

#### SUSTAINABILITY COMMITTEE

#### Downtown Specific Plan & Sustainability



#### DEVELOPMENT SERVICES

Damon Golubics, Senior Planner

January 9, 2017



- November 15, 2016 Joint City Council/Planning Commission Work Session
- December 12, 2016 Downtown Specific Plan Task Force Meeting #1
- January 4 & 5 2017 Stakeholder Interviews
- ► January 23, 2017 Task Force Meeting #2
- January 25 or 26, 2017 Community Workshop #1



Connectivity & Mobility

Sustainable Landscaping

Sustainable Infrastructure Improvements

Higher Density Development



#### PROJECT APPROACH AND PUBLIC







Santa Monica Zero Net Energy - First of its kind in the world. The update to the City's Municipal Green Building Ordinance states:

- Single Family/Duplexes/Low-rise Multi-family Dwellings shall be designed to use fifteen (15%) less energy that the allowed energy budget established by the 2016 California Energy Code, and achieve an Energy Design Rating of Zero
- High-rise Multi-family Dwellings and Non-residential, Hotel, Motel shall be designed to use ten percent (10%) less energy than the allowed energy budget established by the 2016 California Energy Code.

#### Discussion



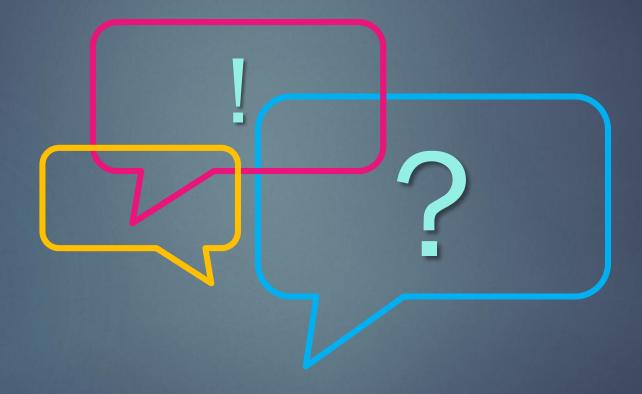
What sustainability ideas or components should be incorporated into the Downtown Specific Plan?

Are there particular focus areas the Committee would like the consultant team and City staff to focus or concentrate on?

What would be on your ideal sustainability "wish list" if cost were not a consideration?

### Discussion









#### Sustainable Groundwater Management Act: Groundwater Sustainability Agency Formation Options UTILITIES & ENVIRONMENTAL SERVICES

Jan Lee Water Resources Manager

January 9, 2017

#### Sustainable Groundwater Management Act (SGMA)



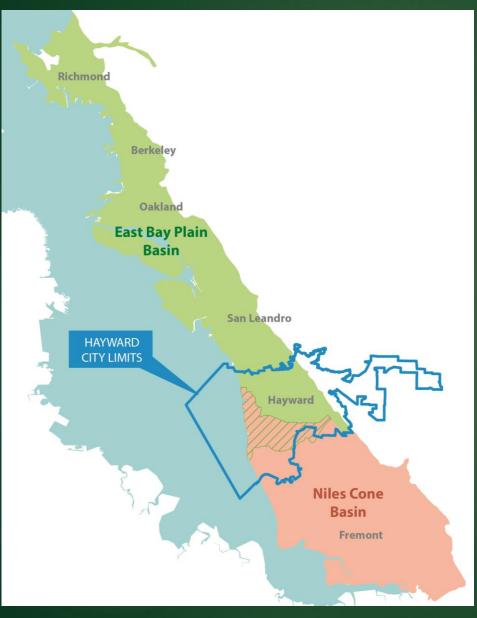
- Sustainable groundwater management at <u>local</u> level
  - Groundwater Sustainability Agencies (GSAs)
  - Groundwater Sustainability Plans (GSPs)
- Applies to medium- or highpriority basins
- Replaces voluntary groundwater management plans



"A central feature of these bills is the recognition that groundwater management in California is best accomplished locally."

