

**CITY COUNCIL MEETING  
TUESDAY, DECEMBER 6, 2016**

**PRESENTATIONS**

**Presentations**

**Funabashi Trip**



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## CITY MANAGER'S OFFICE

David Korth, Assistant to the City Manager  
Neighborhood Services Manager

December 6, 2016

Funabashi City



**Cultural Exchange**

**Educational Exchange**

**Economic Development Exchange**

**30<sup>th</sup> Anniversary Trip  
Funabashi, Japan**

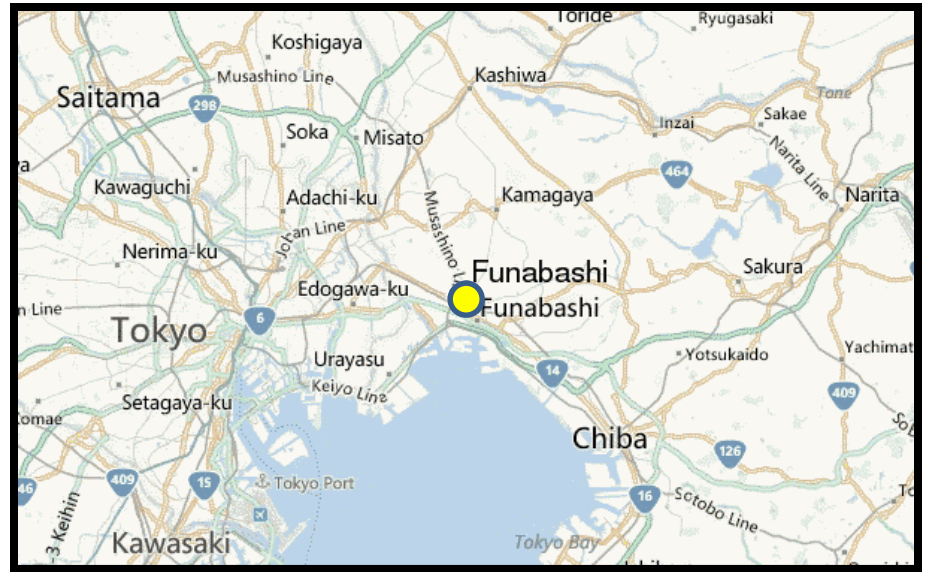
**October 20-28, 2016**



# 30<sup>th</sup> Anniversary Trip

## Funabashi, Japan

October 20-28, 2016



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

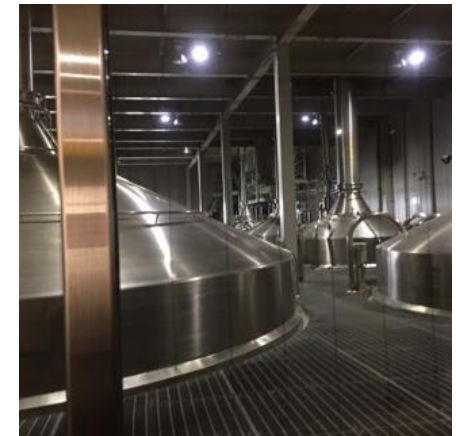
## Funabashi / Hayward Friendship Club Welcome Dinner



## Culture Exchange



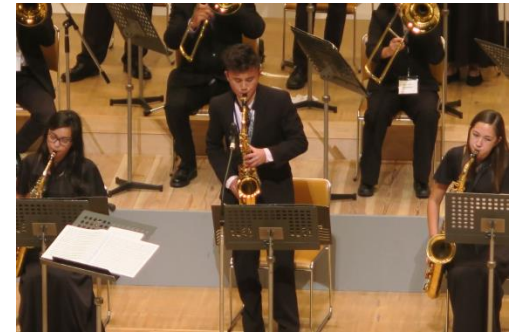
# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

## Funabashi Music Street Festival



Cultural  
Exchange





# 30<sup>th</sup> Anniversary Trip

## Funabashi, Japan

October 20-28, 2016



Cultural  
Exchange



# 30<sup>th</sup> Anniversary Trip

## Funabashi, Japan

October 20-28, 2016



Educational  
Exchange



# 30<sup>th</sup> Anniversary Trip

## Funabashi, Japan

October 20-28, 2016



Educational  
Exchange



# Educational Exchange

## 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016



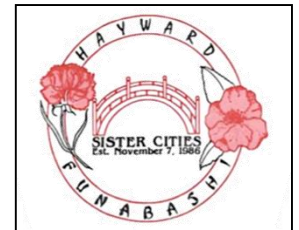
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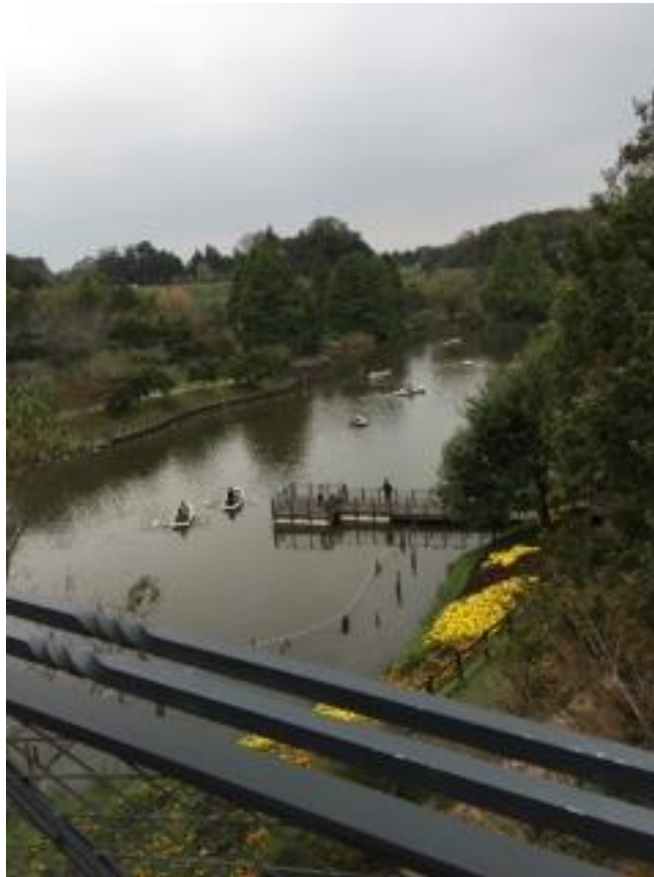
# Educational Exchange

## 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016



**30<sup>th</sup> Anniversary Trip**  
**Funabashi, Japan**  
October 20-28, 2016

**H.C. Anderson Park**



**Cultural  
Exchange**



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## H.C. Anderson Park



Cultural  
Exchange





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Cultural  
Exchange



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

## Funabashi City Mayor's Welcome Dinner



Cultural  
Exchange



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October 20-28, 2016

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Cultural  
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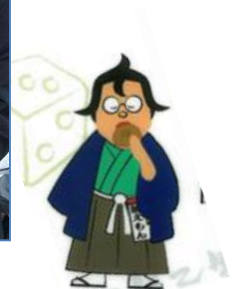


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Cultural  
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**Funabashi, Japan**  
October 20-28, 2016

**Funabashi City**  
**Tourist Association Volunteers**

Cultural  
Exchange



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016



Cultural  
Exchange



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016



Cultural  
Exchange







# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

Economic  
Development

## Kubota Factory Tour





# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## Economic Development

### Kubota Factory Tour

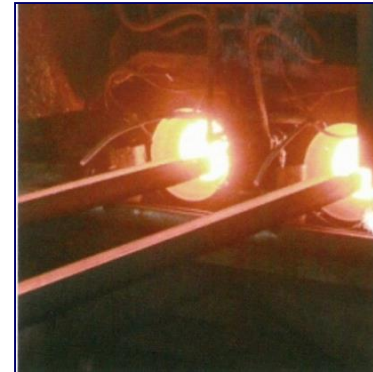
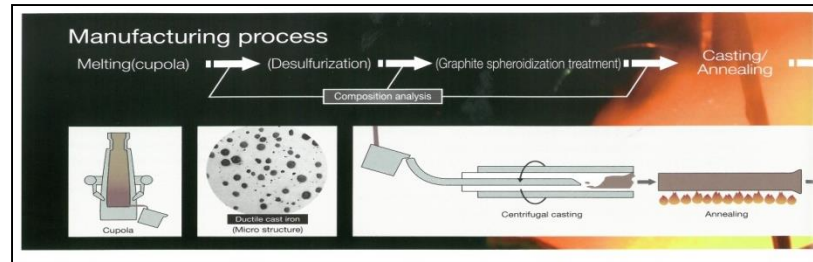




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## Economic Development

### Kubota Factory Tour





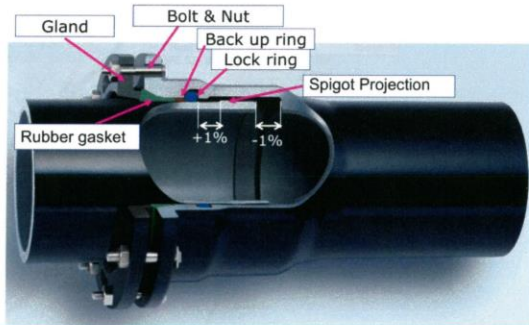
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## Economic Development

### Kubota Factory Tour



DN500(20")~1000(40") NS type joint (Pipe)



