



# **City of San Mateo Sustainability Commission Meeting Clean Water Program Progress Update November, 2017**

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## Purpose

- Provide Clean Water Program Update
- Implementation of Climate Action Plan
- Envision Update
- LEED certification for the Wastewater Treatment Plant Administration Building
- Progress on Recycled Water Study and Water Reuse Options

# Clean Water Program Drivers and Goals

**Replace Aging Infrastructure**

**Provide Higher Levels of Treatment & Capacity Assurance**

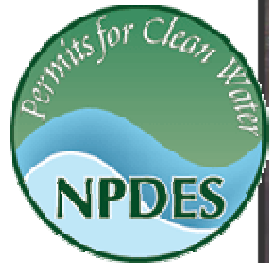
**Align with City's Sustainability Goals**



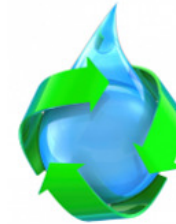
Collection System



WWTP



RWQCB Cease & Desist Order  
NPDES Permit



Reusable  
**Clean Water**  
Partnerships



Institute for Sustainable Infrastructure

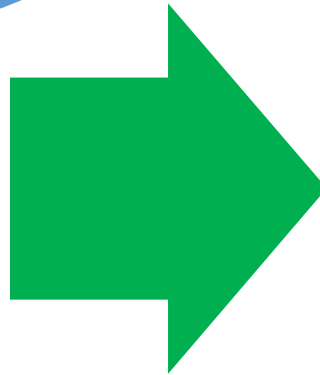


Infrastructure Sustainability Metrics



# Comprehensive Approach

Capacity & Flow  
Management  
Improvements

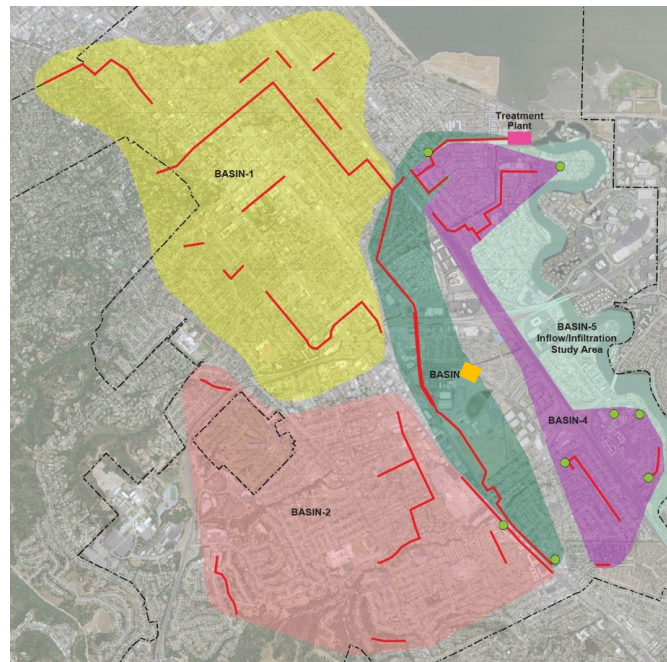


I/I Reduction &  
System Rehabilitation

Clean Water Program  
Comprehensive  
Approach

## Collection System Progress

- Design underway on all four basins to address capacity issues
- Site selected for In-System-Storage – San Mateo County Event Center
- I/I Pilot Study - Project scoping underway



# Treatment Plant Progress

- Construction Manager at Risk (CMAR) – Sundt Construction
- 30% Design
  - Completed May 2017
- Construction
  - Start – Summer/Fall 2018
  - Finish – Summer/Fall 2023