Governor Jerry Brown, September 2014

#### Relevance of SGMA to Hayward



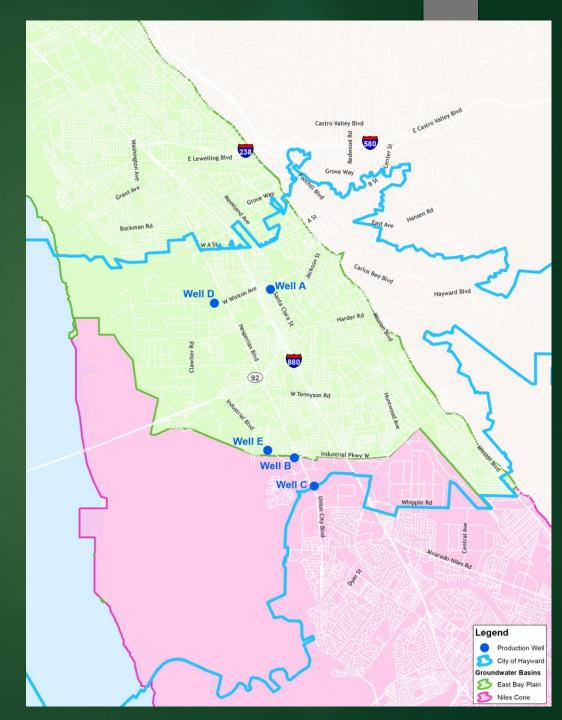


 Groundwater management and authority

Long history of groundwater use

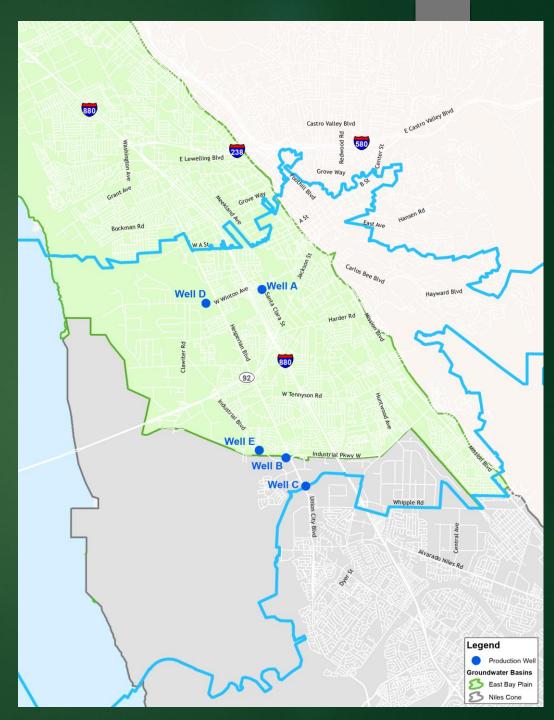
- Emergency wells
- Medium-priority groundwater basins
  - East Bay Plain Basin (EBPB)
  - Niles Cone Basin

New law requires GSA formation by June 30, 2017



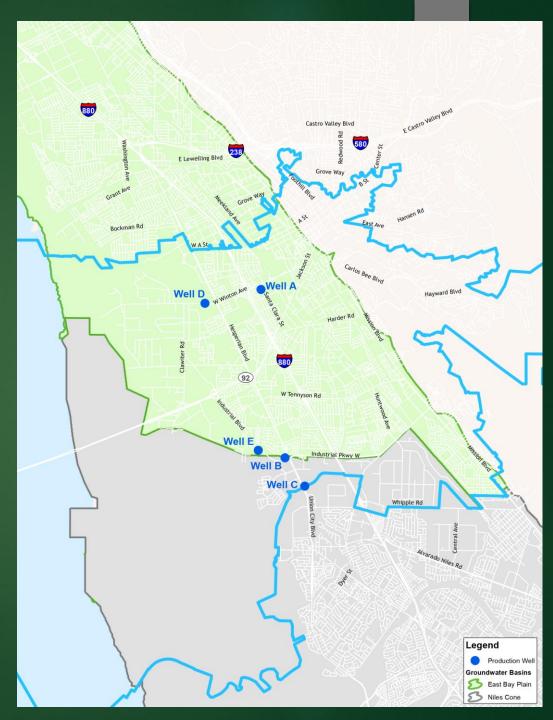
#### Niles Cone Basin

- New law designates ACWD as exclusive agency to manage groundwater
- ACWD is exclusive GSA for Niles Cone Basin
- ACWD submittal of Alternative Plans
- Hayward stakeholder involvement