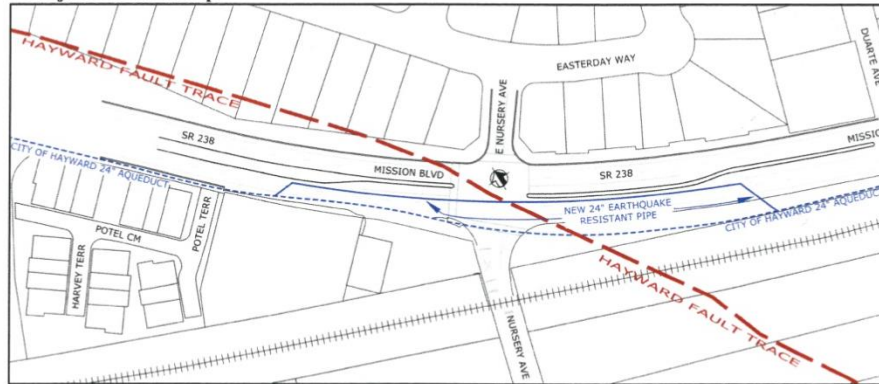


# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## Economic Development

### Kubota Factory Tour

Project Location Map



Kubota 24" ERDIP Manufactured for Hayward





# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## Economic Development

### Funabashi Fish Market





# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

## Funabashi Fish Market

Economic  
Development





# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## Economic Development

### Economic Development Forum







# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016

Economic  
Development

Economic Development Forum



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Economic  
Development

## 30<sup>th</sup> Anniversary Dinner





Educational  
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Economic  
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Cultural  
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Cultural  
Exchange

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October 20-28, 2016

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Cultural Exchange

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Economic Development

Educational Exchange



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## Cultural Exchange



## Economic Development



## Educational Exchange



# 30<sup>th</sup> Anniversary Trip Funabashi, Japan

October 20-28, 2016



Cultural  
Exchange

Educational  
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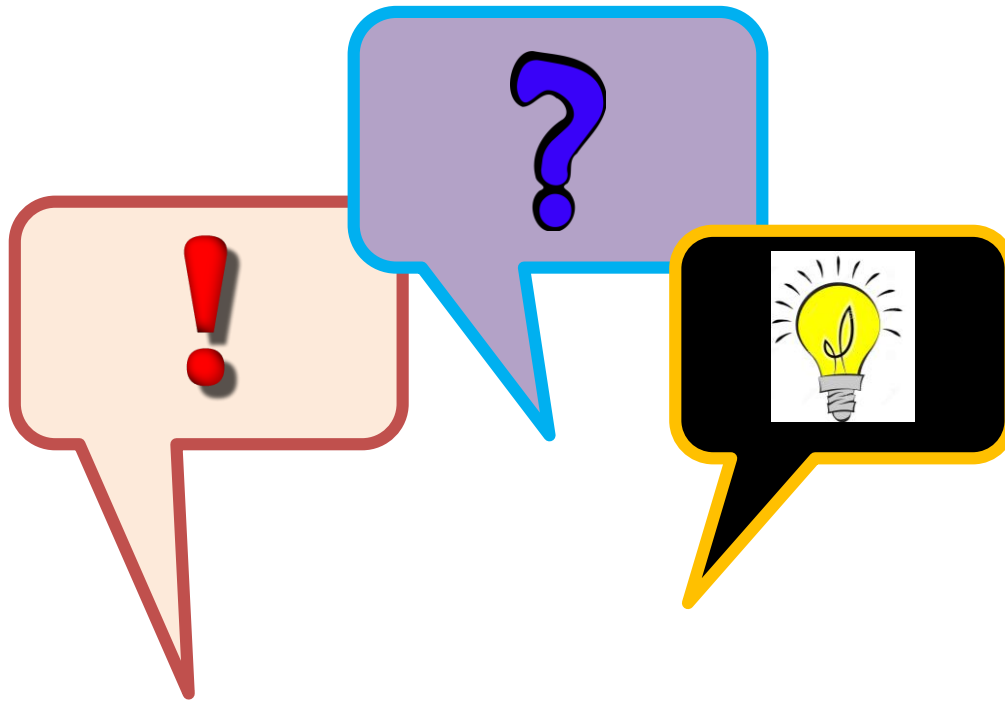
Economic  
Development



Thank you  
Ray Tsurumoto  
In fond memory of "Setsu" Tsurumoto



# Comments, Questions, Ideas:

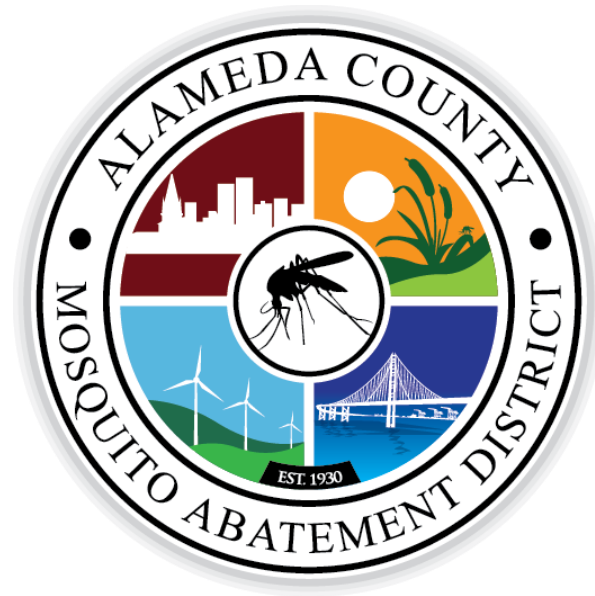


## **Presentations**

**Mosquitoes and the Diseases they Spread**  
**Ryan Clausnitzer, Mosquito Abatement District Manager**

# Mosquitoes and the diseases they spread

An Independent District Protecting Public Health  
*since 1930*



Hayward City Council Presentation 12/6/2016

# What we'll talk about today

- Overview of ACMAD
- Mosquito Biology
- Where mosquitoes breed
- Mosquito control
- Bugs transmitted by bugs
  - West Nile virus
    - Response plan
  - Zika virus
    - Response plan
- Mosquito breeding in the City of Hayward

# History and Overview

- Formed in 1930 as an Independent Special District
- Serves all cities and unincorporated areas of Alameda County, except for the City of Albany
- Governed by a board of 14 Trustees, appointed by their respective cities and the County-at-Large
- Three sources of revenue contribute to a balanced budget of \$3.9 million
  - Ad valorem tax (.0009% of 1% property tax)
  - 1983 Special Tax (\$1.72/per parcel)
  - 2008 Benefit Assessment (\$2.50, **never raised**)
- Fully-funded retiree health benefits, 85% funded pension, and debt free
- 16 full-time and six seasonal staff, with a full fleet of vehicles, aquaculture program, and a fully capable molecular laboratory at our Hayward facility
- 2016 recipient of the Special District Leadership Foundation's **District Transparency Certificate of Excellence**

# Mosquito Ecology, Biology, & Control



one of the most voracious predators of humans

- What do mosquitoes need?

Water:

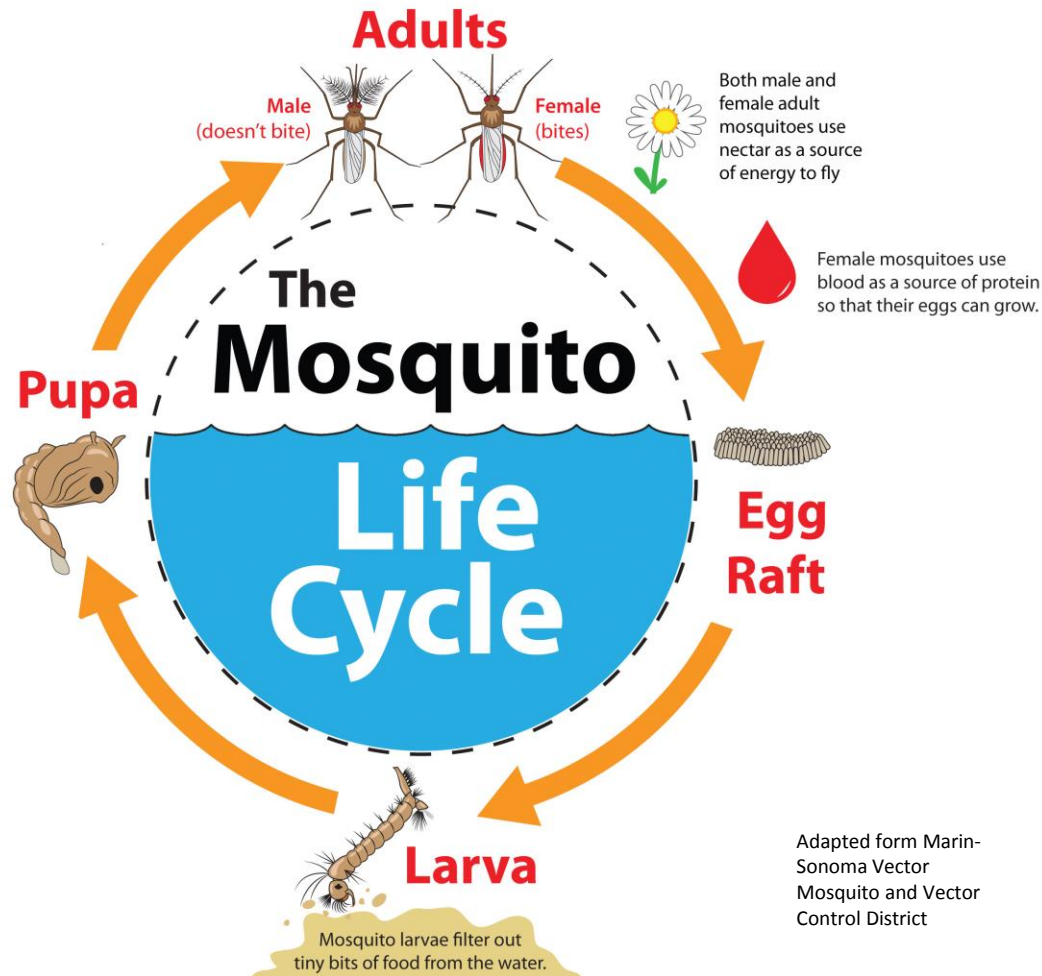
- Stagnant
  - *Culex pipiens* (common house mosquito)
- Clear:
  - *Aedes aegypti* (yellow fever mosquito)

1 – 2 weeks for growth:

- Depends on species

Blood:

