

Sustaining Our Streets

Strategies for Local Streets and Roads



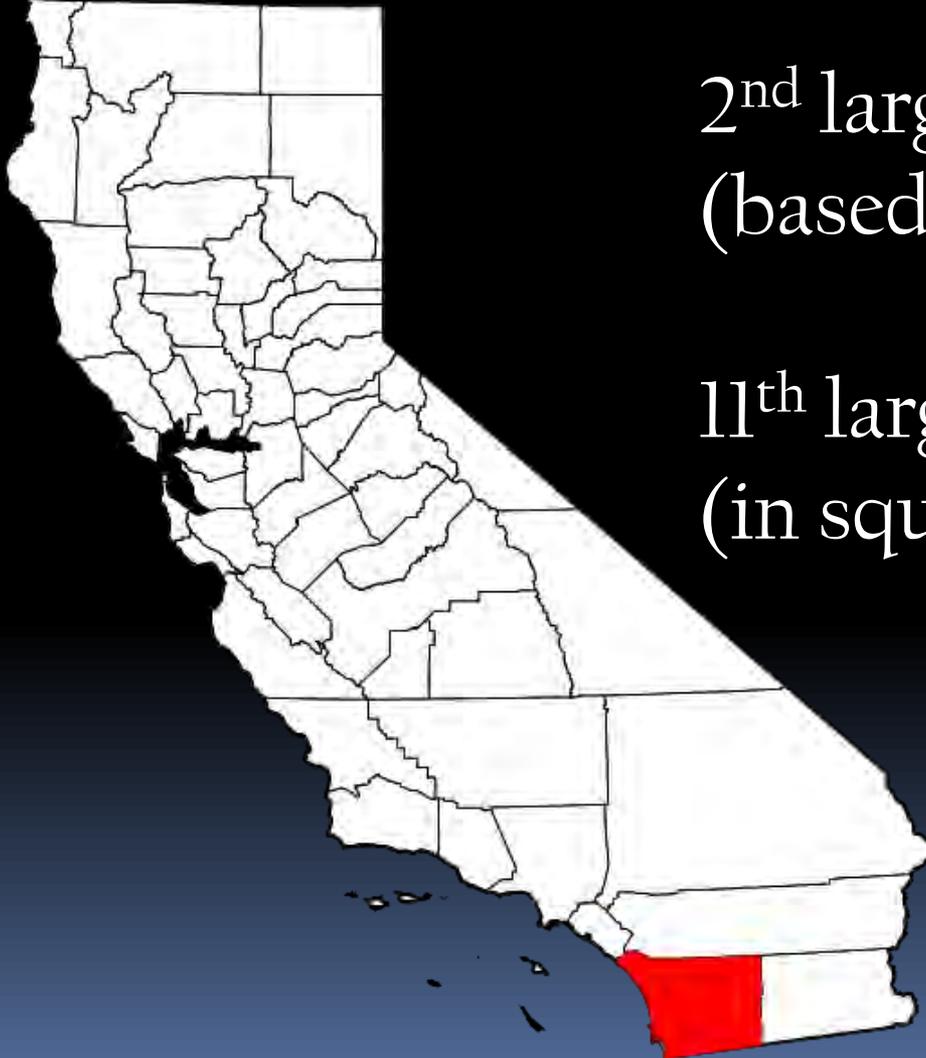
Mike Robinson, Deputy Director
DPW Transportation Division
County of San Diego



2012 Public Works Officers Institute & Mini-Expo/CEAC Spring Conference
March 21, 2012
The Fairmont San Jose
San Jose, California



