

CITY OF SAN DIEGO, CALIFORNIA
COUNCIL POLICY

CURRENT

SUBJECT: ASSET MANAGEMENT GUIDELINES AND PLAN STEPS
POLICY NO.: 800-16
EFFECTIVE DATE: November 20, 2013

PURPOSE:

This Council Policy establishes the overall guidelines and plan steps for Enterprise Asset Management (EAM) in the City of San Diego.

SCOPE:

This Council Policy applies to City departments that have the responsibility for the planning, acquisition, operating, maintaining, reporting and/or disposing of assets.

DEFINITION(S):

Asset: Plant, machinery, equipment, property, buildings, structures, underground conduits and facilities, vehicles, and other items or related systems that have a distinct and quantifiable business function with a useful life expectancy greater than one year and a value of \$5,000 or more.

Asset Prioritization Process: The method for prioritizing the renewal/repair/replacement activities within a class of assets.

EAM Steering Committee: The City has established the “EAM Steering Committee” comprised of representatives from asset managing departments. The EAM Steering Committee facilitates the identifying and documenting of existing criteria and processes for managing assets in the City, including the acquisition, maintenance, tracking, and disposal of assets and also recommends new City-wide processes related to the management of assets.

Enterprise Asset Management System (SAP EAM): A system to manage assets across departments for the whole life of the asset to maximize value.

CIPRAC: Capital Improvement Program Review and Advisory Committee.

Level of Service: These are defined and measureable service levels that relate to quality, quantity, reliability, responsiveness, environmental, acceptability, and cost.

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Life Cycle: The phases of an asset, from the time it is constructed or acquired, through its operation and maintenance while in service, and through its eventual disposal.

Life Cycle Costs: This is comprised of all costs associated with placing and keeping the asset operational for its intended use.

Property Record: The document (electronic or hard copy) used for adding an asset to the City's inventory.

Useful Life: The period over which an asset is expected to be operational.

RESOURCE REQUIREMENTS:

Key roles and responsibilities for supporting City's EAM policies are:

CIPRAC: CIPRAC provides strategic direction to the EAM Steering Committee on developing and implementing asset management systems, including asset management policies, strategies, and plans. They seek to ensure the process is adequately resourced, and provide top down communications and direction to the organization to help embed asset management principles and practices.

EAM Steering Committee: Identify and document existing criteria and processes for managing assets in the City, including the planning, acquisition, operating, maintaining, reporting and disposing of assets. The committee also leads the development of and makes recommendations regarding the implementation of city-wide asset processes and guidelines. The Committee is also responsible for the oversight of the city-wide asset index that documents the naming conventions for tracking assets.

Stakeholders: Staff and contractors will support and follow these guidelines and contribute to the program's continuous improvement. The City is committed to providing the information, training and resources needed to accomplish the goals of asset management.

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ASSET MANAGEMENT GUIDELINES:

Introduction: Asset management is a business program and a decision-making framework that covers an extended time horizon. It is a comprehensive and continuous process focused on assessing the value and condition of assets with the goal of minimizing the total lifecycle cost of ownership while providing the required Level of Service. An effective program integrates the disciplines of economics, engineering, maintenance, operations and IT working together to build and maintain sustainable assets.

Purpose: The City has made significant investments in the acquisition, construction, maintenance, and operation of the City's wide range of facilities and assets for which City departments are responsible stewards. Increasing user demands, limited resources, and aging assets impact today's environment and make it necessary for all City departments to safeguard and maintain their assets in order to receive the maximum benefit from those assets and to make good future capital investment decisions.

1. It is the City's intent to establish an EAM framework through integrated processes, procedures, guidelines, and a common database. It is also the City's intent to become a leader in EAM while working as one unit to manage its asset infrastructure in a fiscally sound, efficient, and transparent manner while delivering services with a responsive and innovative workforce.
2. It is the City's intent to maintain effective internal controls to manage its fixed assets and to maintain proper records regarding the use and disposition of those assets. These guidelines apply to assets acquired with funding originating from various sources and assets received by the City by gift or loan.
3. It is the City's intent to shift its focus from asset acquisition to one of optimizing the balance of preserving, upgrading, and replacing our assets through cost-effective management, programming, and informed decision-making.
4. It is the City's intent to support the goals of the City's Charter and General Plan. Capital investments will be targeted to support the goals of any adopted strategic and tactical plans.