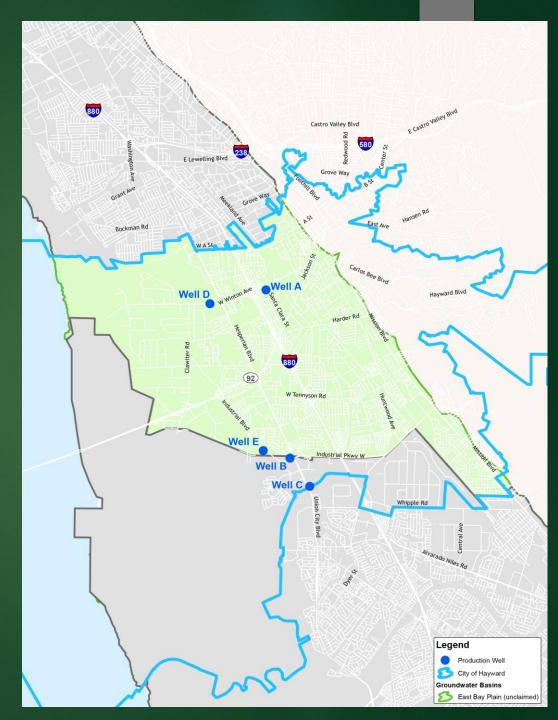
#### East Bay Plain Basin

EBMUD GSA for portion of basin underlying EBMUD service area



#### East Bay Plain Basin

- EBMUD GSA for portion of basin underlying EBMUD service area
- Hayward option to be GSA for portion of basin underlying City
- Submit application by early March 2017



#### GSP Options for East Bay Plain



- Submit to DWR by January 31, 2022
- Options
  - 1. Multiple GSPs
  - 2. Joint Hayward-EBMUD GSP
- Preliminary discussions with EBMUD



#### Public Contact



Stakeholder meeting held December 12

- EBMUD, ACWD, Alameda County, Department of Water Resources
- Outreach to large groundwater users within Hayward and neighboring agencies
- Interested parties list that will be used for notification and to ensure regular communication

#### Schedule



Action	Date
Stakeholder outreach	December 2016
CSC Recommendation to Council	January 9, 2017
Public hearing and Council consideration	February 7, 2017
Submittal of GSA application to DWR	February 2017
90-day notification period	March - May, 2017
GSA approval by DWR	June 2017

#### Recommendations



- Recommend to City Council that City become a Groundwater Sustainability Agency for portion of East Bay Plain Basin underlying City
- 2. Continue discussions with EBMUD on preparation of a joint Groundwater Sustainability Plan

#### Questions & Discussion









# **Compact of Mayors**

#### **UTILITIES & ENVIRONMENTAL SERVICES**

Chris Sturken CivicSpark Fellow

January 9, 2017

### What is the Compact of Mayors?



A network of cities and local governments around the world which—

Take inventory of greenhouse gas emissions

Set emissions reductions targets

Assess and adapt to climate change risks

Increase accountability



Image courtesy of Compact of Mayors

### Why Join?



# Reaffirm commitments Enhance Hayward's image



Image Courtesy of Sustainability Studies @ Roosevelt University

### Phases of Compliance



Phase 1: Letter of Intent Prepared for signature Phase 2: GHG Inventory 2005 & 2010 inventories completed, 2015 in progress

Image courtesy of Compact of Mayors

ARGE

- Phase 3: Assess Climate Change Risks
  - Fulfilled by the Local Hazard Mitigation Plan (LHMP) & Climate Action Plan (CAP)
- Phase 4: Planning
  - Fulfilled by the LHMP & CAP

#### Next Steps



#### With a Committee recommendation, Staff will bring this item before Council.



Image courtesy of https://twitter.com/compactofmayo rs

#### Questions & Discussion





Contact Info: chris.sturken@Hayward-ca.gov, 510 583 4726





#### Drinking Water Quality Update UTILITIES & ENVIRONMENTAL SERVICES

Jan Lee Water Resources Manager

January 9, 2017



### Upcoming Lead Testing in Schools



State effort to learn more about potential occurrence of lead in schools

Amended permit

Sampling for lead in schools (K-12)

