

COUNCIL SUSTAINABILITY COMMITTEE MEETING

MONDAY, JANUARY 14, 2019

PRESENTATIONS

PRESENTATION

DIESEL BACK UP GENERATORS: ENVIRONMENTAL IMPACTS AND FEASIBILITY OF ALTERNATIVES

MONDAY, JANUARY 14, 2019

Diesel Backup Generators

Council Sustainability Committee

January 14, 2019



Conventional Diesel Generator



- + Reliable & available
- + Long term onsite fuel storage
- + Ultra-low sulfur diesel
- + Heavily regulated

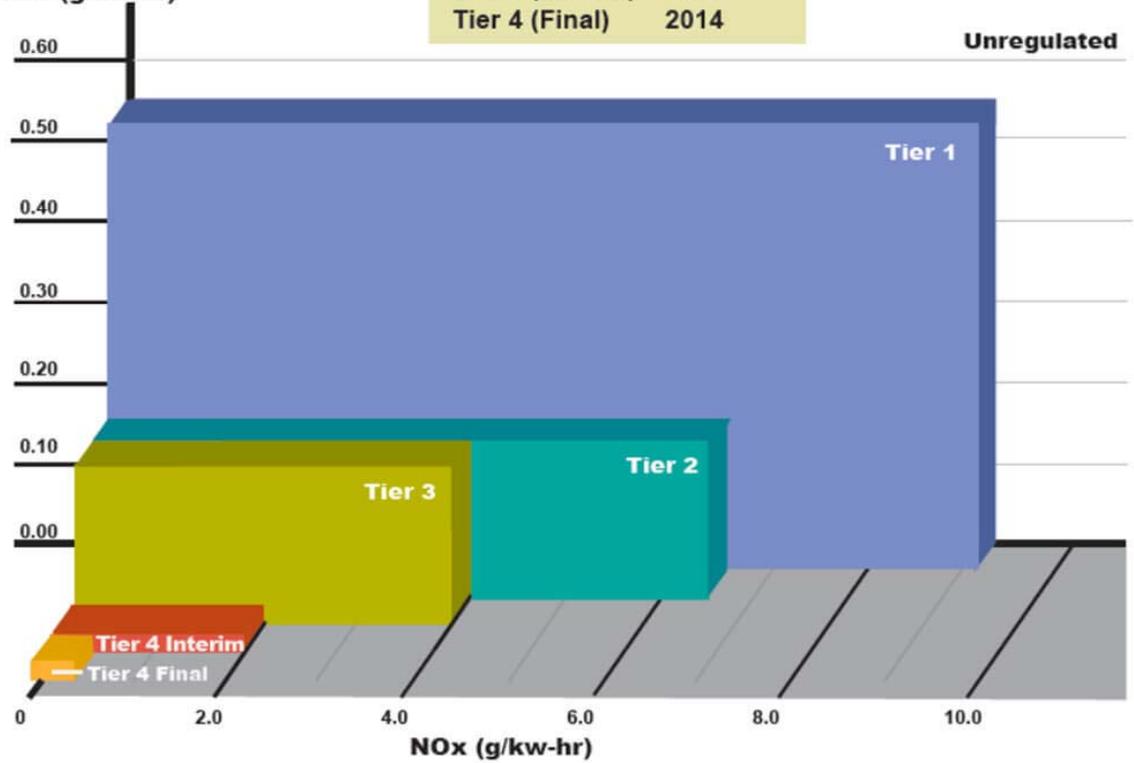
Recommended

Emission Control Regulations

US EPA Non-Road Regulations (130-560kw)

Tier 1	1996
Tier 2	2001-2003
Tier 3	2005-2006
Tier 4 (Interim)	2011
Tier 4 (Final)	2014

Particulates (g/kw-hr)



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Estimated Tier Distribution of City's Stationary Generators

Tier	Total Stationary Generators*	Percentage of Stationary Fleet	Avg. Model Year**	Total kW
Tier 0 (Unregulated)	4	11%	1994	2,600
Tier 1	9	24%	1999	2,967
Tier 2	10	27%	2006	7,386
Tier 3	4	11%	2008	396
Tier 4	10	27%	2013	1,167

*Does not include 125 kW Airport Terminal generator due to lack of information at this time

**Based on estimations of model year for each generator

Estimated Cost to Replace Tier 0-2 Generators: ~ \$9M



**21st Century
Library**

150 kW

Tier 4

Biodiesel

- + Reduced emissions
(Depending on Blend Percentage)
- Requires engine modifications
- Affects engine warranty
- Slight performance reduction

Renewable Diesel

- + Significantly reduced emissions

- Biodegradability poses storage and extended reliability concerns
- Unproven in emergency standby situations

Not Recommended

Natural Gas Generator



- Fuel is supplied by pipelines
- Reliability concerns in emergencies, due to impact on pipelines in **Fires and Earthquakes**
- Less responsive to changes in load demand

