



STAFF REPORT

Report To: Board of Supervisors

Meeting Date: March 1, 2018

Staff Contact: Darren Schulz, Public Works Director

Agenda Title: For Discussion Only: Presentation to inform the Board on the progress of the City's Asset Management Program. (Dan Stucky; DStucky@carson.org, Stephanie Hicks; SHicks@carson.org, and Matt Lawton; MLawton@carson.org)

Staff Summary: Staff will provide an update to the Board of Supervisors regarding the progress of the City's Asset Management Program.

Agenda Action: Other/Presentation

Time Requested: 30 minutes

Proposed Motion

N/A

Board's Strategic Goal

Sustainable Infrastructure

Previous Action

On February 2, 2017, the Public Works Department presented to the Board on the progress of the City's Asset Management Program.

On June 1, 2017, The Public Works Department provided the Board an update regarding the City's Geographic Information Systems (GIS).

Background/Issues & Analysis

Staff will present information to the Board of Supervisors regarding the progress of the City's Asset Management Program, program objectives, and future funding needs.

Applicable Statute, Code, Policy, Rule or Regulation

N/A

Financial Information

Is there a fiscal impact? Yes No

If yes, account name/number:

Is it currently budgeted? Yes No

Explanation of Fiscal Impact:

Alternatives

N/A

Board Action Taken:

Motion: _____

1) _____

2) _____

Aye/Nay

(Vote Recorded By)



Carson City Asset Management Progress Report 2018

Carson City Public Works

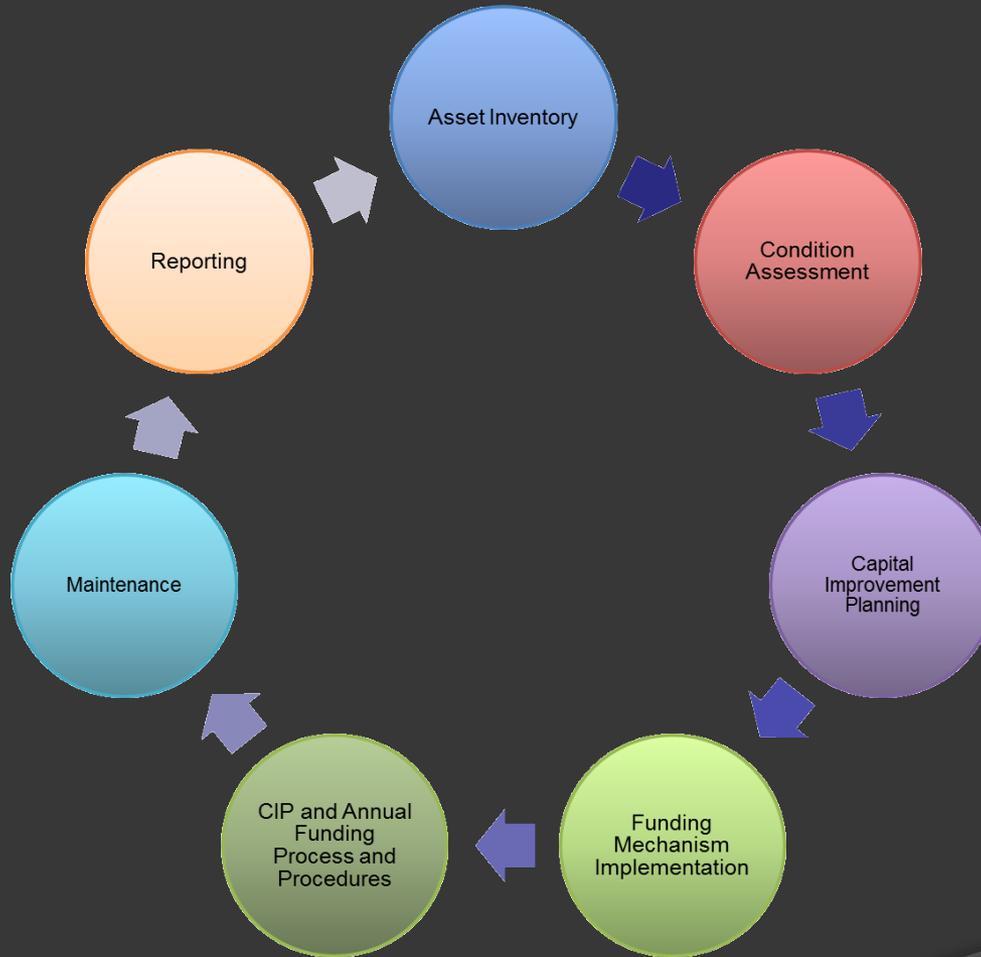


Asset Management Program

- The Asset Management Program will implement strategies with the fundamental goal of providing the following benefits:
 - Developing a proactive maintenance and planning strategy
 - Minimizing risk and maximizing the effective useful life of City assets
 - Optimizing customer service
 - Promoting data driven decisions and increasing transparency



