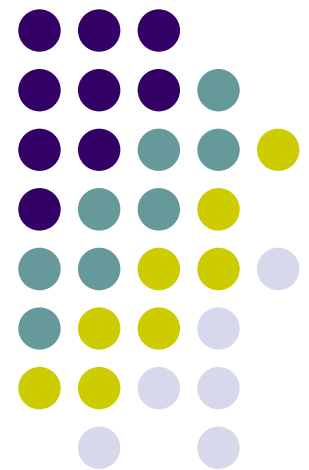


SOLID WASTE MANAGEMENT IN LOS ANGELES COUNTY

Paul Alva
Los Angeles County
Department of Public Works

May 10, 2007





Role of Public Works

- Advise the Board of Supervisors on waste management issues
- Prepare and administer the Countywide Siting Element
 - Plan for Countywide disposal needs (15 years)
 - Annually evaluating the disposal capacity need
 - 2005 Annual Report to be released next week



Role of Public Works (cont'd)



- Prepare and administer the Countywide Summary Plan
 - Plan to enhance Countywide recycling programs
 - We are currently in the process of updating our Plan
 - Plan update to be completed by 2009

Role of Public Works (cont'd)

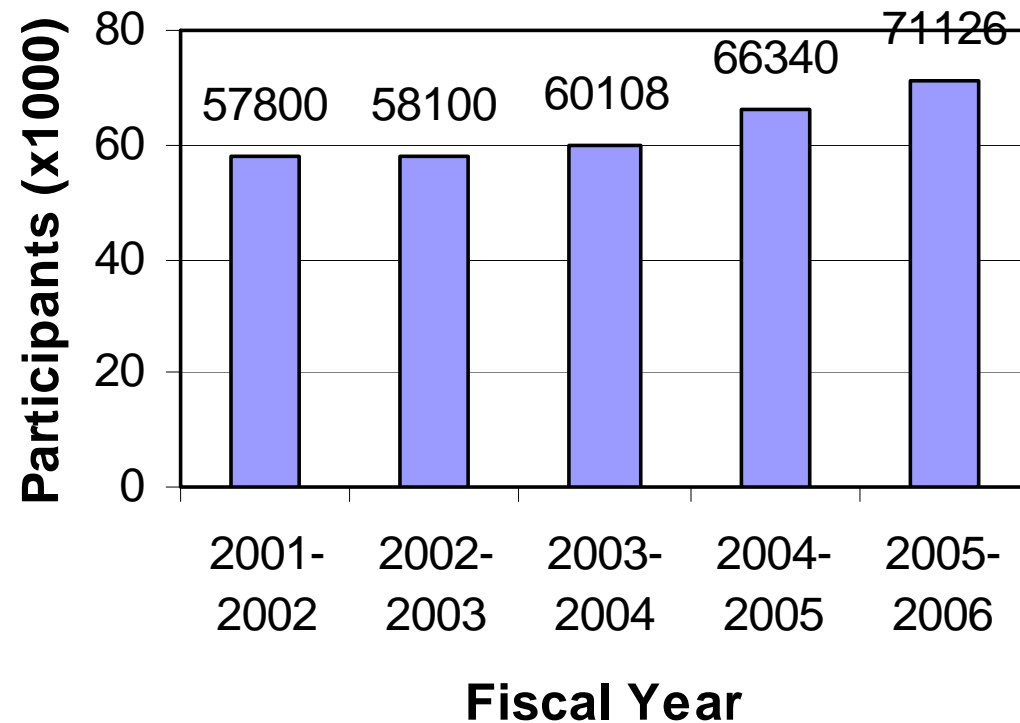


- Implement Countywide waste reduction programs, such as:
 - HHW/E-waste collected through mobile events and permanent centers
 - Have partnered with the Sanitation Districts to conduct 53 mobile events per year
 - Approximately 71,000 households participated last year
 - Collected over 4,400 tons of HHW/E-waste
 - Have partnered with the City of LA to make the City's 6 permanent centers available to all residents

Role of Public Works (cont'd)