San Diego County Statistics



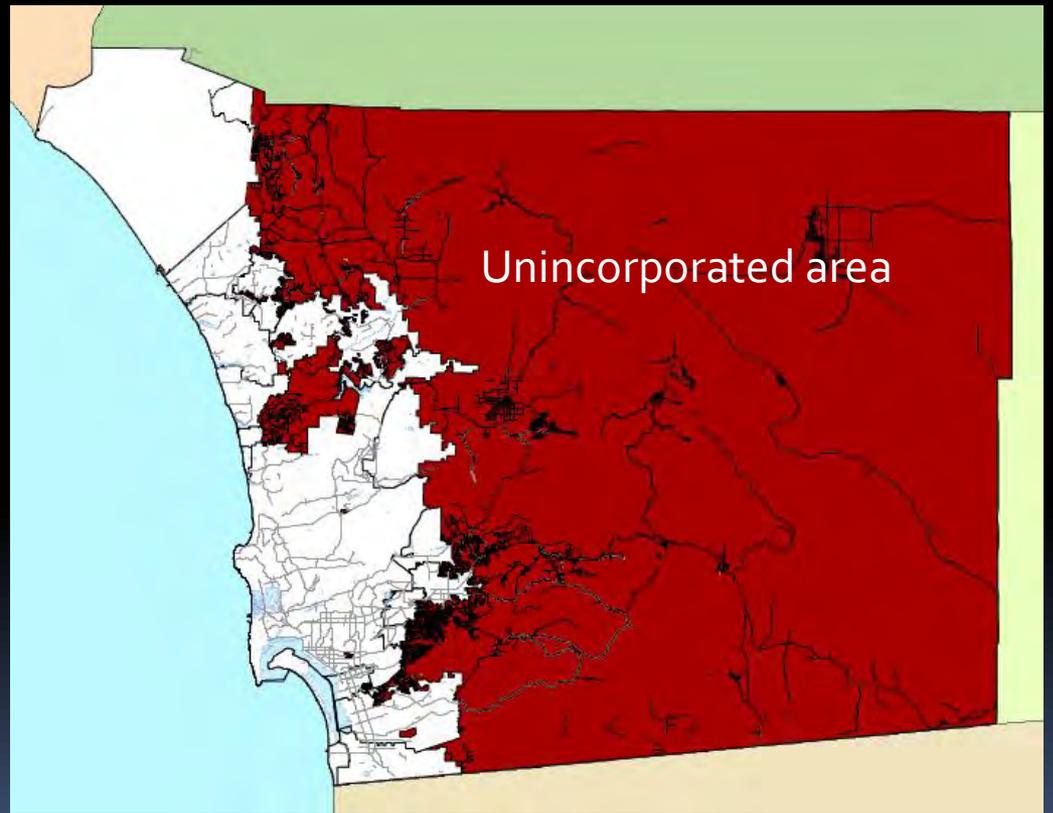
2nd largest County
(based on 2010 census)

11th largest County
(in square miles)



County of San Diego's Area of Responsibility

The County of San Diego maintains public roads in the “unincorporated area” of San Diego County



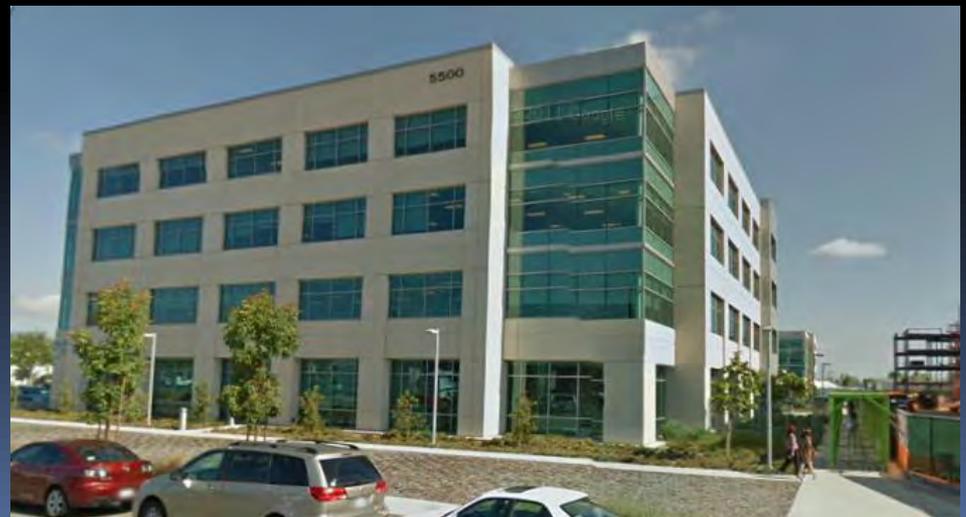


DPW – Road Maintenance Staff



Division 1 and 2
Field Staff:
(164 employees)

Field Engineering
Office Support
Staff:
(9 employees)