Asset Management Cycle



“Not a project, it is a program”



Facilities

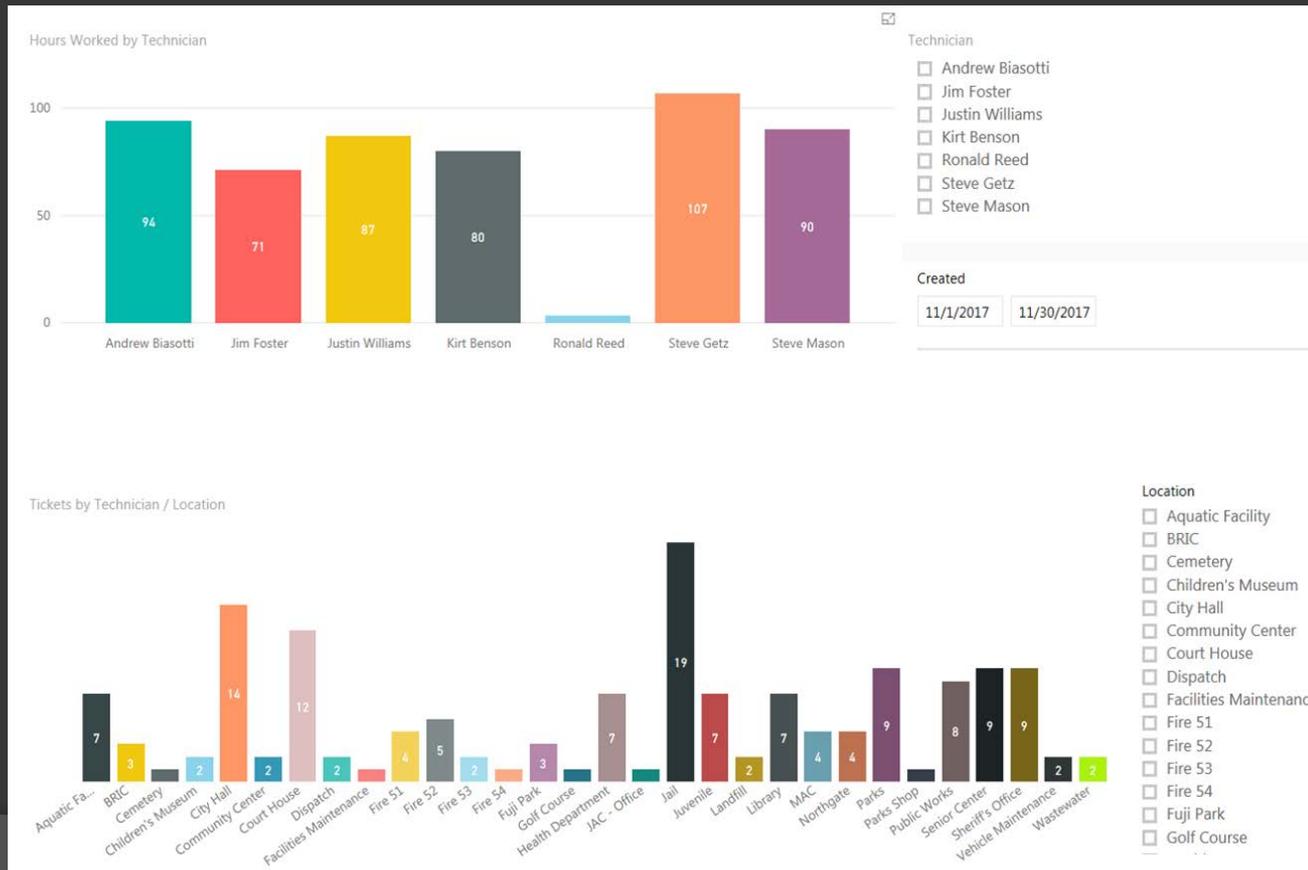
2017 Objective - Quarterly Review of Condition Assessments

