Memorandums of Understanding are used with General-funded departments.

Exhibit 18**Status of Agreements with Client Departments/Programs**

Client Department/Program	Agreement		Type and Status
	Yes	No	
Airports		√	
City Attorney	√		Service Level Agreement, fiscal year 2009-2010
Disability Services	√		Memorandum of Understanding, fiscal year 2008-2009
Fire and Safety		√	
General Services	√		Memorandum of Understanding, fiscal year 2010-2011
Libraries		√	
Park & Recreation ^a	√		Memorandum of Understanding, fiscal year 2010-2011
Police		√	
Public Utilities	√		Service Level Agreement, fiscal year 2010-2011
Storm Water ^b		√	

Source: OCA analysis of agreements.

^a The Memorandum of Understanding for Park & Recreation is between City Planning & Community Investment, E&CP, and Park & Recreation.

^b Storm Water is now part of the Transportation & Storm Water Department that was created in January 2011, and the Memorandum of Understanding with E&CP has not yet been developed. However, we would have expected to see an agreement with the former Storm Water Department.

Second, we found that only one agreement—E&CP’s Service Level Agreement with the Public Utilities Department—contains performance goals. These goals relate to legal and grant mandates, project implementation, project budget, and design quality. By not effectively establishing project implantation goals and requirements with all departments, E&CP cannot ensure that it will effectively meet clients’ needs, such as legal and timeliness requirements. For example, in its Memorandum of Understanding with Disability Services, E&CP does not include timeliness requirements for completing projects funded by Community Development Block Grants (CDBG), even though this is a primary source of funding for ADA projects.⁸⁸ These requirements are critical for Disability Services, because projects that do not meet timeliness requirements risk being cancelled and funds either lost or reprogrammed. As discussed earlier in this report, E&CP cancelled five ADA projects that had

⁸⁸ The U.S. Department of Housing and Urban Development (HUD) administers these funds and has longstanding requirements that projects funded by CDBG be completed in a timely manner. Further, San Diego City Council Policy 700-02 requires that projects using CDBG funds be completed within 18 months of the date of allocation.

already been initiated in fiscal year 2011, because it lacked the necessary startup costs and could not complete the projects within the deadline.⁸⁹ As a result, no ADA-specific projects are being initiated in fiscal year 2011, and Disability Services did not apply for CDBG funds in fiscal year 2012 due to these issues.⁹⁰

E&CP officials told us that the Department has an obligation to know and administer funds in accordance with requirements, but there are many sources of funding with varying requirements and it would not be productive to include all possible funding sources in client agreements. However, we believe that when requirements are so clearly tied to the success of a client's projects, then they should be clearly outlined in the agreement between the departments.

E&CP Lacks Tools to Efficiently Integrate Scope, Budget, and Schedule to Manage Project Performance

Successful implementation of a capital investment project is determined primarily by whether the project was completed on schedule, came within budget, and provided the benefits intended.⁹¹ Earned Value Management (EVM) is one recommended tool that integrates project deliverable tasks, budget, and schedule to help the project management team assess and measure project performance and progress and forecast future performance.⁹² For example, EVM can be used throughout the project to assess how much work has been accomplished and measure technical performance objectively and quantitatively. We found that E&CP's process for linking scope, budget, and schedule has limited capability to effectively manage and forecast project performance because the process does not link all three elements. The Department uses various tools to manage a project's scope, budget, and schedule. For example, for a water utility project we reviewed, actual expenditures are measured against the expenditure goal for a given accounting period. However, this tool is expenditure specific and does not integrate project scope or deliverable tasks, thus limiting the ability to forecast future performance. Another tool that E&CP uses integrates project deliverable tasks with the project's budget. However, project budgets are not linked to specific deliverable tasks. For example, one project that we reviewed required 15 deliverable tasks but only

⁸⁹ The City had to reprogram over \$11.5 million in CDBG funding to avoid noncompliance with HUD's requirements.

⁹⁰ Prior to Business Process Reengineering, the General Services Department had ADA crews that conducted the majority of ADA projects; however, Municipal Code 22.3105 now requires that all projects over \$100,000 must be executed by E&CP.

⁹¹ U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 56.

⁹² City of San Diego, *Standard Operating Procedure: Earned Value Management* (San Diego, CA: Jan. 1, 2010), 1

contained associated budgets for 3 of these tasks. Department officials told us this is because E&CP does not have a process in place to identify what scope deliverable item can be expected for each project task.

E&CP officials told us that they review and monitor project budgets and schedules during monthly roadmap meetings with client departments and project managers; however, forecasting budgets and schedules is conducted using engineers' judgment throughout the process without a project management tool, such as EVM. The Department cannot integrate project scope, cost, and schedule efficiently—for example by using EVM—because project schedules and expenditures are managed using two different systems that do not interface. The first system E&CP uses is its project management software, Primavera 6, to manage projects schedules with the baseline budgets.⁹³ The second system the Department uses is the City's financial system to manage actual expenditures. The Department has a new system, called Project Portfolio Management Integrator, which just came online in the spring of 2011 that will integrate the two systems and allow project managers to affiliate project scope, cost, and schedule and use tools like EVM.⁹⁴ By not integrating scope, budget, and schedule, project managers cannot efficiently and effectively measure project performance, forecast future performance, and identify performance problems in a timely manner so that they can be addressed. Further, without using a tool such as EVM, the Department cannot efficiently control project budgets and schedules.

*Communication during
Project Implementation
between E&CP and Client
Departments Needs
Improvement*

The Construction Management Association of America states that organizations should establish and mutually agree upon project requirements at the beginning of design and the deliverable team and client must be committed to completing the project within those requirements.⁹⁵ E&CP's Project Implementation and Technical Services Division develops a pre-design report as part of its project intake process which includes the agreed-upon scope of work, preliminary project cost estimates, and baseline schedule. However, when scope changes occur, which is common particularly for Park

⁹³ Department officials told us that the contracting bid and award process varies from four to nine months, so the Department does not have a standard timeline for project schedules.

⁹⁴ E&CP officials told us that EVM is more effective when an organization controls the resources for all aspects of project implementation, which is not the case for E&CP. Further, they said that projects with extensive community involvement, such as those for Park and Recreation, have frequent changes making it difficult to integrate a budget and schedule as changes occur.

⁹⁵ Construction Management Association of America, *Construction Management Standards of Practice*, (McLean, VA: 2010), 16.

projects, we found that E&CP does not provide sufficient information to the client departments on the impact of client-initiated changes on the budget and schedule of the project, largely because the approval process is brief and informal. E&CP issues an informal memorandum to the client department advising acceptance of the scope change, but does not include the effect of the change compared to the project delivery baseline cost and schedule and project goals outlined in the pre-design report. Because of this lack of information client departments and stakeholders are not sufficiently aware of the impact changes have on project delivery or the true status of the project.

The California CIP Benchmarking Study recommends establishing a single client representative during the life of the project because this expedites decisions on submittals, substitutions, and changes.⁹⁶ We found that client departments generally have more than one representative dealing with E&CP on any given project. When projects are initiated by client departments, they must complete an intake form for E&CP, including the official submitting the initiation request. However, E&CP and client departments do not establish a mutual agreement that identifies the primary point of contact for a project. E&CP officials told us that important information that project managers discuss with one representative is not always passed along to other client department officials that are involved with the project. The risk that client departments will not fully understand the effects of changes in scope, budget, and schedule on the overall project delivery is increased by not establishing a primary point of contact for each project. Further, E&CP officials said that receiving multiple and often conflicting directions from client departments affects E&CP's ability to effectively manage projects.

E&CP Consolidated Project Data into One Project Management System, but Data in This System Is Not Reliable

Accurate information and effective data systems are critical for measuring project performance and making informed decisions about changes in scope, budget, and schedule. To ensure that capital project monitoring and reporting practices are effective, organizations should periodically (1) inspect reporting data for accuracy and completeness and (2) review for the existence and adequacy of quality assurance and control measures in each phase of capital projects.⁹⁷ We found that E&CP has consolidated project data formerly managed by multiple clients departments with varying systems into Primavera 6 to manage and track CIP projects since

⁹⁶ *California Multi-Agency CIP Benchmarking Study: Annual Report* (2010), 46.

⁹⁷ GFOA, *Best Practice: Capital Project Monitoring and Reporting* (2007), 2-3.

engineering functions were merged into the Department in fiscal year 2008. In addition, only the Department's internal controls group has access to make changes to projects. The controls group makes changes on a monthly basis. If project managers wish to update project data outside of the monthly cycle, they can either meet with the project controls group or provide the group with a marked up Primavera schedule.

However, based on our statistical sample of projects to test the accuracy of Primavera 6 data, we found inaccuracies in about 67 percent of project dates related to the start of construction.⁹⁸ See Exhibit 19. In addition, we identified inaccurate dates for 45 or about 90 percent of project dates related to the end of construction. Of the projects with inaccurate data, 22 percent of data from the start of construction and 21 percent of data from the end of construction were inaccurate by six months or more. See Exhibit 20. We also found seven cases where projects were noted completed but lacked the necessary Notice of Completion and Acceptance documentation to support their completion. Department officials told us these projects are still under construction. We were able to test the accuracy of construction data because E&CP requires project managers to submit supporting documentation to identify the start and end of construction; however, we could not test the accuracy of data for other project delivery stages, such as planning, because E&CP does not require supporting documentation.

⁹⁸ Our initial sample included 53 projects, however we excluded 3 of these because they were conducted by the City's construction crews for smaller projects—City Forces—rather than E&CP. As a result, we based this analysis on 50 projects to assess reliability of the dates for the end of construction. E&CP only provided the necessary information for 28 projects in the sample for the start of construction dates.

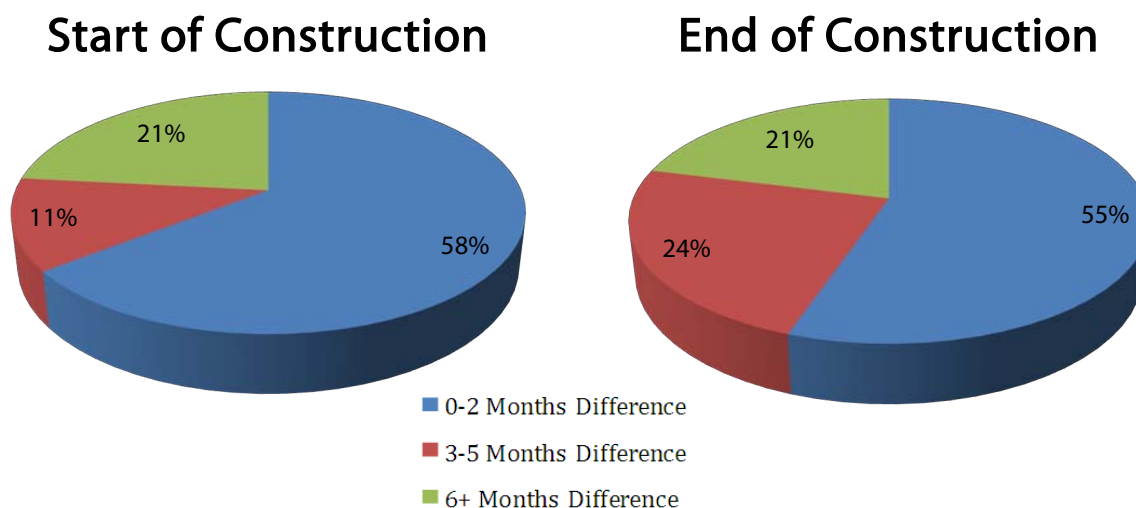
Exhibit 19**Results of Sample Testing Accuracy of Primavera Construction Data**

Sample Results	Start of Construction		End of Construction	
	Number	Percentage	Number	Percentage
Projects with Accurate Data	9	33	5	10
Projects with Inaccurate Data	18	67	45	90
Total	27 ^a	100	50 ^a	100

Source: OCA analysis of Primavera construction dates.

^a Our initial sample included 53 projects, however we excluded 3 of these because they were conducted by City Forces rather than E&CP. As a result, we based this analysis on 50 projects to assess reliability of the dates for the end of construction. E&CP only provided the necessary information for 27 projects in the sample for the start of construction dates.

Note: We considered projects data to be accurate when dates in Primavera 6 matched dates on the hard copy supporting documentation.

Exhibit 20**Number of Months Data Was Inaccurate**

Source: OCA analysis of Primavera construction dates.

Primavera construction dates are not accurate because E&CP does not maintain uniform project reporting requirements and does not have a method for holding project managers accountable for the accuracy of project data. For example, guidelines to update project data are unclear or unavailable. There are multiple points in time that

can indicate when a project completed construction and there are no guidelines to reference how to update project data to indicate when a project completed construction. Further, the Department does not maintain quality control procedures to proactively review project data. The project controls group only reviews data for accuracy when documentation is provided or if data is not provided, but supporting documentation is not required for updates. Department officials told us they believe that project managers have had too many dates to track, many of which are not important to the overall project delivery, and are taking steps to reduce and streamline the amount of data that is being tracked in Primavera 6. Officials also told us that E&CP is planning an external review of its project controls procedures to (1) identify ways to maximize the use of its new Project Portfolio Management Integrator software and (2) determine software training needs for staff. Without creating a uniform procedure for updating project data and an effective internal control process to ensure the accuracy of project data, project managers will not have accurate information to efficiently and effectively manage performance.