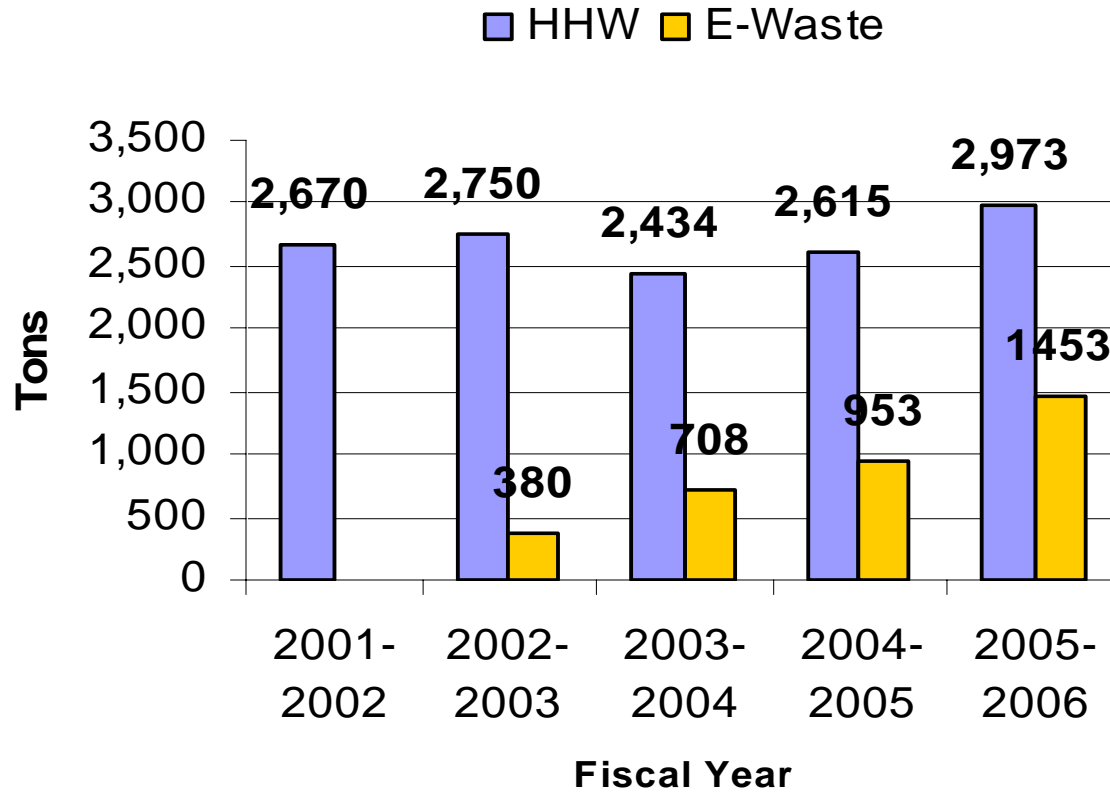
**# of Participants in HHW/E-Waste
Collection Events**



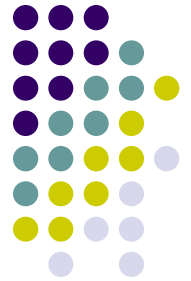
Role of Public Works (cont'd)



**Amount of HHW/E-Waste Collected At
Mobile Collection Events**

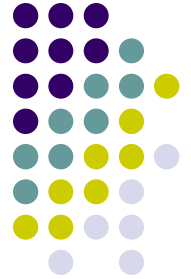


Role of Public Works (cont'd)



- Implement Countywide waste reduction and public education programs, such as:
 - Smartgardening Program
 - 888CleanLA outreach
 - Waste tire collection events
 - Generally, 6 events per year
 - In the last 5 years, we collected over 100,000 tires
 - Primary and secondary school programs

Role of Public Works (cont'd)



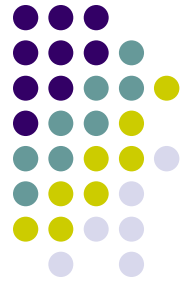
- Implement waste reduction and public education programs in the unincorporated County areas, such as:
 - SmartBusiness Recycling Program
 - Construction & Demolition Recycling Program
 - Residential Recycling and Public Ed. Program
 - Curbside Recycling Program
- Staff the Los Angeles County Integrated Waste Management Task Force
 - Ensures a coordinated approach to managing solid waste Countywide from all stakeholders
 - Active in legislative and regulatory issues
 - Active in the proper siting of disposal facilities