Facility Condition Survey	Type	Quantity	Serial Number	Estimated Remaining Useful Life	Ranking	Action*	\$ Immediate Needs**	\$ Capital Reserves**
Community Center - 851 E. William Street								
SITE IMPROVEMENTS								
Storm Drain System	Drop Inlet			20+	1	NM		
Parking, Pavement, Curbs & Gutters	Asphalt Parking Lot			15+	4	IR		10k
Sidewalks	Concrete			15	1	NM		
Utilities	City Water, Sewer, N			20+	1	NM		
Landscaping	Grass, Trees, Shrubs			20	1	NM		
Site Lighting	Building and Pole Mo			20+	1	NM		
Site & Building Signage	Electric			15+	1	NM		



Facilities

2017 Objective - Work Order Management System (RT) and Power BI Dashboard





Facilities

2018 Objective - Roof Assessments



Inspection

Client: Carson City

Facility: Senior Center

Roof Section: Main Building Upper Roof

Inspection Information		
Inspection Date	04/15/2014	Core D
Inspection Type	Visual Inspection	Leak
Deck Conditions	Good	

Flashing Conditions		
Perimeter	Fair	W
Projections	Fair	Counterflash

Miscellaneous Details		
Reglets	Fair	Det
Control Expansion Joints	N/A	Ponding Wa
Parapet Wall	Fair	Coping Joi

Perimeter	
Rating	Fair
Condition	Perimeter is in fair condition, mineral membrane is becoming some seam separations

Field	
Rating	Poor
Condition	Field of roof is in poor condition, gravel is starting to loose asphalt

Penetrations	
Rating	Fair
Condition	Pitch pockets are dried out, new sealant needs to be installed



Solution Options

Client: Carson City

Facility: Senior Center

Roof Section: Main Building Upper Roof

Restore Options		
Solution Option:	Restore <input checked="" type="checkbox"/>	Action Year: 2018
Square Footage:	20,266	Expected Life Years: 10
Budget:	\$150,000.00	

RESORE: WeatherScreen Restoration Treatment

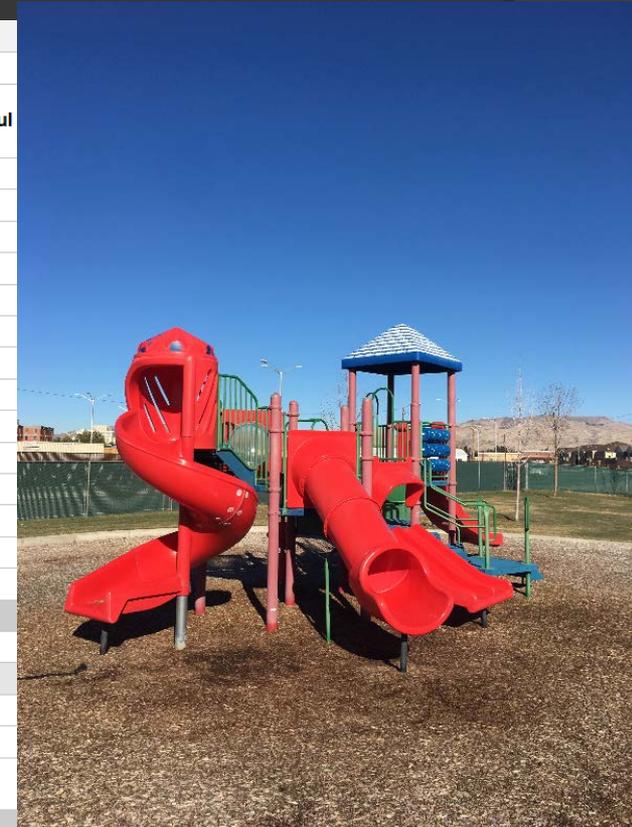
Remove all gravel, clean all debris, repair all defects in membrane and flashings, refill all pitch pockets, install WeatherScreen restoration treatment and new gravel. WeatherScreen is a heavy-bodied, rubberized, fiber reinforced, fire-rated restoration treatment designed to restore gravel surfaced modified bitumen membranes and asphalt based built up roof systems. WeatherScreen restores and upgrades the weathering surface of the existing roof system with a superior protective surface. WeatherScreen uses very little solvent and meets VOC requirements. WeatherScreen is cold applied and eliminates the need for hot kettles, a timely application of WeatherScreen, coupled with an effective preventative maintenance program, will ensure that the deck and insulation are kept dry and intact. This will extend the life of the roof system and save future roofing dollars, Garland will warranty this roof system for 10 years.