Unique sampling plans

Communication



### Mountain Tunnel Shutdown



Mountain Tunnel shutdown began December 29

- No deliveries from Hetch Hetchy system through early March
- Supply from local reservoirs
- Differences in water quality
- Public outreach



Photo courtesy of the San Francisco Chronicle

#### Questions & Discussion









### Regional Energy Programs

#### **UTILITIES & ENVIRONMENTAL SERVICES**

Erik Pearson Environmental Services Manager

January 9, 2017

### Energy Efficiency Programs



- Alameda County Energy Council
- East Bay Energy Watch
- Bay Area Regional Energy Network (BayREN)

### Alameda County Energy Council



- Single-Family and Multifamily Retrofits
- Innovative Financing
- Labeling and Recognition Programs
- Codes & Standards
- GHG Inventories



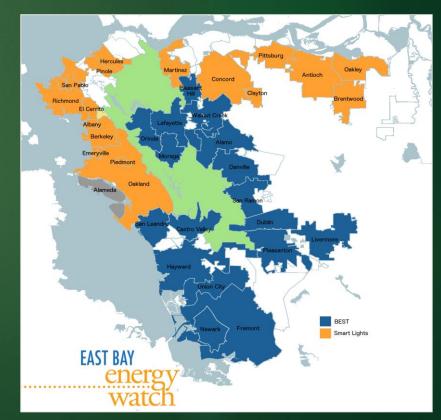


## East Bay Energy Watch

Programs:

- Civic Spark
- Municipal Implementation Team
- California Youth Energy Services
- BEST & Smart Lights









Programs:

- Home Upgrade Advisor
- Bay Area Multi-Family Building Enhancement
- PACE Outreach
- PAYS





#### Next Steps



- Staff will Continue to Participate with Regional Programs
- Coordination with East Bay Community Energy
- CPUC Approval of Ten-Year Business Plan

### Questions & Discussion









### Semi-Annual Update on City's Waste Reduction and Recycling Programs

### UTILITIES & ENVIRONMENTAL SERVICES

Jeff Krump Solid Waste Program Manager

January 9, 2017



### **Diversion Goals**

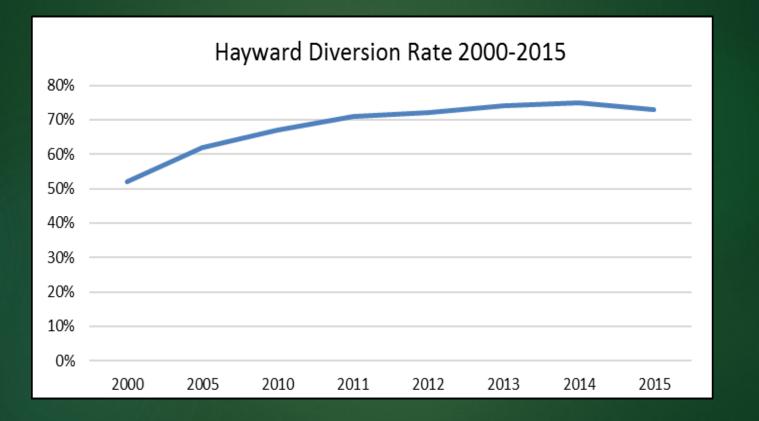
- State = Requires Diversion of 50%
- ACWMA = Goal of 75% Diversion by 2010
- Hayward = Goal of 75% Diversion by 2010, and 80% Diversion by 2018

### Mandatory Recycling Ordinance

- Phase 2 Effective January 2016
- Requires Businesses and Multi-Family Dwellings to Recycle and Sort Organics