Not Recommended

Solar Microgrid



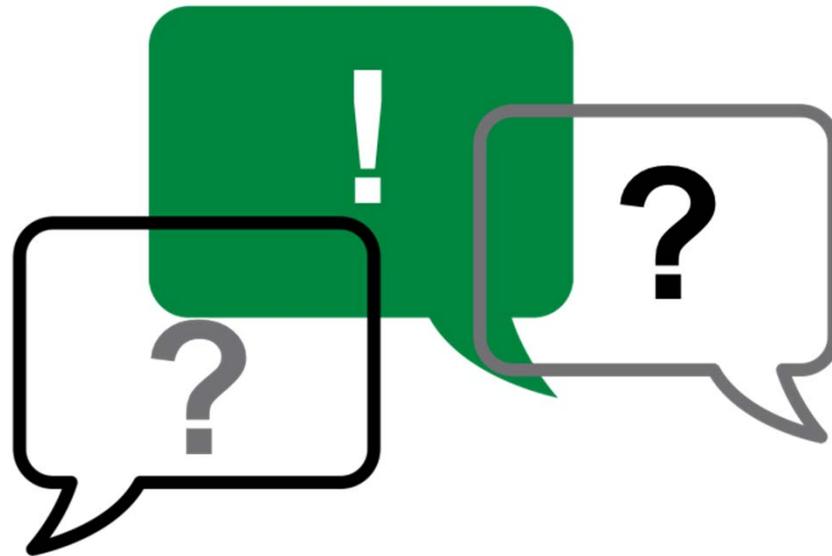
- + Can be grid-independent
- Expensive
- Physically infeasible
- Lack of reliability in extended emergencies

Not Recommended

Next Steps

Seek the cleanest, most reliable technology available for replacements as each emergency backup generator nears the end of its useful life.

Questions



PRESENTATION

NATURAL GAS USE IN NEW CONSTRUCTION

MONDAY, JANUARY 14, 2019

Natural Gas Use in New Construction

Council Sustainability Committee

January 14, 2019



THE SACRAMENTO BEE – January 5, 2019

Op Ed Titled:

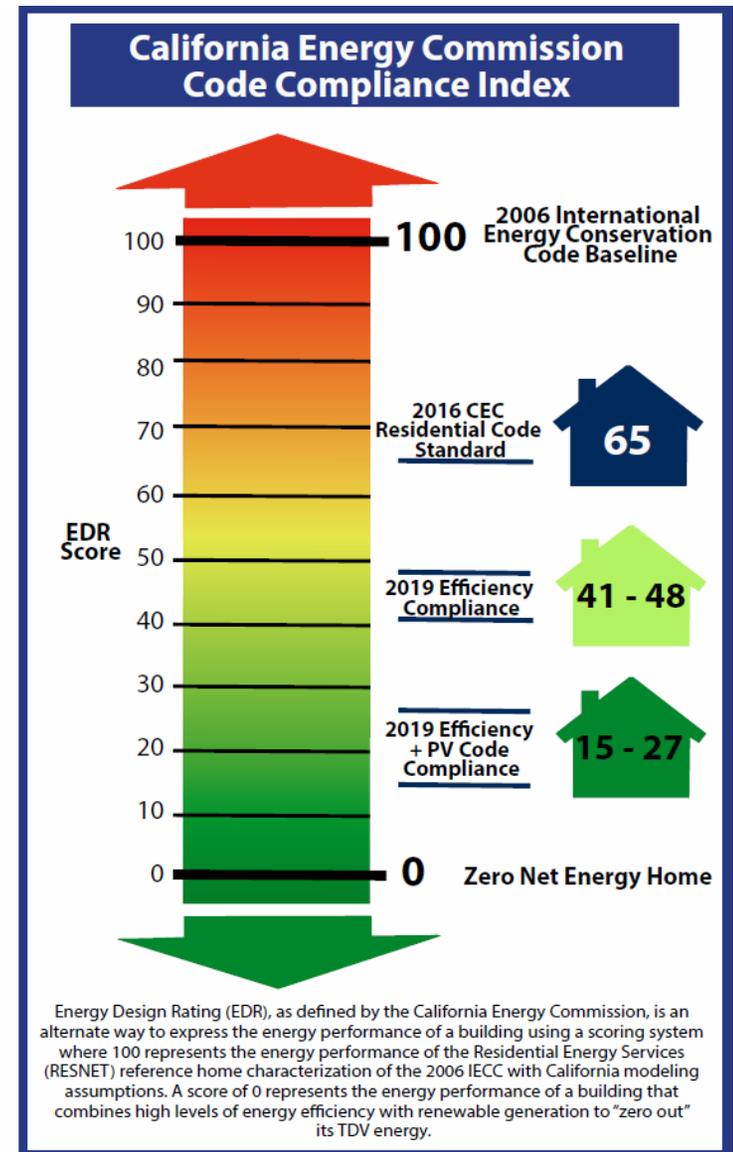
“To clean up climate pollution, get California’s buildings off of fossil fuels”

- “More than half of our building pollution comes from gas- and propane-powered appliances.”
- “Connecting a new home to gas lines and meters can cost between \$6,000 and \$20,000.”

<https://www.sacbee.com/opinion/california-forum/article223908195.html>

California Building Code

- Code is updated every 3 years
- 2019 Code effective Jan. 1, 2020
- Moving toward ZNE
- Energy Design Rating (EDR) moving toward 0



Natural Gas Use in New Construction



Electrified Buildings Have Lowest CO2 Emission Levels

2700 sf prototype, CZ12

CO2 Impact of Housing Choices		Metric Tons of CO2 Emitted/yr
Mixed Fuel	2000 Compliant Building, No PV	6.5
Mixed Fuel	2016 Compliant Building, No PV	3.26
Mixed Fuel	2019 Standard Design, with 3.1 kW PV	2.29
All-Elect	2019, 3.1 kW PV	1.12
All-Elect	2019, 6 kW PV	0.46

Table is for a hypothetical 2,700-square-foot home in climate zone 12, which is located in the Central Valley.

