CALIFORNIA’S CIVIL ENGINEERING APPLICATION USING TIRE DERIVED AGGREGATE (TDA) PROGRAM OVERVIEW

Presented By:
Stacey Patenaude
Waste Management Engineer

California Integrated Waste Management Board

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Assembly Bill 1843, the California Tire Recycling Act, authorized the creation of the California Tire Recycling Management Fund.

Because of several disastrous tire fires in the late 1990s, the Legislature passed Senate Bill (SB) 876 which provided significant funding for the tire program.

California Integrated Waste Management Board (CIWMB) manages an estimated 44 million waste tires generated in CA annually.
Westley Tire Pile/MELP CoGeneration Facility

The Tire Pile
33 million tires are diverted from CA landfills annually through CIWMB Market Development program efforts.

CIWMB begins TDA outreach through contracts with inventor of the technology Dr. Dana Humphrey beginning in 1998.

Tire Derived Aggregate (TDA) has become an integral part of the CWIMB Market Development Program.
Current TDA Applications

- Lightweight Embankment Fill
- Lightweight Fills Behind Retaining Walls
- Vibration Mitigation Layers Below Light Rail Tracks
- Landslide Repair
- Landfill Gas and Leachate Collection Systems
Program Information

Civil Engineering Application Using Tire Derived Aggregate Web site
www.usetda.com

California Integrated Waste Management Board web site
www.ciwmb.ca.gov/tires/

Draft of proposed tire storage Regulation changes
www.ciwmb.ca.gov/Publications/tires/2009010.pdf
Assistance and Incentives
CIWMB– CIVIL Engineering Applications
Tire Program

- **TDA Technical Expertise Contractor** -
  - Provide TDA project design Assistance
  - Provide education and training on the technical aspects and benefits of using TDA

- **TDA Project Management/Incentives Contractor** -
  - Provide construction management assistance
  - Provide procurement and staging for TDA projects
  - Provide performance and environmental monitoring for TDA projects
Current CIWMB TDA Assistance Contract

- Civil Engineering and Construction Management Services for Tire Derived Aggregate Application Contract
  - Design and Education Services.
  - Assists with Research projects to develop new TDA applications
  - Construction Oversight assistance
  - TDA material procurement incentive
  - TDA material processors assistance
Objectives –

- Educate Local public works, CALTRANS, and Private Consulting Civil Engineers on the benefits of TDA
- Develop Sustainable Markets for Tire Derived Aggregate
- Research new Civil Engineering applications for Waste Tires to determine if they are technically and economically viable
- Coordinate and Assist Waste Tire Processors to assure there is adequate TDA to meet future demand.
The Future of the CIWMB Civil Engineering Applications Program:

- Continue TDA Education

- Continue Assistance with design, construction oversight and material procurement incentive program for TDA projects

- Continue – Research and Development of new sustainable TDA - Civil Engineering Applications

- Develop a TDA Grants and Loans Program
CIWMB TDA Projects:

- 2001- First TDA Project, Dixon Landing Interchange Project
- 2003-2007 - Hwy 215 and Route 91 Retaining Wall research projects. Joint project with Caltrans
- 2004 - Valley Transit Authority - Vibration Mitigation Project
- 2007 – Marina Dr, Mendocino Co. Landslide Repair
- 2008- Riverside County Landfill Gas Collection system, Pilot projects
- 2008 - Caltrans Confusion Hill, Lightweight fill Embankment
- 2008 - Sonoma Co. Geysers Rd. Landslide Repair Project
- 2009- Sonoma Mtn. Road, Landslide Repair Project
- 2009- Sacramento County Keifer Landfill, Landfill Leachate recirculation project
Dixon Landing/HWY 880 Interchange Project

660,000 Tires Saving to State $240,000
Confusion Hill Lightweight TDA Embankment Project 2008

270,000 Tires

Saving to State $320,000
Geysers Rd.
Sonoma County

150,000 Tires 2008

Saving to County $128,000
133,000 Tires

Marina Dr,
Mendocino County
Sonoma Mtn.
Saving to County $590,000

350,000 Tires
QUESTIONS?