E&CP Does Not Provide Recent Project Data for Various Client Departments in a Timely Manner

Capital project monitoring best practices recommend that the project delivery team periodically solicit feedback from clients to determine whether project status reports are effectively meeting their needs.⁹⁹ We identified three issues with projects reports provided to client departments. First, client department officials told us that it is an ongoing challenge to get regular and timely updates and reports lack key information necessary for understanding the progress of the project, such as the financial status. We confirmed that update reports lack project budget and allocation totals, the amount of funds remaining to date, and schedule and budget changes from the prior reporting period. E&CP officials told us that this information is available to client departments in the City's financial system and they should not rely on E&CP to provide it in project reports. However, providing this information together with schedule and other data will enable client departments to better monitor projects. Second, reports do not provide comparisons of planned versus actual cost and schedules to enable clients to more easily identify potential problems and changes that have occurred. Third, project schedule updates are six weeks behind their actual schedule, because of the processing procedure and time. However, officials told us that the new Project Portfolio Management Integrator system is expected to streamline the update process by up to two weeks. E&CP officials also told us that updates that rely on

⁹⁹ GFOA, *Best Practice: Capital Project Monitoring and Reporting* (2007), 3.

budget and expenditure data from the City's financial system are generally delayed by several weeks since they are subject to review by Financial Management and other service departments.

E&CP is not providing sufficient project update reports because they have not determined what information each department needs. Although some client department officials have requested specific project information, E&CP told us this was extensive and would take a significant amount of time to produce. According to E&CP officials, their overhead costs are divided evenly among client departments, and they cannot spend an inordinate amount of time customizing information for each department. While it may not be feasible to provide customized reports for each department, by not providing necessary and up-to-date project data, clients departments will not have the tools needed to monitor projects, identify problems in a timely manner, and make sound decisions.

Service Departments Have Incompatible Systems for CIP Project Information

GFOA best practices for capital project monitoring and reporting recommends that officials plan and design systems to collect, store, and analyze project data and to report results. Because more than one system may be required, GFOA recommends that officials decide which system should be the main system for storing capital project financial and operational data. In addition, officials should strive for consistency and standardized language when compiling information from various sources.¹⁰⁰ Although E&CP has consolidated project data formerly managed by multiple clients departments into Primavera 6 to manage and track CIP projects, other service departments do not have access to this system and use their own systems to perform responsibilities relating to CIP projects. See Exhibit 21. In addition, with the exception of Primavera 6 and the City's financial system, service department systems lack a common identifier for projects and do not have the capability to map projects from one system to another.¹⁰¹ For example, the Development Services Department uses its Project Tracking System (PTS) which uses a PTS number to issue and track permits for projects. While PTS allows a user to search by numerous fields, such as PTS number or site address, the system does not include the number linked to the City's financial system—the SAP number or CIP number for projects implemented before this financial system was in place. E&CP officials told us that a crosswalk between the Work Breakdown Structure

¹⁰⁰ GFOA, *Best Practice: Capital Project Monitoring and Reporting* (2007), 1-2.

¹⁰¹ As discussed earlier in this report, Primavera 6 includes all project schedule data, but does not interface with the financial system so excludes actual cost data. E&CP's Project Portfolio Management Integrator is just coming online and will link Primavera 6 with the City's financial system.

(WBS) and PTS numbers would be helpful for managing projects. Systems are incompatible and generally lack a single identifier because the service departments are functionally segregated and lack an office to provide coordination and oversight. Without consistent project identifiers and systems with the capability to interface, the City cannot efficiently and effectively monitor and manage CIP projects and make informed capital resource allocation decisions.

Exhibit 21

Multiple Systems Used by Service Departments for CIP Projects

Department	System	Purpose	CIP Project Identifier
E&CP	Primavera 6	Engineering and project management of CIP projects.	SAP/Work Breakdown Structure number
E&CP	Project Portfolio Management Integrator (PPMI)	Interface system between Primavera and City's financial system.	SAP/Work Breakdown Structure number
E&CP	CityWorks	Geospatial system used to map CIP projects and check for project conflicts. ^a	Project name/Work Breakdown Structure number
Purchasing & Contracting and E&CP	Contract Information Management System (CIMS)	Manage advertisement and award of construction and consultant contracts for CIP.	Bid/contract number
Equal Opportunity Contracting	Early Morning	Manage City's Subcontractor Outreach Program and Small and Local Business Enterprise Program.	Bid/contract number
Financial Management, Comptroller's Office, and all other City departments	AMRIS and SAP ^b	Prepare and publish CIP budget; verify funding availability; financial system used for CIP projects.	SAP/Work Breakdown Structure number
City Clerk	Internet-based Record Management	Internal filing/record management system.	File number
Development Services	Permit Tracking System (PTS)	Obtain, issue, and track permits for projects.	PTS number

Source: OCA analysis of department systems and data.

^a E&CP is now using Interactive Mapping Coordination Action Tool to map CIP projects, but street-related and other non-CIP related projects not managed by E&CP are not yet included in this tool.

^b The City changed financial systems beginning in fiscal year 2010 from AMRIS to SAP. Because historical financial data was not uploaded into SAP, departments must continue to use AMRIS for financial data prior to fiscal year 2009.

**Improvement Is Needed
to Increase
Accountability for Timely
Execution and
Completion of Project
Close-out Tasks**

Expeditious and effective project close-out is a critical element of a successful project.¹⁰² We found that E&CP spends more time completing project close-out tasks than it does building the asset. Based on our sample of projects, we identified that E&CP spends 398 days or about 73 percent of construction activity on post-construction activity, while only 147 days or about 27 percent of time is spent in the building stage.¹⁰³ See Exhibit 22. Further, in response to our survey, client departments reported that E&CP needs to improve services provided during the post-construction stage due to challenges and time delays with securing as-built drawings,¹⁰⁴ providing operations manuals to client departments, testing the asset to ensure design expectations are met, and ensuring warranty requirements are fulfilled. E&CP maintains policies and procedures for carrying out project close-out tasks prior to filing the Notice of Completion for CIP contracts but we found that these policies lack direction and accountability regarding timely execution and completion of project close-out tasks. For example, best practices indicate that as-built drawings should be filed within six months of project completion¹⁰⁵ and change orders should be initiated in a timely manner, particularly as soon as they are prepared.¹⁰⁶ However, Department policies and procedures do not contain requirements for closeout procedures to be executed and completed within any given time frame or a timely manner.

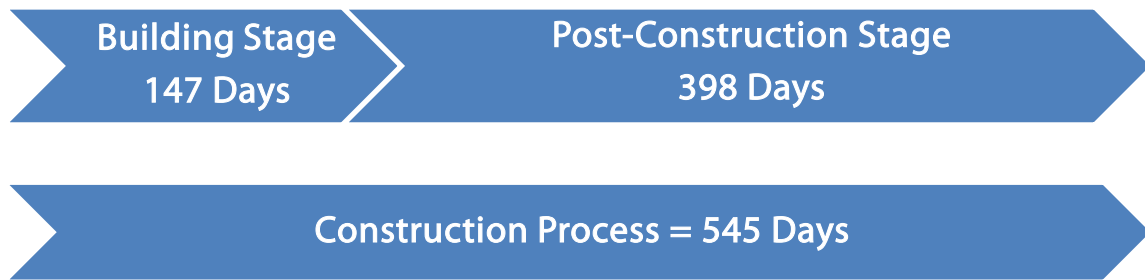
¹⁰² Construction Management Association of America, *Construction Management Standards of Practice*, (McLean, VA: 2010), 25.

¹⁰³ E&CP officials provided supporting documents for the projects in our sample. The total Construction Process was determined using Notice to Proceed and Notice of Completion documentation. The City indicates an allocated time for the actual building of an asset on the Notice to Proceed, which is indicated above as "Building Stage." Post-construction is determined after this point to when the Notice of Completion is filed.

¹⁰⁴ As-built drawings are the construction drawings that include all markups that took place during construction as opposed to the planned construction drawings developed during project design.

¹⁰⁵ *California Multi-Agency CIP Benchmarking Study: Annual Report* (2010), 45.

¹⁰⁶ Levy, S. M., *Project Management in Construction* (New York, NY: 2006), 209.

Exhibit 22**Average Number of Days E&CP Spends in Construction Process**

Source: OCA analysis of E&CP's Notice to Proceed and Notice of Completion and Acceptance data.

Department officials said many of the more complicated facilities require operations training which is coordinated by E&CP prior to acceptance and beneficial use. The lack of accountability for timely execution and completion of project close-out tasks risks prolonging post-construction activity, incurring otherwise avoidable project charges, and holding up unused project funds that could be used for other CIP projects.

E&CP Is Taking Steps to Identify Lessons Learned, but Lacks Formal Processes for Post-Project Reviews

A California benchmarking study recommends that project managers conduct post-project reviews to identify lessons learned, validate estimated costs and prepare final budget reports, and document effective management practices to be applied to future projects.¹⁰⁷ The City requires that post construction meetings be held between the design and construction management teams to discuss issues raised during construction and lessons learned.¹⁰⁸ While E&CP conducts several meetings with stakeholders throughout project implementation to include discussion on lessons learned, we found that these meetings do not include all projects or clients, and E&CP lacks a formal project review process following project completion. For example, Department officials told us that they hold monthly senior-level Design/Construction meetings to discuss issues that occur during construction and post-construction. E&CP officials document these problems in meeting minutes and post them on a shared website so they are available to others. According to officials, problems are resolved by revising contractor documents and/or

¹⁰⁷ *California Multi-Agency CIP Benchmarking Study: Annual Report* (2010), 43.

¹⁰⁸ City of San Diego, *Standard Operating Procedures: Quality Management Plan for Program Management* (San Diego, CA: August 14, 2009), 7.

providing training to staff training. However, these meetings are for enterprise-funded clients only. In addition, Department officials told us that they discuss lessons learned during the constructability review process during the design phase, but this is only for large projects.¹⁰⁹

E&CP does not have a formal process for identifying project-specific lessons learned following project completion. Based on our sample, we found that none of the 53 projects that we sampled included documentation that post-construction project reviews were performed. E&CP officials told us that conducting lessons learned to evaluate the construction delivery process for each project was initially intended, but has not continued because the process was never formalized and required, thus over time project management and resident engineer participation diminished. By not conducting post-project reviews to identify lessons learned, project managers cannot ensure that they are effectively improving the management and delivery of future projects.

*E&CP Has Standard
Operating Procedures Rather
Than Project Delivery
Manual*

Best practices recommend that organizations provide project managers with a project delivery manual to standardize procedures and streamline project design, bidding, and construction processes.¹¹⁰ Having a standard manual is important because it will add overall clarity, efficiency, and consistency to the project management process and establish accountability. E&CP does not have a project delivery manual but maintains numerous standard operating procedures which officials told us equates to a manual. Although the Department has existing standard operating procedures, for example for post-project reviews and EVM, we found that project managers are not complying with these procedures. E&CP officials had differing viewpoints on the standard operating procedures. Some officials told us that these procedures are considered to be guidelines while other officials said that the procedures are more than guidelines, but are subject to variations under certain circumstances and cannot feasibly cover all cases, so engineering judgment is necessary. Particularly if the Department intends to use standard operating procedures instead of a project delivery manual, without accountability for adherence to operating procedures, expected practices will be compromised and projects inconsistently managed, potentially based on personalities and styles

¹⁰⁹ During the design phase, E&CP's Field Engineering Division reviews current design plans for potential construction issues.

¹¹⁰ *California Multi-Agency CIP Benchmarking Study: Annual Report (2010)*, 42.

of individual project managers.

**The City Comptroller's
Office Is Not Using Best
Date for Capitalizing
Assets**

Capitalization is one of the final stages of the project implementation process when a completed project becomes an asset on the City's financial statements. The timing of capitalization is important so that the City has an accurate estimate of the value of the asset. The Governmental Accounting Standards Board recommends that cities capitalize their assets when they are put into their intended use.¹¹¹ We found that the City Comptroller's Office, which capitalizes assets for the City, is not using the most effective criteria for determining when to capitalize an asset. Comptroller's officials told us that they capitalize an asset using its in-service date, which is based on the (1) issuance of the Certificate of Beneficial/Occupancy Use document, (2) issuance of the Notice of Completion and Acceptance document, and (3) calculation of when 95 percent of budgeted funds have been expended. However, none of these effectively relate to when the asset is in service. For example, the Certificate of Beneficial/Occupancy Use is used only for Public Utilities Department projects to comply with legal mandates, and the Notice of Completion and Acceptance is issued after the asset is in service. Further, a construction change order may occur which will affect the value of the asset when basing capitalization on the 95 percent calculation.¹¹² Comptroller's officials told us they developed the 95 percent criterion as a result of the 2003 re-audit and that this was sufficient to meet the City's financial reporting requirements. Without a policy and process specifically designed for identifying when an asset is put into its intended use, the City risks capitalizing assets too early and consequently overstating its depreciation expense or cost of capital assets in its financial statements.¹¹³

¹¹¹ Governmental Accounting Standards Board, *Summary of Statement 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments* (Norwalk, CT: June, 1999), Paragraph 18.

¹¹² In the absence of a Certificate of Beneficial/Occupancy Use or Notice of Completion and Acceptance document, Comptroller's officials use the trigger of when 95 percent of a project's budget is expended to determine when to capitalize a project.

¹¹³ Governmental Accounting Standards Board, *Summary of Statement 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments* (Norwalk, CT: June, 1999), Paragraph 22.

Conclusion

Providing a well-designed and maintained infrastructure anchors our economy and secures the public health and well-being. Investment in infrastructure is vital to productivity, competitiveness, and the economy and can raise property values, lower traffic congestion, and increase safety and security. The economic and social importance of the nation's infrastructure and the current fiscal environment make it even more important that federal, state, and local governments make prudent decisions on how to invest limited available resources. As San Diego continues to deal with budgetary and resource constraints; a declining infrastructure; and increasing pressures to demonstrate results, accountability, and transparency, officials must make the best possible investments and effectively and efficiently manage projects. Although underinvestment in infrastructure poses real risks to the City's economic well-being and physical security, committing resources to new infrastructure without an effective process for guiding those resources among alternative uses and strategies raises the risk that the City is not making sound decisions about capital infrastructure. It is particularly important to address these issues as the City plans to issue additional deferred maintenance bonds to finance CIP projects to ensure that the City is identifying the "right" projects and that these projects can be effectively and efficiently implemented.