Bay Area Regional Energy Network

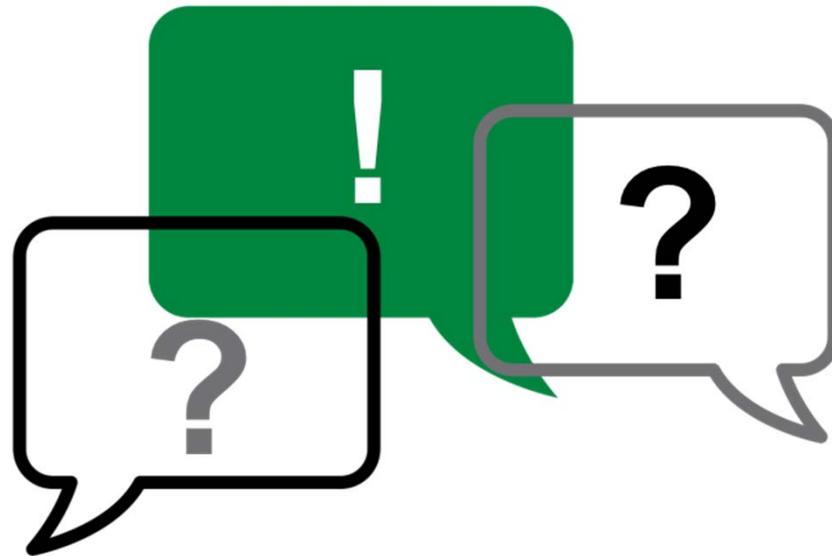
- Local Codes can “reach” beyond state codes
- Reach Codes require CEC approval
- Reach Codes require cost-effectiveness study
- BayREN is developing studies & model code



Timeline

February	Acquire Cost-effectiveness Study
March – April	Conduct Stakeholder Outreach & Refine Scope of Proposed Local Codes
May – July	Prepare Ordinance & Staff Report
September	Introduce & Adopt Ordinance
October – December	Obtain CEC Approval (must submit application by 9/30/2019)
December	File with California Building Standards Commission
January 1, 2020	Reach Code will be Effective

