In-Place Recycling In California

International & Western States
In-Place Recycling Conference
August 5-7, 2014
Denver, Colorado

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California

Area – 163,707 square miles

3rd largest state after Alaska & Texas.

58 Counties

Population > 37 million, most populous state in the USA
Caltrans Demographics

- In excess of 20,000 PYs
- 15,000 miles of SHS, Approximately 50,500 lane miles (55% annual vehicle miles of travel).
- Approximately 70% of the California highway system are asphalt.
- In 2013/14, RTL 219 projects totaling $2.5 billion.
- HM program allocation funding is currently $234 million per year. This year 27 million additional fund for CIR
CT past experience with In-Place Recycling

- CIR & HIR used in 1970’s and early 1980’s
- No interest in late 1980’s & 1990’s
- 3 HIR projects piloted in 2006-2008
- 7 FDR projects since 2009
- 6 CIR projects in 2005/2006
  - Majority yielded positive results
  - Some challenges encountered
  - Recycling STG under PPTG pledged to work as a team to improve CIR specifications.
How far have we come?

- 51 CIR projects in 2009 to 2013 (164 million)
- In 2011 23 CIR projects
- We had some challenges:
  - Variability of existing pavement
  - Emulsion penetration range
  - Compaction
  - LP-8, mix design
  - Coring vs. milling for sampling
  - Smoothness
  - QC/QA
Why In-Place Recycling

- Reduce overall cost
- Re-use valuable existing materials (agg. & asphalt binder)
- Eliminate distress, provide uniform platform
- Prevent/reduce future reflective cracking
- Long hauls for HMA (project location)
- Recycled pavement can be recycled again
California State Animals

California Golden Trout
State Fish

California Dog-Face Butterfly
State Insect

California Quail
State Bird

California Grizzly Bear
State Mammal

Garibaldi Fish
State Marine Fish

Desert Tortoise
State Reptile

Saber-Tooth Cat
State Fossil

California Gray Whale
State Marine Mammal
SFOBB
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Leadership, innovation and teamwork

Thank You for Your Attention

Any Questions?