



**Napa Sanitation
District**

**Board Room
Administration
Engineering**

NapaSan Asset Management Program Update

July 19, 2017

NapaSan Strategic Plan 2017 - 2019

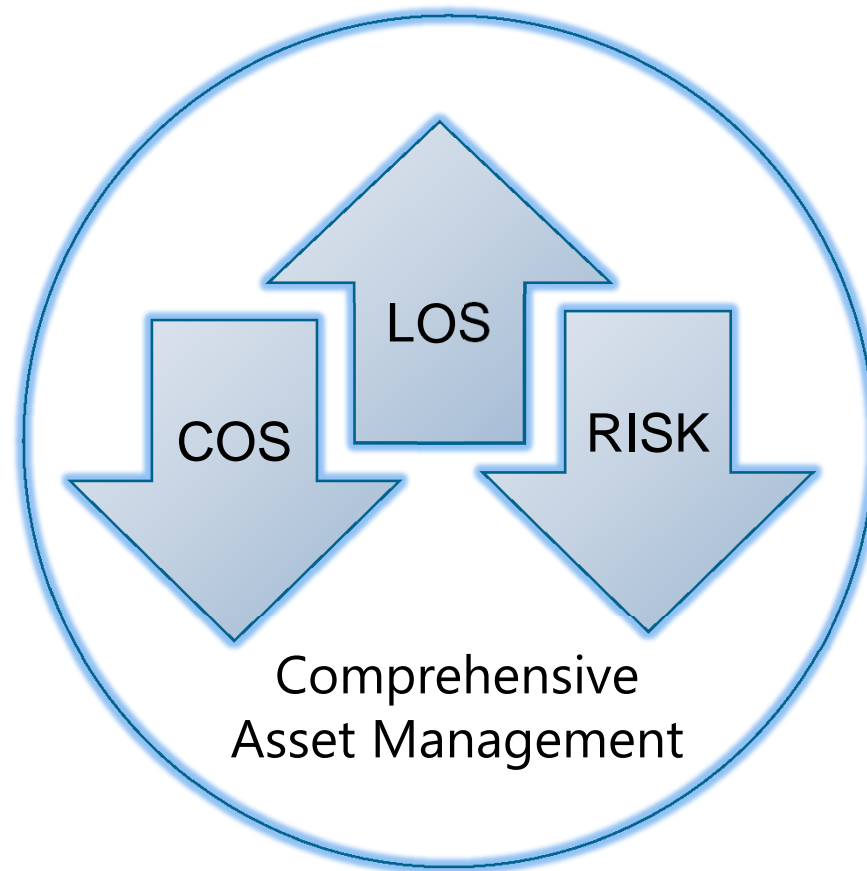
Goal One: Infrastructure Reliability

1B. Continue to Implement an Asset Management program

Asset Management will help NapaSan to be proactive in addressing the management of its collection system, plant and recycled water infrastructure. It will result in better prioritization of projects and reduced costs by predicting the most cost effective timing for asset maintenance, renewal and replacement.



Asset Management: Providing Levels of Service (LOS) at the Lowest Cost of Service (COS) with Acceptable Risk



Five Core Questions of Asset Management

1. What is the current state of my assets?
2. What is my required level of service (LOS)?
3. Which assets are critical to sustained performance?
4. What are my best O&M and CIP investment strategies?
5. What is my best long-term funding strategy?



Roadmap for AM Implementation has Four Phases

1. Phase 1 - Refine Existing AM Practices and Replace CMMS

- ✓ Develop systems and standards of practice

2. Phase 2 - Prepare Tactical Asset Management Plans

- ✓ Collection System
- ✓ Treatment Plant
- ✓ Recycled Water & Biosolids

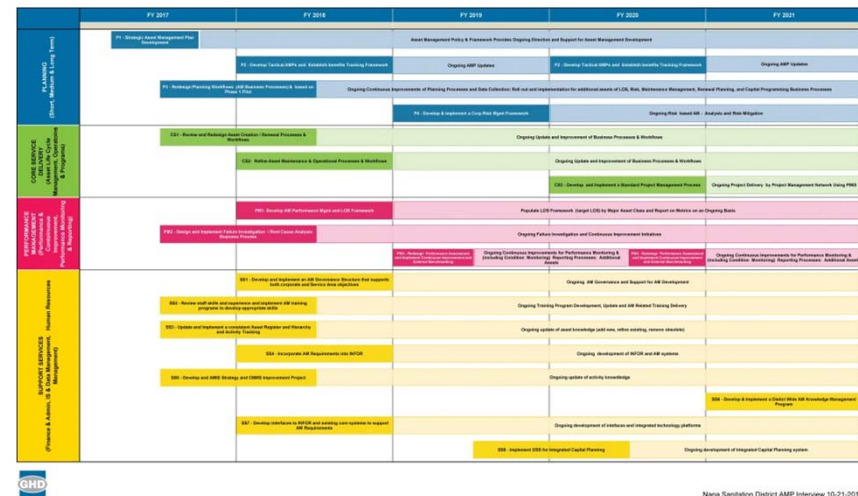
3. Phase 3 - Optimize Data-Driven Decision Making