Questions



PRESENTATION

**ANNUAL UPDATE ON CITY'S WASTE REDUCTION
AND RECYCLING PROGRAMS**

MONDAY, JANUARY 14, 2019

Council Sustainability Committee

Update on Waste Reduction and Recycling Programs

January 14, 2019



Diversion Goals



50% Diversion

ACWMA

75% County-wide diversion by 2010

ACWMA MRO

Businesses and MFDs must arrange recycling and organics collection



In Progress

WM WMAC FRR

80% WM diversion in City by 2024



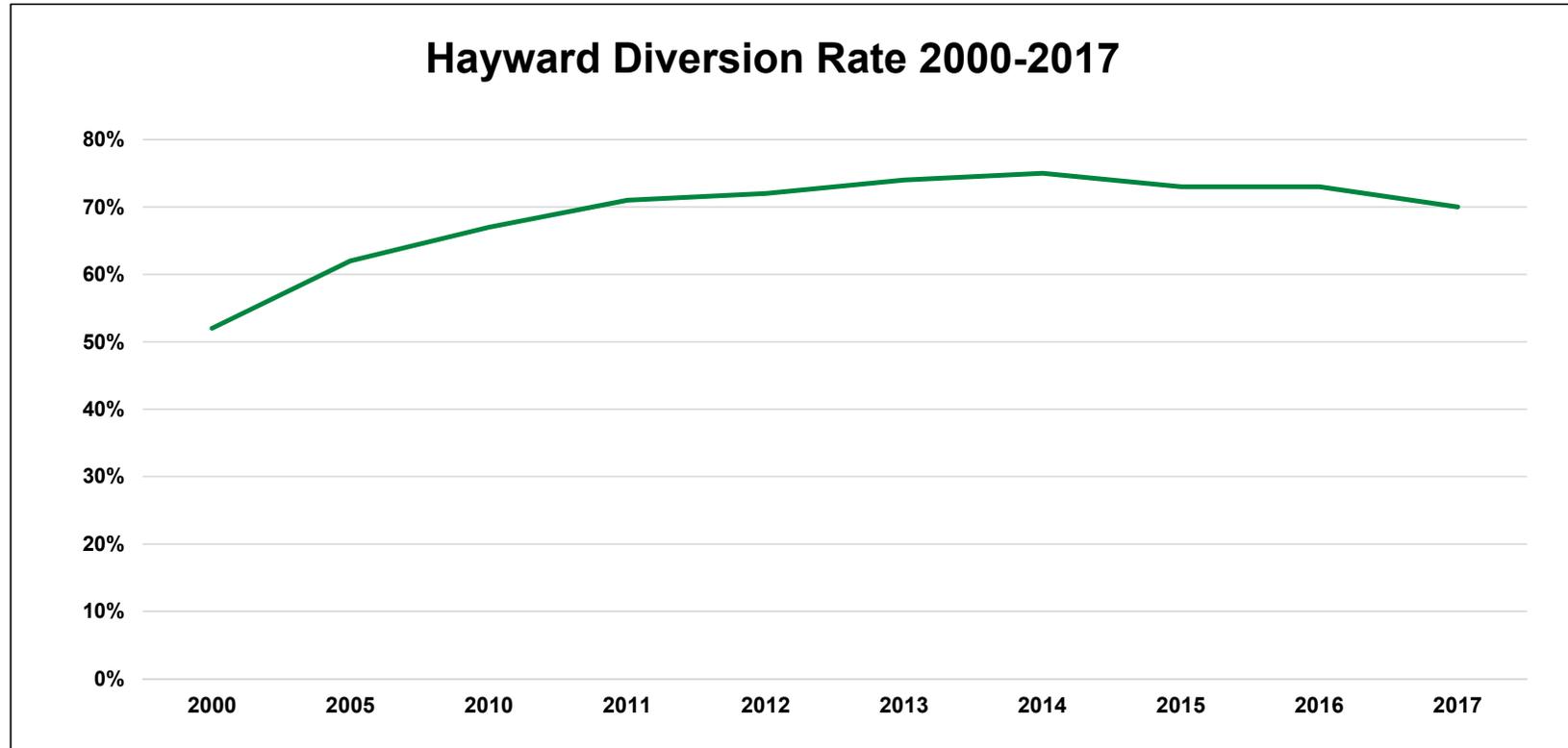
75% City-wide diversion by 2010

80% City-wide diversion by 2018



70% in 2017

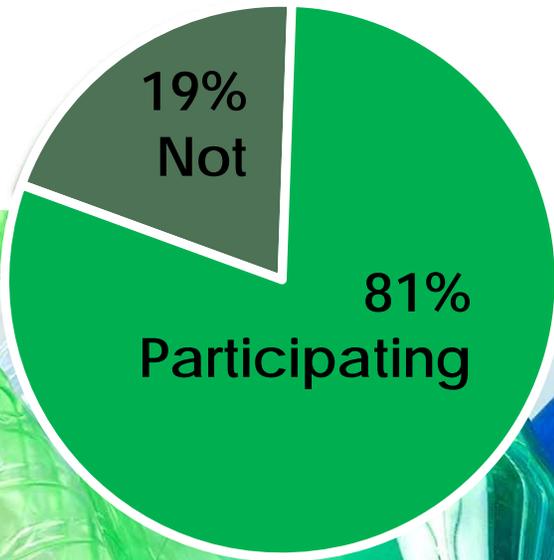
Hayward Diversion Rate



Diversion 2017 = 70%

Business | Recycling Participation

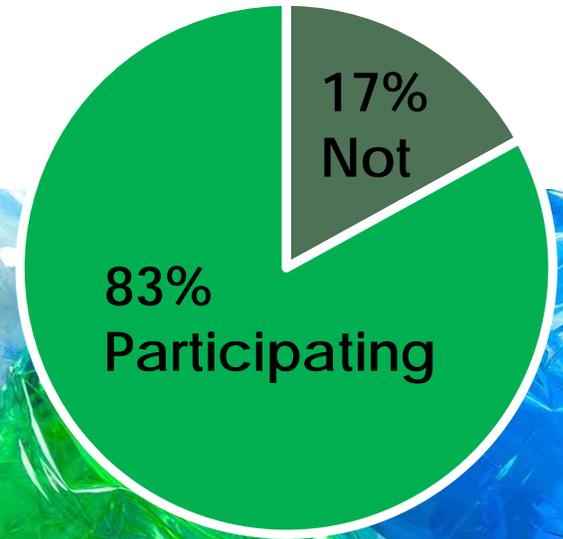
December 2017



Business
Recycling
Collection

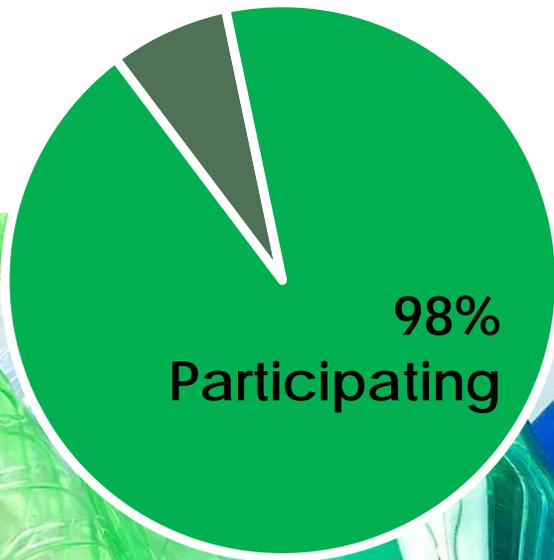
UP
2%

December 2018



Multifamily | Recycling Participation

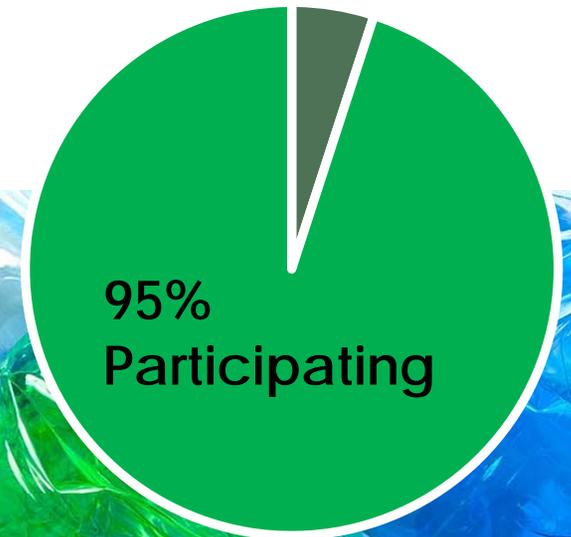
December 2017



Multi-Family
Recycling
Collection

Down
3%

December 2018



Multifamily & Business | Organics Participation



**Multi-Family
Organics
Collection**



**UP
26%**



**Business
Organics
Collection**

**UP
2%**



Bulky Service



It's As Easy As 1-2-3!