Parks



- 2017 Objective – Inventory Park Facilities and Create Smartsheet Database
- 2018 Objective – Complete Initial Condition Assessment

Park Facility Condition Survey					
Governor's Field					
Item	Type	Quantity	Model	Serial Number	Estimated Remaining Useful Life
"BARRIER FREE" ACCESSIBILITY (ADA)					
Parking, Signage, Ramps	Parking/Signs/Ram	9/9/17			
Common Area Accessibility					
Restroom Accessibility					
IRRIGATION SYSTEM					
Backflow Prevention					
Valve Boxes					
Sprinkler Heads					
Plumbing					
Frost-Free/Yard Hydrants		5			
Quick Couplers?					
Isolation Valves					
Satellites/Controllers	Rainmaster	3			
Control Valves					
LANDSCAPES					
Trees		165			
Shrubs		90			
Turf		382,892 sqft			
Drip Lines, Emitters					
Non-Plant Material (Rock Mulch, DG, Bark Mulch)	River Cobble/DG	17,120sqft/167614			
SITE IMPROVEMENTS					
Playground Structure	Gametime	1			





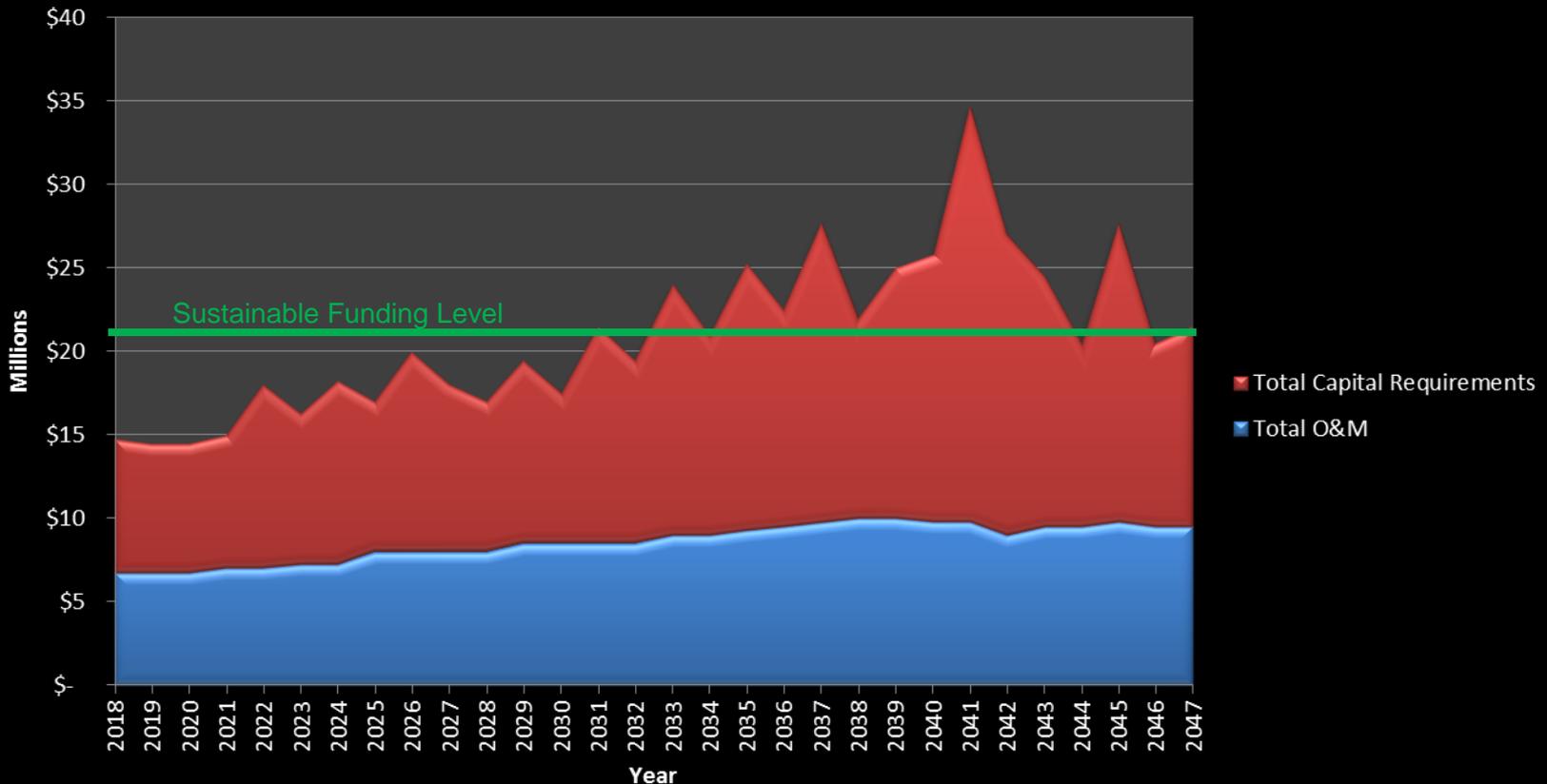
Reserve Study

- 2017 Objective – Initiate Reserve Study for general fund asset systems.
 - Researched firms that provide these services
 - Initial cost estimates from \$150k - \$250k
- 2018 Objective – Issue RFP to select firm to perform Reserve Study

Reserve Study



Asset Management Expenditure Plan

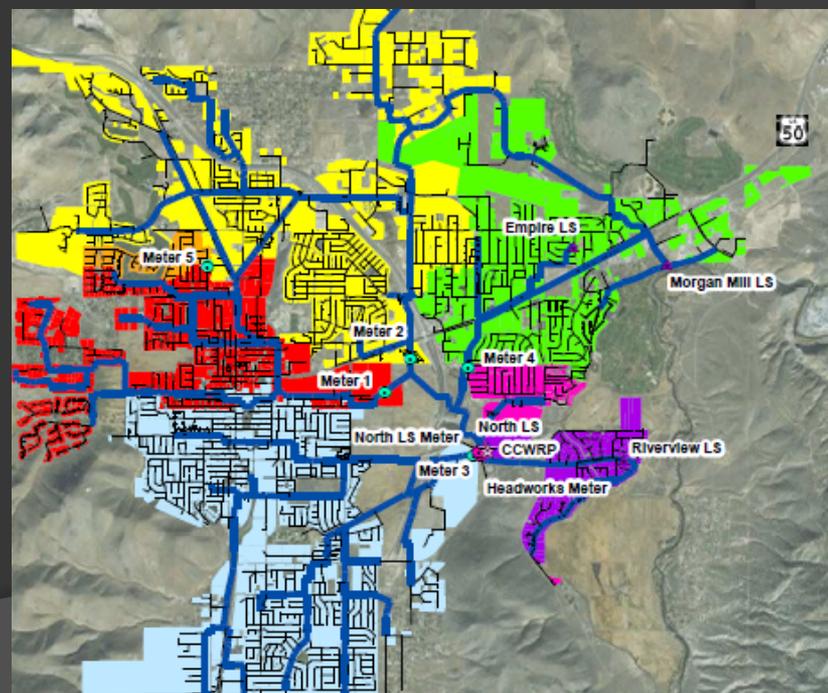
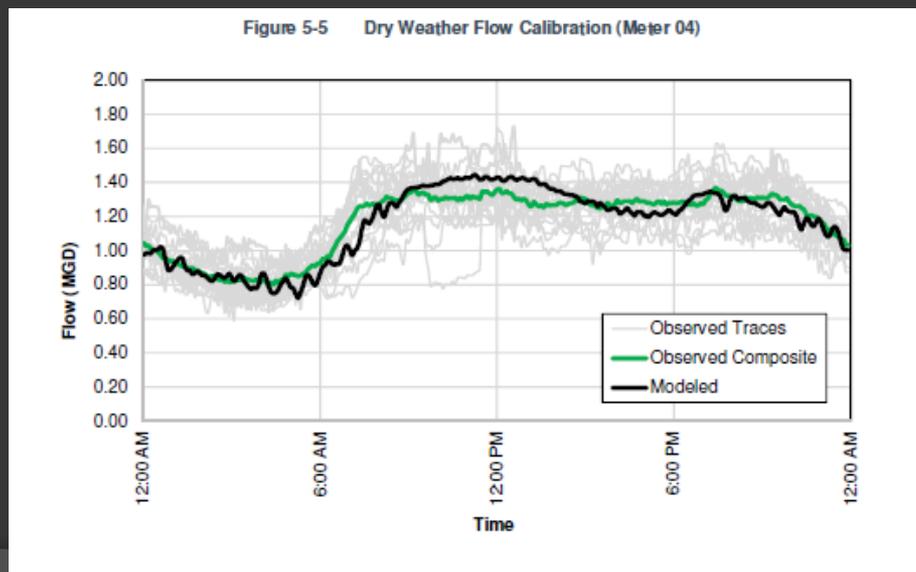