Diversion



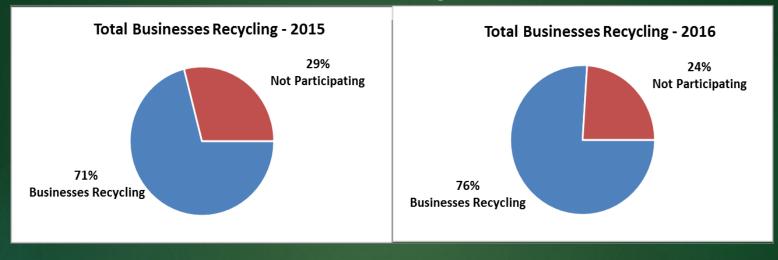


2015 Diversion = 73%

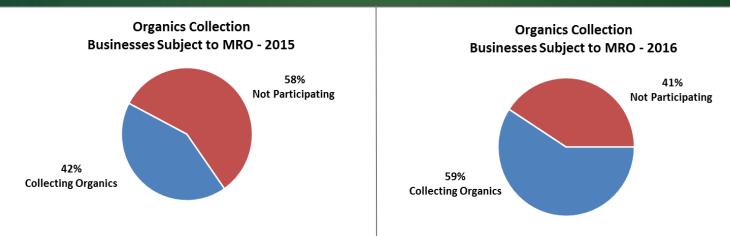
### MRO Compliance - Businesses



#### Recycling



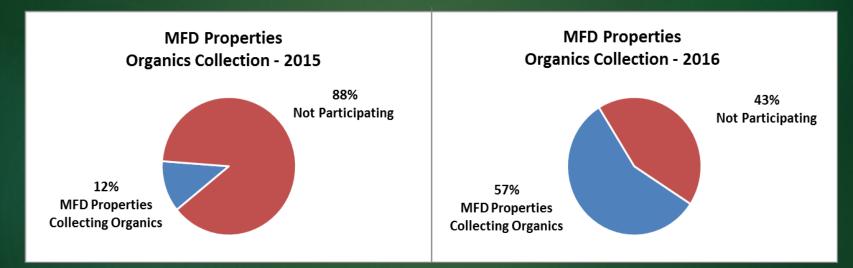
Organics



### MRO Compliance - Multi-Family



### Organics



## WMAC Services – Free Compost









# WMAC Services – Bulky Items



SFD Bulky Item Appointments







## WMAC Performance



Franchise Recovery Rate – contractual benchmark

Currently about 37% - goal 50% for 2016

Timeframe	Required Franchise Recovery Rate
Calendar Year (2015)	46%
Calendar Year (2016)	50%
Calendar Year (2017)	54%
Rate Period 4 (2018)	58%
Rate Period 5 (2019)	62%
Rate Period 6 (2020)	66%
Rate Period 7 (2021)	70%
Rate Period 8 (2022)	74%
Rate Period 9 (2023)	78%
Rate Period 10 (2024)	80%

## Next Steps



Rates
 3% Rate Increase - March 2017
 Cost-Based Rate Setting - 2018

C&D Ordinance Update - 2017

Bulky Item Report – March 2017

## Questions & Discussion









### **Update on PACE**

### UTILITIES & ENVIRONMENTAL SERVICES

January 9, 2017

# PACE Participation (As of Dec 2016)



PACE Provider	Applications Approved	Potential Value of Approved Applications	Finished projects	Value of Finished Projects
	401		154	¢ 4 120 105
California FIRST	401	\$11,094,404	154	\$4,130,105
HERO	122	\$11,100,000	_00_	\$1,100,000
Program			89	
Ygrene				
Funding	ND	ND	51	\$841,633
Figtree				
Financing	ND		1	\$71,000
Clean Fund	7	\$5,579,000	0	
Alliance NRG	0		0	
PACE Funding	0		0	
TOTAL	530	<b>\$27,773,404</b>	295	\$6,142,738

# PARTICIPATION NUMBERS **PACE IN HAYWARD** As of December, 2016



### COMPLETED PROJECTS

295 energy and water projects with a value of over \$6 million

### WATER CONSERVED

Over 8 million gallons of water over the life of the projects



### **EMISSION REDUCTIONS**

Over 7,700 metric tons of greenhouse gas emissions over the life of the projects



### ENERGY SAVINGS

That's equivalent to powering 1,142 homes or removing 1,633 cars off the road for one year

## Questions & Discussion







### City of Hayward CAP Implementation

January 9, 2016

Gilee Corral CivicSpark AmeriCorps Fellow







# Project highlights

- Launch SEEC ClearPath platform
  - Upload 2005 and 2010 inventories
  - Upload 2011 to 2015 utility data
- Lucid BuildingOS platform launch
- Data visualization and reporting
- Volunteer project: GRID Alternatives