Comprehensive asset management is a best practice recommended by international and federal agencies and industry groups for infrastructure management.¹¹⁴ An asset management strategy has the potential to help organizations better identify needs and plan future investments and can provide proactive management of infrastructure and justification and support for capital planning, including investment levels and future requirements.¹¹⁵ An effective

¹¹⁴ National Asset Management Steering Committee, *International Infrastructure Management Manual, Version 3.0* (Wellington, New Zealand: 2006), 1.2-1.5; GFOA, *Multi-Year Capital Planning* (2009), 1; U.S. Government Accountability Office, *Executive Guide: Leading Practices in Capital Decision-Making*, GAO/AIMD-99-32 (Washington, D.C.: Dec. 1998), 46; U.S. Environmental Protection Agency, *Asset Management: A Best Practices Guide* (Washington, D.C.: April 2008), 1; U.S. Department of Transportation, *Asset Management Primer* (Washington, D.C.: Dec. 1999), 9.

¹¹⁵ U.S. Government Accountability Office, *Water Infrastructure: Comprehensive Asset Management Has Potential to Help Utilities Better Identify Needs and Plan Future Investments*, GAO-04-461 (Washington, D.C.: March 19, 2004), 5.

asset management program and CIP plan will help to improve the City's bond rating and its chances to receive federal and state grant monies as well as reducing the risk of deteriorating infrastructure to public safety and security.

By not having a unifying organizational structure that encourages efficiency, collaboration, and proactive management of the CIP, the City cannot ensure that it is making wise infrastructure investments and providing high quality assets in a timely and cost-effective manner. Further, without a central CIP office with sufficient authority to oversee the CIP process and communicate with stakeholders, the process will continue to lack transparency and stakeholders may have unrealistic expectations for the CIP.

Recommendations

We are making 24 recommendations to improve planning and oversight so that the City will effectively identify capital infrastructure needs and manage capital projects within budget and schedule. We have assigned priority numbers to these recommendations to provide the Administration with implementation targets. See Appendix VI for our recommendation priority guide.

Findings 1-3 To improve planning, coordination, and oversight of the CIP process and develop an efficient, collaborative, and proactive management approach, we recommend that the Chief Operating Officer: (*Priority 2*)

1. Develop an effective methodology for identifying the City's deferred maintenance and capital needs.
2. Include deferred maintenance and capital needs in future capital plans so that the City can make wise investments over time to address them.
3. Assess the best organizational structure for establishing a capital program office to provide key leadership, authority, oversight, and coordination for the CIP.
 - A. Considering tight financial constraints, identify how the necessary oversight can be provided on an interim basis, for example, by expanding CIPRAC's roles and responsibilities and providing necessary working level staff, including planners.
 - B. Link key offices related to the CIP with the capital program office, such as CIPRAC and Enterprise Asset Management.
4. Assign the following responsibilities to the capital program office. In the interim until the office can be established and is fully functional, assign these responsibilities to appropriate departments or offices to take steps to improve the effectiveness of the CIP.
 - A. Identify, leverage, and optimize funding sources.
 - B. Streamline and improve coordination and functionality of CIP related processes.
 - Review and assess efficiency of required processes,

- such as historical and environmental reviews.
 - Work with the Independent Budget Analyst to identify ways to streamline the docketing process and the number of times that projects are required to obtain City Council approval.
- C. Improve the interface between SAP and the CIP process.
- D. Provide administrative support to CIPRAC.
- E. Coordinate various responsibilities of service departments, such as working with E&CP to monitor and report on capital project activity on a regular basis.
- Provide coordination of various service department systems for managing various aspects of CIP projects, such as establishing a common project identifier and systems with the capability to interface.
- F. Develop a multi-year CIP plan that provides transparency over future CIP investments and:
- Includes projects beginning in future years;
 - Includes estimates of the impact of projects on the City's operating budget, such as the number of additional positions required and tax or fee implications; and
 - Connects the policies and strategies of the General Plan with the CIP plan and funding sources, and includes specific references to assist the Planning Commission's review for conformance.
- G. Work with City planning officials and community planning groups to ensure that projects are reviewed for conformance with the General Plan and community plans.
- H. Obtain input and approval of the CIP plan from stakeholders, including community planning groups, the Planning Commission, and the City Council.
- I. Incorporate the first year of the plan into the annual CIP budget with a detailed scope and after E&CP's review, including:
- A schedule for completion for each project, including specific phases and estimated funding.

- A description of the impact the project will have on the current or future operating budget.
 - Estimated costs of the project, based on recent and accurate sources of information.
 - Identified funding sources and personnel for all aspects of the project.
- J. Communicate with client departments and other stakeholders regarding the CIP process and projects.
- K. Monitor and report on the status of CIP projects, such as by providing semi-annual updates to the City Council.
5. Update financing plans to ensure that appropriate fees are charged.
- A. Assess whether the scope of financing plans should be expanded to include potential funding sources beyond DIF, so communities have a mechanism for planning and funding for needed projects.
6. Effectively prioritize ADA projects by identifying funding sources and requiring the office to monitor and report progress made on the ADA Transition Plan.

Finding 4 To ensure that the City is effectively identifying and prioritizing capital infrastructure needs and making wise investments, we recommend that the Chief Operating Officer: *(Priority 2)*

7. Establish a policy for implementing a Citywide asset management program to include a schedule and significant milestones.
8. Complete the development of standard criteria and processes for collecting asset information and assessing the condition of assets, including moving toward the use of a standard database for a Citywide inventory.
9. Require that all client departments evaluate alternatives to appropriate projects based on desired outcomes, such as including conducting risk/criticality assessments and lifecycle cost analysis and assessing maintenance/ rehabilitation and non-construction options.
10. Establish a timeframe and provide needed resources over time for client departments to develop master plans to provide a guide for their contribution to the Citywide CIP plan.

11. Revise the charter for CIPRAC to update its mission, authority, and objectives.
 - A. Require that CIPRAC review department projects and priority scores and prioritize projects from a citywide perspective.
12. Assess the current priority scoring process, including obtaining input from service and client departments and other stakeholders, and develop suggested changes, if needed, to City Council Policy 800-14.
 - A. Require that officials with relevant experience, such as planning and redevelopment staff, be consulted as appropriate when client departments develop priority scores for projects.

Finding 5 To improve E&CP management and reporting of projects and ensure the delivery of high quality assets within budget and schedule, we recommend that the Department Director: *(Priority 2)*

13. Establish department-level performance goals and performance measures and the tools needed, including project delivery cost and timeliness, project quality, and customer satisfaction and feedback systems to monitor and report results and promote continuous improvement.
14. Develop updated agreements with all client departments to establish project implementation expectations and requirements.
15. Require that client departments assign and maintain a primary point of contact for each project throughout project implementation.
16. Integrate project scope, budget, and schedule, potentially using the Department's new Project Portfolio Management Integrator, to provide the needed data so that project managers can use EVM or another tool to effectively measure project performance and identify problems in a timely manner.
 - A. Provide detailed information to the client departments on the impact of changes in scope on the budget and schedule of the project.
17. Develop a uniform procedure for updating project data in Primavera 6 and establish an effective internal review process and accountability for accuracy and timeliness of data.
 - A. Formalize processes to update project content and

ensure common criteria used to update data.

- B. Implement procedures to perform regular inspections of Primavera data to ensure accuracy.
18. Identify client department reporting needs and provide project update reports to ensure that departments have accurate, up-to-date, and needed information to make sound decisions about projects.
 - A. Solicit feedback from client departments and revise project update content to be specific and pertinent to the need of the asset holder.
 19. Revise the current project closeout process to ensure that tasks are executed and completed in a timely manner.
 20. Conduct project-level post-construction reviews to identify lessons learned and develop recommendations on how to improve future performance.
 - A. Include the frequency of reviews for non-repetitive projects in existing policy on conducting post-construction reviews.
 21. Develop and maintain a database of best management practices resulting from lessons learned and make information available to project managers working on projects of a similar scope and nature.
 22. Organize and consolidate Standard Operating Procedures into a standardized Project Delivery Manual and establish oversight and enforcement mechanisms to improve consistency and accountability.

We recommend that the Chief Operating Officer:

23. Require that client departments assign and maintain a primary point of contact for each project throughout project implementation.

To improve the efficiency and accuracy of capitalizing fixed assets, we recommend that the City Comptroller, in conjunction with the Director of E&CP: *(Priority 2)*

24. Develop and formalize an internal process to identify and document the in-service date of capital assets, including initiation and documentation of the process by the Resident Engineer and confirmation by appropriate E&CP officials.

Appendix I: CIP Funding Sources and Descriptions

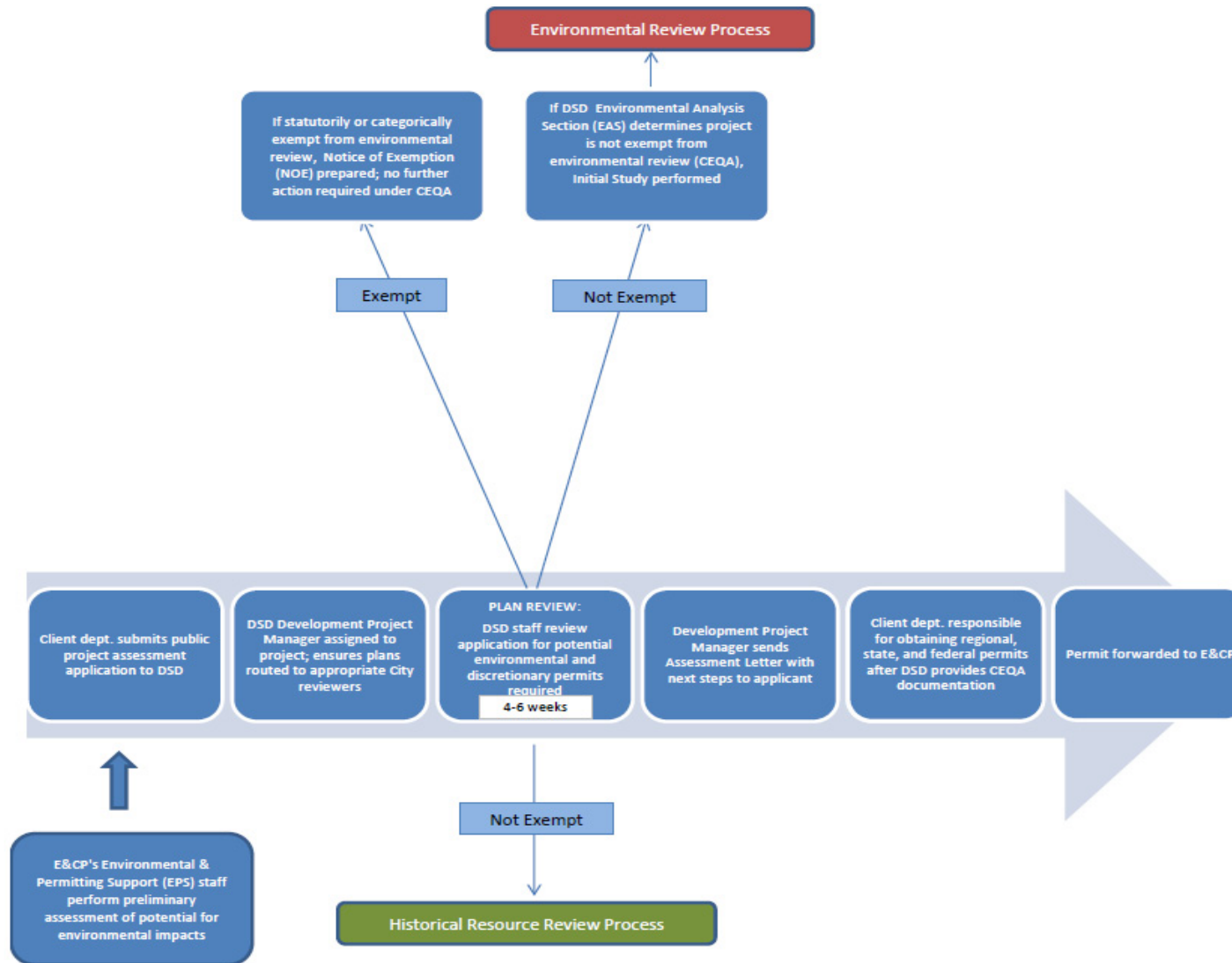
Funding Source	Description
American Reinvestment and Recovery Act/TransNet	San Diego received about \$20.2 million in American Reinvestment and Recovery funds which was exchanged for TransNet funds with the regional transportation agency, SANDAG. About \$14 million was budgeted for transportation-related capital projects, such as a bikeway project and installing sidewalks, and about \$6 million is unprogrammed in case the state of California eliminated funds it provides to cities from the gasoline tax.
Bonds	City also issues bonds to finance sewer and water infrastructure improvements.
Capital Outlay	City's share of sales tax distribution or land sales, lease, and rentals.
Coastal Infrastructure	Portion of Transient Occupancy Tax funds are set aside to provide for critical erosion, facilities, and other infrastructure needs involving City-owned coastal sites.
Community Development Block Grant	Used to benefit low and moderate income citizens through improvements to and development in local communities.
Community Facility District	Finances public facilities through the sale of bonds which are repaid through increases in property taxes. Tax increases are levied within a specific geographic area and must be approved by two-thirds of voters. If fewer than 12 residents, the vote is conducted of current landowners.
Cost Reimbursement District	Provides mechanism for developers who provide improvement to be reimbursed by subsequent builders who also benefit. (MC 62.0208)
Deferred Maintenance Bond	Revenues from the City's bond sale were used for deferred maintenance capital projects including asphalt overlay and repairs and replacement of sidewalks, storm drains, and public facilities.
Developer Impact Fees	Funds are collected in areas that are nearly built-out to mitigate the impact of new development.
Development Agreements	Agreement between City and developer provides for significant or extraordinary benefits to the City or one or more local communities, such as cash, open space for wildlife dedication, and lot dedication. (MC 105.0101-105.0111)
Facilities Benefits Assessment	Provides 100 percent funding for public facilities projects which serve a designated area of benefit.
Gas Tax Allocation	Revenue generated by state excise tax on gasoline is for research, planning, construction, improvement, maintenance, and operation of public streets and highways (and related facilities for non-motorized traffic), including the mitigation of their environmental effects, the payment of property taken or damaged for such purposes, and necessary administrative costs.
Grants	Revenue from federal government and other agencies.
Mission Bay Park Fund	
Private Donations	Contributions from private entities.