Achieving a sustainable funding level is attainable with smarter planning. Combining the capital with the O&M costs defines the annual sustainable funding needed to cost-effectively maintain, rehabilitate, and replace infrastructure assets.



Sewer

- 2017 Objective – Complete Sanitary Sewer Collection System Master Plan
 - Identified a prioritized list of sewer CIPs
 - Documented City inspection and condition assessment workflows

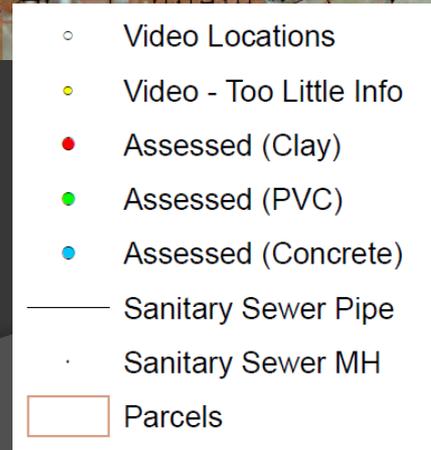
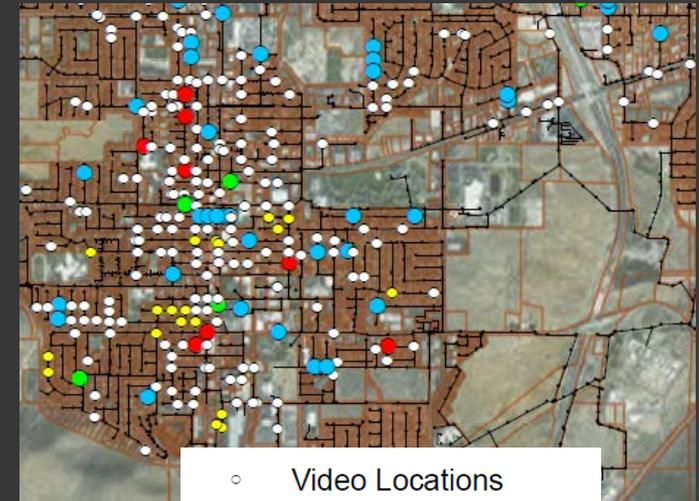