### SEEC ClearPath project

Passenger Vehicles - Gasoline VMT E	missions							
Factor Sets		Tags						
Fansportation		😠 Passenger Vehicles Gasoline						
2010 Transportation Factor set	•							
		Information Only						
3rid Electricity PG&E 2010								
Inputs								
inputs	Value		Units					
Record Type								
Use the following fields to set th calculation.	ne type of record you are	accounting for and how yo	u are approaching the					
Calculation Method	On-Road Factor	•						
VMT Location	In-Boundary	•						
Travel Type	Passenger	•						
Fuel Type	Gasoline	•						
Input Data Use the following fields to comp	plete the record							
VMT D	951323348,770421		Annual VMT					
Fuel Use			Gallons					
CO2 On Road Average Emissions Factor	415.854084342203		g CO2 / Mie					
CH4 On Road Average Emissions Factor	0.02		g CH4 / Mie					
N2O On Road Average Emissions Factor	0.017		g N2O / Mie					
Population	145090		People					

	or data entered onto SEEC ClearPath for the City of Hayward's 2010 community greenhouse gas inventory: http://clearpath.californiaseec.
Date inventory completed:	11/22/2016
Prepared by:	Gilian Corral, CivicSpark AmeriCorps Fellow
Vorkbook Contents:	
	List of most of the data points in the ClearPath inventory with sources, units, and explanation of how figures were
Sources and Logic	calculated.
Residential Energy Outputs	Output report generated by ClearPath - details of inventory records.
Commercial Energy Outputs	Output report generated by ClearPath - details of inventory records.
nergy Calculations	Electricity and natural gas data, emissions factors, and calculations for residential and commercial sectors.
Transportation Outputs	Output report generated by ClearPath - details of inventory records.
	How diesel and gasoline percentages were calculated for the transportation section. Links to "Gasoline Emissions
uel Breakdown Reference	Calculations" and "Diesel Emissions Calculations".
asoline Emissions Calculations	Transportation data, emissions factors, and calculations for gasoline passenger cars, buses, and commercial vehicles.
iesel Emissions Calculations	Transportation data, emissions factors, and calculations for diesel passenger cars, buses, and commercial vehicles.
	Charts taken from StopWaste's Community Master Data Workbook for 2010, "Off-Road Fuel Working Data" tab. Used for
ff-Road Reference Chart	Off-Road data inputs.
ff-Road Calculations	Off-road vehicle exhaust emissions data and ClearPath emissions calculations.
ail Calculations	Inputs and emissions calculations for BART and Amtrak.
Air Travel Emissions	Inputs and emissions calculations for Hayward Executive Airport air travel.
olid Waste Outputs	Output report generated by ClearPath - details of inventory records.
Vaste Calculations	Waste data, emissions factor, and emissions output figure.
Vater & Wastewater Outputs	Output report generated by ClearPath - details of inventory records.
	Data related to the Water Pollution Control Facility and treatment of wastewater: process and fugitive emissions, as well
VPCF Calculations	as energy usage at the WPCF (information item).
	Data related to the transportation of water: East Bay Dischargers Authority / Marina Disinfection Facility, pumps and
Vater Up & Downstream Calc	irrigation, wastewater transportation and discharge.
emographic Data	Population and household data.
	This tab compares emissions and activity totals among three reports on 2010 community greenhouse gas data:
	StopWaste's 2010 Inventory, Ascent's report associated with the General Plan, and my calculations when running the raw
Reconciliation	data through the SEEC ClearPath platform.

Community Greenhouse Gas Inventory Guide Using SEEC ClearPath

Completed December 2016 for the City of Hayward Environmental Services Office GILIAN CORRAL, CIVICSPARK AMERICORPS FELLOW

#### http://clearpath.californiaseec.org/users/sign\_in





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### **A ClearPath to Emissions Reduction**

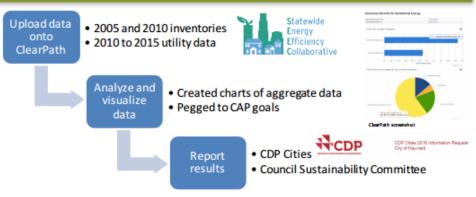


City of Hayward – Utilities & Environmental Services

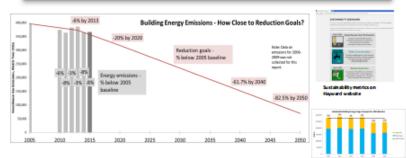
#### How close are we to meeting climate action goals?