# Climate Action Plan

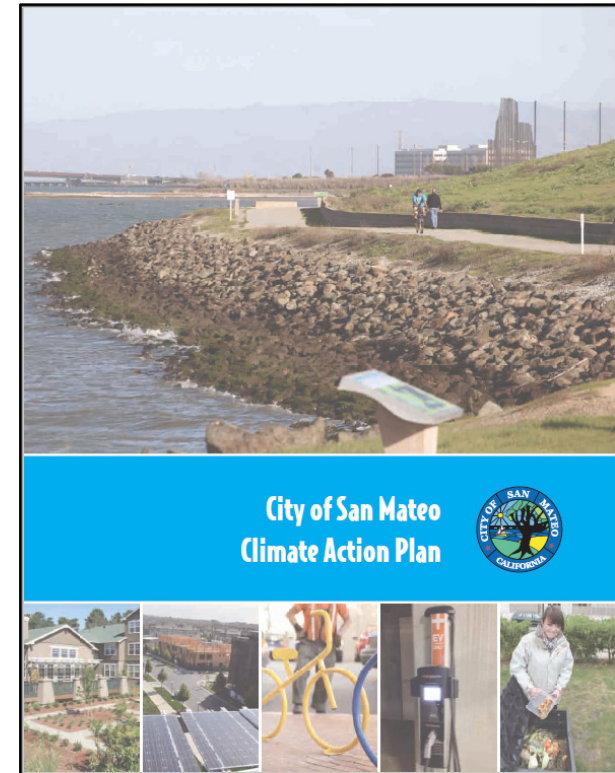
# Implementation of the Climate Action Plan

- City CAP

- Targets 15% reduction of 2005 GHG emissions by 2020
- Identifies 28 measures to meet reduction goals

- CWP Implementation

- Generating CNG from biogas (RE 7)
- Energy efficient Admin Building (ME 1)
- Water efficient landscaping (WW 2)
- Generating high quality recycled water (WW 3)





# Envision Update

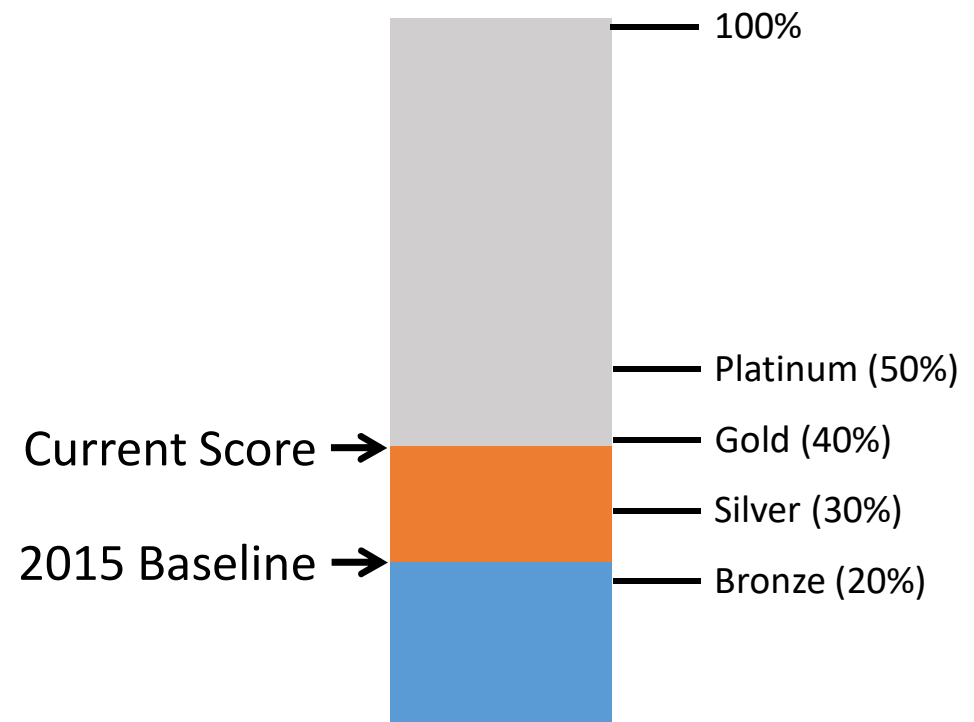
## Envision Update

- Developed by Institute for Sustainable Infrastructure
- CWP will not seek certification
- Envision is used as a self-assessment tool
  - *Track our progress*
  - *Inform design and decision making*
  - *Applied across the program*
- Scoring is based on the principle of the criteria