Sewer

2018 Objective – Initiate Sewer Condition Assessment Program

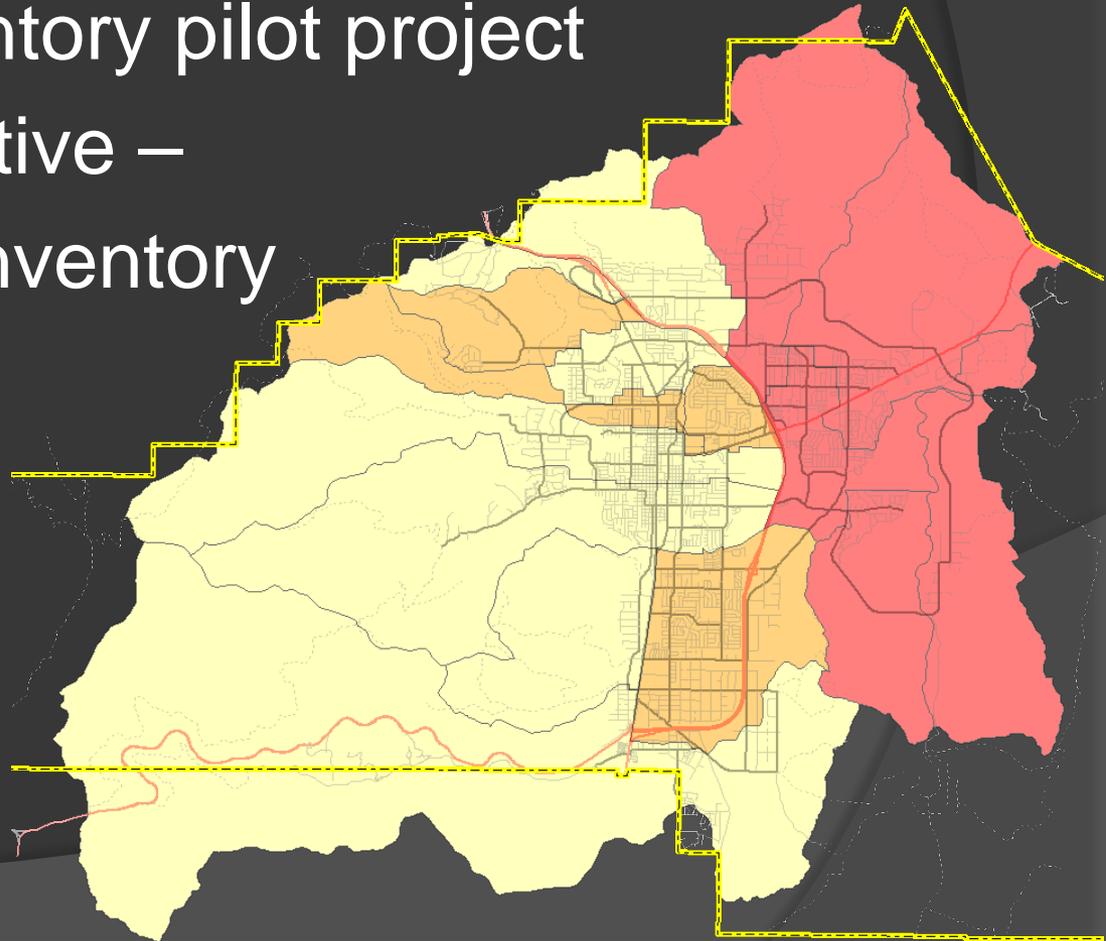
- Setup new CCTV van
- Train City staff in standardized pipeline and manhole condition assessment rating system
- Issue RFP to select sewer condition assessment contractor to supplement City staff
- Estimate 5-7 years to assess the entire sewer system





Stormwater

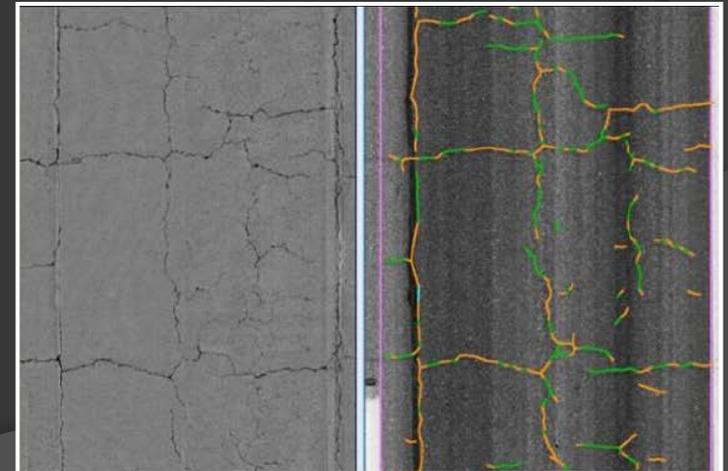
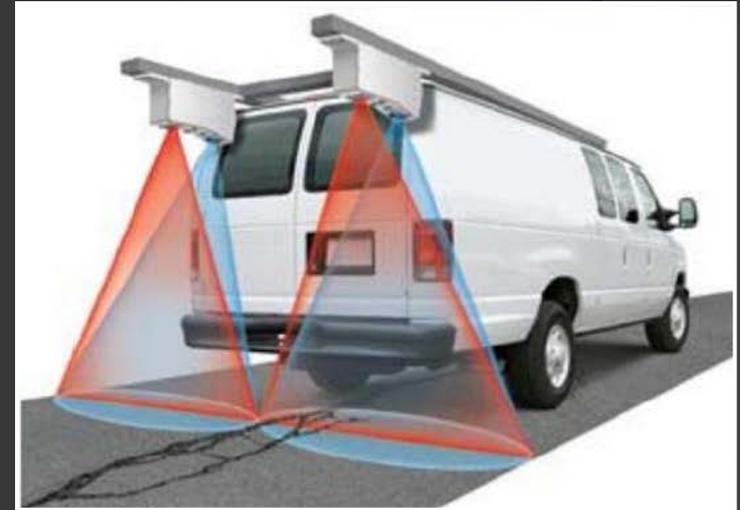
- 2017 Objective –
Complete GIS inventory pilot project
- 2018/2019 Objective –
Complete full GIS inventory