CALL-US

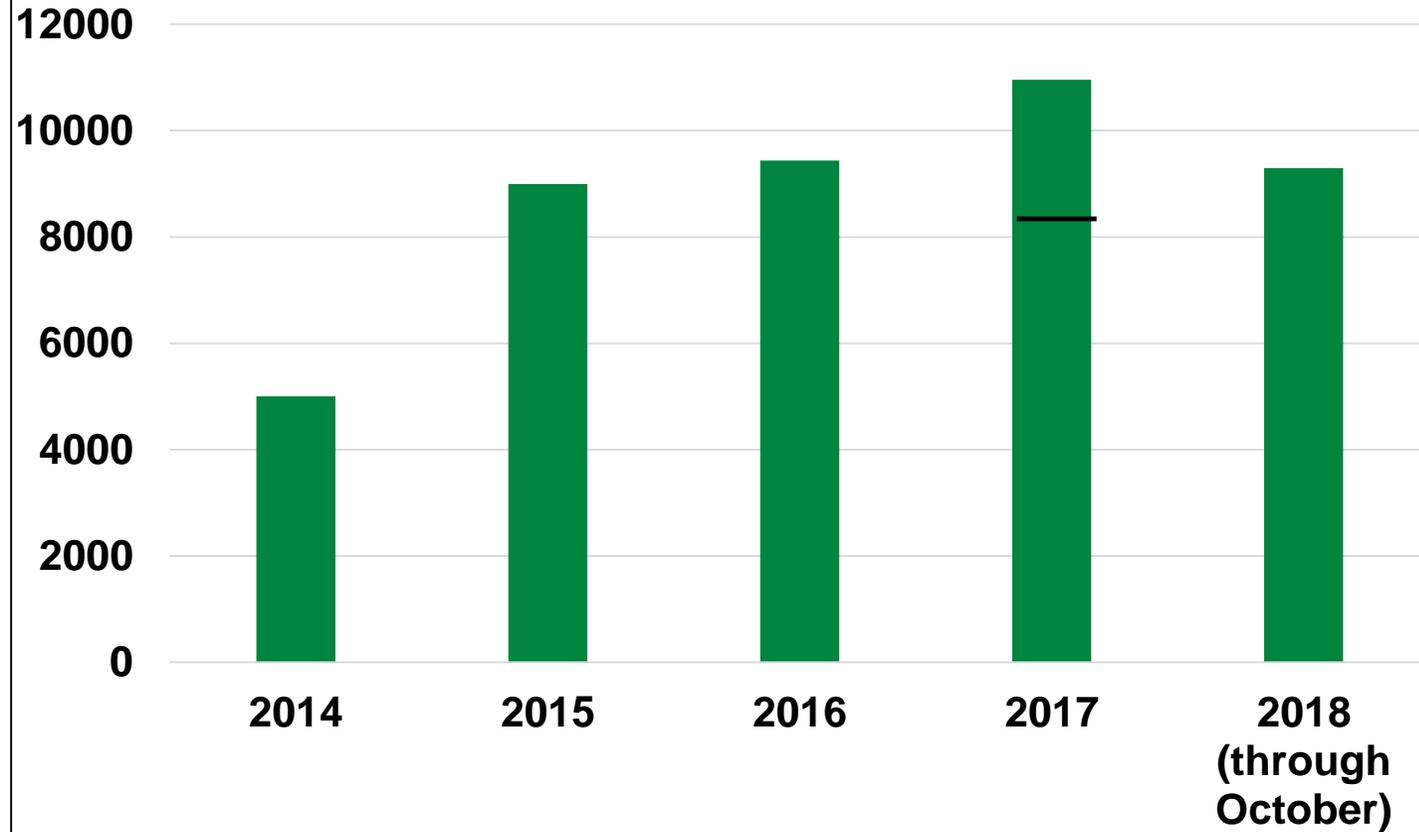


SET-OUT



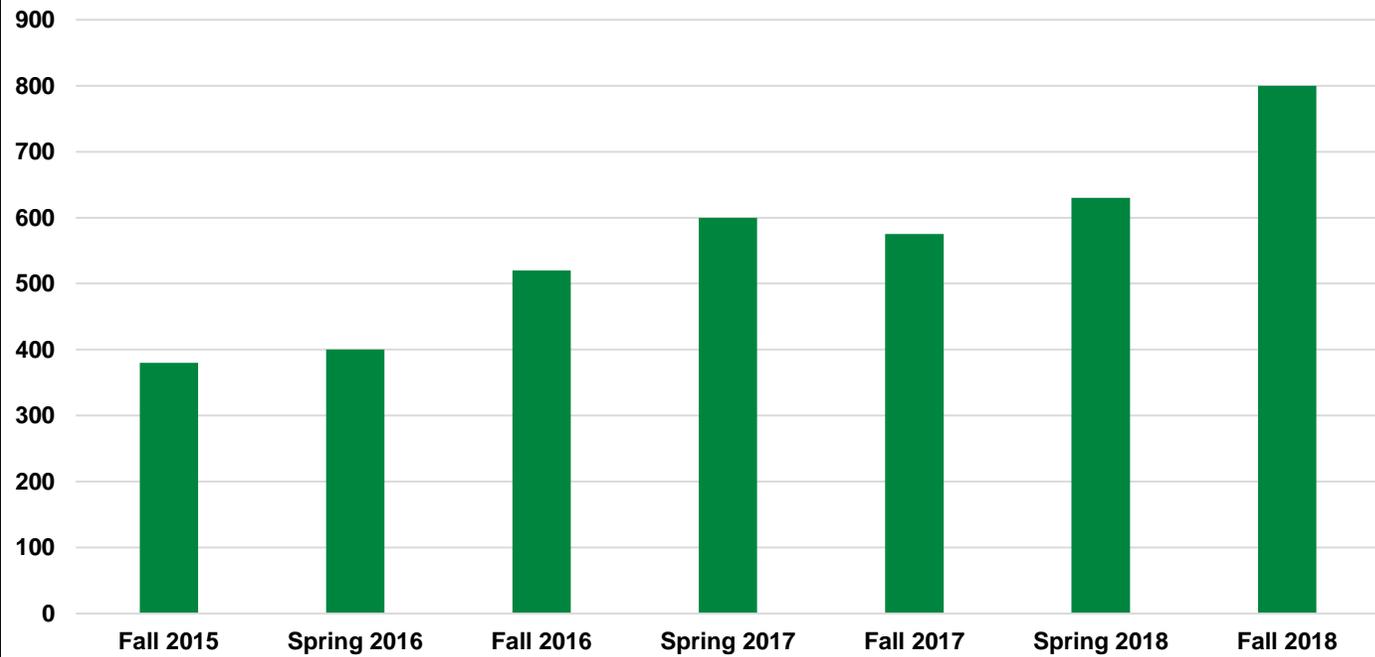
PICK-UP

Bulky Item Appointments



WMAC Services — Free Compost

Compost Giveaway Attendance



FREE COMPOST

SATURDAY, OCTOBER 20
8 - 11 AM
TENNYSON HIGH SCHOOL

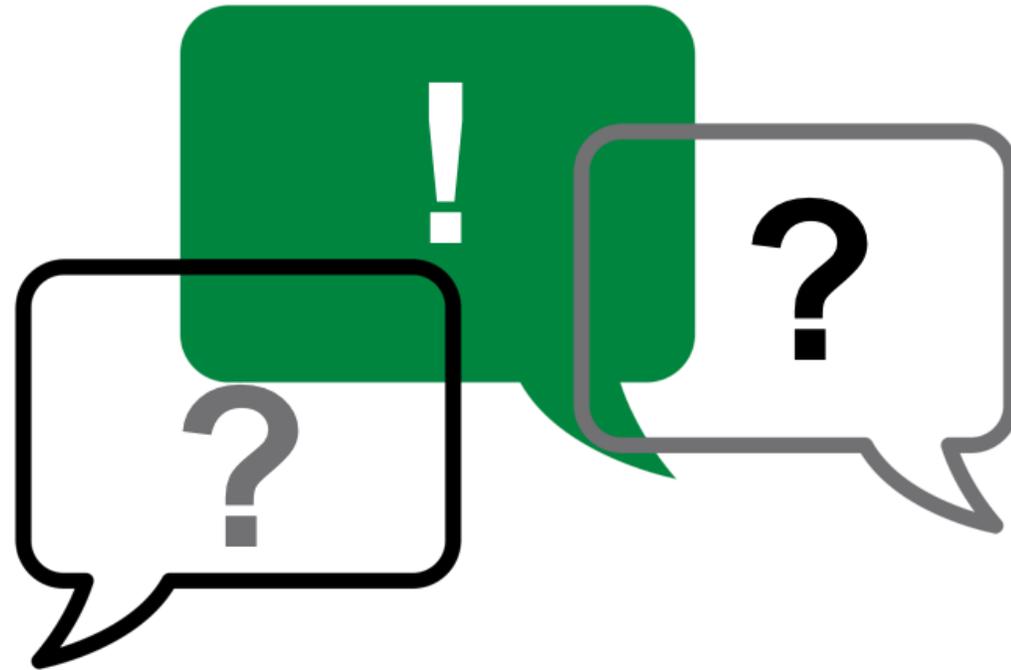
HAYWARD



Next Steps

- Rates
 - CPI-Based Rate Setting - 2019
- Continue Outreach

Questions



PRESENTATION

SUSTAINABILITY GUIDELINES FOR SPECIAL EVENTS

MONDAY, JANUARY 14, 2019

Sustainability Guidelines for Special Events

Council Sustainability Committee

January 14, 2019



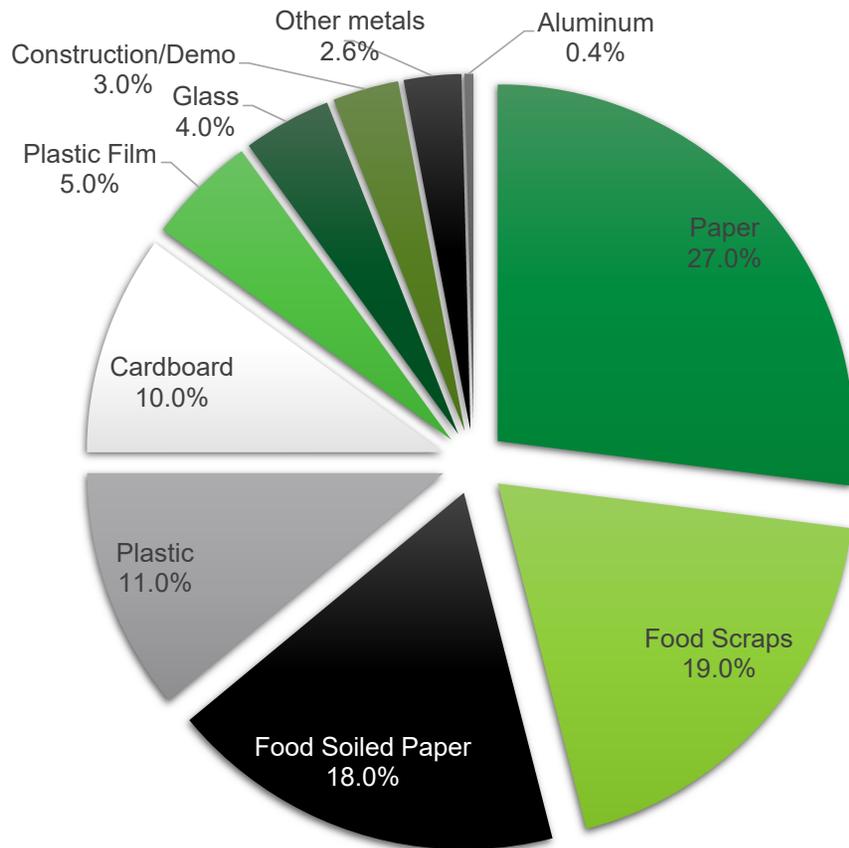
Legislation



- ❖ AB 2176
 - ❖ Applies to 2,000+ attendees
- ❖ Hayward's Rules & Regulations

Waste at Special Events

CIWMB Waste Audit Results



64% Compostable
25% Recyclable
10% Landfill

Proposed Changes

- ❖ Required: signage on waste, recyclables, and organics receptacles.
- ❖ Strengthened wording around the purchase of compostable or recyclable food and beverage serving ware by vendors.