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5. The City will invest in, maintain, and operate assets to:
 - a. Meet reliability standards, availability requirements, regional adequacy guidelines, efficiency needs, environmental requirements, safety and security standards, and all legal and regulatory requirements;
 - b. Minimize the life cycle costs of assets to the extent practical.

6. It is the City's intent to implement an asset management program to govern the planning, acquisition, operating, maintaining, reporting and disposing of assets by:
 - a. Evaluating and applying asset management best practices;
 - b. Establishing full lifecycle asset management strategies and asset objectives directed at achieving the City's vision, mission, and strategic objectives;
 - c. Developing asset management plans to implement the strategies and achieve the asset objectives and targets;
 - d. Monitoring and ensuring delivery of the asset objectives and targets;
 - e. Employing the City's risk management policy and approach;
 - f. Providing access to standardized asset and financial information;
 - g. Establishing clear roles, responsibilities, and accountabilities; and
 - h. Incorporating structured reviews directed at continuously improving the program.

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7. It is the City's intent to adhere to the following principles:

a. An Asset Management Program should be:

Customer focused – considers stakeholders in business decisions.

Mission driven – being strategic and having clearly defined objectives.

System oriented – standardized processes, procedures and coordination.

Long-term in outlook – considers the entire lifespan of the asset.

Accessible and user friendly – promote ease of use.

Flexible – adaptive to changes and be able to meet unique department needs.

Maintained – current, integrated and supported.

b. An Asset Management Program should include:

Strategic goals and objectives – well-defined, achievable department and city-wide efforts.

Measures of strategic goals and objectives – desired results/outcomes can be planned, committed to, quantified and demonstrated.

Inventory of assets – a comprehensive, consistent list, with standard nomenclature, of all owned assets as defined in the Definitions section.

Valuation of assets – acquisition cost, current value, and replacement cost.

Quantitative condition and performance measures – periodic condition assessments and failure analysis of all assets.

Usage and capacity information – identify and track current and future needs.

Performance prediction capabilities – deterioration monitoring and response to asset performance requirements.

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Centralized database – a collection of information at a single location, accessible from numerous points.

Consideration of qualitative issues – ability to include non-quantifiable factors.

Support of the budget process – ability to generate data to substantiate investment decisions.

Engineering and economic analysis tools – advanced data evaluation for comparing alternate scenarios for managing assets.

Prioritization criteria based upon established City rules and guidelines – ability to prioritize investment options.

Effective reporting capabilities – able to produce information and analysis on all aspects of managing assets.

Continuous feedback procedures – a verifiable, transparent, accessible and flexible program that provides continuous improvement.

ASSET MANAGEMENT PLAN STEPS:

Step 1 - Develop Asset Registry – This step is intended to clearly develop or identify the process and all related documents for placing the asset into a City inventory system. For example, to describe appropriate reference documents and provide samples of these for further clarification and understanding; describe how often this process may occur and how departments ensure that the registry (inventory) is maintained current and accurate. Resources necessary to accomplish this step include asset manager, operational staff, information systems analyst and data entry staff.

Step 2 - Assess Condition, Failure Modes – At the same time that an asset is added to the inventory, define how the process and/or paperwork is used to establish its condition. For example, define its anticipated life expectancy based on some standard; identify in what manner and how frequently to assess the condition of this asset class; describe the ways in which this asset may “fail” such as use, capacity, structural, economical, and obsolescence; how to track or monitor the asset aging process. Resources necessary to accomplish this step include asset manager, engineering and technical staff, operational staff, and data entry.