Transportation

- 2017/2018 Objective – Update of Pavement Condition Assessment
- 2018 Objective – Street Ownership Mapping Updates
- 2018 Objective – Sign Inventory and Assessment System





Carson City Asset Management Program Implementation Timeline

2016

2017

2018

2019

2020

Asset Inventory - Develop information on City asset inventories that will include all those assets the City is responsible for and utilize GIS as the core asset management technology.

Condition Assessment - Collect information on the condition of City assets and develop Asset Management plans for the maintenance and operation of City assets that will achieve sustainable service levels.

Asset Management will take on the following roles:

- Maintain inventory of assets
- Undertake condition assessments
- Take lead on capital planning with Engineering
- Long-term funding requirement projections
- A collaborative role with Operations to move towards formalized record keeping and transition to a more proactive maintenance and inspection focus
- Foster collaboration between Engineering, Operations, Planning and Finance
- Implement technology as a key enabler of more effective and efficient means of conducting business that supports business decisions

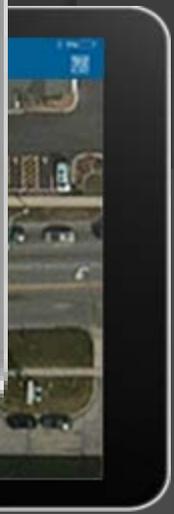
Capital Improvement Planning - Capital planning for replacement, renewal or new infrastructure will include Asset Management principles related to LOS, full life-cycle costing (reserve study) and an understanding of the criticality of the asset and its sustainable service levels.

Funding Mechanism Implementation - Identify funding sources for long-range planning.

CIP and Annual Budget Funding Process and Procedures - Incorporate Asset Management principles into budgeting and CIP decision-making, so that decisions are based on critical asset needs, conditions, and levels of service.

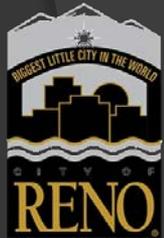
Maintenance - Develop a maintenance and preservation policy for City assets that moves the City toward an operation that achieves sustainable and high levels of performance based on agreed upon service levels.

Reporting - Create Asset Management Master Plan and report on performance in relation to this plan in periodic asset status and condition reports.



Northern Nevada Asset Management User Group

- Evaluating enterprise software solutions
- Getting feedback on what is working for others
- Participants & Software Platforms:
 - Washoe County: Dude Solutions Asset Essentials
 - City of Sparks: Accela Automation
 - City of Reno: Currently evaluating
 - TMWA: CityWorks
 - City of Fernley: Currently evaluating





Asset Management Software

Current Considerations:

- Leveraging Asset Management functionality within ERP system
- Internally evaluating Enterprise Asset Management solutions: \$100k - \$500k
- Internally evaluating “Best in breed” software solutions: \$30k - \$75k (plus integration costs)
- 2018 Objective – Hire external consultant for evaluation of Asset Management software solutions: estimated \$75k



Employee Resources

- Role of GIS consultants = 1.5 FTE to support GIS and Asset Management needs
- 2018 Objective – Hire FTE GIS Technician
- Shift consultants to take on more tasks in support of Asset Management
- Need to consider future Asset Management staffing beyond GIS support activities



Questions?

- Carson City Asset Management Program Contacts
 - Dan Stucky, City Engineer
 - dstucky@carson.org 775-283-7084
 - Stephanie Hicks, Real Property Manager
 - shicks@carson.org 775-283-7904
 - Matt Lawton, Asset Manager
 - mlawton@carson.org 775-283-7394