 - ❖ Suggested: Use paper-based compostable food and dishware.
- ❖ Including outreach language regarding travel to special events via public transportation.

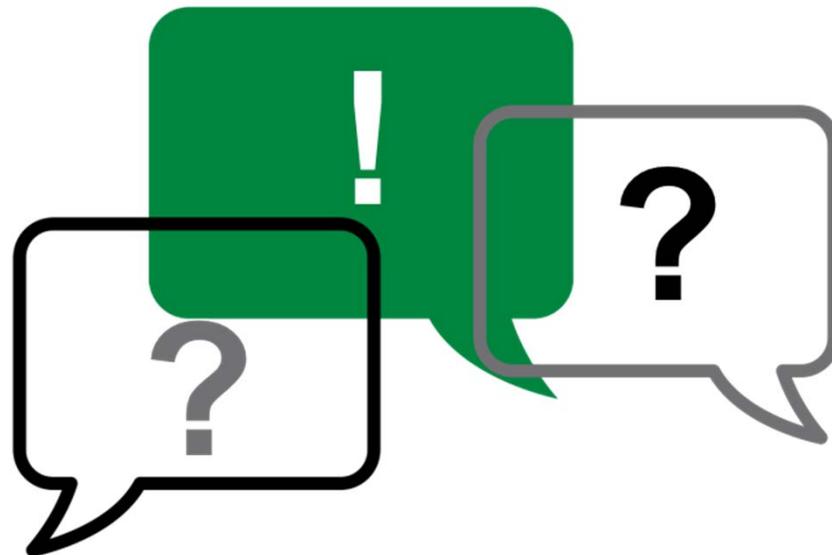
Sustainability Guide



Next Steps

- ❖ Update Hayward's Special Events Rules and Regulations on the website.
- ❖ Finalize and publish the Sustainability Guidelines for Special Events.

Questions



PRESENTATION

PROPOSED AMENDMENTS TO THE 2009 WATER SUPPLY AGREEMENT WITH THE CITY AND COUNTY OF SAN FRANCISCO

MONDAY, JANUARY 14, 2019

Proposed Amendments to the 2009 Water Supply Agreement with San Francisco

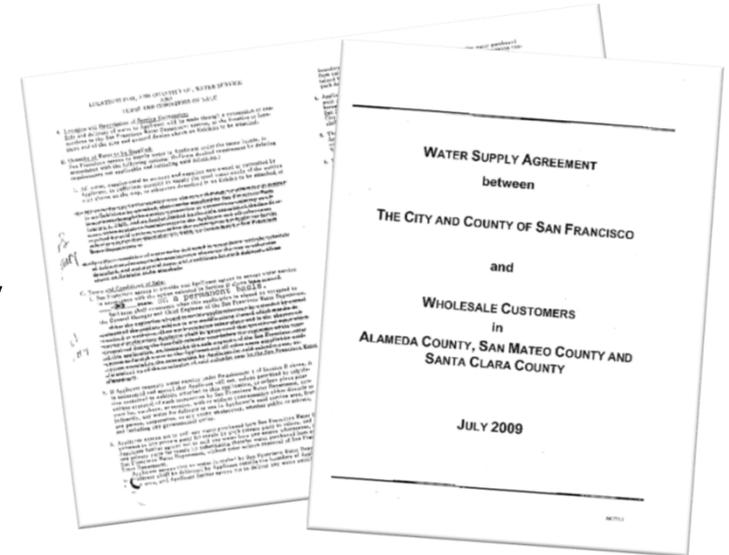
Council Sustainability Committee

January 14, 2019



Background

- Water Agreements
 - 1962 individual water sales agreement
 - 2009 Water Supply Agreement (WSA)
- Bay Area Water Supply and Conservation Agency (BAWSCA)
 - Represents interests of 26 wholesale customers
 - Administers 2009 Water Supply Agreement
- Proposed WSA Amendments
 - Issues have arisen during contract implementation
 - Hayward delegated authority to BAWSCA to negotiate amendments to WSA



Proposed Amendments

Proposed WSA Amendments of Primary Interest to BAWSCA	Description
1. Tier 1 Drought Allocation	Change to existing formula to require minimum 5% cutback by SFPUC's retail customers.
2. SFPUC 2018 Decisions Regarding San Jose and Santa Clara and Permanent Customers	Extension of SFPUC's decisions to December 31, 2028. Also extends notification for potential termination for San Jose and Santa Clara from 5 years to 10 years.
3. Oversight of SFPUC's Capital Improvement Program	Establishes formal process to allow BAWSCA to provide input into development of SFPUC's 10-year Capital Improvement Program.
4. Asset Classification	Final classification of certain SFPUC assets that have been part of negotiations since 2013. Changes ensure that wholesale customers pay only for the water supply benefits provided by the assets.