- Typically birds, people, or other mammals

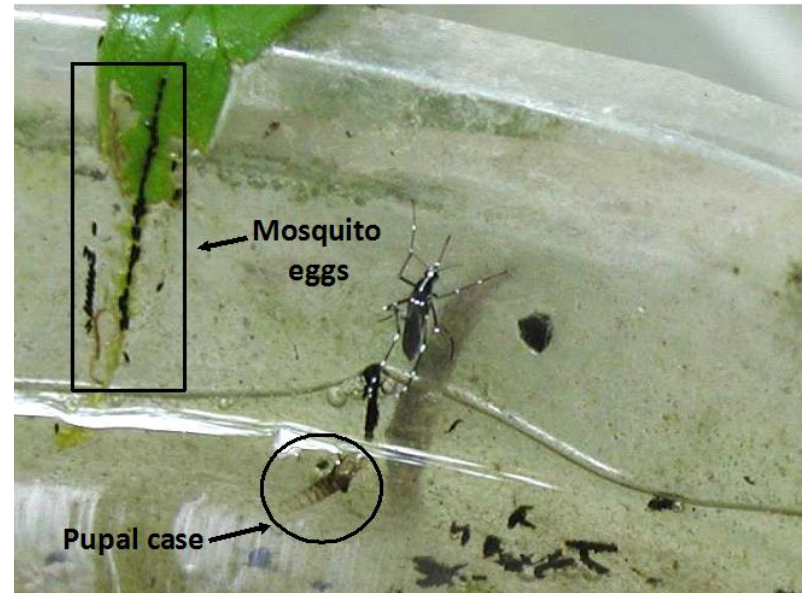




# Adult female mosquitoes need water to lay eggs



On the surface of water

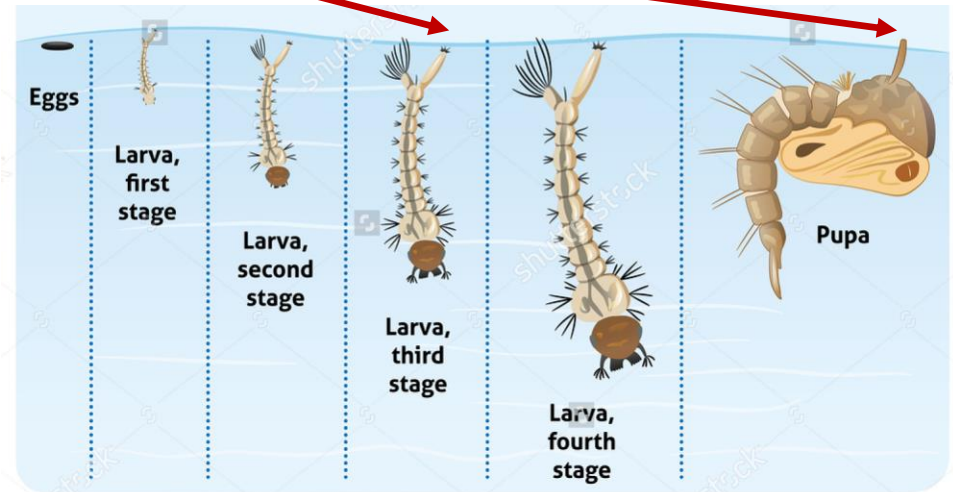


Near a spot that will fill with water

# Aquatic lifestyle

- Urban mosquitoes spend 1<sup>st</sup> 1 - 2 weeks as larvae or pupae
- Breathe air at the surface of water
  - Use a siphon tube for breathing
  - Ripples in the water prevent breathing

siphon tube



# Monitoring mosquito abundance



Dipping for mosquito larvae

# Larval mosquito management



3 oz of mineral oil placed into catch basins



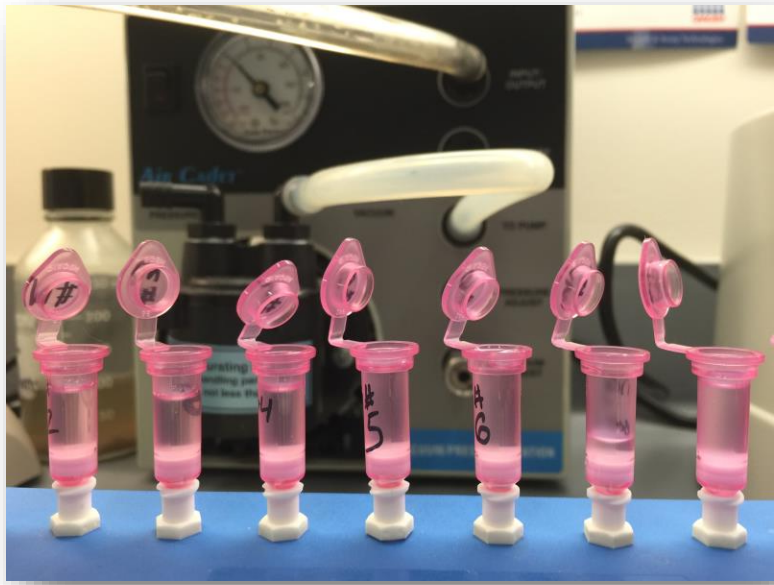
Biorational larvicide in marsh with breeding mosquitoes

# Mosquitofish: *Gambusia affinis*



- Eat a variety of aquatic insects and zooplankton
- Love to eat mosquito larva
- Relatively small
  - 1.5 – 3 inches
- Live in shallow fresh water
- Resilient to low oxygen levels
- Should not be introduced into natural habitats
  - streams, natural ponds

# Monitoring mosquito abundance and diseases they spread



Testing collected mosquitoes for human diseases



# Pathogens spread by mosquitoes of concern for Alameda County

the short list...

## Mosquito vector present in Alameda County:

- West Nile virus
- Western equine encephalitis virus
- Saint Louis encephalitis virus
- Dog heartworm
- Malaria

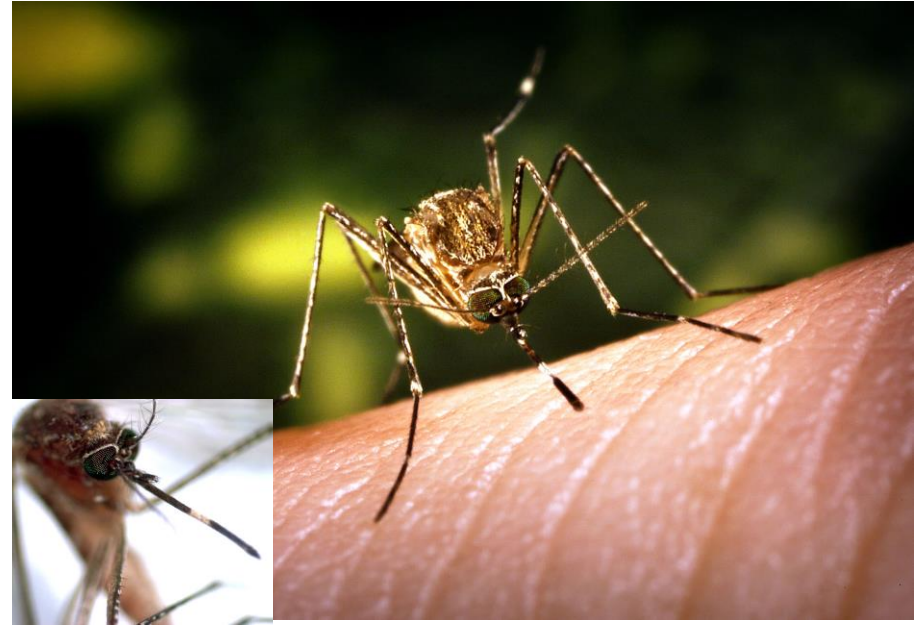
## Mosquito vector present in California:

- Zika virus
- Chikungunya virus
- Dengue virus
- Yellow fever virus

# Mosquitoes in the Bay Area that transmit West Nile virus



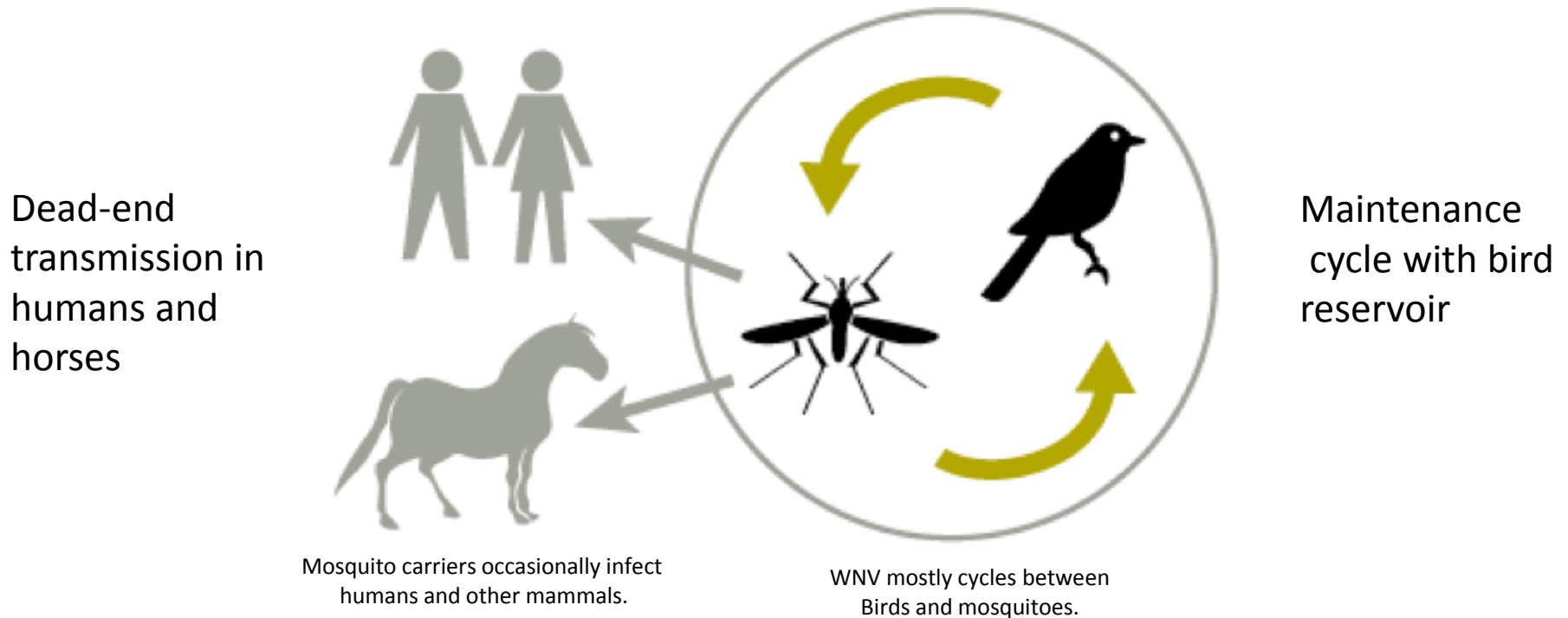
*Culex pipiens*:  
common house mosquito