Funding Source	Description
Proposition 1B	Proceeds from state general obligation bonds are to be used for transportation projects that will assist in reducing local traffic congestion and deterioration, improving traffic flows, or increasing traffic safety. These may include street and highway maintenance, rehabilitation, installation, construction and reconstruction of associated facilities.
Proposition 42	Revenue generated by state sales tax on gasoline and diesel fuel sales tax are used for state and local transportation purposes to provide for improvements to highways, streets and roads, and transit systems. 20 percent is for use by California cities and allocated in proportion to population.
Regional Transportation Congestion Improvement Program Funds	This local fund is required by the TransNet program. Revenues are collected from private sector developers to offset the negative impacts of growth on congestion and mobility and must be used for improvements to the regional arterial system and transit.
Sewer Fund	Enterprise fund generated through fees imposed by the City for the use of the sewer system to fund all types of sewer-related projects.
TransNet Bonds	Long-term borrowing tool used when anticipated requirements exceed current revenues.
TransNet Commercial Paper	Short-term borrowing tool used to raise funds to cover cash flow deficits.
TransNet Revenue	Revenues are generated by a one-half cent sales tax countywide to be used to fund improvements to the region's transportation system. The Congestion Relief Program provides funds to local agencies for local street and road improvements.
Water Fund	Enterprise fund generated through fees imposed by the City for the use of the water system to fund all types of water-related projects.

Source: OCA analysis of information provided by E&CP officials.

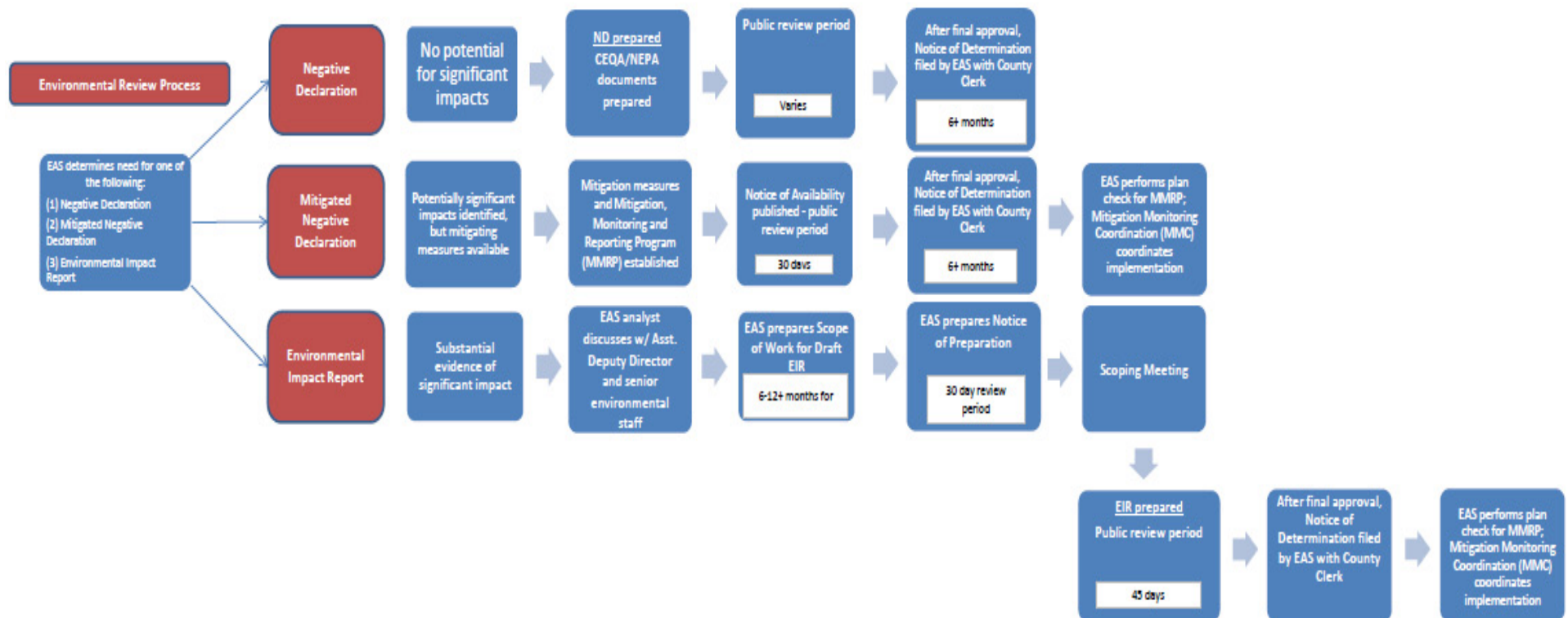


Appendix III: Processes for Environmental and Historical Review and City Council Approval



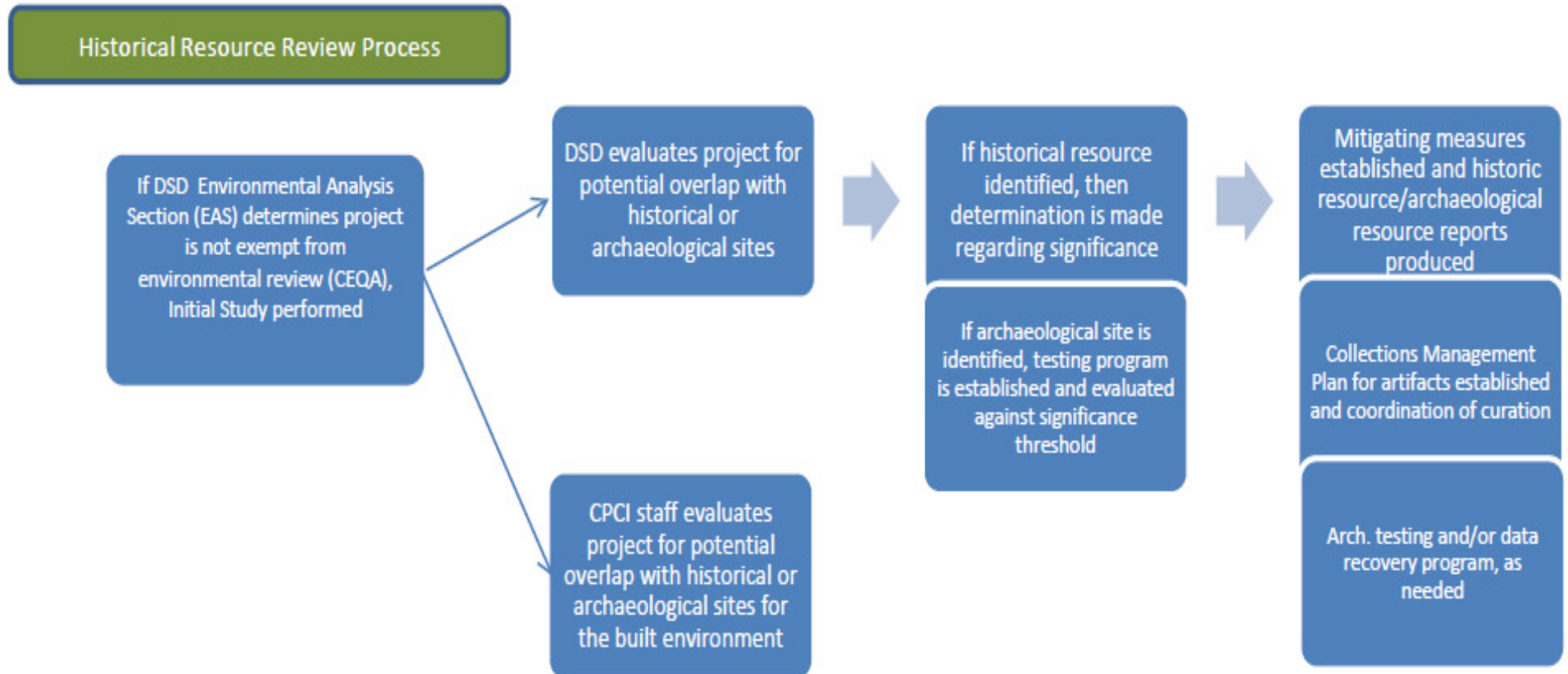
Source: OCA analysis of information provided by E&CP, Development Services, and City Planning and Community Investment officials.

Environmental Review Process



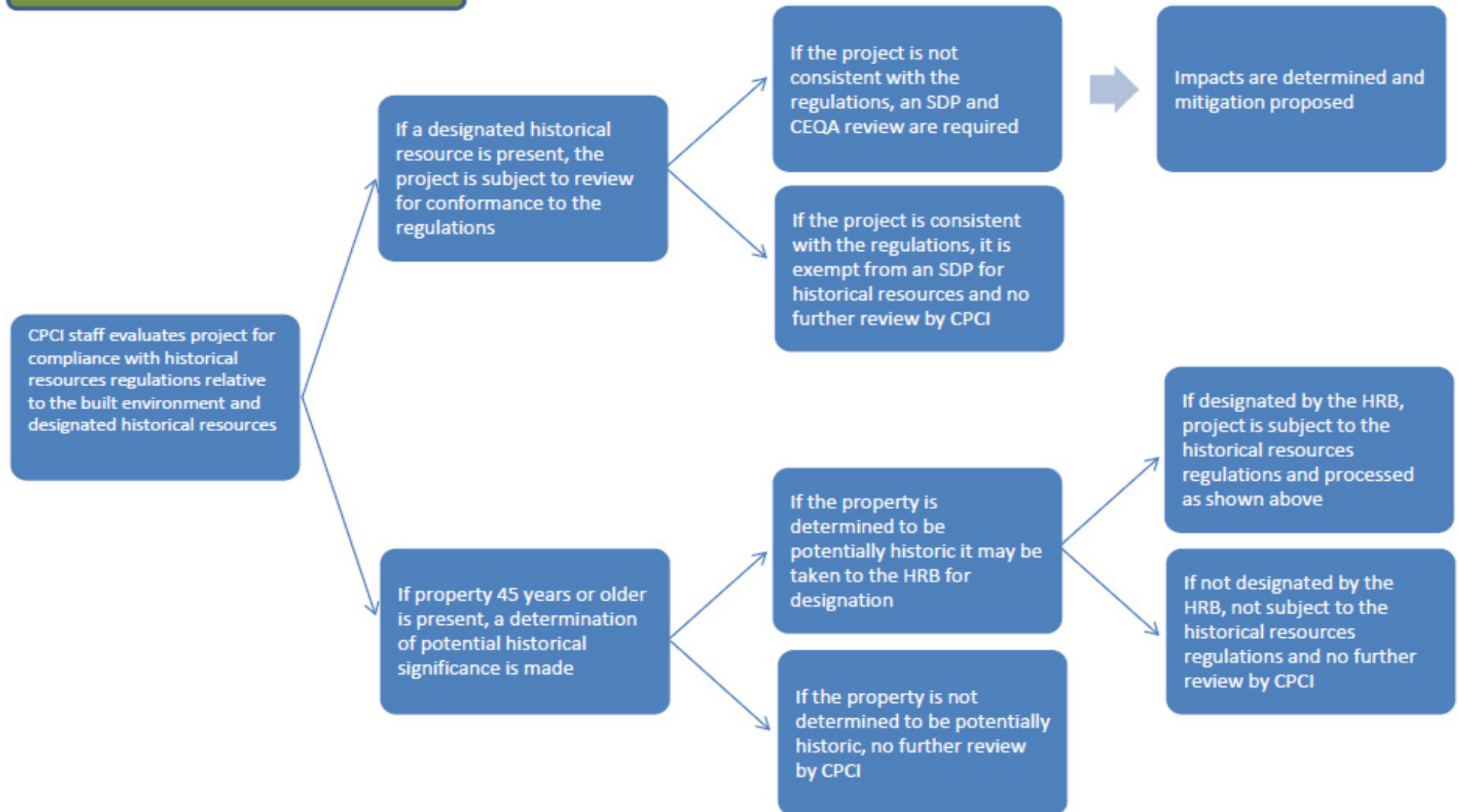
Source: OCA analysis of documents and information provided by E&CP, Development Services, and City Planning and Community Investment officials.