Role of Public Works (cont'd)

- Assist the County Department of Regional Planning in drafting CUP conditions for solid waste facilities
 - Such as
 - Puente Hills Landfill
 - Sunshine Canyon Landfill (County portion)
 - Chiquita Canyon Landfill
 - Lancaster Landfill
 - Athens MRF
 - Puente Hills MRF

Role of Public Works (cont'd)



- Provide engineering services to the County Department of Public Health (as the Local Enforcement Agency for the County and most cities) related to the permitting and oversight of solid waste facilities
- Administer the State Disposal Reporting System for LA County

Role of Public Works (cont'd)



- Public Works wears multiple regulatory/administrative hats in dealing with solid waste management issues

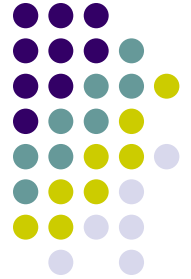




General Countywide Info

- Largest and most complex solid waste system in the nation
- 10.2 million people
 - Up from 8.9 million in 1990
 - Growth is equivalent to the population of Manhattan or twice the population of Las Vegas
 - Will grow to 13 million by 2020
- If it were a country, LA County would be among the top 20 countries in the world in terms of GDP
- 88 cities and more than 140 unincorporated communities

General Countywide Info



- 142 permitted waste haulers
- 28 large transfer stations/material recovery facilities
- 11 MSW landfills (7 large and 4 small)
- 2 inert waste landfills
- 2 waste-to-energy facilities
- 43 C&D debris recycling facilities
- 350 recyclers
- No commercial composting facility

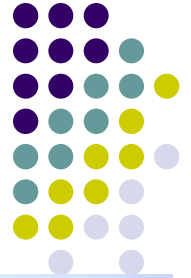
2006 Countywide Report Card



- Estimated 50% Countywide diversion rate
 - 12M tons of waste diverted!



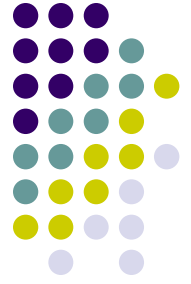
2006 Countywide Report Card



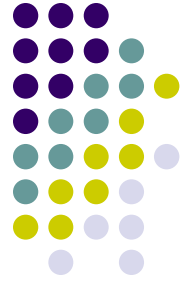
- On the other hand, 12M tons of waste were disposed
 - Equivalent to filling
 - The Rose Bowl **34** times over **OR**
 - The Empire State Building **15** times over
 - The amount of disposal have remained relatively constant since 1990 notwithstanding our vigorous population and economic growth



Disposal System Overview



- 7 Major MSW landfills
 - Puente Hills Landfill (CUA near Whittier)
 - Scholl Canyon (Glendale)
 - Sunshine Canyon Landfill (City of LA/CUA)
 - Calabasas (CUA near Calabasas)
 - Chiquita Canyon Landfill (CUA near Santa Clarita)
 - Antelope Valley Landfill (Palmdale)
 - Lancaster Landfill (CUA near Lancaster)