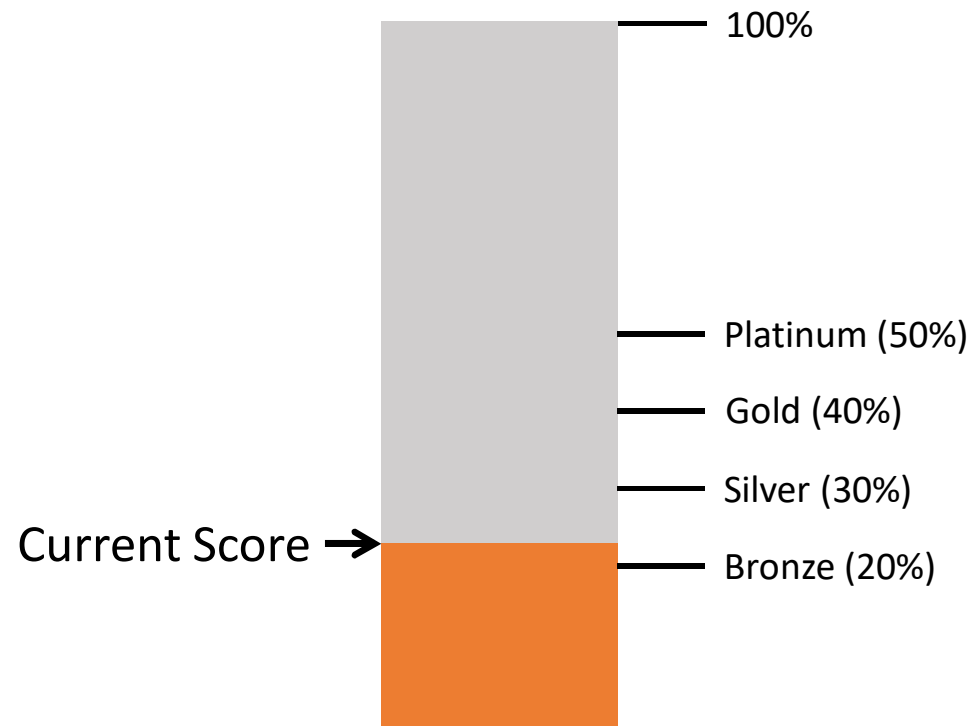
## Treatment Plant Envision Score

- 2015 score = 23%
- Current score = 39.5%
- Enhancements
  - *Design definition*
  - *Powered by 100% renewable energy*
  - *Expanding public outreach*
  - *Enhancing Bay trails to park*



## Collection System Envision Score

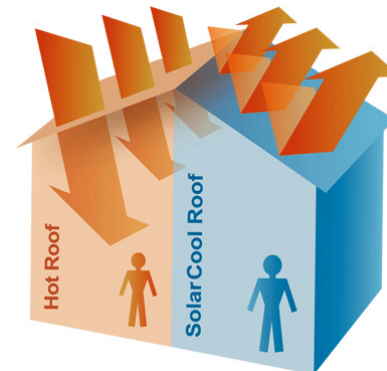
- Current score = 26%
- Limited opportunities
  - *Buried infrastructure*
  - *Limited community connection*
  - *Limited opportunities to reduce water and energy usage*



## Additional Envision Opportunities

Envision criteria under review

- Additional energy savings
- Local material sourcing
- Shading and solar reflective roofing