As part of its Climate Action Plan (CAP), the City of Hayward completed a baseline greenhouse gas inventory in 2005, with an update in 2010. Data was stored in spreadsheets and obsolete software. Staff needed a way to bring the data up-to-date and report on progress towards the City's climate action goals.

The aim of the project was to modernize the City of Hayward's data collection and analysis process utilizing the Statewide Energy Efficiency Commission (SEEC) ClearPath platform.



#### Results



#### **Project benefits**

#### Informed decision making

· Presented inventory report to the Council Sustainability Committee

#### Transparency

- Submitted 2016 carbon disclosure report to CDP Cities
- · Provided metrics for display on City's new green portal

#### Saved staff time

- Streamlined data collection and analysis process
- · Easier access to summary data for reporting



Gilian Corral joined CivicSpark to get her hands dirty with greenhouse gas emissions data in the name of climate action. She is happiest with a mocha and a new data platform to explore. With a background in community development and M.S. in Comparative Politics at the London School of Economics, she plans to leverage her AmeriCorps experience in the sustainability field as an analyst.

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Local Government Commission

## Lucid BuildingOS platform launch

#### Heat Map Analysis







#### https://buildingos.com/login http://www.hayward-ca.gov/content/city-hall-energy-performance





### Sorting out meter data

		Building		÷			1		Verificat			÷	Best Guess			Outdated	Outdate
	Site Adress	or Section	Electricit		Label 1	🔨 Label 2		Verification	ion	Verification Source		SmartMeter		Share My Data Statu	d Col T	e <sup>on</sup> e <del>v</del>	on Diatai
Property 🍡 🎦 Animal Shelter and	Site Adress	- Section	orgas	по туре	Account ID # (from	Label Z	Source I	PG&E Accounts	Source	venification Source	Hate L	<i>2</i> •	SAID •	Data Statt	SAL	Energys	Duilding
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Landscape Division			elec	Meter ID #	Portfolio Manager	EnergyStar										N	N
Animal Shelter and				Portfolio Manager		BuildingOS											
Landscape Division			gas	Meter ID #	Portfolio Manager	EnergyStar										N	N
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City Hall				Account Number	PG&E Accounts Li:	st) (sa_acot_id)		List									
City Hall			elec	Meter ID			Meter photo	PG&E Accounts L	is Bills	PG&E Portfolio Manager B	B∉RESBCTB	UNSURE	Y	Integrated			
				Meter ID				D0054									
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uty Hall				[sa_service_prem_	D			PG&E Accounts									
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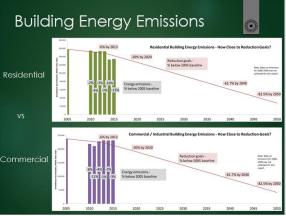


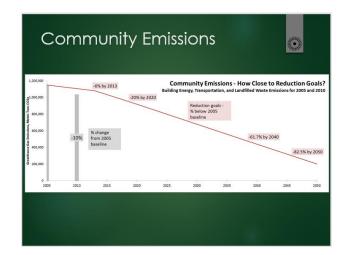


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### Staff report on GHG inventory







File #:	RPT 16-068		
Section:	Informational Report	Status:	Agenda Ready
		Meeting Body:	Council Sustainability Committee
Agenda Date:	7/11/2016	Final action:	
Subject:	Community Greenhouse Gas Inv	entory Update: Building Energ	y Usage and Emissions Data, 2005 - 2015
Attachments:	1. Attachment I 2005 and 2010 0	GHG Inventory Comparison Ch	art, 2. Attachment II Building Energy Emissi
History (1)	over Memo Text		
DATE: July 1:	1, 2016		
TO: Counc	il Sustainability Committee		