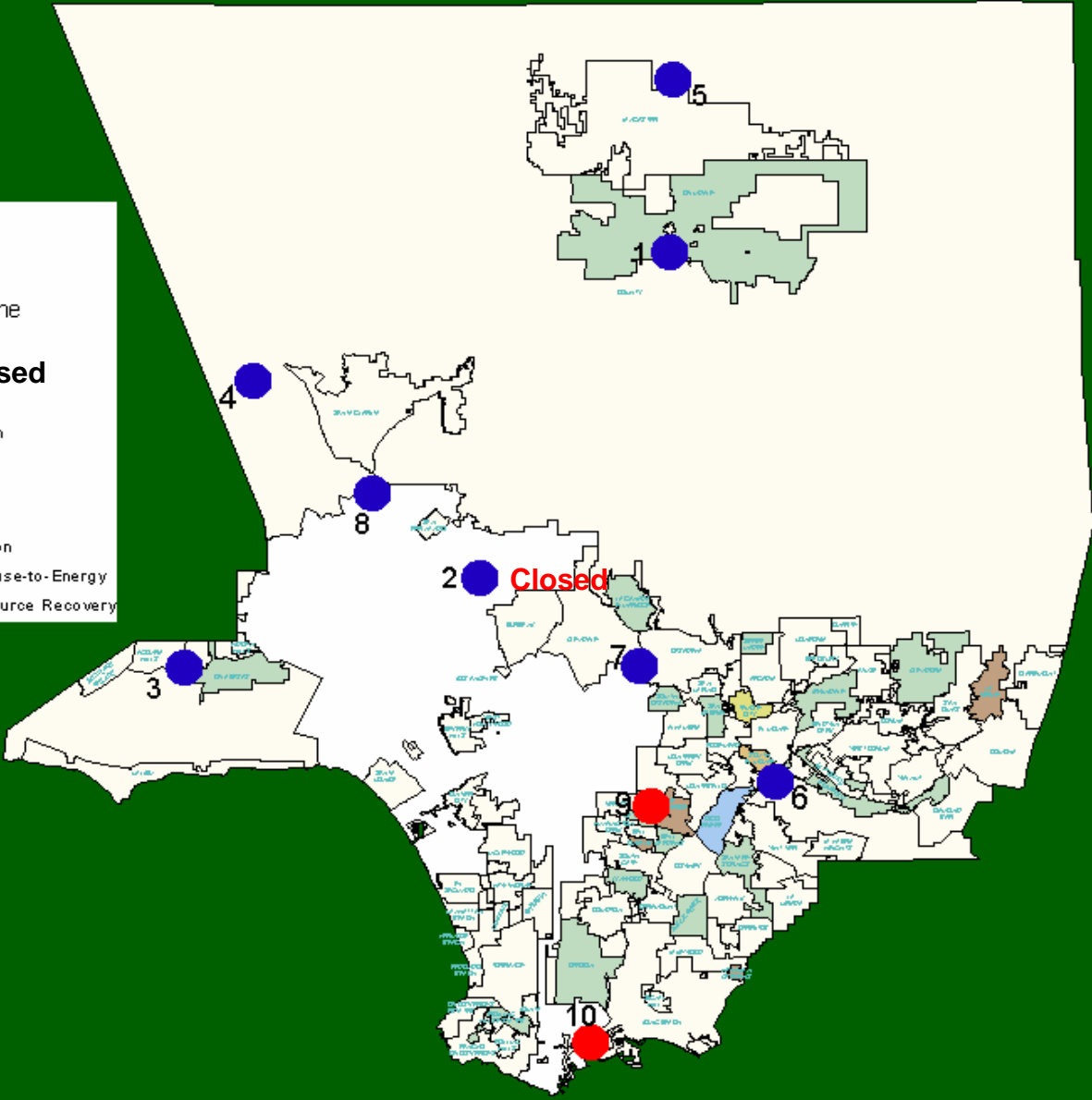
Disposal System Overview (cont'd)

- 4 Minor MSW landfills (Burbank, Whittier, Pebbly Beach, San Clemente)
- 2 Waste-to-energy facilities (Commerce & Long Beach)

Major Permitted Disposal Facilities in Los Angeles County

LEGEND

Number	Facility Name
1	Antelope Valley
2	Bradley Closed
3	Calabasas
4	Chiquita Canyon
5	Lancaster
6	Puente Hills
7	Scholl Canyon
8	Sunshine Canyon
9	Commerce Refuse-to-Energy
10	Southeast Resource Recovery





Disposal System Overview (cont'd)

2006 MSW Disposal Quantities (All Jurisdictions in LA County)

<u>Los Angeles County</u>	<u>Tons/Year</u>	<u>Tons/Day</u>	<u>% of Total</u>
In-County Solid Waste Landfills	9.6 Million	30,800	75%
Waste-to-Energy Facilities	0.5 Million	1,600	5%
Exports to Out-of-County	2.2 Million	7,000	20%
<hr/>			
Total Disposed	12.3 Million	39,400	