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Step 3 - Determine Residual Life – This step should describe the financial life as defined by the Office of the City Comptroller. This is normally an accounting process involving actual cost, depreciation and improvements.

The operational useful life is more subjective but may start with the industry or manufacturer's standards for the asset or input from operational on typical asset life. Its residual useful life is determined by a condition assessment that should be performed at some predetermined frequency. This step should describe how the useful life is determined for this asset class. Resources necessary to accomplish this step include asset manager, engineering and technical staff, operational staff, and financial analyst.

Step 4 - Determine Life Cycle and Replacement Costs – The asset life cycle costs include all associated costs (total cost of ownership) such as the cost of purchase, construction, installation, maintenance, repair, and operational costs like utility needs, consumables, operator salaries and custodial cleaning. Replacement Costs are based on actual replacement cost quotes or project costs based on today's costs indexed into the future (including inflation and technology development as examples). In this step, establish decay curves for each asset type or classification. Resources necessary to accomplish this step include asset manager, engineering and technical staff, operational staff, and financial analyst.

Step 5 - Set Target Levels of Service (LOS) – This step is intended to describe the levels of service that the asset should provide. For example, describe a full service level and what it takes (resources wise) to sustain the asset at a full service level; identify demands from stakeholders, what is required from regulators, and the asset limitations; set other target levels of service in absolute terms (i.e. describe what they specifically provide) or as a percentage of full service level. Resources necessary to accomplish this step include asset manager, financial analyst, and policy or decision maker.

Step 6 - Determine Business Risk (“Criticality”) – This step is intended to define the various factors such as cost, environmental, regulatory, health & safety, financial, legal, public perception or operational that are associated with the asset. It should determine the likelihood of each risk factor and the possible (likely) consequences. $\text{Consequence of Failure} \times \text{Probability of Failure} = \text{Business Risk Exposure (BRE)}$. Critical assets are those that have a high risk of failure (old, poor condition, etc) and major consequence of failure (major expense, safety, regulatory, etc). Resources necessary to accomplish this step include asset manager, risk manager or legal advisor, engineer or technical staff, planner, and analyst.

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Step 7 - Optimize Operations and Maintenance (O&M) Investment – Simply stated, the optimum O&M investment is that which provides the best return for the available resources. For example, describe the decision making processes by which resources are allocated to these assets; define the needs assessment process and the associated asset prioritization methods; define how the needs are determined; how are they prioritized; how are available funds used most effectively; what are the types of funds available. Additionally, determine the costs and benefits of repair, rehab or replacement of the asset. Resources necessary to accomplish this step include asset manager, engineer or technical staff, operational staff, and financial analyst.

Step 8 - Optimize Capital Investment – This step is intended to describe current policy related to capital investment for this asset class. For example, what is the process for identifying CIP needs; how are needs prioritized; which City organizations participate in this process. This may include defining the needs assessment process and the associated asset prioritization methods; define the public role in the process; describe how the process results in a multi-year CIP outlook for this asset class. Resources necessary to accomplish this step include asset manager, engineer or technical staff, and analyst.

Step 9 - Determine Funding Strategy – The funding strategy begins by identifying all available and potential funding sources and the rules and restrictions for their proper use. For example, describe the process for determining funding opportunities; identify the organizations involved; describe steps in securing the funding, etc. Resources necessary to accomplish this step include asset manager, financial analyst, and policy maker.

Step 10 - Build Asset Management Plan – Based on information from all of the above steps, create an asset specific Citywide or Department specific plan for managing each asset class. The plan should provide the necessary processes, flow charts, guidelines, forms, identification of resources, contributing or supporting or reference documents needed for its full implementation. Resources necessary to accomplish this step include asset manager, policy maker, and data entry.

QUALITY CONTROL REVIEW:

The asset owning departments will periodically review their adherence to these Asset Management Guidelines and Plan Steps to ensure that the City’s intent of building and maintaining an adequate infrastructure for its citizens is being accomplished.

HISTORY:

“Asset Management Guidelines and Plan Steps”

Adopted by Resolution R-308574 – 11/20/2013