FROM: Director of Utilities and Environmental Services

#### SUBJECT

Community Greenhouse Gas Inventory Undate: Building Energy Usage and Emissions Data, 2005 - 2015

#### RECOMMENDATION

That the Committee reviews and comments on this repor

#### BACKGROUND

Greenhouse gas (GHG) inventories are prepared to assess progress toward the emissions reduction goals of Hay network of cities and regions), the City of Hayward follows ICLEI's protocol for developing GHG inventories. ICLE 2005 Baseline: Cataloged municipal and community (city-wide) emissions and established a baselin-

2010 Inventory: Municipal and community emissions with a 2005 / 2010 comparison. Sectors cove 2015 Inventory: To be completed once transportation data becomes available (expected by early 20

Partial inventory data on energy consumption and emissions are periodically presented to give a snapshot of pro reports from 2012 and 2011 are available at <a href="http://www.howard-ca.gov/your-environment/green-government">http://www.howard-ca.gov/your-environment/green-government</a> natural gas usage and related emissions for 2010 - 2015, compared to the 2005 Baseline.

General Plan policies and programs related to reducing GHG emissions and building energy consumption inclu-

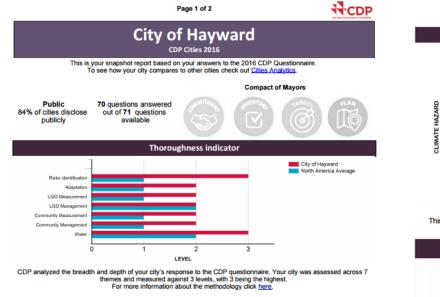
Policy NR-2.4 Community Greenhouse Gas Reduction - The City shall work with the community to reduce com-

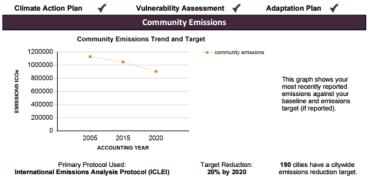
Program NR 7. Energy Reduction Initiative and Annual Report - The City shall develop and implement a public evaluate and report to the City Council annually on the community's progress in achieving the 10% goal, an



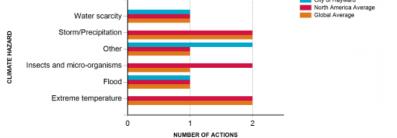
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### CDP Cities 2016 report



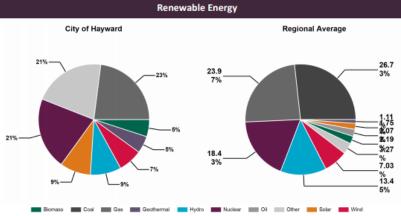


### Climate Hazards and Adaptation Actions Number of Adaptation Actions by Climate Hazard City of Hayward



Page 2 of 2

This chart shows the number of adaptation actions reported by your city compared to the region and global average.



Cities consume 78% of energy globally. 35% of cities report that already more than 75% of their electricity is from non-fossil fuel sources.



+-CDP

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### **GRID** Alternatives canvassing event



Photo credit: Mary Thomas







### **Adventures!**





Photo credit: Samantha Carr



Photo credit: Hayward website







## Accomplishments

- Launch SEEC ClearPath platform
  - Uploaded 2005 & 2010 Community inventories
  - Created a 30+ page guide to ClearPath for staff
- Lucid BuildingOS platform launch
  - Achieved meter integrations for elec & gas for every facility
  - Photos of (nearly) all meters for BuildingOS facilities
  - Staff training and assistance in leveraging EnergyStar Portfolio Manager
- Data visualization and reporting
  - Prepared and presented 2016 GHG Inventory Update to CSC
  - Provided metrics for <u>Sustainability Dashboard</u>
  - Poster displayed at CivicSpark Graduation ceremony and on <u>LGC website</u>
- Volunteer project: GRID Alternatives
  - Co-organized with GRID their first ever canvassing event in Hayward
  - 12 volunteers visited est. 200 houses, provided fliers & info to homeowners

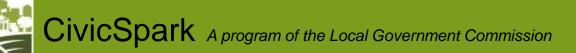








Photo credit: Local Government Commission

# **Gilee Corral**

Twitter: @giliancorral Linkedin.com/in/giliancorral