# LEED Certification

# WWTP Site Location



# Architectural & Landscape Design



*Highlights juxtaposition  
of industrial and natural  
water treatment systems*



# Administration Building



*Public Interface; Gateway to the WWTP*



# Community Access



*Pedestrian Access Improvements and Educational Components*

# LEED



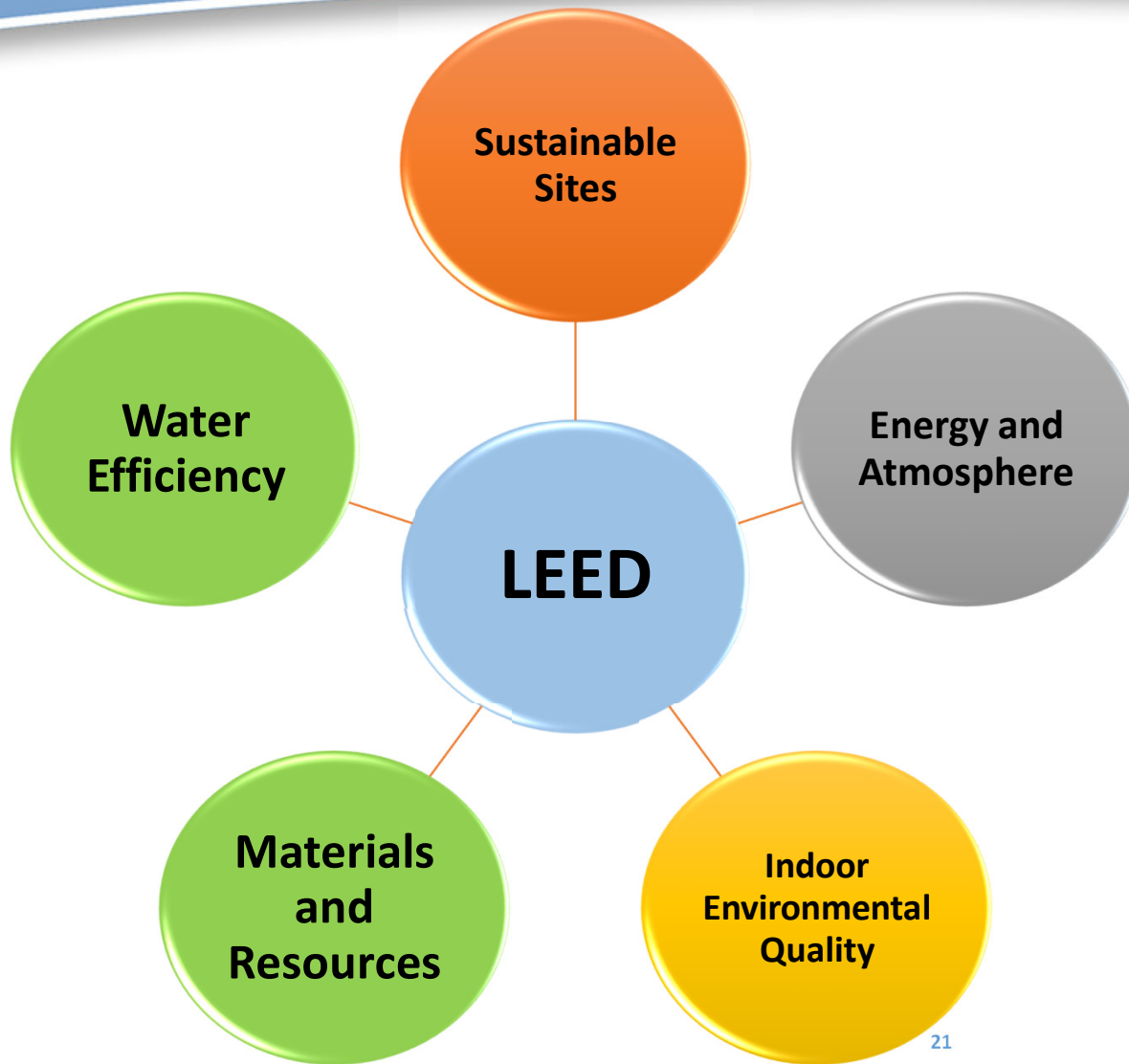
- Pursuing LEED Silver Certification
- Promotes sustainable practices in design, construction and operations of buildings
- Conserves energy, water and resources