Historical Review Processes



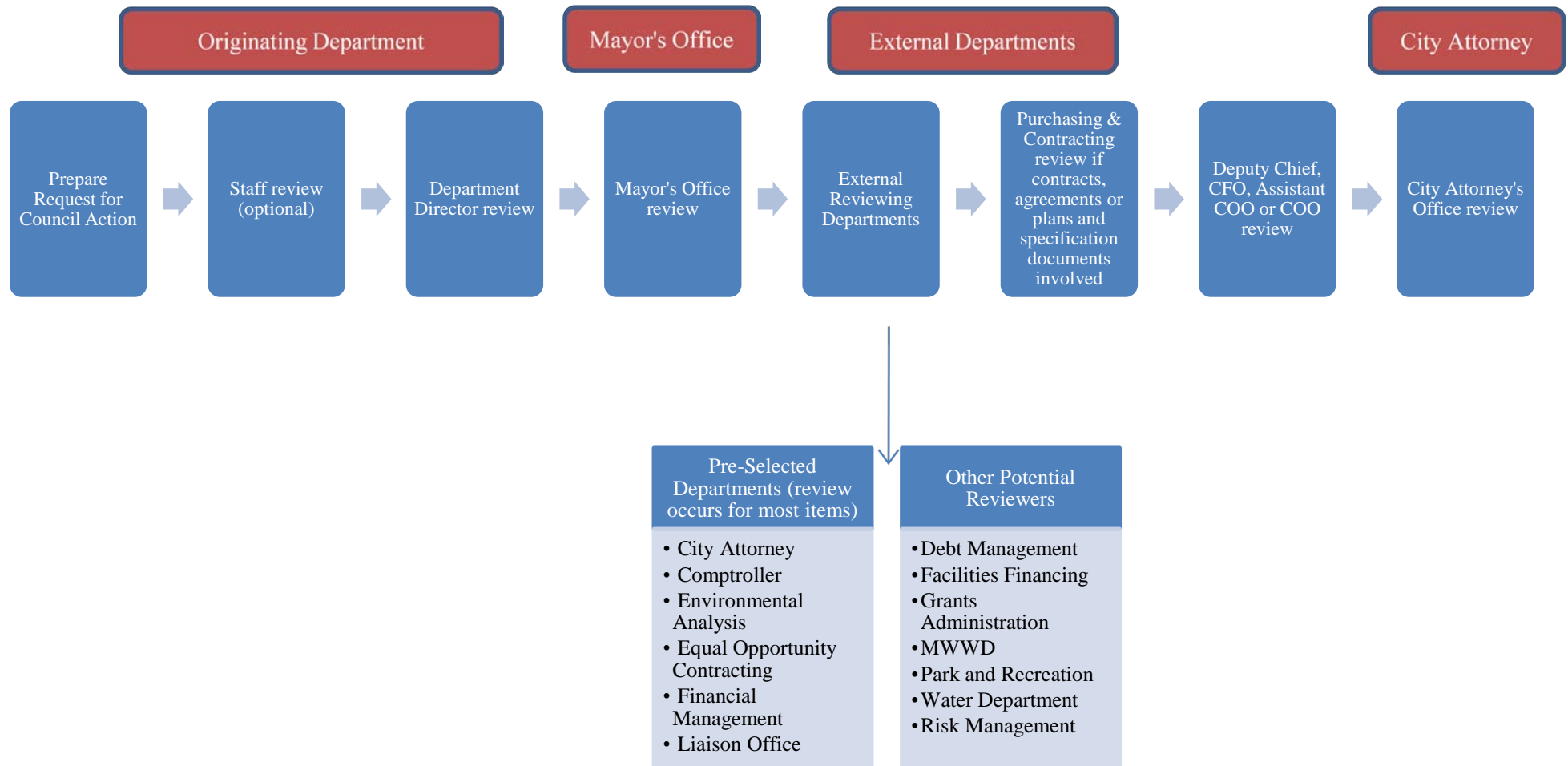
Source: OCA analysis of documents and information provided by E&CP, Development Services, and City Planning and Community Investment officials.

Historical Resource Review Process (CPCI)



Source: OCA analysis of documents and information provided by E&CP, Development Services, and City Planning and Community Investment officials.

Request for Council Action Process



Appendix IV: Status of Community and Financing Plans

Community Planning Area	Type of Community		Most Recent Update Fiscal Year	
	DIF	FBA	Community Plan	Financing Plan
Barrio Logan	√		1979*	2007*
Black Mountain Ranch		√	1999	2006
Carmel Mountain Ranch**			1985	1995
Carmel Valley		√	1975	2009
Centre City	√		2006	2005
Clairemont Mesa	√		1990	2002
College Area	√		1989	1994
Del Mar Mesa		√	1996	2006
Greater North Park	√		1986*	2002*
Greater Golden Hill	√		1987*	2005*
Kearny Mesa	√		1993	2003
La Jolla	√		2004	2002
Linda Vista	√		1999	2004
Mid-City ^a	√		1999	1998
Midway/Pacific Highway	√		1991*	2005*
Mira Mesa		√	1993	2007
Miramar Ranch North**			1980	1989
Mission Beach	√		1975	1987 ^b
Mission Valley	√		1985	2006
Navajo	√		1983	2008
North University City		√	1988 ^d	2009
Ocean Beach	√		1976*	2000* ^b
Old San Diego	√		1988*	2004*
Otay Mesa		√	1981*	2007
Otay Mesa - Nestor	√		1997	2006
Pacific Highlands Ranch		√	2000	2008
Pacific Beach	√		1995	1994
Peninsula	√		1988	2001

Community Planning Area	Type of Community		Most Recent Update Fiscal Year	
	DIF	FBA	Community Plan	Financing Plan
Rancho Bernardo	√		1988	2008
Rancho Encantada		√	2002	2010
Rancho Penasquitos		√	1993	2008
Sabre Springs		√	1983	2009
San Pasqual	√		1995	1996
San Ysidro (Tijuana River Valley)	√		1991* and 2000 ^e	2008*
Scripps Miramar Ranch		√	1979	2007
Serra Mesa	√		1978	2004
Skyline – Paradise Hills	√		1987	2003
Sorrento Hills**			1997	1997
Southeastern San Diego ^c	√		1988	2003
South University City	√		1987 ^d	2004
Tierrasanta	√		1983	2007
Torrey Highlands		√	1996	2010
Torrey Pines	√		1995	2005
Uptown	√		1988*	2003*
Via de la Valle	√		1984	1996

Source: OCA analysis of information provided by the City Planning and Community Investment Department.

*Indicates updates in progress. Community and financing plans are generally updated concurrently.

**The Community Planning Area is neither DIF or FBA, but had a development agreement which has expired. This indicates a gap in the event that additional infrastructure is required in the future.

^a There are four community planning groups involved in the Mid-City Plan, including City Heights, Eastern Area, Kensington-Talmadge, and Normal Heights.

^b The financing plan is a facilities summary list on which initial impact fees were based.

^c There are two community planning groups involved in the development of the Southeastern San Diego Plan, including Encanto Neighborhoods and Southeastern San Diego.

^d North and South University City financing plans are based on the University community plan.

^e The San Ysidro and Tijuana River Valley community Plans share one financing plan.

Appendix V: Community Planning Group Survey Results

Survey Question	Yes	No	No Response	Yes and No ^a
Does your group currently have a community plan?	100%	0%	0%	0%
Is the City's General Plan consistent with your community plan?	35%	59%	6%	0%
Has your group been involved in the development of the General Plan?	65%	29%	6%	0%
Does your group currently have a financing plan?	76%	18%	6%	0%
Has your financing plan been approved by the City Council?	71%	12%	18%	0%
Does your financing plan sufficiently outline funding sources to conduct needed projects?	29%	53%	18%	0%
Does the City follow recommendations made in your financing plan to establish CIP priorities?	18%	65%	18%	0%
Has your group been involved in the development of the annual CIP budget?	29%	59%	6%	6%
Do you believe that the City effectively prioritizes CIP projects?	6%	76%	18%	0%
Do you believe the CIP will enable the City to implement your community plan?	24%	71%	6%	0%
Do you believe the CIP will enable the City to implement the General Plan?	35%	59%	6%	0%
Does the City communicate relevant issues to your group regarding CIP projects in your community?	29%	65%	0%	6%
Does the City communicate relevant issues to your group regarding street resurfacing projects in your community?	41%	53%	6%	0%

Source: OCA analysis of community planning group responses to survey.

a Some respondents selected both yes and no to certain questions.

Notes: 20 of 43 or about 47 percent of the Community Planning Groups responded to the survey. Three of these declined to complete the survey because they did not believe they were qualified to respond.

Totals may not add due to rounding.

Appendix VI: Recommendation Priority Guide

The Office of the City Auditor maintains a classification scheme applicable to audit recommendations and the appropriate corrective actions as follows:

Priority Class ¹¹⁶	Description ¹¹⁷	Implementation Action ¹¹⁸
1	Fraud or serious violations are being committed, significant fiscal or equivalent non-fiscal losses are occurring.	Immediate
2	A potential for incurring significant or equivalent fiscal and/or non-fiscal losses exist.	Six months
3	Operation or administrative process will be improved.	Six months to one year

¹¹⁶ The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation which clearly fits the description for more than one priority class shall be assigned the higher number.

¹¹⁷ For an audit recommendation to be considered related to a significant fiscal loss, it will usually be necessary for an actual loss of \$50,000 or more to be involved or for a potential loss (including unrealized revenue increases) of \$100,000 to be involved. Equivalent non-fiscal losses would include, but not be limited to, omission or commission of acts by or on behalf of the City which would be likely to expose the City to adverse criticism in the eyes of its residents.

¹¹⁸ The implementation time frame indicated for each priority class is intended as a guideline for establishing implementation target dates. While prioritizing recommendations is the responsibility of the City Auditor, determining implementation dates is the responsibility of the City Administration.

Appendix VII: Management's Response



THE CITY OF SAN DIEGO M E M O R A N D U M

DATE: June 23, 2011
TO: Eduardo Luna , City Auditor
FROM: Wally Hill, Assistant Chief Operating Officer *Wally Hill*
SUBJECT: Management Responses to City Auditor's Performance Audit of the Capital Improvement Program (CIP)

The City Auditors conducted a performance audit of the CIP as requested by City Council Members Todd Gloria and Donna Frye. The audit was reviewed by representatives of both client and service departments and those comments were consolidated, reviewed and edited by CIPRAC through a series of meetings specific to the audit. This memo provides an overview of those comments.

The City CIP is a very complex process with procedures that are as varied as the departments that are involved in its management. Most processes reflect the unique nature of organizations, constituents, and types of CIP projects managed.

Although management does not agree with all of the findings and recommendations, we would like to take this opportunity to thank the City Auditor. We certainly share the same interest in continuing to refine and make improvements to the CIP process citywide.

Perhaps our greatest concern is that some conclusions appear to have been drawn from few, limited incidents and applied as generally applicable. This is important because According to "yellow book", performance audits that comply with generally accepted government auditing standards (GAGAS) must provide reasonable assurance that evidence is sufficient and appropriate to support the auditors' findings and conclusions. Furthermore, many conclusions are made with respect to a lack of efficiency without any objective and quantitative comparison between the "input" and "output" as unusually being done. The report also implies or expressly points out to the lack of "effectiveness" without providing specific reference points to derive quantitative measurement upon which to base analysis.

Therefore, staff has provided responses in the form of additional context, corrections, and clarification.

Furthermore, it appears as many recommendations require more funding to implement. We understand that it is not one of the audit objectives to identify funding for the implementation. However, no analysis of the fiscal impact or cost/benefit is provided to support the value being added.

This response is organized in the same order that information has been presented in the audit report.

Introduction

Although the report supposes “that the evidence obtained provides a reasonable basis for ... findings and conclusions” and acknowledges the significant organizational and procedural changes in the recent years associated with the various Business Process Engineering (BPR) activities and the implementation of the SAP, it does not recognize those changes as impediment to valid findings and conclusions. Many of the changed processes are still evolving and did not represent the true stabilized end state planned. Between 2006 and 2009, several CIP components e.g., engineering services went through significant organizational and procedural changes, some of which are still being implemented.

Understanding challenges facing the auditors i.e., CIP complexity and time to complete the report, it must be noted that a great amount of the evidence gathered for the findings in the report come from this very dynamic period of evolution. This is concerning because of the challenges in evaluating performance of a system during a significant process re-engineering as it would render false impressions and conclusions due to the instability of the system during the changeover. For example, the project and process analysis was performed on projects that were probably not being managed according to either the old or the new system and the system was not stable.

Background

The report states that “City has funded ADA projects through and Community Development Block Grants (CDBG)” and seems to encourage the use of CDBG. CDBG funds are a source for funding CIP. However, there are constraints, in that funds cannot be used for planning or design; that only 85% can be applied to bricks and mortar improvements and 15% is generally allocated to services; and further that of the 85% for hard improvements a very large part is allocated to non-city organizations and not used to construct or renew City assets. In addition, given the current City policy that projects must be implemented in 18 months the type and size of projects is thereby significantly reduced and the effectiveness of this funding source is diminished. These are significant constraints that are fully recognized in the report.

San Diego has institutionalized the involvement of its residents in the identification and prioritization of capital improvements for some specific types of community serving assets such as parks, libraries, police stations, fire stations, streetscape and redevelopment related improvements. These efforts and the impacts to project content, budget and schedule effecting project delivery. These efforts are not recognized in the report.

Objectives, Scope, and Methodology

The report relies on CIP budgets for fiscal years 2007 through 2011 to “determine the extent to which the City effectively invests resources and provides oversight and coordination of the process for identifying capital infrastructure needs and implementing projects.” Again, it should be noted that the centralization of planning, design and construction management that occurred

during the process of business practice re-engineering (BPR) that occurred in 2008 had a significant impact on the way these services were portrayed in the budget. “Things were shifted around, a lot.” Therefore, during this period, the budget did not provide a reliable tool upon which to base analysis and conclusions.

The reports states that the City Auditor “assessed the reliability of E&CP’s Primavera 6 data by conducting a statistical sample of 53 projects and comparing project construction start and end dates in Primavera 6 with the actual dates from Notice to Proceed and Notice of Completion documents.” The report also states that the City Auditor “conducted a statistical sample of completed projects to determine construction time, cost, and reliability.” The audit also relies on the same sample “to determine whether E&CP is effectively managing and monitoring CIP projects and reporting on their status.” As it is used in the report, the phrase “statistical analysis” is applied as means to generalize the findings for a narrow group of projects to the whole City CIP. Statistical methods have certain requirements in order to study something and then to generalize the findings based on the study. Our belief is that the approach taken is too simplistic and the sample may be problematic and may not render the appropriate conclusions because projects have been affected by the BPR and the City’s financial overhaul that tainted the result due to the migration of project execution responsibilities throughout that period. Therefore, it cannot be representative enough to answer all these questions reliably and cannot be generalized as “for all City projects.” More recent projects would give a truer picture.

Audit Results

Finding 1

According to the report, “the City estimates that it has about \$840 million in deferred maintenance and about \$1.9 billion in unfunded capital needs.” It is important to point out that these figures only represent existing storm drain, street, and (non-public utility) facilities/structure asset improvement needs, and that there are additional capital needs that have not been quantified since no comprehensive study of all asset types deferred maintenance needs has ever been completed.