Proposed Amendments (cont.)

Proposed WSA Amendments of Primary Interest to SFPUC	Description
5. Wholesale Capital Fund	Shortened intervals for reconciliation of planned versus actual allocation of revenue funded capital expenditures from five years to annually.
6. Water System Improvement Program (WSIP) Completion Date	Revised WSIP completion date to December 30, 2021.
7. Regional Groundwater Storage & Recovery Project (RGSRP)	Updated WSA language to provide additional detail regarding operation and allocation of capital and operating costs for the RGSRP.

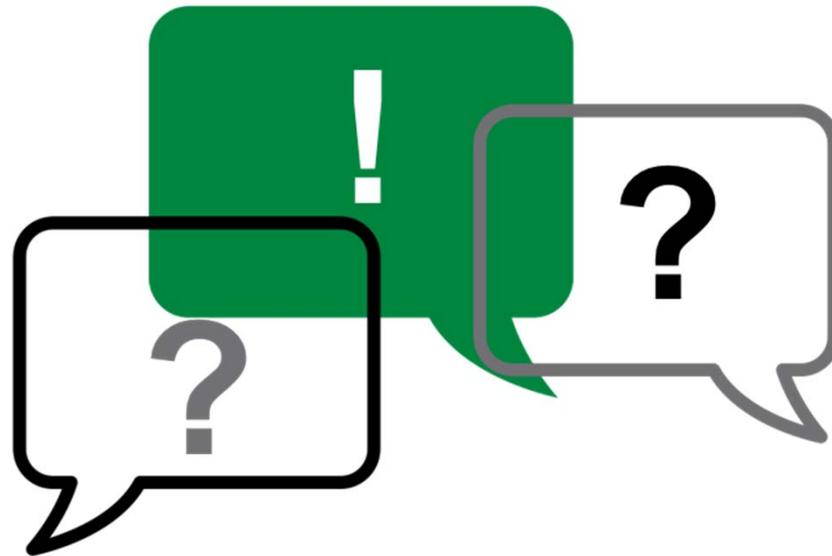
Recommended Action

- Recommend to Council approval of proposed WSA amendments

Minimum Purchase Issue

- Four BAWSCA agencies have contractual requirement to purchase minimum quantity of water
- Potential changes could result in impacts to other member agencies
- BAWSCA and SFPUC committed to addressing minimum purchase requirement as part of future amendment
- Staff recommends omitting language related to this separate issue in draft Hayward resolution approving WSA amendments

Questions



PRESENTATION

PROPOSED 2019 AGENDA PLANNING CALENDAR

MONDAY, JANUARY 14, 2019

Proposed 2019 Agenda Planning Calendar

Council Sustainability Committee

January 14, 2019



Proposed 2019 Agenda Planning Calendar

March 11, 2019

PCB Management for Demolition Projects – Draft Ordinance

Plastic Straws & Utensils (depending on StopWaste action)

National Mayor's Challenge for Water Conservation (taking place April 1 – 30)

May 13, 2019

Pay-As-You-Save (PAYS) Program

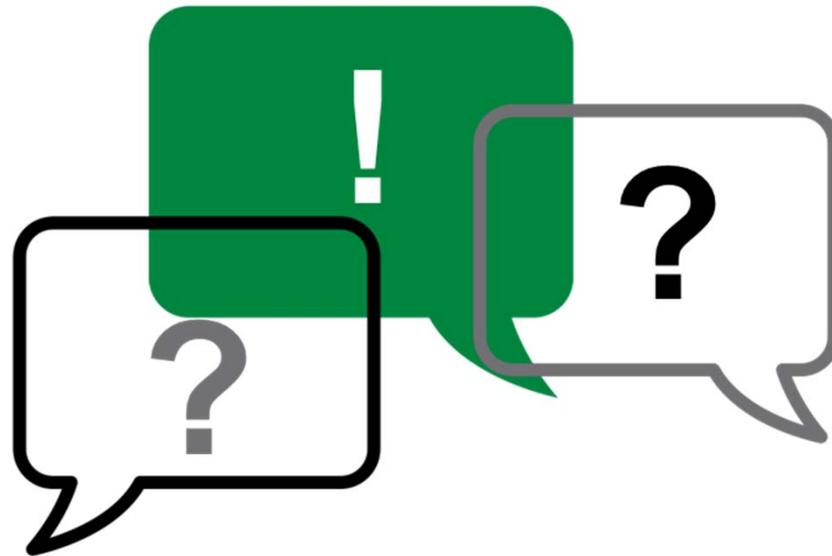
Long Term Water Conservation Framework

Draft Green Infrastructure Plan

Proposed 2019 Agenda Planning Calendar

Unscheduled Items
City Tree Inventory
Standard Conditions of Approval for New Development
Illegal Dumping (including update on What Works Cities project)
Greenhouse Gas Inventory Update
Sustainable Groundwater Plan
Multifamily Building Energy Efficiency (update on CEC grant-funded work by StopWaste)

Questions



END PRESENTATIONS

MONDAY, JANUARY 14, 2019