Roads Maintained by the Numbers



Dirt roads

Arterial	267
Collector	674
Minor	889
Dirt	<u>+ 100</u>
	1,930 centerline miles



Rural roads



Urban arterials

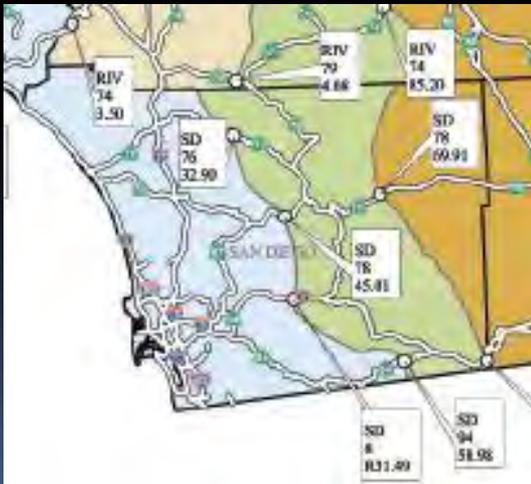


County of San Diego Geography

Geographic area is quite diverse.
Elevations range from sea level to
6,500'



Mountains



Pavement Climate Regions



Coastal areas
Inland Valleys
Foothills



Desert



How Our Responsibilities Changed Over Time



San Diego County, 1916

Present overall PCI is
approx. 70 to 72

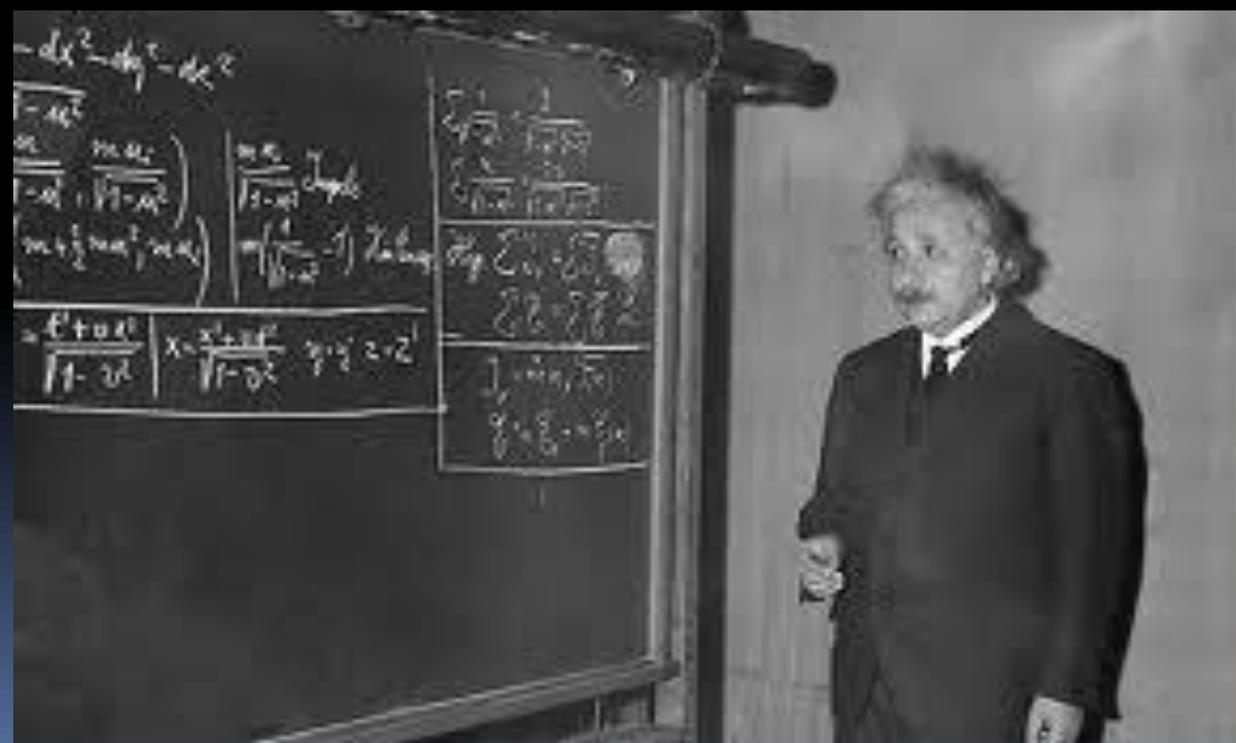


San Diego County, 2012



County's Share of Gas Tax

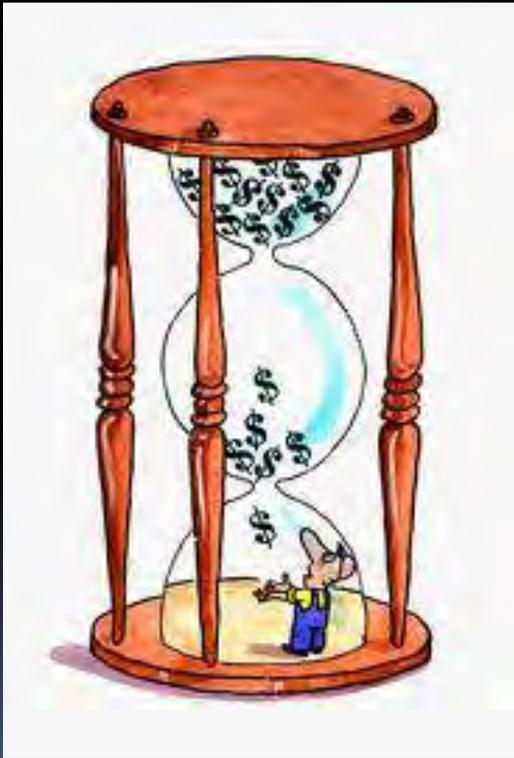
Actually, the County's annual share of the Gas Tax is based on a very simple calculation:





Funding Sources for Road Maintenance

Annual distribution of the Gas Tax



Additional Funding Sources:

- Federal Grants
- State Grants
- Indian Reservation Roads
- TRANSNET
- Prop 42
- STIP



How is the County Addressing Its Challenges?

Pavement maintenance

Pavement preservation



and

Innovative contracting
methods



Challenges

How do we protect a road that is in good condition?

Solution:

Embrace pavement maintenance and pavement preservation

Road maintenance program consists of:

- 90 to 95% pavement preservation
- 5 to 10% pavement rehabilitation





Challenges

How to maintain roads with dwindling natural resources

Solution:

Incorporate the use of “Rubberized AC” into resurfacing contracts





Challenges

Complying with ADA regulations
and addressing damaged curbs, gutters and sidewalks



Solution:

- Include this work on the overlay contracts
- Contractor coordinates and completes prior to resurfacing roadways



Challenges

Preventing trench cuts on a new road surface helps extend structural life



Solution:

Develop “Pavement Cut Policy”