Finding 2

According to the report there are “impediments throughout the various stages of the process leading to risks that the City is not effectively (1) identifying capital infrastructure needs and (2) managing quality projects that are within budget and schedule.” That is not true of the entire CIP. For example, the Public Utilities Department (PUD) program expands out multiple years and project budget and schedules are tightly monitored.

The report states that “the Mayor established CIPRAC to provide oversight for prioritizing and approving CIP projects for the annual budget process.” It must be noted that there are multiple funding sources and that prioritization has to occur within the limits of funding sources. One of the City’s challenges is communicating that funding sources are restricted to certain types of asset specific improvements. CIPRAC was created to facilitate the prioritization process that may occur across asset types.

“To better explain the issues associated with the CIP process,” the report breaks it down into four major stages. However, it does not mention an important stage i.e., Policy Development during which Client departments develop their own internal CIP development policies and procedures. Service Departments develop and administer implementing policies and procedures. CIPRAC provides review and recommendations to help coordinate and relate the efforts of client and services departments, to manage differences, to provide advice, to evaluate and improve processes and tools.

The report states that auditors “found that the lack of a central CIP office to oversee and coordinate the CIP process has contributed to impediments in the various stages of the process, leading to risks that the City is not effectively ... managing quality projects that are within budget and schedule.” However, the quality of projects was not analyzed in the report.

Finding 3

The report states that “City lacks integrated, long-term capital planning to address capital infrastructure needs.” This is an overly broad statement. The CIP encompasses several years and a long term approach, it also provides a focused short term plan of five years. There are projects scheduled and budgeted beyond the first five years e.g., PUD has 5-10 years plan.

The report states that “CIP Is Not Primarily Based on General Plan or Community Plans.” This is incorrect, CIPs are reviewed for conformance with the General Plan and community plan(s). If a CIP project is not in conformance, then the CIP project would be removed. Alternatively, the community plan(s) may be updated to allow for the CIP to be implemented.

Furthermore, the CIP is linked with the General Plan and its community plans (which are technically components of the City’s General Plan). The linkage occurs through regular updates of public facilities financing plans, reviewed by community planning groups and adopted by City Council. The linkage also occurs with the annual findings by the Planning Commission, at a public hearing, that the CIP is in conformance with the General Plan.

Community plans set forth long-term priorities for facilities within a community. Regular updates of the corresponding public facilities financing plans set forth near and mid-term priorities. Since community plans are policy documents that are technically components of the General Plan, and are updated every 20+/- years, infrastructure priorities discussed in the plans are general. Since communities and the public may change their CIP priorities frequently, it is more appropriate to have near-to-mid term CIP priorities in the Public Facility Financing Plans (PFFP), which are amended more often without triggering the more onerous General Plan/community plan amendment process. Since PFFPs have to be consistent with the General Plan and, by extension, the community plans, the link between the CIP and planning policy is still maintained.

The report states that “assessing lifecycle costs of projects ... is also crucial for comparing alternative project options and making decisions about affordability.” The asset owner has standards and identifies needs in order to generate CIPs. This is based on very preliminary assessments that become more refined as you move through design. It would not be cost effective to perform multiple designs and then determine which option is best for maintenance in

perpetuity. It is common for standards to evolve over time – performance of materials and ease of maintenance. This is an ongoing asset owner challenge.

The report states that “65 percent reported that the City does not follow recommendations made in their community’s financing plan to prioritize CIP projects.” This is too broad. Planning groups are typically involved in the implementation of new facilities addressing the community plan. This is only a small portion of the CIP.

The report states that “City Has Not Fully Assessed Future Operating Costs of Projects.” This does not apply to the majority of the CIP projects. Most projects, such as utility pipelines, have no or little impact on the operating costs (if any).

Finding 4

The different approaches for assessing need is not an inconsistency but desired by design. The report states that “process for identifying capital needs is inconsistent among client departments.” This seems to suggest that a single needs assessment process will work for all the client departments. This would be incorrect as some departments have no/little constituent involvement and some have extensive involvement. There could be similarities in process timing, criteria but the processes would likely not be identical. It should be noted that it is also different because it is customized to meet / fit the explicit needs of the Department and constituent.

It could also be noted that prior to 1999 and the adoption of GASB 34 there was very little focus on asset management by cities. These standards first encouraged local governmental units to become better stewards and to value long lived infrastructure assets either by depreciating infrastructure or by reporting on the cost and consequences of preserving it. San Diego is actually much further along in this process than other cities and this could be noted, as well.

While the reports outlines different strengths and weakness for CIPRAC, the CIPRAC Committee has brought forward important issues and streamlined the CIP process, by providing a common venue for senior-level staff to share thoughts and ideas related to their own projects. Credit should also be given here to the members of EAM and CIPRAC for understanding the Importance of the relationship between asset management and CIP and creating a clear linkage and framework for discussion.

Finding 5

The report tests the accuracy of the schedule data by testing “the accuracy of construction data.” This finding presents a false conclusion and may not be a true indication of actual schedule performance based upon the method of analysis described. The analysis focuses on less than 50% of project life. Project delivery schedules need to be examined over the entire length of the project to determine effectiveness, not just construction portion of the project. Construction is frequently the shortest, simplest most linear part of the processes.

Furthermore, project costs (overhead, labor, construction escalation) have an impact on final project cost and escalating over the length of the delivery not just the construction phase.

Finally, projects should be evaluated to determine if a project schedule reset took place to the baseline schedule during the project. Project baseline resets are not always easily distinguishable and would have significant effect on appearance of data. It would be appropriate to ask for each and every schedule produced for the project in P6 to determine if there were any project baseline schedule resets.

The reports states that “E&CP lacks department-level goals and performance measures.” That is inaccurate. Following the 2008 BPR E&CP has established department-level goals performance measures which has been tracked ever since. E&CP has client department driven goals that roll into department goals included in the SLAs and MOUs. E&CP also compares performance measures with the other 6 largest Cities in the State. However, we acknowledge improvement is needed in that area.

The report states that “E&CP lacks reliable project data.” That is also not accurate and representative of the entire CIP.

The report states that “E&CP Is Not Efficiently Integrating Scope, Budget, and Schedule to Manage Project Performance.” However, no evidence is provided to support the inefficiency e.g., comparing the demand against resources available.

The report states that Recent Project Data for Various Client Departments is Not Available in a Timely Manner.” That is too broad. SAP provides project financial information e.g., project budget allocations, expenditures, encumbrances, and remaining balances for all fund resources and status reports on a ‘real time’ basis which are available to Client Departments.

Recommendations

General Commentary: The recommendations provided do not appear to offer any cost saving measures. It does appear as though the implementation of the bulk of items listed will require additional staff time and funding although there is no mention of the source of funding or personnel resources for implementation.

Recommendation 1: Develop an effective methodology for identifying the City’s deferred maintenance and capital needs.

Response: Agree.

The recommendation as written implies that there are no existing methodologies in practice. That is incorrect. We agree to developing improved methodologies for identifying the City’s deferred maintenance and capital needs.

Recommendation 2: Include deferred maintenance and capital needs in future capital plans so that the City can make wise investments over time to address them.

Response: Disagree.

We generally agree with the need to have processes in place to continue to inventory, identify and assess the City’s deferred maintenance and capital needs. However, the relative level of

success will depend on the City's ability to consistently budget for enhanced planning; improved and expanded tools, condition assessment studies, and an asset management system. The City does not currently have the resources to complete this effort.

When establishing capital project program priorities it must be understood that local budget policy and competing internal priorities for scarce General Fund resources result in capital improvement funding priorities that are frequently driven by outside Federal and State funding sources and grant programs resulting in pockets of under-investment for some critical asset types. Projects and initiatives that are grant driven may reflect the requirements of the grant more so than the requirements of the project or the priority needs of the City/Department.

We disagree with the notion that it is possible to ensure the future capital plans and investments address needs due to the fact the current capital and deferred investment needs surpass limited available funding and it does not appear as though any plan can address all needs.

Recommendation 3: Assess the best organizational structure for establishing a capital program office to provide key leadership, authority, oversight, and coordination for the CIP.

- A. Considering tight financial constraints, identify how the necessary oversight can be provided on an interim basis, for example, by expanding CIPRAC's roles and responsibilities and providing necessary working level staff, including planners.
- B. Link key offices related to the CIP with the capital program office, such as CIPRAC and Enterprise Asset Management.

Response: Disagree

We agree that a more centralized CIP oversight is a good idea. However, we disagree with the establishment of a Capital Program Office or the same under CIPRAC due to the lack of resources needed to do so. A Capital Program Office would require additional staffing that is not available. It would require significant citywide reorganization and demands additional time and budget. The implementation greatly depends on the City's ability to obtain the necessary resources particularly at a time when they are declining. We will continue to use CIPRAC as a forum for discussing and resolving interdepartmental issues related to capital projects. However, we cannot commit to provide additional resources e.g., working level staff, including planners.

Recommendation 4: Assign the following responsibilities to the capital program office. In the interim until the office can be established and is fully functional, assign these responsibilities to appropriate departments or offices to take steps to improve the effectiveness of the CIP.

- A. Identify, leverage, and optimize funding sources.
- B. Streamline and improve coordination and functionality of CIP related processes.
 - 1. Review and assess efficiency of required processes, such as historical and environmental reviews.

2. Work with the Independent Budget Analyst to identify ways to streamline the docketing process and the number of times that projects are required to obtain City Council approval.
- C. Improve the interface of SAP and the CIP process.
- D. Provide administrative support to CIPRAC.
- E. Coordinate various responsibilities of service departments, such as working with E&CP to monitor and report on capital project activity on a regular basis.
1. Provide coordination of various service department systems for managing various aspects of CIP projects, such as establishing a common project identifier and systems with the capability to interface.
- F. Develop a multi-year CIP plan that provides transparency over future CIP investments and
1. Includes projects beginning in future years;
 2. Includes estimates of the impact of projects on the City's operating budget, such as the number of additional positions required and tax or fee implications; and
 3. Connects the policies and strategies of the General Plan with the CIP plan and funding sources, and includes specific references to assist the Planning Commission's review for conformance.
- G. Work with City planning officials and community planning groups to ensure that projects are reviewed for conformance with the General Plan and community plans.
- H. Obtain input and approval of the CIP plan from stakeholders, including community planning groups, the Planning Commission, and the City Council.
- I. Incorporate the first year of the plan into the annual CIP budget with a detailed scope and after E&CP's review, including:
1. A schedule for completion of project, including specific phases and estimated funding.
 2. A description of the impact the project will have on the current or future operating budget.
 3. Estimated costs of the project, based on recent and accurate sources of information.
 4. Identified funding sources and personnel for all aspects of the project.

- J. Communicate with client departments and other stakeholders regarding the CIP process and projects.
- K. Monitor and report on the status of CIP projects, such as by providing semi-annual updates to the City Council.
- L. Provide needed resources to the new office and client and service departments.

Response: Disagree

We agree with A, B(2), D, G, J, and K above. However, the remaining recommendations are either unclear or not-feasible due to the lack of resources needed to do so. The recommendations would require additional staffing that is not available. The implementation greatly depends on the City's ability to obtain the necessary resources particularly at a time when they are declining. We will continue to use CIPRAC as a forum for discussing and resolving interdepartmental issues related to capital projects.

Recommendation 5: Update financing plans to ensure that appropriate fees are charged. Assess whether the scope of financing plans should be expanded to include potential funding sources beyond DIF, so communities have a mechanism for planning and funding for needed projects.

Response: Disagree

Staff cannot commit to increasing fees, however we agree that financing plans should be updated. The financing plans currently include potential funding sources beyond DIF. However, staff cannot obligate those funding sources. While staff seeks community input during the development of the financing plan, and any updates to the plan, the ongoing mechanism by which the community communicates its needs for facilities is through its Council Member.

Recommendation 6: Effectively prioritize ADA projects by identifying dedicated sources of funding sources, linking Disability Services with the capital program office, and requiring the office to monitor and report progress made on the ADA Transition Plan.

Response: Disagree

ADA projects cannot be effectively prioritized "by identifying dedicated sources of funding sources." Furthermore, Disability Services cannot be "linked" with the Capital Program Office because the establishment of a Capital Program Office cannot be pursued due to lack of resources. Also, we cannot commit to a dedicated funding source, which reduces the City's flexibility in responding to a variety of changing needs. However, we agree to continue to effectively identify, find and recommend funding sources, prioritize, monitor, and report the progress made on the ADA Transition Plan and ongoing ADA complaints as required from the Dept of Justice.

Recommendation 7: Establish a policy for implementing a citywide asset management program to include a schedule and significant milestones, and potentially linking the Enterprise Asset Management program with the capital planning office.

Response: Partially Agree

The City has established an EAM Steering Committee comprised of representatives from several departments. The Steering Committee is charged with identifying and documenting existing criteria and processes for managing assets in the City, including the acquisition, maintenance, tracking, and disposal of assets. The Steering Committee will complete the documentation of the existing processes by end of calendar year 2011.

Recommendation 8: Complete the development of standard criteria and processes for collecting asset information and assessing the condition of assets, including moving toward the use of a standard database for a citywide inventory.

Response: Agree

As indicated in the Response to Recommendation 7, the EAM Steering Committee is tasked with documenting the existing criteria and processes for managing assets in the City by the end of calendar year 2011. The development of recommended citywide standard criteria and processes will be completed by the end of calendar year 2012. Collecting information and assessing the condition of assets is the responsibility of the asset owning department as resources become available.

Recommendation 9: Require all client departments evaluate alternatives to appropriate projects based on desired outcomes, such as including conducting risk/criticality assessments and lifecycle cost analysis and assessing maintenance/ rehabilitation and non-construction options.

Response: Agree

When appropriate, all client departments will evaluate alternatives to appropriate projects based on desired outcomes, such as including conducting risk/criticality assessments and lifecycle cost analysis and assessing maintenance/ rehabilitation and non-construction options.