*Culex tarsalis*:  
western encephalitis mosquito

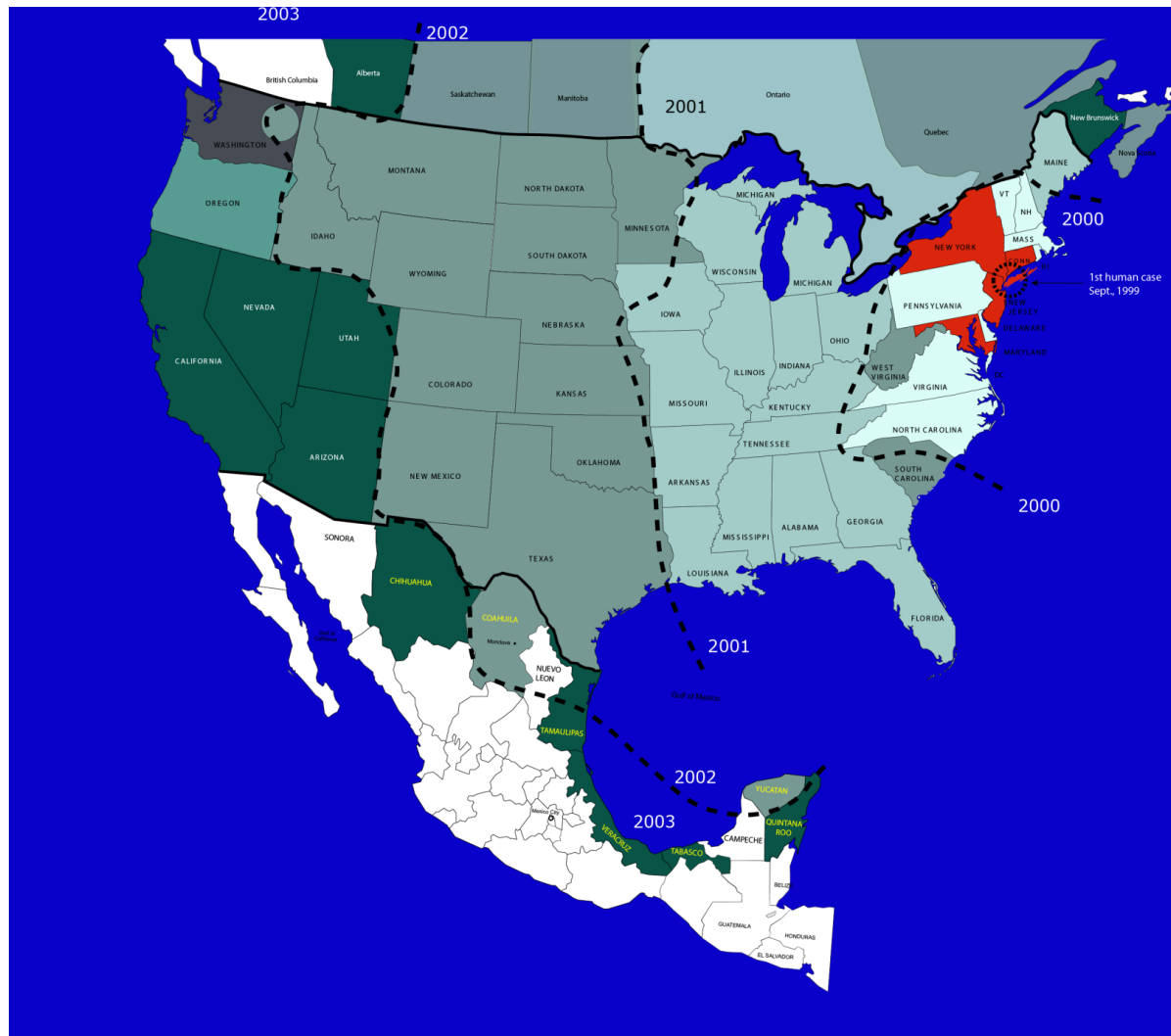


# West Nile virus transmission cycle



More than 138 bird species that can be infected, and more than 43 mosquito species can transmit WNV

# Rapid spread of West Nile virus across the US



# ACMAD's response plan to West Nile virus

- The District's response plan includes:
  - In house testing of reported dead birds
  - Focused surveillance and testing of all captured mosquitoes
  - Intensified inspections and treatments in areas with positive detections
  - Key notifications to the public through press releases, social media, and voluntary signup through the District website

# Mosquitoes that spread Zika virus

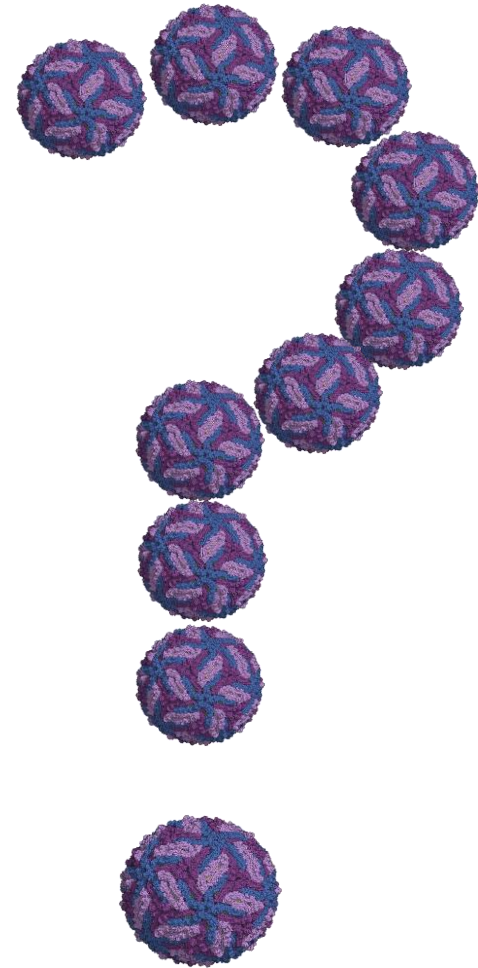


*Aedes aegypti*  
lyre-shaped pattern on thorax

*Aedes albopictus*  
bright lateral line on thorax

# Zika virus

- A lot still unknown
- Discovered in 1947 and named after the Zika Forest in Uganda
- Before 2007, only 14 cases documented
  - But likely many more
- In 2015, thousands of cases
- Transmitted by mosquitoes not native to Alameda County
- Causes rash, microcephaly, and linked to Guillain-Barre' syndrome



# How Zika virus spreads

## Other, less common ways, people get Zika:

### Most people get Zika from a mosquito bite



More members in the community become infected



A mosquito bites a person infected with Zika virus



The mosquito becomes infected



A mosquito will often live in a single house during its lifetime



More mosquitoes get infected and spread the virus



The infected mosquito bites a family member or neighbor and infects them



### During pregnancy

A pregnant woman can pass Zika virus to her fetus during pregnancy. Zika causes microcephaly, a severe birth defect that is a sign of incomplete brain development