Note: Tons/Day = 6-day week

Imported waste to various types of disposal facilities – 450 tpd

Permitted Unclassified landfills – 100,000 tons (320 tpd)

Disposal System Overview (cont'd)



Remaining Permitted Capacity for In-County Landfills (as of January 1, 2007)

<u>Landfill</u>	<u>2006 Disposal Rate</u> <u>(tons/day)</u>	<u>Remaining Capacity</u> <u>(million tons)</u>	<u>Remaining Life</u> <u>(years)</u>
Puente Hills	12,250	28.48	7
Chiquita Canyon	4,930	12.20	8
Sunshine Cyn** (City)	4,120	5.94	30*
Sunshine Cyn (County)	2,690	1.11	30*
Calabasas	1,620	8.30	15
Scholl Canyon	1,430	6.35	14
Lancaster***	1,240	17.46	8
Antelope Valley	980	9.81	26
Total	29,260	89.65	

- On 2/6/07, the Board of Supervisors approved a new CUP establishing a 30-year life. Provided certain conditions are met, the total available capacity of the combined landfill is 74.3 Million tons

** City of LA portion opened July 2005, currently operating at 4,400 tons per day

***Lancaster Landfill current CUP expires August 2012

Bradley Landfill not included (closed April 2007)

Remaining capacity is based on an annual landfill operator survey and other info on file with Public Works



What Does This Mean?

- Trash is a commodity
 - Depending on market conditions, trash can go to a number of landfills in or out of the County
 - Factors include
 - hauling distances
 - traffic congestion
 - gate rates
 - contracts between haulers and landfill
 - waste shed restrictions
 - maximum daily intake
 - out-of-county surcharges



What Does This Mean?

- We dispose 39,400 tpd
 - Equivalent to 2,400 lbs/person/yr
- We export 20% of our waste to out-of-County landfills
 - El Sobrante Landfill (Riverside County)
 - Orange County Landfills
 - Simi Valley Landfill (Ventura County)



Why is Export an Issue?

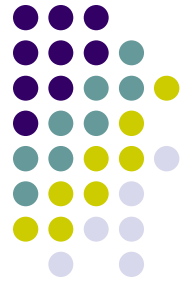
- The more we export:
 - The greater likelihood that trash rates will increase
 - Economic impact (host fees imposed, loss of revenue, loss of jobs, etc.)
 - Increased costs and environmental impact due to transporting trash over long distances
 - The less local governments can control how waste is managed
 - Continually have to seek remote disposal capacity



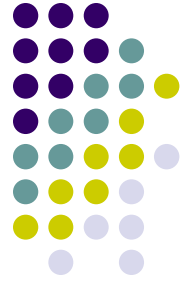
Why is Export an Issue?

- The more we export:
 - The greater the perception that we are not responsibly managing our trash
 - Many communities are becoming protective of their nearby landfill
 - “Don’t dump on us” is the common theme

Future Projection



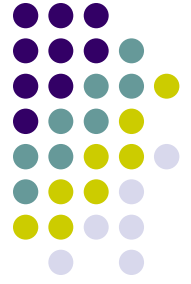
- MSW landfills
 - Traditional and novel approaches are actively being explored since the disposal rate is projected to increase to **46,500 tons per day by 2020**
 - The general consensus is that no **new** landfills will be developed in the County
 - Based on recent history, its anticipated that any new landfills sited in California will take **15 years or more** to develop from conception to operation.
 - Due to environmental review, community input, time needed to obtain permits, legal challenges, potential community vote, etc.



Future Projection

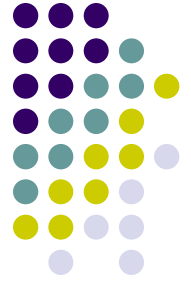
- Year 2020 -- two possible scenarios
 - Best Case Scenario [all proposed expansions are approved]
 - We will export **45%** of our trash
 - Assumes 3,000 tpd through conversion technologies
 - Worst Case Scenario [no landfill expansions and no conversion technology development]
 - We will export **80%** of our trash

Future Planning: Diversifying is Critical



- Continue implementing/expanding recycling programs
- Continue to pursue in-county capacity
 - Primarily through landfill expansions