Recommendation 10: Establish a timeframe and provide needed resources over time for client departments to develop master plans to provide a guide for their contribution to the Citywide CIP plan.

Response: Disagree

Due to limited funding we cannot commit to “provide needed resources.”

Recommendation 11: Revise the charter for CIPRAC to update its mission, authority, and objectives.

- A. Require that CIPRAC review department projects and priority scores and prioritize projects from a citywide perspective.
- B. Link CIPRAC and its role of prioritizing and approving projects with the capital program office.

Response: Agree to 11A, Disagree to 11B

We agree with 11(A) and will evaluate and revise the CIPRAC Charter to the extent possible. However, we disagree with linking CIPRAC with the Capital Program Office because the establishment of a Capital Program Office cannot be pursued due to lack of resources.

Recommendation 12: Assess the current priority scoring process, including obtaining input from service and client departments and other stakeholders, and develop suggested changes, if needed, to City Council Policy 800-14. Require that officials with relevant experience, such as planning and redevelopment staff, be consulted as appropriate when client departments develop priority scores for projects.

Response: Agree

We agree with assessing the current priority scoring process. When appropriate, we will require that officials with relevant experience, such as planning and redevelopment staff, be consulted when client departments develop priority scores for projects.

However, we disagree with requiring officials with relevant experience to be consulted 100% of the time due to limited resources. The assessment of the current priority scoring process will be completed by the end of 2nd Quarter of 2012 FY.

Recommendation 13: Establish department-level performance goals and performance measures and the tools needed, including project delivery cost and timeliness, project quality, and customer satisfaction and feedback systems to monitor and report results and promote continuous improvement.

Response: Agree

However, department-level performance goals and performance measures have been established (e.g., FYs 10 and 12) for which better tools for tracking are being developed. The development of the tracking tools will be completed by the end of 3rd Quarter of 2012 FY.

Recommendation 14: Develop updated agreements with all client departments to establish project implementation expectations and requirements.

Response: Agree

We will continue this on-going activity, as it has been done for many clients during the past few years.

Recommendation 15: Require that client departments assign and maintain a primary point of contact for each project throughout project implementation.

Response: Agree

It is not for E&CP's director to require this of another director. However, E&CP will request Client Departments to assign a liaison for each project and list it in the appropriate SLA/MOU. This request will be made by the end of 1st Quarter of 2012 FY.

Recommendation 16: Integrate project scope, budget, and schedule, potentially using the Department's new Project Portfolio Management Integrator, to provide the needed data so that project managers can use EVM or another tool to effectively measure project performance and identify problems in a timely manner. Provide detailed information to the client departments on the impact of changes in scope on the budget and schedule of the project.

Response: Agree

EVM has been defined via SOP, computer tool is being developed, and staff training has begun. The tool development and staff training will be completed by the end of 3rd Quarter of 2012 FY.

Recommendation 17: Develop a uniform procedure for updating project data in Primavera and establish an effective internal review process and accountability for accuracy and timeliness of data.

- A. A. Formalize project updating content and ensure common criteria used for update data.
- B. B. Implement procedures to perform regular inspections of Primavera data to ensure accuracy.

Response: Agree

Updating procedure has recently been defined via SOP, computer tool is being developed, and staff training will soon begin. The development of the tool and staff training will be completed by the end of 3rd Quarter of 2012 FY.

Recommendation 18: Identify client department reporting needs and provide project update reports to ensure that departments have accurate, up to date, and needed information to make sound decisions about projects. Solicit feedback from client departments and revise project update content to be specific and pertinent to the need of the asset holder.

Response: Agree

Although implementation requires additional resources for customized services to address individual needs, client reporting needs will be defined in the appropriate SLA/MOU and

updated reports will be provided through the new Project Portfolio Management Integrator System. These updates will be completed by the end of 3rd Quarter of 2012 FY.

Recommendation 19: Revise the current project closeout process to ensure that tasks are executed and completed in a timely manner.

Response: Agree

We will revise the current project closeout process by the end of 3rd Quarter of 2012 FY. However, it must be noted that this is citywide responsibility involving numerous Departments, not solely ECP's.

Recommendation 20: Conduct project-level post-construction reviews to identify lessons learned and develop recommendations on how to improve future performance. Include the frequency of reviews for non-repetitive projects in existing policy on conducting post construction reviews.

Response: Agree

For redundant/repetitive projects reviews should only be conducted periodically on a sample of projects as it has been the practice for many years through regular multiple design and construction meetings with the contracting industry and client departments. The applicable SOP will be completed by 3rd quarter of 2012 FY.

Recommendation 21: Develop and maintain a database of best management practices resulting from lessons learned and make information available to project managers working on projects of a similar scope and nature.

Response: Agree

We will continue improving existing checklists and review procedures to capture lesson learned in a usable format.

Recommendation 22: Organize and consolidate Standard Operating Procedures into a standardized Project Delivery Manual and establish oversight and enforcement mechanisms to improve consistency and accountability.

Response: Agree

The manual has been partially prepared and is being consolidated into an online source for staff to use. It will be completed by the end of 3rd quarter of 2012 FY. To conserve natural resources no single hard copy will be printed unless necessary.

Recommendation 23: We recommend that the Chief Operating Officer: Require that client departments assign and maintain a primary point of contact for each project throughout project implementation.

Response: Agree

The Chief Operating Officer will require Client Departments assign and maintain a primary point of contact for each project throughout the project implementation by August, 2011.

Recommendation 24. To improve the efficiency and accuracy of capitalizing fixed assets, we recommend that the City Comptroller, in conjunction with the Director of E&CP: Develop and formalize an internal process to identify and document the in-service date of capital assets, including initiation and documentation of the process by the Resident Engineer and confirmation by appropriate E&CP officials.

Response: Agree

The process has been developed and is being formalized in a Process Narrative maintained by the Comptroller's Office and an SOP maintained by ECP. The process narrative will be completed by the end of 3rd Quarter of 2012 FY.

cc: Jay M. Goldstone, Chief Operating Officer
Mary Lewis, Chief Financial Officer
Ken Whitfield, City Comptroller
Tony Heinrichs, Interim Engineering & Capital Projects Director
Kelly Broughton, Development Services
Hildred Pepper, Jr., Purchasing & Contracting Director
Afshin Oskoui, City Engineer
Andrea Tevlin, Independent Budget Analyst
Jan Goldsmith, City Attorney


Appendix VIII: City Auditor Comments on Management's Response



THE CITY OF SAN DIEGO

DATE: June 29, 2011

TO: Honorable Members of the Audit Committee

FROM: Eduardo Luna, City Auditor 

SUBJECT: **City Auditor Comments on Administration's Response to Performance Audit of the Capital Improvement Program (CIP)**

We highlighted in our audit report that the City's CIP process is complex with 16 departments having various roles and responsibilities and that the City lacks an office to oversee and coordinate this process. The Administration's response provides further evidence of our concern. Our goal is to improve the CIP process which, as evidenced in our report, is so complicated and problematical that without a capital program office and leadership, improvements and cost savings cannot be identified.

A draft CIP audit report was provided to the Administration and department officials back on March 11, 2011, and we have spent more than three months meeting and responding to over 200 comments from officials and incorporating their comments into the report as appropriate. Despite these efforts, the Administration's response appears not to be coordinated but rather has been developed by numerous different officials, comments are in some cases contradictory, and some officials responded to a previous version of the report and recommendations. For example, if officials had been responding to the most recent version of the recommendations, we believe that they would have been in agreement with at least two of the seven recommendations (7 and 11) with which they have disagreed based on their comments. Further, the Administration has responded "Disagree" to three recommendations (3,4, and 5), but their comments indicate partial agreement.

Making wise decisions for capital investments is critical not only given their high price tag, but also because decisions made now will impact the City for years to come. As noted in our report, these capital decisions also impact public safety, growth, and the City's economy. Although we thank the Administration for their response, given the importance of the CIP, we are providing responses to management's comments where additional clarity or correction is necessary.



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Administration's statement:

"Perhaps our greatest concern is that the conclusions appear to have been drawn from a few limited incidents and applied as generally applicable."

City Auditor's response:

The City Auditor maintains a comprehensive quality control process to ensure the accuracy of every statement in an issued audit report. Each statement in the report is validated by an independent reviewer who had no connection with the audit to ensure that all conclusions are supported by sufficient and appropriate audit evidence, a requirement under Government Auditing Standards. OCA's full compliance with this requirement was validated by an independent peer review team.

Administration's statement¹:

Some of the recommendations require additional funding to implement, but no cost-benefit analysis has been provided to support the value.

City Auditor's response:

While additional resources may be required to implement some recommendations, the lack of resources is not an excuse for continuing ineffective processes. Ultimately these recommendations will lead to more efficient and effective processes that will save the City time and money. The Administration needs to recognize the risks involved of continuing business as usual and place a high priority on beginning to take steps to improve CIP processes. We understand the impact of resource constraints and have written the recommendations to provide the time and creativity needed to complete implementation. Note that the role of an audit organization is to identify recommendations for improving programs, but not to identify funding for or determine how to implement the recommendations, which would include assessing the cost. These are functions that must be performed by management.

Administration's statement:

Many significant changes due to Business Process Reengineering and the implementation of SAP are still evolving and therefore may render false impressions due to the instability of the system.

City Auditor's response:

We understand it takes time to reorganize as indicated on page 15 of our report; however, government programs frequently undergo changes and this does not preclude the OCA from conducting an audit. We do not believe that any of our conclusions are false based on the reorganization. The reorganization and consolidation of engineering services into E&CP began in fiscal year 2008, and even during this time the City should have had stable systems for managing projects. Before making such changes, the City should have

¹ Management's comments without quotations were paraphrased for conciseness and readability.

established well thought out processes to minimize disruptions. Further, we specifically attribute some of the causes of issues we identified to the implementation of SAP. For example we noted the lack of an interface between Primavera 6 and SAP made it difficult for project managers to effectively integrate project scope, budget, and schedule.

Administration's statement:

The report does not fully recognize the constraints of using CDBG funds for CIP projects.

City Auditor's response:

As the Administration has pointed out, funds for CIP projects are limited and the City must make the most of the available resources, including CDBG. We discuss CDBG issues including timeliness requirements and other challenges on pages 14 and 33-34 of the report. Further, we note that CDBG staff and other City officials are developing a better way of identifying shovel ready projects to leverage CDBG use for CIP projects. This does not appear to be known to the author of this comment and further underscores the need for oversight, coordination, and a leader for the CIP.

Administration's statement:

San Diego has institutionalized the involvement of its residents in the identification and prioritization of capital improvements and these efforts are not recognized in the report.

City Auditor's response:

The evidence we obtained does not support this statement. While the City involves communities to some extent, the results of our survey of community group leaders shows that 71 percent believe that the CIP will not enable the City to implement their community plans, 59 percent do not believe they were involved in the development of the CIP, and 76 percent do not believe that the City effectively prioritizes projects. This information is provided throughout the report as well as summarized in appendix V. Further, the Administration provided conflicting information when commenting on recommendation five by indicating that the ongoing mechanism by which communities communicate needs for facilities is through Council Members.

Administration's statement:

The budget shifted around a lot during the process of Business Process Reengineering in 2008; therefore, the budget is not a reliable tool upon which to base reliable analysis and conclusions.

City Auditor's response:

As discussed on pages 23-24, our conclusion that there is a funding gap between capital needs and the level of investment is evidenced by the \$840 million in deferred

maintenance and \$1.9 billion in unfunded capital needs which have been reported by the City. We do not believe that any shifts that occurred in the budget during Business Process Reengineering would change this conclusion. Further, on pages 19-21 we discuss the reasons for the 37 percent decrease in the budget from fiscal year 2010 to 2011 are largely due to the shift of non-capital costs to the Operations budget. The budget serves as the City's record of investment in the CIP and it is important to ensure its accuracy.

Administration's statement:

Statistical methods have certain requirements to study something and then to generalize the findings based on the study. Our belief is that the approach taken is too simplistic and may not render appropriate conclusions because projects have been affected by Business Process Reengineering and the City's financial overhaul that tainted the results due to migration of project execution responsibilities throughout that period.

City Auditor's response:

Our sample was selected using statistical methods based on a population of 810 active projects in Primavera 6 as provided by E&CP with the criteria of having a confidence level of 95 percent, precision range of 10 percent, and expected error rate of 5 percent. Based on these criteria, we randomly selected 53 projects, consequently limiting sample bias. This sample is largely used to test the reliability of data in Primavera 6 by comparing dates on documents required by the City or County of San Diego with dates in Primavera 6. It is important to note that this is a test of the reliability of the data E&CP uses to manage currently active projects, and efficient project management requires accurate project data. Further, E&CP officials recognized these deficiencies based on our audit results and recommendations and have already begun to improve the accuracy and reliability of project data.

Administration's statement:

It is important to point out that the \$840 million in deferred maintenance and \$1.9 billion in unfunded capital needs only represent existing storm drain, street, and facilities/structure asset improvements needs and that additional capital needs have not been quantified since no comprehensive study of all asset types has ever been completed.

City Auditor's response:

We discuss this issue in the report on pages 23-24 specifically noting that the City has never completed a condition assessment of all needs, so actual needs are likely far greater. The author of this comment appears to be working from a previous version of the report.

Administration's statement:

The report breaks the CIP process down into four stages to better explain the process, but does not include policy development during which client departments develop their own CIP internal policies and procedures for CIP development.

City Auditor's response:

These four stages are based on our judgment on how to best explain the process, and this does include client department involvement in both planning and budget development on page 32. Many client departments lack internal CIP development policies and for those who do, it is not a part of the regular CIP process that we are depicting in Exhibit 10. Further, we discuss client departments' level of planning and processes for identifying and prioritizing CIP projects in findings 3 and 4.