### Through sex

Zika virus can be sexually transmitted by a man to his partners

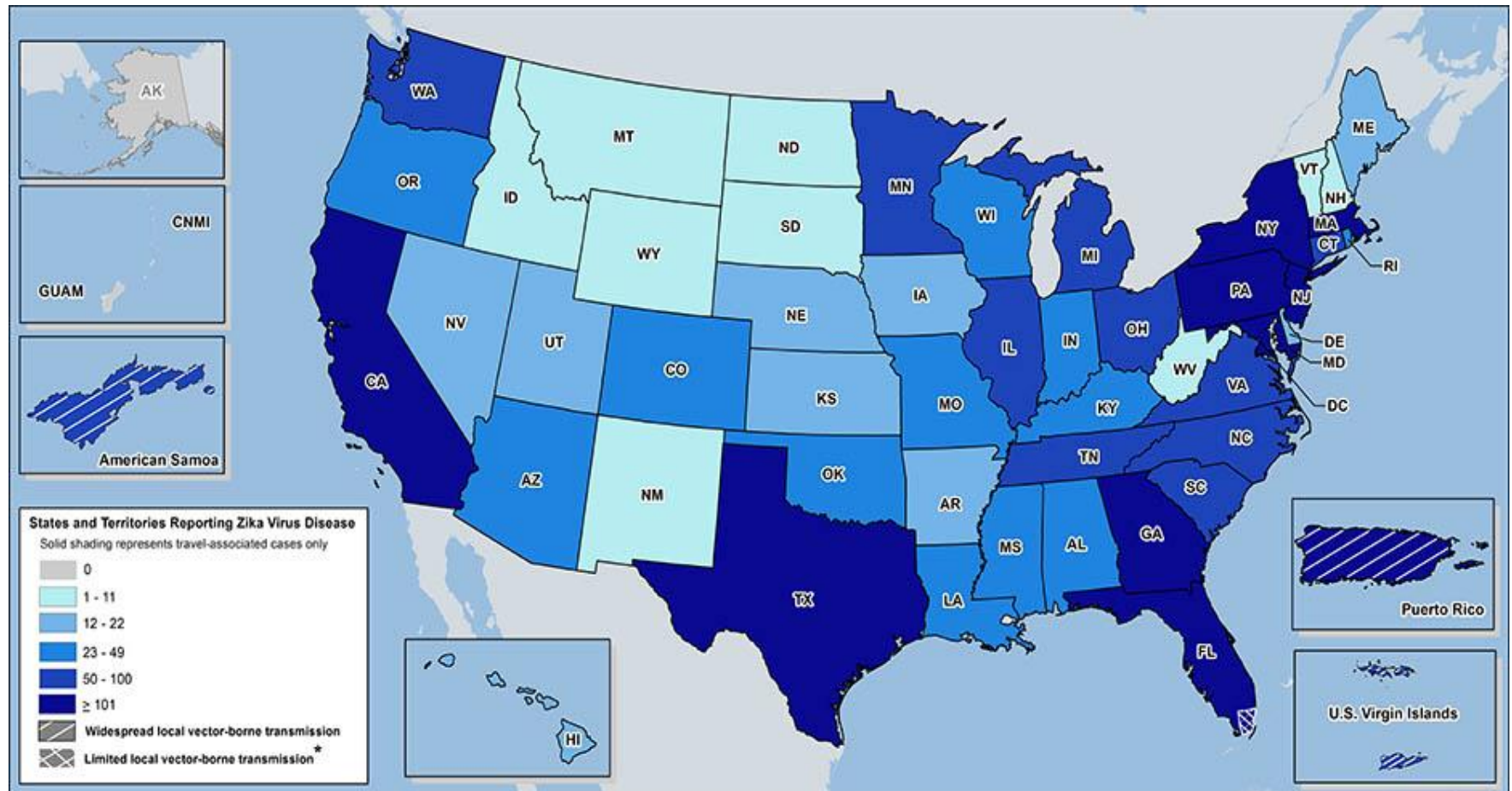


### Through blood transfusion

There is a strong possibility that Zika virus can be spread through blood transfusions



# Zika virus: cases reported in the US (as of 11/23/16)



# ACMAD's response plan to invasive *Aedes*

- The District's response plan includes:
  - Door to door inspection and treatments in confirmed detection areas
  - Expanded surveillance to monitor dispersion
  - Coordination with the Alameda County Public Health Department
  - Dissemination of information through press releases and social media
  - Cooperation with local volunteer groups (CERT) in order to collect more information



# Common Sources in the City of Hayward

- Shoreline:
  - freshwater marsh
  - Eden Landing
  - sewer ponds
- Holy Sepulcher Cemetery
- Don Castro
- Unmaintained swimming pools, catch basins, flood control channels
- Sky West Golf Course

# Contact us for no-cost services:

- mosquitoes biting
- mosquito fish
- advice for reducing mosquito breeding sites
  - at your house or workplace
- Report of standing water or neglected pool
- dead bird report
- educational presentation

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

(510) 783 – 7744

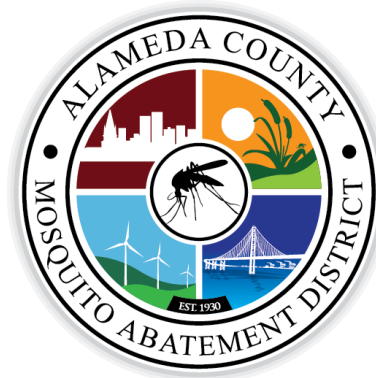
[acmad@mosquitoes.org](mailto:acmad@mosquitoes.org)

*Trustee: Elisa Marquez*

*Vector Control Technicians:*

*Jeremy Sette (east)*

*Miguel Cardenas (west)*



## **Funabashi Trip**



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## CITY MANAGER'S OFFICE

David Korth, Assistant to the City Manager  
Neighborhood Services Manager

December 6, 2016

Funabashi City



**Cultural  
Exchange**

**Educational  
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**Economic  
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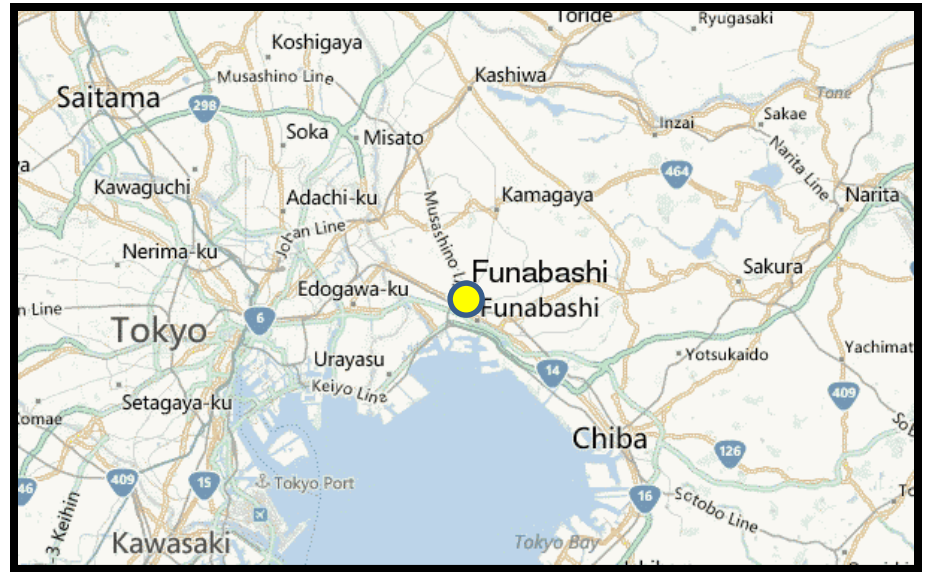
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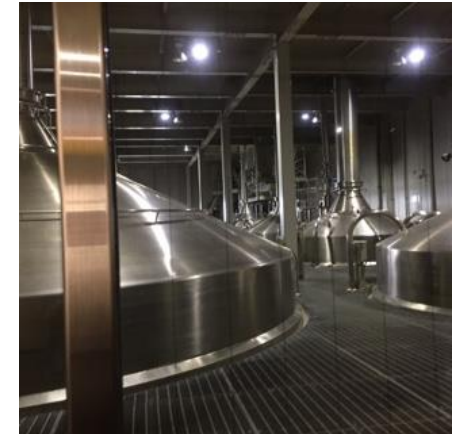
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# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016





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October 20-28, 2016

## Funabashi Music Street Festival



Cultural  
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# 30<sup>th</sup> Anniversary Trip

## Funabashi, Japan

October 20-28, 2016



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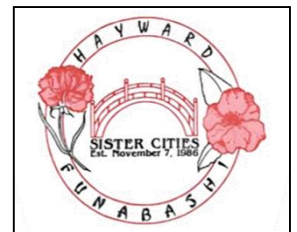
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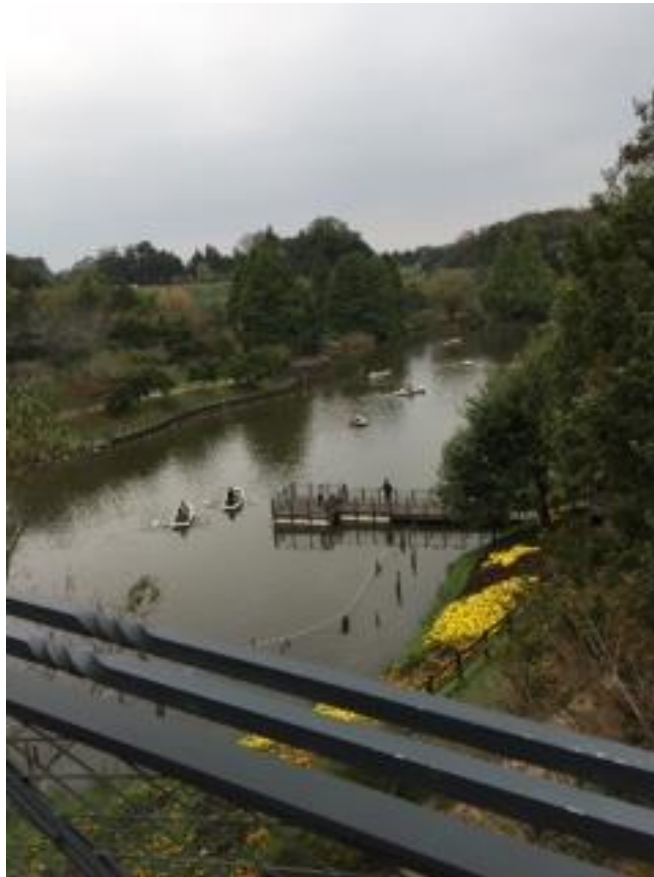
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## H.C. Anderson Park



Cultural  
Exchange



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## Funabashi, Japan

October 20-28, 2016

### Funabashi City Mayor's Welcome Dinner



Cultural  
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Cultural  
Exchange



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Economic  
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## Kubota Factory Tour





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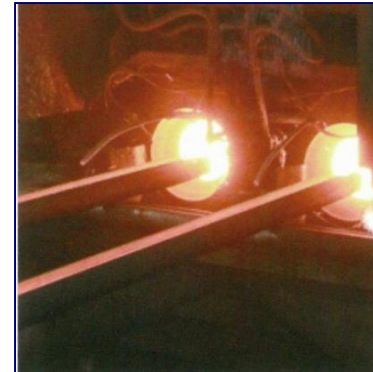
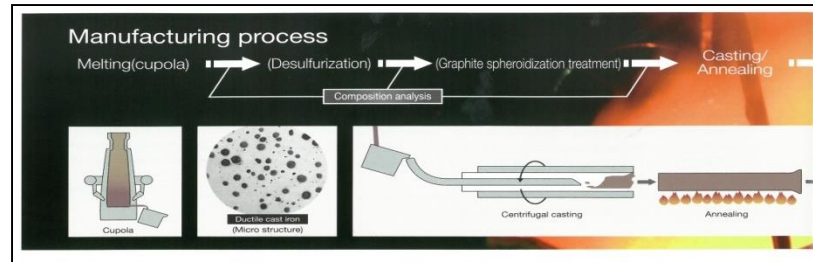