Future Planning: Diversifying is Critical

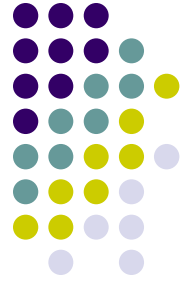


- Continue to pursue out-of-county/remote landfill capacity
 - It's necessary and no longer optional
 - Mesquite and Eagle Mountain Landfills
 - Located in Imperial and Riverside Counties, respectively
 - Both fully permitted [Eagle Mountain development pending resolution of litigation]
 - Accessible by rail



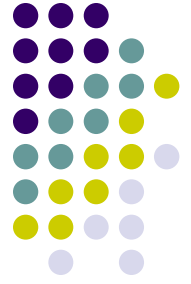
Courtesy of the Sanitation Districts of Los Angeles County

Future Planning: Diversifying is Critical

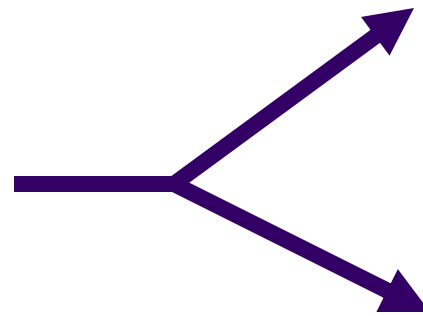


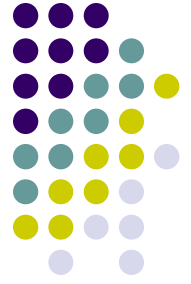
- Continue to pursue out-of-county/remote landfill capacity (cont'd)
 - Other landfills
 - El Sobrante (Riverside County)
 - Orange County Landfills
 - Support the infrastructure necessary to transfer/rail-haul trash to out-of-county landfills

Future Planning: Diversifying is Critical



- Aggressively pursue alternatives to landfilling (conversion technologies)

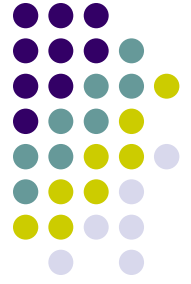




What's in the Horizon?

More Recycling

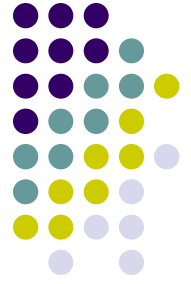
- Why?
 - Residents awareness of global warming increasing:
 - Governor's actions on global warming and documentary, "Inconvenient Truth" have spurred tremendous interest in the environment
 - UN reports stating that annual greenhouse gas emissions are expected to increase by 25% to 90% in 2030 from 2000 levels
 - According to CA Climate Action Team report, recycling helps reduce greenhouse gas emissions
 - Thus, being "Green" is now vogue!
 - Lessen our dependence on landfills
 - State Legislature is considering to increase the waste reduction mandate (from 50% to 75%?)



What's In the Horizon?

More Recycling

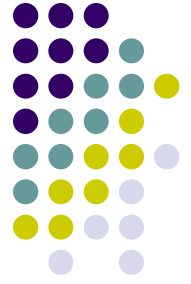
- Can we? (cont'd)
 - Yes, but it will be expensive for residents/businesses
 - Large impact programs have already been implemented
 - Need to tackle the “one-percenters”
- How will jurisdictions implement more waste reduction programs?
 - Some jurisdictions have voluntarily set a higher diversion goal – thus, creating the momentum for more recycling programs
 - 70% by 2020, zero waste goals, etc.



What's In the Horizon?

More Recycling

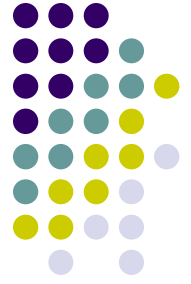
- How will jurisdictions implement more waste reduction programs? (Cont'd)
 - Some are considering banning specific waste products
 - Plastic grocery bags
 - Styrofoam products
 - Construction and demolition waste (e.g., Massachusetts)
 - Legislature considering banning light bulbs
 - State imposed requirement
 - CIWMB may soon be requiring every jurisdiction have
 - a multi-family recycling program
 - a commercial recycling program



What's In the Horizon?

