

Madison Water Utility SAMP Implementation Task Descriptions

AM Organization Framework Element	No.	Improvement Task	Description	Priority
Planning	P1	SAMP AM Policy & Framework and AM Strategy	Monitor and report on AM implementation progress quarterly, and update the AM Policy and implementation plan annually as needed to align with MWU's Strategic Plan and budget.	Medium/Long
	P2	Tactical Asset Management Plans (Wells, Distribution, Storage)	Develop and pilot Consequence of Failure (CoF) and Probability of Failure (PoF) tables for one (or group) of well facilities assets and a group of distribution system assets; modify tables as appropriate. Develop Tactical Asset Management Plans (TAMPs) for well facilities, storage, distribution and transmission. TAMPs include asset registers, maintenance strategies, risk profiles and rehabilitation/replacement strategies. Update plans over time to improve maintenance procedures as needed based on experience.	Short/Medium/Long
	P3	Master Plan Update	On going Master Plan update.	Short
	P4	Capital and O&M Planning Budget Process Improvement - Prioritization, Business Case Evaluations, Budgeting	Develop standard procedures for prioritizing capital improvement projects including incorporating Business Case Evaluations (BCEs) as part of the Capital Improvement Planning (CIP) process. The improved process will define the CIP prioritization process and include a, life-cycle cost tool, risk reduction tool, cost/benefit tool, and BCE "Light" process for smaller projects.	Short/Medium
Core Service Delivery	CS1	Review and Redesign Asset Creation/Renewal Processes and Workflows	Develop standard procedures and associated forms for entering new assets into CMMS, updating asset information, and asset renewal/replacement or disposal. Identify staff responsibilities for updating asset registers for well facilities, storage, distribution and transmission. Refine procedures as appropriate to improve workflows after gaining experience with the new procedures.	Medium
	CS2	Refine Operations & Maintenance Processes & Workflows (including PM Optimization)	Implement the maintenance strategies described in the TAMPs at the asset level. Monitor and report out on maintenance activities including Work Requests, Work Order Backlogs, PM Compliance, Schedule Compliance, Percent Proactive Work, and Percent Predictive Work.	Medium
	CS3	Develop and Implement Condition Assessment Process for Linear and Vertical Assets	Develop standard procedures and associated forms for completing condition assessments of well facilities, storage, distribution and transmission system assets. Identify responsible staff for completing each of three levels of condition assessment (desktop, visual and advanced). Include procedures for capturing condition assessments in CMMS.	Short/Medium
Performance Management	PM1	Develop the AM Performance Management and LOS Framework	Develop Levels of Service (LOS) framework and associated performance measures for well facilities, storage, distribution and transmission..	Short/Medium
	PM2	Design and Implement a Failure Investigation/Root Cause Analysis Business Process	Develop standard procedures for root cause analysis and failure investigations, and standard failure modes and codes for entry into CMMS. Prepare a workflow chart identifying the steps for failure investigations and subsequent training and modifications to operation and maintenance procedures to incorporate lessons learned and improve performance. Identify responsible staff for conducting investigations and coding failure modes.	Medium
	PM3	Redesign the Performance Assessment Workflows and Implement Continuous Improvement including External Benchmarking	Update reported performance measures to include performance against LOS for well facilities, storage, distribution and transmission assets. Participate in external benchmarking activities and adjust LOS as appropriate over time.	Long
	SS1	Develop and Implement an AM Governance Structure that supports both Corporate and Service Area Objectives	Identify AM responsibilities and update position descriptions as necessary.	Short/Medium
	SS2	Review Staff Skills and Experience and Implement AM Training Programs to Develop Appropriate Skills	Assess staff experience and skills and develop succession plans for knowledge transfer throughout the organization. Develop and implement training programs for implementing each of the AM initiatives and the asset management program as a whole.	Medium

Madison Water Utility SAMP Implementation Task Descriptions

AM Organization Framework Element	No.	Improvement Task	Description	Priority
Support Services	SS3	Update and Implement a Consistent Asset Register and Standards for Activity Data Tracking	Review and update asset register content and format to support AM initiatives as necessary. Review and update asset hierarchy, unique identifiers, asset description/names and Maintenance Strategy Groups (MSGs) and update to support AM initiatives as necessary. Review and update (if necessary) data security and backup procedures to maintain integrity of data over time.	Short
	SS4	Incorporate AM Requirements into CMMS	Develop and implement standard operating procedures for data and management of data including developing asset data attribute standards required for AM program decision making.	Medium
	SS5	CMMS Implementation	On going Cityworks implementation.	Short
	SS6	Develop & Implement a Utility Wide AM Knowledge Management Program	Develop requirements and process for a Document Management System.	Long
	SS7	Develop Interfaces to CMMS and Existing Core Systems to Support AM Requirements	Determine what interfaces are required to collect and report out AM data and information from CMMS.	Medium
	SS8	Implement DSS for Integrated Capital Planning	Evaluate, select and implement an integrated capital and maintenance planning system (Decision Support System, or DSS) including predictive models for asset failure, life-cycle costs, and LOS, COS and risk to inform the budgeting process.	Medium
AM Program Implementation	AMPI1	Ongoing AM Support and Coordination (e.g. Life Cycle Cost Analysis, Continuous Improvement, Management of AM Implementation)	Dedicated AM staff person to oversee the implementation of the asset management program. Assign resources as needed in all departments to support implementation of AM initiatives, and contract for outside resources as appropriate	Short/Medium/Long