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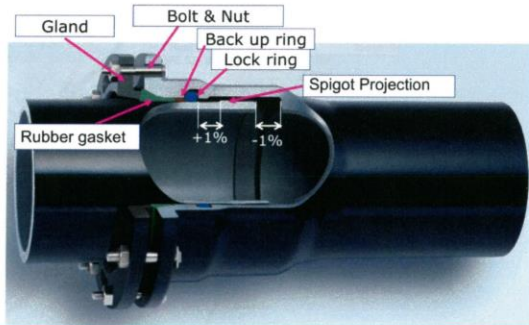
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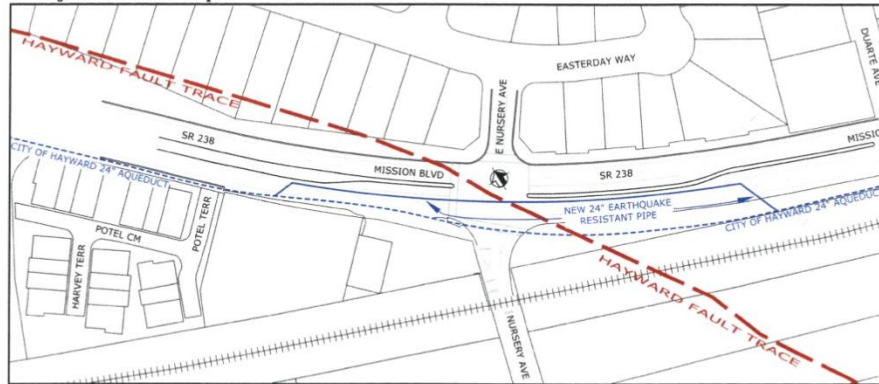


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### Kubota Factory Tour

Project Location Map



Kubota 24" ERDIP Manufactured for Hayward





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### Funabashi Fish Market





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October 20-28, 2016

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Economic  
Development







# 30<sup>th</sup> Anniversary Trip Funabashi, Japan October 20-28, 2016

## Economic Development

### Economic Development Forum





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October 20-28, 2016

Economic  
Development

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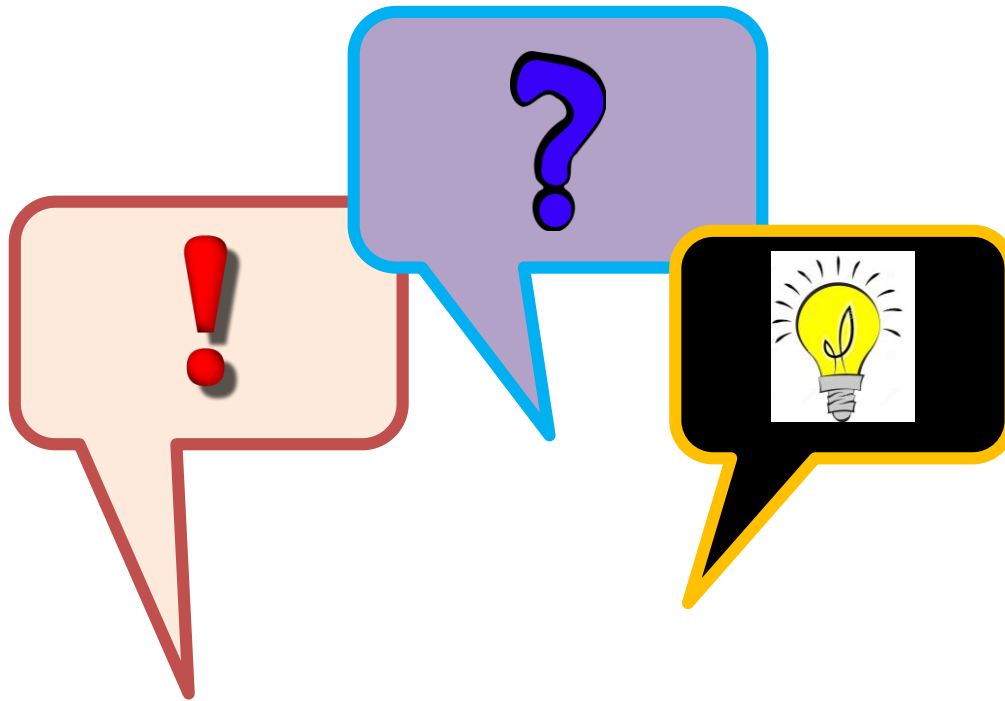
Economic  
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Thank you  
Ray Tsurumoto  
In fond memory of "Setsu" Tsurumoto



# Comments, Questions, Ideas:



**Item #7 WS 16-071**

**Review of the Hayward Promise Neighborhood Initiative**



# City of Hayward

CITY COUNCIL WORK SESSION

REVIEW OF THE HAYWARD PROMISE NEIGHBORHOOD INITIATIVE

DECEMBER 5, 2016

# Background - HPN

- ▶ Five year, \$25 million grant from U.S. Dept of Education to lead agency Cal State East Bay
- ▶ Grant period began in January, 2011; ends December, 2016
- ▶ HPN grant purpose was to provide “cradle to career” services in Jackson Triangle neighborhood
- ▶ Cal State East Bay is primary recipient of grant funds; spent approx., \$5 million total of HPN grant, mostly on administration and outreach
- ▶ Remaining approx. \$20 million was distributed to sub-recipient partner agencies to support service delivery
- ▶ Sub-recipient partners include HUSD, Chabot CC, City of Hayward
- ▶ City of Hayward received 5.7% of grant, approx. \$288,000 per year.

# City of Hayward's HPN Activities

- ▶ 21<sup>st</sup> Century Learning Centers / Homework Support
- ▶ Access to 21<sup>st</sup> Century Learning Tools
- ▶ Access to Healthy Meals
- ▶ Community Garden /Project EAT
- ▶ Improved Transportation
- ▶ Focused CSO / Code Enforcement
- ▶ Neighborhood Health and Empowerment Network
- ▶ Additional Solutions
- ▶ HPN grant funds allocated to above services: Approx. \$288,000 / year
- ▶ City of Hayward in-kind match resources provided: Over \$300,000 / year

# Continuation of City HPN Services

- ▶ HPN grant funding expires at the end of CY 2016
- ▶ City has completed its fifth and final year of HPN grant participation
- ▶ No additional funding available from Dept. of Ed. at this time
- ▶ Future federal grant funding is a possibility, but uncertain
- ▶ The City, under guidance of Council, has taken positive steps to sustain and/or expand key City-operated HPN-related services:
- ▶ 21<sup>st</sup> Century Learning Centers, Access to 21<sup>st</sup> Century Learning Tools, Healthy Food Access, Community Garden/Project EAT, Neighborhood Empowerment Network, and related activities
- ▶ City staff will continue to strategically seek and apply for funding with partner organizations to support City program efforts.





Next:

Presentation by Cal State East Bay

HAYWARD PROMISE NEIGHBORHOOD

# HAYWARD PROMISE NEIGHBORHOOD

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Keeping the Promise – December 6, 2016

# This Is Hayward Promise Neighborhood

1. Alameda County Food Bank – Mobile Pantry
2. Alameda County Public Health Nursing
3. Chabot College
4. City of Hayward
5. California State University, East Bay
6. Eden Area Regional Occupational Program
7. First 5 of Alameda County
8. 4 Cs of Alameda County
9. Hatchuel Tabernik Associates – Data Partner
10. Hayward Unified School District and Adult Education
11. La Familia Counseling Center
12. Super Stars Literacy
13. Tiburcio Vasquez Health Center

# What makes this work distinctive?

- Collective Impact
- Common agenda
- Strategic and accountable partnerships
- Shared measurement systems
- Mutually reinforcing activities
- Continuous communication
- Coordination and leadership capacity

# Data Highlights

- **5% increase** from 2013 to 2016 of children who have a medical home.
- **18% increase** from 2014 to 2016 of children who are kindergarten ready.
- **95%** of students in 6th through 9<sup>th</sup> grades attend school regularly.
- **300** families accessed the most recent Fresh Food For Families at Eden Greenway Park.
- **120% increase** in the number of residents who are aware of and or participated in HPN programs and services from 2013 through 2016.

# Every Child Deserves a Promise Neighborhood

- Conditions to sustain and scale the work of Hayward Promise Neighborhood
  - Partners committed to mission and vision
  - Resident Civic Engagement
  - Organizational and leadership capacity
  - Opportunities to participate in regional, statewide and national efforts

# Every Child Deserves a Promise Neighborhood

“Unity and continued support from HPN makes us all stronger as individuals and as a community.”