*Inspired by City's sustainable initiative for healthy **environmental**, **economic** and **social** development*

## New Developments in LEED

- LEED requirements continue to evolve
- More technically rigorous
- Greater emphasis on energy efficiency
- Higher cost premium to meet LEED Silver





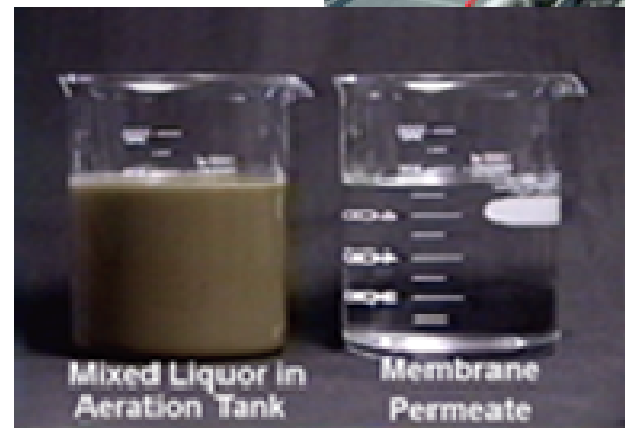
## LEED Opportunities

- Nine categories
- Project team is evaluating opportunities and applicable credits
- Project specific

# Recycled Water & Water Reuse

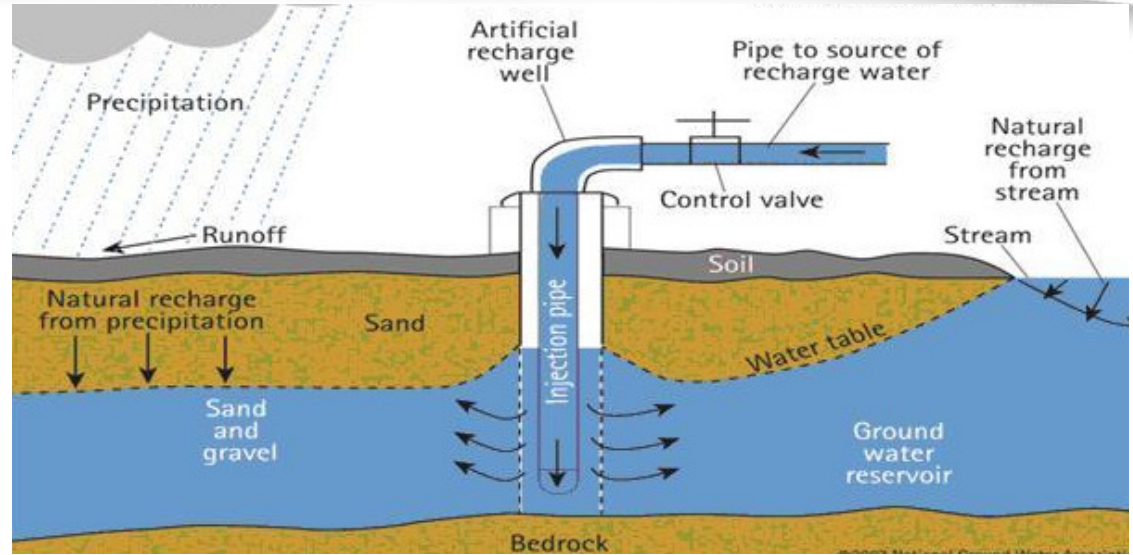
## Progress on Recycled Water

- Treatment process supports sustainability goals
- Recycled Water Market Survey (RMC 2013)
- Recycled Water Facilities Plan (2017 HydroScience)
- Ongoing coordination with regional agencies



# Water Reuse Options

- Non-Potable Reuse
- Indirect Potable Reuse
- Direct Potable Reuse
- Nutrient Trading





# Questions & Feedback



Checkout  
the Updated  
Website

[www.CleanWaterProgramSanMateo.org](http://www.CleanWaterProgramSanMateo.org)

25