- Identify utility work conflicts
- Delay road resurfacing until utility improvements are done
- Do not allow trench cuts for 3 years after road is resurfaced



Challenges

Older rural roads constructed with road mix / road oil mix are generally unable to support today's traffic loads



Solution:

Combine construction methods to reduce need for complete road rehabilitation

- Mill and fill
- Dig outs
- Leveling course
- Engineered paving fabric
- Rubberized AC overlay



Challenges

Reduce crack sealing required after resurfacing

Solution:

Incorporate the use of engineered paving fabrics with overlay projects (TruPave, GlasGrid, woven fabrics)





Challenges

Coordinating tasks performed by County crews, before and after resurfacing, is a logistic nightmare

Solution:

When practical, include these activities in the resurfacing contracts

- Eliminates scheduling conflicts
- Contractor has control of all activities
- Contractor more comfortable with his bid





Challenges

Do no additional damage, i.e. don't violate our own pavement cut policy

Solution:

Before the resurfacing contract, issue contracts to:

- Perform undergrounding
- Perform culvert improvements
- Repair damaged curbs, gutters and sidewalks





Innovative Contracting Methods

Develop large contracts with multiple bid schedules to encumber known and unanticipated funding

Advertise early in the season to attract more contractors and increase chances of lower unit prices

Develop projects and bid based on geographic areas

When practical, have the contractor perform activities that are normally performed by agency crews

Summary

Incorporating various strategies to maintain and preserve roads is the County's success in preserving its highway infrastructure and serving its customers with better fiscal responsibility.