**Item #9 LB 16-108**

**Zero Net Energy Goal for Municipal Facilities**





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# ZNE Goal for Municipal Facilities

## UTILITIES & ENVIRONMENTAL SERVICES

Erik Pearson  
Environmental Services Manager

December 6, 2016

# Current Policies



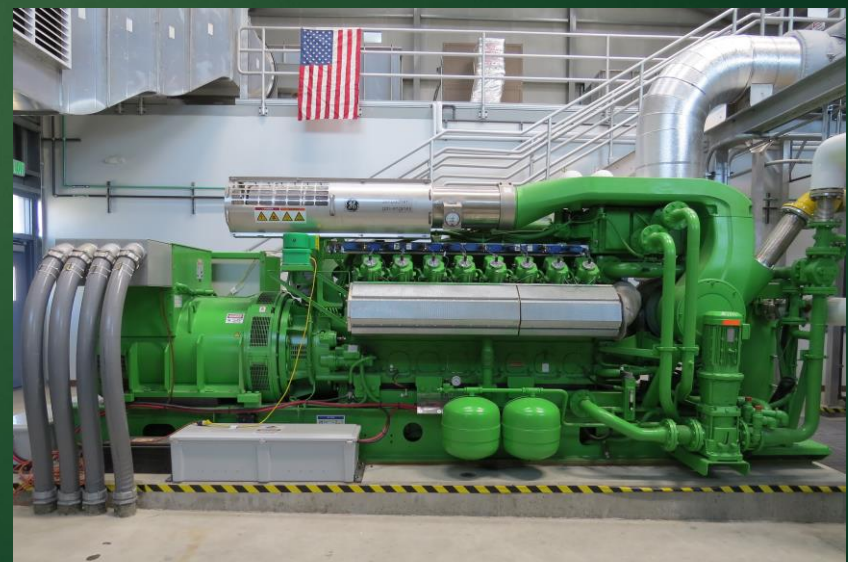
- ▶ GHG Reduction Goals (General Plan Policy NR-2.5)
  - ▶ 20% by 2020
  - ▶ 61.7% by 2040
  - ▶ 82% by 2050
  
- ▶ CA Building Code to Require ZNE in:
  - ▶ Single-Family in 2020
  - ▶ Commercial in 2030
  
- ▶ ZNE Policy for New & Retrofits of Municipal Buildings

# Current Annual Production



City facilities are producing:

- ▶ WPCF CoGen: 9,400,000 kWh
- ▶ WPCF Solar: 2,353,000 kWh
- ▶ Other Solar: 634,000 kWh
- ▶ Total: 12,387,000 kWh

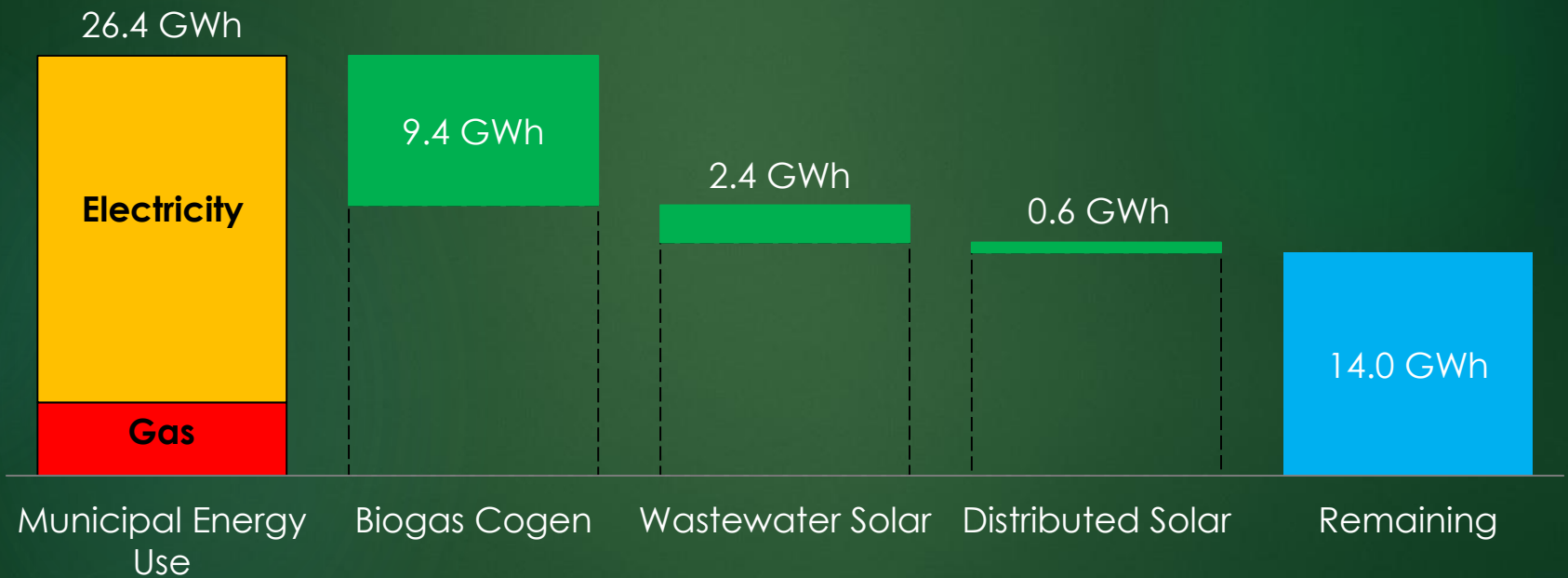


# Total Energy Use in 2015

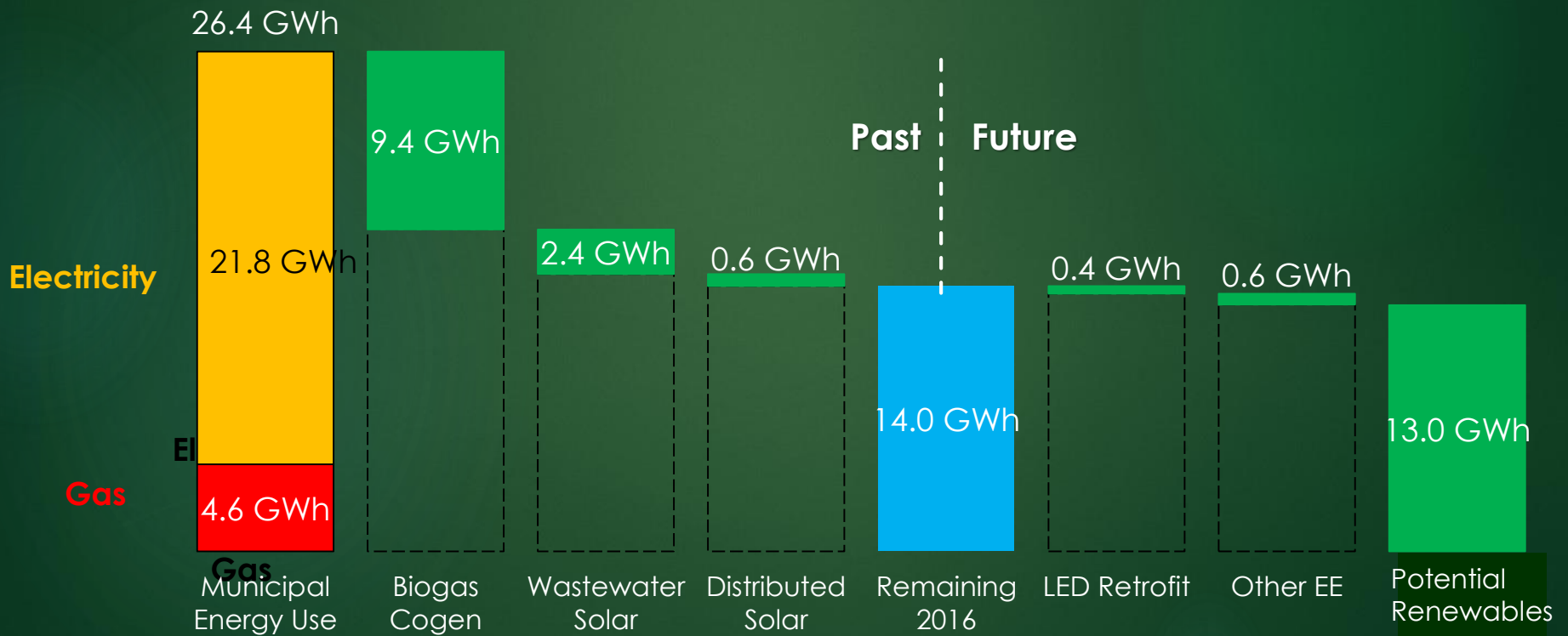


Electricity Used	21.8 million kWh
Electricity Produced	12.4 million kWh
Electricity Purchased	9.4 million kWh
Natural Gas Used (157,000 therms)	4.6 million kWh
Total Renewable Energy to go "ZNE"	14 million kWh
Energy Efficiency Potential	1 million kWh
Total Renewable Energy to go "ZNE"	13 million kWh

# Municipal Energy Picture



# Path to ZNE



# Sustainability Committee



- ▶ Committee recommended that Council adopt a goal of achieving cumulative municipal ZNE by 2025 and made the following comments:
- ▶ Prioritize Projects by Cost-effectiveness
- ▶ Current Spending
- ▶ Cost Savings

# Subset of Potential Sites



Description	kWh/year
Police Station	703,000
Cinema Parking Structure	309,000
City Hall	87,000
Watkins Street Parking Structure (2nd half)	446,000
2nd CoGen engine at WPCF	7,000,000
Phase 2 Solar PV at WPCF	2,353,000
Hesperian Pump Station - roofed canopy	336,000
May Road (adjacent to Treeview Reservoir)	612,000



# Summary



Description	kWh/year	Cost
Total Potential	15,800,000	
kWh needed for electricity	8,600,000	\$15,000,000
Kwh needed for natural gas	4,400,000	
Total Needed	13,000,000	\$20,000,000
Excess Potential	2,800,000	