- ✓ Capital Improvement Planning
- ✓ Maintenance Planning

4. Phase 4 - Review and Refine AM Program

- ✓ AM Policy
- ✓ Standards of Practice

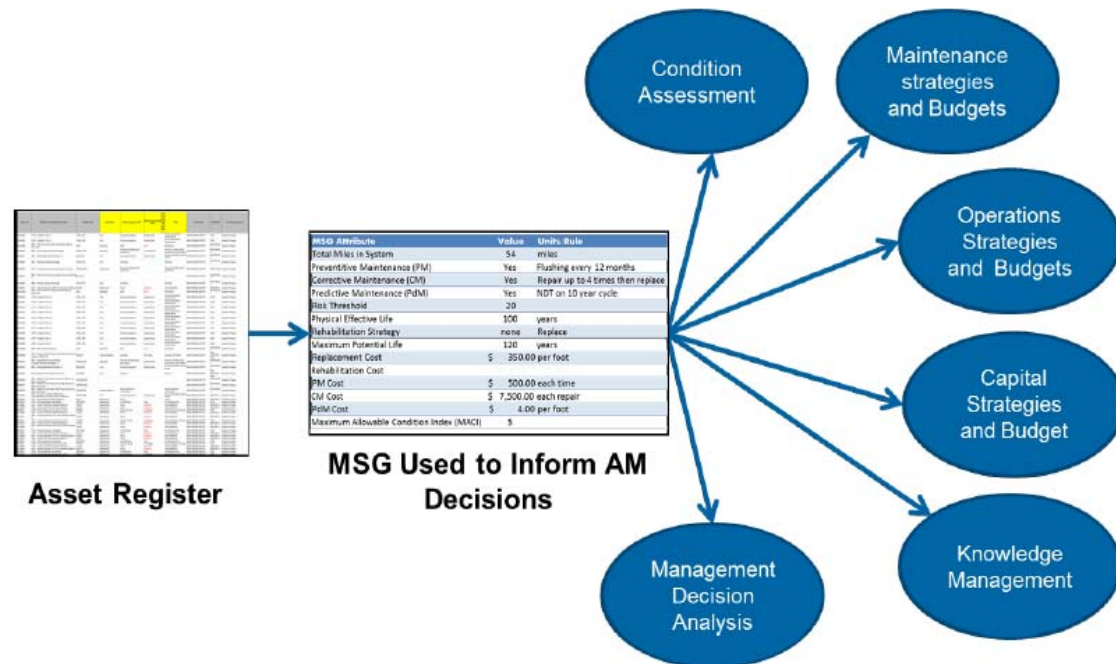
Example Asset Management Implementation Plan Roadmap



Napa Sanitation District AMP Interview 10-21-2016

Implementing an Asset Management Program

Asset management doesn't save money per se, it provides tools and procedures that are necessary to make informed decisions that balance levels of service with risk and cost.



AM Program Outcomes, Benefits and Costs

Phase (Duration)	Outcomes	Benefits	Costs
1. Refine Existing AM Practices and Replace CMMS (2.0 Yrs)	<ul style="list-style-type: none"> Defined workflow New CMMS Complete/Accurate Asset Data 	<ul style="list-style-type: none"> Meaningful data Integrated AM systems Transparent workflow 	\$1.037M (\$300k for software)
2. Prepare TAMPs (2.0 Yrs)	<ul style="list-style-type: none"> Collections TAMP Treatment TAMP RW/Biosolids TAMP 	<ul style="list-style-type: none"> Detailed LOS Risk assessments O&M strategies 	\$2.127M
3. Optimize Decision Making (2.0 Yrs)	<ul style="list-style-type: none"> CIP Prioritization and Business Cases Maintenance Prioritization 	<ul style="list-style-type: none"> Risk management O&M optimization CIP prioritization 	\$803k (\$100k for software)
4. Review/Refine AM Program (1.0 Yrs)	<ul style="list-style-type: none"> Update AM Policy, SOPs and TAMPs 	<ul style="list-style-type: none"> Continuous learning and improvement AM fit for purpose 	\$113k
TOTAL COST:			\$4.08M

*Table is in 2017 dollars



Importance of Phase 1 Tasks

Phase 1A – Necessary Improvement Tasks (FY 17/18)

- ✓ Select and purchase a new CMMS
- ✓ Develop an asset condition assessment protocol
- ✓ Develop register formatting and data security for assets
- ✓ Create an interface between GIS and the CMMS to optimize data sharing and reliability

Phase 1B – CMMS Implementation (FY 18/19)

- ✓ Format new CMMS software and integrate existing data into software

Phase 1C – Planning Tasks and Phase 2 Preparation Tasks (FY 18/19)

- ✓ Develop BRE tables for Phase 2 TAMP pilot
- ✓ Formalize Charter and BCE process
- ✓ Develop LOS and Performance Measures



Phase 1 Description and Costs by Fiscal Year

No.	Initiative Description	FY 17/18 (1A)				FY18/19 (1B & 1C)			
		Internal	External	Software	Total	Internal	External	Software	Total
P1	Monitor and update AM implementation plan	\$5,520	\$0	\$0	\$5,520	\$5,520	\$0	\$0	\$5,520
P2	Develop and pilot TAMPs	\$0	\$0	\$0	\$0	\$18,400	\$25,000	\$0	\$43,400
P3	Capital project chartering and BCEs	\$0	\$0	\$0	\$0	\$3,680	\$20,000	\$0	\$23,680
CS3	Asset condition assessments	\$9,200	\$15,000	\$0	\$24,200	\$0	\$0	\$0	\$0
PM1	LOS and performance measures	\$0	\$0	\$0	\$0	\$7,360	\$20,000	\$0	\$27,360
SS2	Asset register formatting and data security	\$18,400	\$30,000	\$0	\$48,400	\$0	\$0	\$0	\$0
SS3	CMMS and IS improvements	\$92,000	\$100,000	\$300,000	\$492,000	\$92,000	\$275,000	\$0	\$367,000
FY Total					\$570,120				\$466,960
Total Phase 1 Resource Needs									\$1,037,080.00

FY17/18 = \$570k (Phase 1A) , and FY18/19 = \$467k approx. (Phase 1B & 1C)



Questions?



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