More Recycling

- Areas where jurisdictions can enhance recycling?
 - Enhancing the C&D recycling program
 - Look into diverting more waste from municipal construction projects
 - Enhancing business/commercial sector recycling programs
 - Track waste and target waste streams (may utilize the County's SWIMS Internet Database)
 - Ultimately, SWIMS will track waste from collection to final destination (disposal/recycling facility)



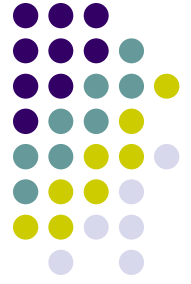
What's In the Horizon?

Increased Manufacturer/Producer Responsibility

- As the need to implement more recycling programs increases and funding become more limited, manufacturers will face more pressure to manage their materials from “cradle to grave”
 - SB 20 was a step in that direction

Legislature Continuing to Adopt European Standards

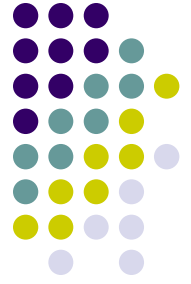
- Universal waste, sharps, Restriction of Hazardous Substances (ROHS)



What's In the Horizon?

Recycling Coordinators Become Skilled in Multiple Environmental Disciplines

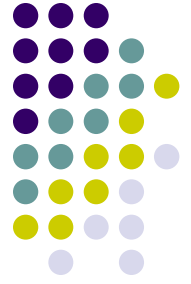
- For example, dozens of cities Statewide have recently adopted Green Building standards
 - Non-profit organizations are leading the way
 - Many businesses are voluntarily becoming green
- More residents prefer to live in sustainable/integrated communities
 - New development tracts have incorporated sustainable practices due to public demand



What's In the Horizon?

Sanitation Districts' Waste-by-Rail System Becoming a Reality

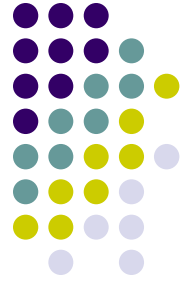
- As required by the County issued CUP for Puente Hills Landfill, the Sanitation Districts are making progress to have the waste-by-rail system operational by end of 2009
- Private sector may supplement the Sanitation Districts' waste-by-rail system when the tipping fee becomes competitive with landfill fees



What's In the Horizon?

Waste-by-Truck Will Continue To Be The Primary Means To Access Out-of-County Landfills (Even After Sanitation Districts' Waste-by-Rail System Becomes Operational)

- It appears that rail haul is more economical when transporting waste beyond 200 miles
- If all goes well (e.g., proposed landfill expansions are approved, etc.), we may be able to rely on landfills within a 200 mile radius through 2020

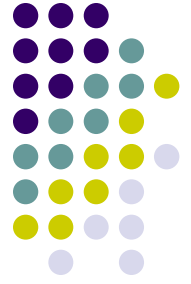


What's In the Horizon?

2013 -- Puente Hills Landfill Closes

- Accepting 1/3 of the County's trash
 - Approx 4 M tons/year
- Accepting 47% of the County's green waste for cover material
 - Approx 330,000 tons/year

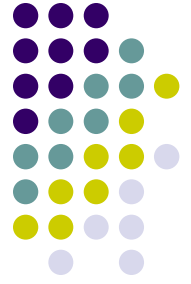
2013 & 2015 – Will Orange County Continue to Accept Out-of-County Waste?



What's In the Horizon?

City of LA & County/Solid Waste Task Force Commercial-Scale Conversion Technology Facility Projects

- Public attitude is shifting toward **green** facilities
- In 5-10 years, conversion technology tipping fees will be competitive with landfill tipping fees
- Cities throughout the country are looking at the City of LA and the County/Task Force's efforts
- These facilities may be catalyst for more facilities
- If not, in the next 20 - 30 years, a portion of the County's trash may need to be exported to distant landfills throughout the Western United States



Questions?

Contact: Paul Alva
(626) 458-3573
palva@dpw.lacounty.gov

For more information, please visit:

- SWIMS information (solidwastedrs.org)
- Recycling information (888CleanLA.com)