# Watkins Parking Structure



# 28471 Hesperian



# 1285 Reservoir



# 1241 Walpert Street



# Barnes Court



# City Hall



# Fire Station 1

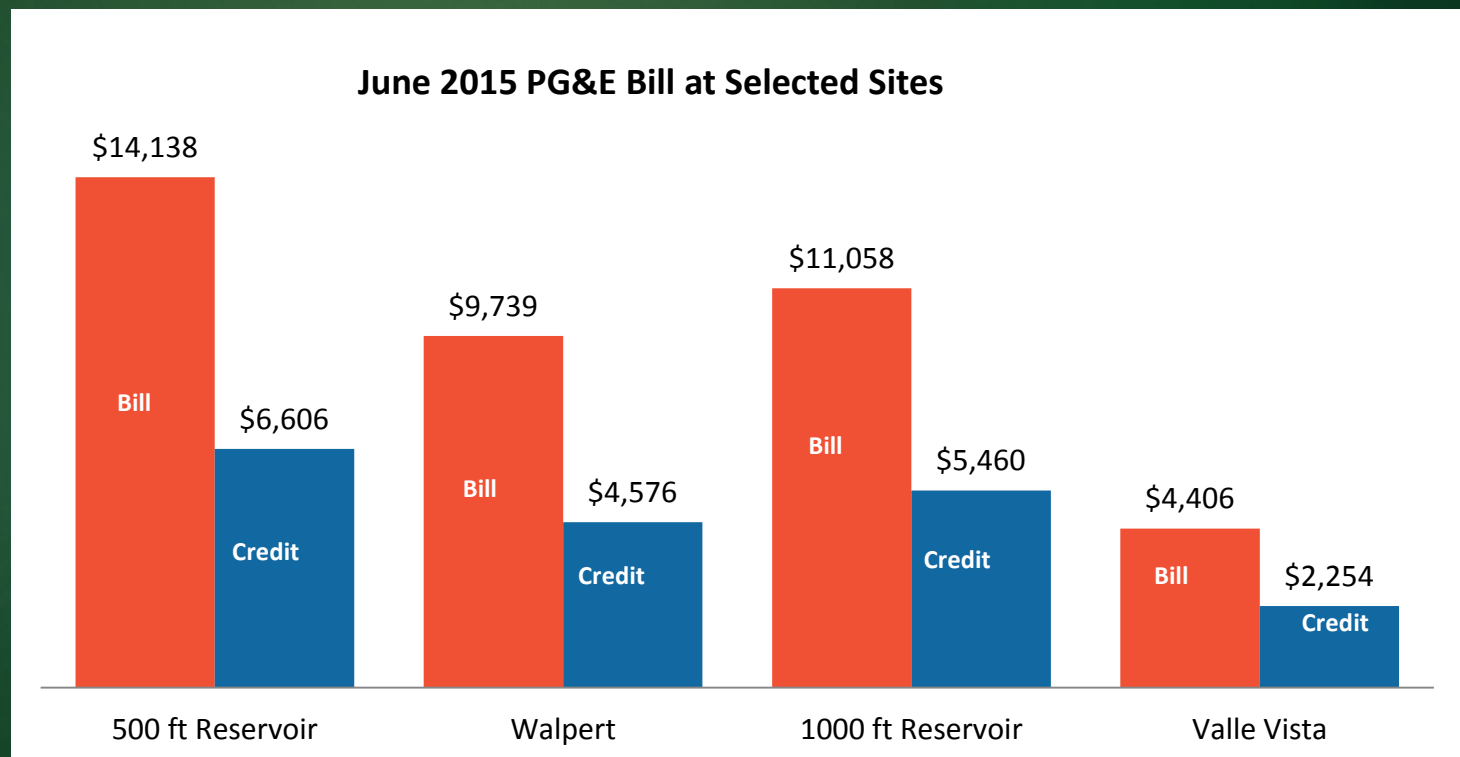




# RES-BCT Benefits



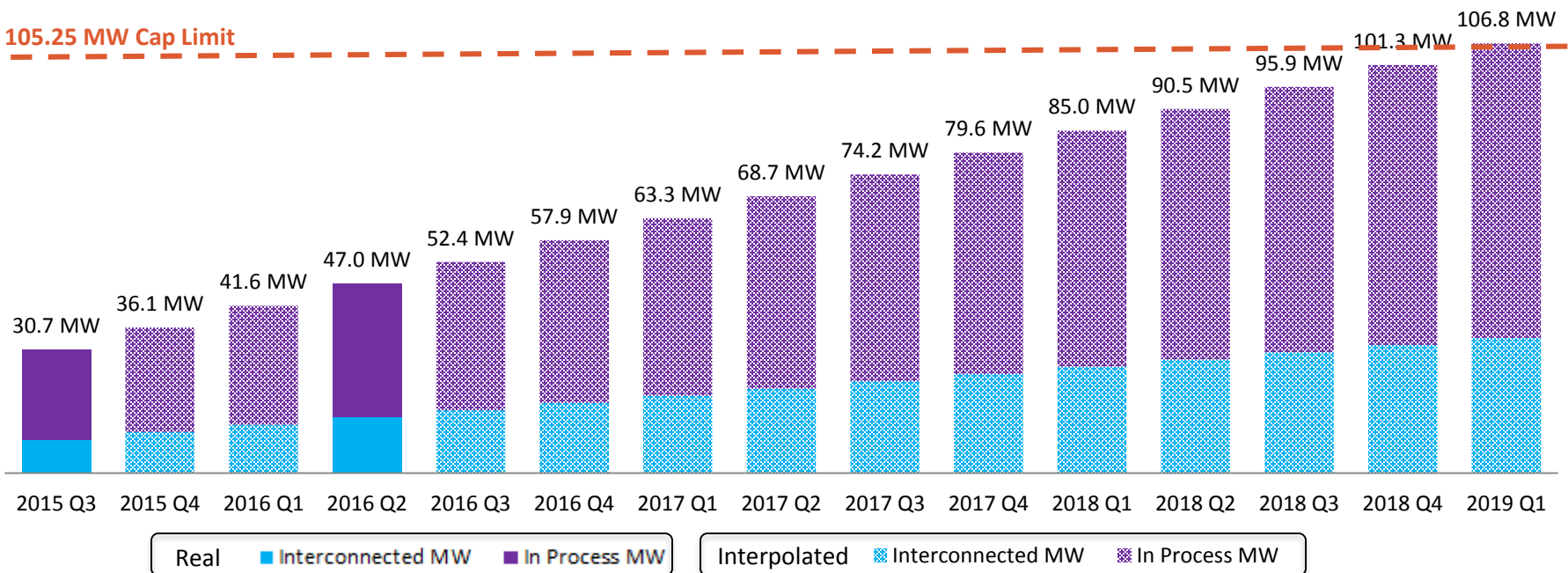
- RES-BCT only offsets the *generation charge*
- Tariff will likely expire in 2019
- NEM sites cannot receive RES-BCT credits
- RES-BCT cannot be used to offset gas usage
- East Bay Community Energy will likely honor RES-BCT, and may offer a better tariff



# RES-BCT Expiring



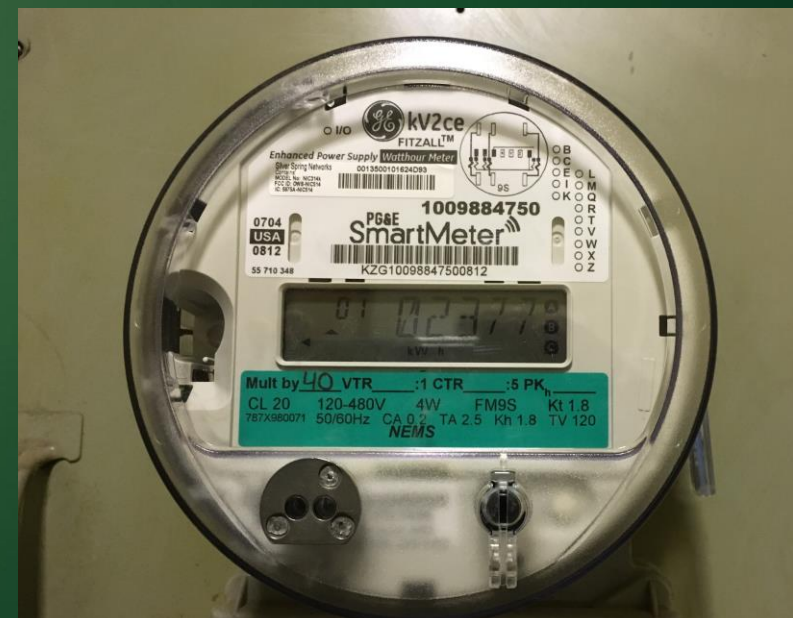
105.25 MW Cap Limit



# Net Energy Metering (NEM)



- ▶ Allows customers to “sell” excess electricity
- ▶ Surplus is paid @ \$0.03 - \$0.04 per kWh
- ▶ City pays PG&E \$0.20 to \$0.25 per kWh



# PG&E Tariffs



## Recommendations:

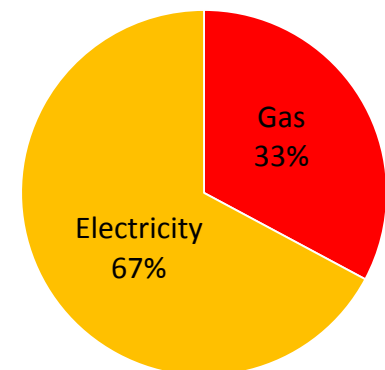
- ▶ Prioritize sites where RES-BCT will be used due to possible expiration
- ▶ Use RES-BCT where energy production has potential to greatly exceed demand
- ▶ Where solar cannot meet energy demand, designate as RES-BCT benefiting accounts
- ▶ Benefiting accounts can have solar systems as long as those systems do not exceed the demand of the site.
- ▶ Use NEM where solar production will closely match site demand.

# Natural Gas Options



Option	Work Entailed
1. Offset with Renewable Electricity	Install more solar or a second biogas cogeneration system
2. Electrify Municipal Buildings	Replace gas appliances with electric equivalent
3. Create Biogas Vehicle Fueling Station	Install a biogas fuelling station for municipal vehicles next to the WPCF
4. Install Storage Tanks & Truck Biogas	Install storage tanks at each facility which uses gas and truck biogas to the sites for use

Remaining Energy Use



# Fiscal Impact



- ▶ Annual Energy Cost = \$2.3 million
- ▶ Total Cost for Renewables = \$18 to 20 million
- ▶ Payback = 10 to 20 years

# Recommendation



- ▶ Adopt resolution setting goal of achieving cumulative ZNE for municipal facilities by 2025

# Next Steps



- ▶ Prioritize installation of renewable energy facilities
- ▶ Identify funding
- ▶ Incorporate into CIP



# Questions & Discussion