Administration's statement:

"The CIP encompasses several years and a long-term approach, it also provides a focused short-term plan of five years. There are projects scheduled and budgeted beyond the first five years e.g., PUD has 5-10 years plan."

City Auditor's response:

As explained on pages 38-40, the City lacks a Citywide CIP plan that includes transparent schedules of all projects for all City departments over the next five years. The annual CIP budget only includes information on projects that are funded over the next five years and lists of unfunded needs for some departments. Even this limited information is not transparent, because data and information for projects starting in future years are aggregated. As we discuss under recommendation four, using a budget rather than having a plan places (1) a burden on staff who must go through a rigorous process annually versus every five years and (2) limitations on the contracting process which can delay projects. Further, Public Utilities does have longer term plans as required per mandates, but some key departments like Park & Recreation lack these plans, and this does not preclude the need for a Citywide plan.

Administration's statement:

It is incorrect to say that the CIP is not primarily based on General or community plans, because it is reviewed for conformance with these plans.

Community and financing plans only make up a small portion of the CIP.

City Auditor's response:

We discuss these specific issues at length on pages 41-46 and note that reviewing a project for conformance is not the same as using it as the primary basis for the CIP. The Administration's comment that community and financing plans are only a small portion of the CIP is inconsistent and further underscores that the CIP is not primarily based upon them. By not primarily basing the CIP on the General Plan and community plans, the

City increases the risk that it will not be prepared to manage growth and respond to requirements and other critical policies outlined in the plans. Further, Planning Commissioners told us that they do not have sufficient time and information on projects to make educated decisions about consistency and as a result must look for issues that stand out rather than conducting a thorough review for conformance.

Administration's statement:

The report states that assessing lifecycle costs of projects is crucial for comparing alternative project options and making decisions about affordability, but it would not be cost effective to perform multiple designs and then determine which option is best for maintenance in perpetuity.

City Auditor's response:

Our report does not advocate doing multiple designs for projects nor doing this infinitely. As discussed on pages 52-53, assessing alternatives should occur as part of determining which projects to do to address capital needs well before the project implementation stage. Leading organizations conduct analyses and consider a wide range of alternatives to satisfy their capital needs before choosing to purchase or construct a capital asset. Because ownership costs for infrastructure often account for more than 80 percent of the lifecycle costs, these should be included in an evaluation of alternatives, otherwise the City will not know which alternative is most cost effective or whether it can afford to operate and maintain new facilities.

Administration's statement:

The different client department approaches for assessing capital needs is not inconsistency but desired by design to meet the needs of the Department and the constituent.

City Auditor's response:

As discussed on pages 52-53 and 57, some degree of specificity may be necessary given the wide variety of the City's assets. However, we believe that the inconsistency is the result of the lack of (1) formal processes or requirements, (2) funds for conducting needed assessments and developing plans, and (3) an office to coordinate the various departments' processes. The lack of consistency has resulted in an ad hoc system with some departments having higher quality methods for identifying capital needs than others.

Administration's statement:

"Credit should also be given here to the members of EAM and CIPRAC for understanding the importance of the relationship between asset management and CIP and creating a clear linkage and framework for discussion."

City Auditor's response:

The Enterprise Asset Management Coordinator was not a member of CIPRAC until April 2011, after the Administration received our draft report. Further, and most concerning, the Administration is moving the Enterprise Asset Management Program to the Enterprise Resource Planning Department where the City's financial system is located. The system side is only a small portion of an asset management program, so this may not be the most appropriate place for linking its functions with the CIP and ensuring its continuing success.

Administration's statement:

The report tests the accuracy of schedule data by testing the accuracy of construction data, but this presents false conclusions because construction is less than 50 percent of project life and is frequently the shortest, simplest, and most linear part of the process.

City Auditor's response:

E&CP does not maintain official criteria to indicate the start/end of planning or design, so there is no way to test the accuracy of this data. Therefore, we focused our statistical analysis on construction because this is the only phase that requires certain documentation be completed as mandated by City or County of San Diego policy. If construction is the simplest and most linear part of the process, it is more concerning that we found 67 percent of projects at the start of construction and 90 percent of projects at the end of construction with inaccurate data. Further, the audit does not make any conclusions regarding the impact of project costs based on the review of construction data.

Administration's statement:

Projects should be evaluated to determine if a project schedule reset took place. These are not always easily distinguishable and would have a significant effect on the appearance of data, so it would be appropriate to ask for each and every schedule produced for a project on Primavera 6 to determine if there were any resets.

City Auditor's response:

E&CP has an unusual practice of re-baselining project schedules every year. This posed significant challenges in determining whether projects are managed within schedule because a new schedule is created annually, which makes planned completion dates constantly moving targets. While re-baselining may be a cause of the inaccuracy of dates, it doesn't change our conclusion that dates are inaccurate. Further, having to review each and every schedule produced for the project underscores the difficulty in determining accurate project schedules and the lack of transparency.

Administration's statement:

The report inaccurately states that E&CP lacks performance goals and measures since the Department has established these in 2008 and has been tracking them since that time.

City Auditor's response:

As discussed on page 59, in fiscal year 2007 the Business Process Reengineering team and E&CP officials developed new performance goals and measures. However, E&CP officials told us that they are not tracking and monitoring these goals because the City suspended the reporting of goals for fiscal year 2011.

Administration's statement:

The report states that E&CP lacks reliable project data and this is not accurate and representative of the CIP.

City Auditor's response:

The author of the comment is working from a previous version of the report as we specifically state on pages 64-65 that data in the project management system Primavera 6 is not reliable. This is well-supported by evidence collected during our audit.

Administration's statement:

The report states that E&CP is not effectively integrating scope, budget, and schedule, but no evidence is provided to support the inefficiency, such as comparing the demand against resources available.

City Auditor's response:

Discussions and conclusions related to efficiency and effectiveness do not always warrant quantitative assessments. Performance auditing allows for the auditor to use professional judgment to draw logical conclusions regarding efficiency and effectiveness. In this case, as discussed on pages 62-63 we concluded that project managers cannot efficiently integrate scope, cost, and schedule, based on the lack of a system that integrates these elements.

Administration's statement:

The report states that recent project data is not available in a timely manner, but financial data is available to all departments in the City's financial system.

City Auditor's response:

As discussed on pages 67-68 providing financial information with schedule and other data will enable client departments to better monitor projects. As the service provider, E&CP implements CIP projects for all client departments and should provide

departments with all necessary information to enable its clients to be able easily track and monitor the progress of CIP projects. Further, reports for project schedules are up to six weeks behind actual performance schedules.

City Auditor's Overall Comments on Recommendations:

If City officials had been responding to the most recent version of the recommendations, we believe that they would have been in agreement with at least two of the seven recommendations (7 and 11) with which they have disagreed. Further, the Administration has responded "Disagree" to three recommendations (3, 4, and 5), but their comments indicate partial agreement. As part of the Process Narrative that the Administration developed for responding to OCA recommendations, those that the Administration partially agrees with should be indicated as such.

Recommendation 2

Administration's response:

"Disagree. We generally agree with the need to have processes in place to inventory, identify and assess the City's deferred maintenance and capital needs. However, the relative level of success will depend upon the City's ability to consistently budget for enhanced planning; improved and expanded tools, condition assessment studies, and an asset management system. The City does not currently have the resources to complete this effort.

When establishing capital project program priorities it must be understood that local budget policy and competing internal priorities for scarce General Fund resources result in capital improvement funding priorities that are frequently driven by outside Federal and State funding sources and grant programs resulting in pockets of under-investment for some critical asset types. Projects and initiatives that are grant driven may reflect the requirements of the grant more than the requirements of the project or the priority needs of the City/Department.

We disagree with the notion that it is possible to ensure future capital plans and investments address needs due to the fact that current capital and deferred investment needs surpass limited available funding and it does not appear as though any plan can address all needs."

City Auditor's response:

As discussed on page 25 we understand that funding priorities driven by federal and state funding sources are resulting in underinvestment for some critical asset types. This underscores the need for identifying these assets and beginning to plan for how to address deficiencies. We note tight financial constraints in the City throughout the report; however, the lack of resources is not an excuse for continuing ineffective processes. The Administration needs to recognize the risks involved by continuing business as usual and place a high priority on beginning to address the issues so that the City can make wise investment over time to address deferred maintenance and capital needs.

Recommendation 3*Administration's response:*

"Disagree. We agree that a more centralized CIP oversight is a good idea. However, we disagree with the establishment of a Capital Program Office or the same under CIPRAC due to the lack of resources needed to do so. A Capital Program Office would require additional staffing that is not available. It would require significant citywide reorganization and demands additional time and budget. The implementation greatly depends on the City's ability to obtain the necessary resources particularly at a time when they are declining. We will continue to use CIPRAC as a forum for discussing and resolving interdepartmental issues related to capital projects. However, we cannot commit to provide additional resources e.g. working level staff, including planners."

City Auditor's response:

This is a key recommendation to address the needed leadership, authority, oversight, and coordination for the CIP. We recognize limitations in the General Fund, but oversight of the CIP process and better planning are critical to the City's infrastructure and CIP investments. These funding limitations underscore the importance of ensuring that your investments are spent on the right projects. Further, the Administration should be creative, such as charging the funds needed for a new leader and office to CIP overhead.

Recommendation 4*Administration's response:*

"Disagree. We agree with A, B (2), D, G, J, and K. However, the remaining recommendations are either unclear or not feasible due to the lack of resources needed to do so. The recommendations would require additional staffing that is not available. The implementation greatly depends on the City's ability to obtain the necessary resources particularly at a time when they are declining. We will continue to use CIPRAC as a forum for discussing and resolving interdepartmental issues related to capital projects."

City Auditor's response:

- This should have been noted as "Partially Agree" based on the Administration's comments.
- The author is working from a previous version of the report as we deleted recommendation 4(L).
- We recognize limitations in the General Fund, but oversight of the CIP process and better planning are critical to the City's infrastructure and CIP investments. As we have already noted, tight budgetary constraints are not an excuse for continuing with ineffective processes.
- The current process of using the CIP budget as a plan places a burden on staff who must annually develop a list of projects, rather than going through this process every five years. Further, the budget process takes several months to complete, so the contracting process is delayed.

- In previous comments, the Administration raised the issue that SAP has impacted the management of CIP projects, but disagrees with our recommendation to improve the interface of SAP and the CIP process.

Recommendation 5

Administration's response:

"Disagree. Staff cannot commit to increasing fees; however, we agree that financing plans should be updated. The financing plans currently include potential funding sources beyond DIF. However, staff cannot obligate those funding sources. While staff seeks community input during the development of the financing plan, and any updates to the plan, the ongoing mechanism by which the community communicates needs for facilities is through its Council Member."

City Auditor's response:

- This should have been noted as "Partially Agree" based on the Administration's comments.
- The author is working from a previous version of the report as this recommendation was updated to clarify recommendation changes to financing plans.
- This recommendation does not suggest fees are increased but suggests financing plans are updated. As a result of the update, some financing plans may either decrease or increase. It is important that the financing plans adequately reflect the current economic rates in order to provide the most benefit to each planning community.
 - In previous comments, the Administration states that it is more appropriate to have near-to-mid term CIP priorities in the financing plans but is disagreeing with updating these plans, many of which are well out-of-date.
- As explained on pages 42-43, financing plans are currently only used to assess DIF and FBA monies. While the plans list other potential funding sources available for financing public facilities, it does not specify using those funding sources for specific improvements. As a result, communities are not able to effectively plan for all projects. For example, expensive projects will not be funded unless DIF can cover the cost, which is frequently not the case. Without the change, these projects may never be funded.

Recommendation 6

Administration's response:

"Disagree. ADA projects cannot be effectively prioritized "by identifying dedicated sources of funding sources." Furthermore, Disability Service cannot be "linked" with the Capital Program Office because the establishment of a capital program office cannot be pursued due to lack of resources. Also, we cannot commit to a dedicated funding source, which reduces flexibility in responding to a variety of needs. However, we agree to continue to effectively identify, find and recommend funding sources, prioritize, monitor, and report progress made on the ADA Transition Plan and ongoing ADA complaints as required from the Department of Justice."

City Auditor's response:

To clarify, we are saying that the Administration should make ADA projects a priority by identifying funds for these projects. Further, we do not believe that the Administration has effectively identified funding sources. As we discuss on pages 34 and 35, the Administration has not dedicated funds for ADA-specific projects for fiscal year 2011. The City has had 14 years to complete projects in the Transition Plan, and 60 or about 28 percent of the 212 projects identified have not yet been initiated. By not sufficiently making ADA projects a priority and ensuring they are fully funded, the City risks noncompliance with Department of Justice ADA requirements.

Recommendation 7

Administration's response:

"Partially Agree. The City has established an EAM Steering Committee comprised of representatives from several departments. The Steering Committee is charged with identifying and documenting existing criteria and processes for managing assets in the City, including the acquisition, maintenance, tracking, and disposal of assets. The Steering Committee will complete the documentation of existing processes by the end of calendar year 2011."

City Auditor's response:

The author is working from a previous version of the report as this recommendation was updated to delete the linkage with the capital planning office. Otherwise, the Administration's response appears to be in agreement with the recommendation.

Recommendation 10

Administration's response:

"Disagree. Due to limited funding we cannot commit to "provide needed resources.""

City Auditor's response:

We recognize funding limitations, but particularly considering the City's decentralized process for identifying capital needs, departments need to begin to plan for future years, especially if the City continues to use the annual CIP budget as its plan. Further this will provide opportunities for departments to leverage resources and potentially conduct joint projects.

Recommendation 11

Administration's response:

"Agree to 11(A), Disagree to 11(B). We agree with 11(A) and will evaluate and revise the CIPRAC charter to the extent possible. However, we disagree with linking the Capital Program Office because the establishment of a Capital Program Office cannot be pursued due to lack of resources."

City Auditor's response:

The author is working from a previous version of the report as this recommendation was updated to delete the linkage with the capital planning office. Otherwise, the Administration's response appears to be in agreement with the recommendation.