

CONTRA COSTA COUNTY SUSTAINABILITY EXCHANGE

Quarterly Meeting – Notes

April 14, 2020

10:00am-12:00pm

Sustainable Paving Materials and Practices

AGENDA

- ❖ 10:00-10:10 Welcome
- ❖ 10:10-10:35 Introductions and Open Forum
- ❖ 10:35-11:10 Sustainable Paving Overview
- ❖ 11:10-11:50 Q&A, Discussion
- ❖ 11:50-12:00 Closing, Next steps

PARTICIPANT ORGANIZATIONS

MCE

Contra Costa County Dept. of Public Works, Dept. Of Conservation and Development, Contra Costa County Flood Control and Water Conservation District, Contra Costa County Watershed Program, Contra Costa County Clean Water Program

Napa County

City of Walnut Creek

City of El Cerrito

City of San Pablo

City of Alameda Environmental Services

Contra Costa Resource Conservation District

BART

City of Antioch

City of Clayton

City of Martinez

City of Brentwood

City of Pittsburg

Harris and Associates

Nicols Consulting Engineers

Quincy Engineering

OPEN FORUM

Contra Costa County, DCD - Currently updating its Climate Action Plan and researching carbon sequestration options, greenhouse gas (GHG) inventory analysis for County operations. Interested in learning more about new paving technology, understand more about climate work so it can be incorporated into active transportation work.

City of San Pablo - updating revisions to City's environmentally preferable purchasing and integrated pest management (IPM) policies, as well as cleaning policies. Developing sustainability guidelines, as part of transition to new City Hall. Using Stay Home order to catch up on policy projects.

City of Walnut Creek - updating its Sustainable Action Plan and working on budget as well as an electric vehicle (EV) charging project. Trying to figure out new timelines for paving projects.

Contra Costa County, Public Works - Still going to office, keeping things moving. Wants to use more sustainable paving practices. Interested in the technology and long-lasting projects that reduce maintenance headaches. Interested in learning how to weave more sustainable pavement into projects. Projects with invasive plant removal are a concern during Stay at Home.

City of Brentwood - Wants to learn how to integrate sustainable materials into projects. Interested in learning methods that can be used in Brentwood.

Contra Costa County, Maintenance – Interested in learning more about paving options. Road and flood control maintenance. Pavement management side.

Contra Costa County, Watershed Program - Working on green benefits district study with a UC Berkeley grad student. Looking for ways to finance green infrastructure projects. Also working on green infrastructure projects in N. Richmond and possibly Bay Point. Looking to apply for a Prop 1 grant through the CA Resources Agency to support a green streets corridor to connect San Pablo to the Bay Trail.

City of Antioch - Cleaner Contra Costa Challenge platform, and update to Climate Action and Resilience Plan (CARP). Working with engineering students at local high school. Seniors at the high school are reviewing the CARP. Enjoying distance learning. Lots of editing and formatting on final stretches of the CARP. How to implement cool pavement.

Harris & Associates - work for cities of Martinez and Clayton. Pavement is an interesting topic. Want to do most sustainable projects possible.

MCE - Personal interest in sustainable pavement. MCE is electricity provider for most of Contra Costa County.

City of Alameda - Implementing Climate Action and Resiliency Plan. Interested in sustainable materials and paving.

Quincy Engineering - Interest in sustainability, has worked on a lot of paving jobs.

Contra Costa County Clerk-Recorder – Planning for the May 5 special election and planning for November elections.

Contra Costa County, Capital Projects – Currently going to office and job sites to work on new Emergency Operations Station, and fire station in San Pablo. Has reduced driving. Being more efficient with materials. Involved in technical advisory committee for green infrastructure for the County. How to incorporate more.

Contra Costa County, Flood Control - Still working on creek restoration projects. Received a grant from the State for wetlands restoration - \$950,000! Authorized in 20 days. Looking for ways to implement during current environment.

Nicols Consulting Engineers – Doing work for municipalities on CEQA/NEPA. Have been talking about sustainable pavement for a while. Opportunity to learn.

NOTES

Sustainable Paving Presentation: *More Durable, Cost-Effective, & Sustainable Pavement, John Harvey, PE University of California Pavement Research Center City and County Pavement Improvement Center (CCPIC) UC Davis*

John Harvey provided an overview of the contribution of paving materials and practices to greenhouse gas emissions.

- ❖ It is important to consider local government pavement for sustainability goals. State and local governments have similar amounts of spending funds and materials used.
- ❖ CCPIC works with local governments to increase pavement technical capability. Current Funding for CCPIC set up and initial activities comes from SB1 funding. Your organization could get involved in CCPIC activities, receive and provide training, join the governance board.
- ❖ Three widely recognized ways to reduce GHG emissions include: land use planning, switching to natural gas, and reducing vehicle travel. The role of pavement is overseen in GHG emission reductions and other environmental impacts.
- ❖ Life cycle assessment (LCA) and Life cycle cost analysis (LCCA) methods can be used to identify where costs and environmental impacts can be reduced during materials and pavement design.

Dr. Harvey discussed best practices for pavement and extending the asphalt life cycle. He described that the more modern concrete mix specifications, with improved concrete mix designs are lower in cost, cause less environmental impacts, and increase in durability of use. He highlighted that many local agencies have not reviewed concrete and minor concrete specs in a long time, and GHG emissions and global warming potential result higher in cities that have not yet done this.

Dr. Harvey presented a case study of a high reclaimed asphalt pavement mix compared to the baseline that showed a decreased percent change in total greenhouse gas emissions and a lower global warming potential.

Environmental product declarations (EPD) are widely being utilized by pavement industries currently. EPDs provide life cycle assessment results for their product from “cradle to gate” (from production to distribution) and they provide a means for agencies to quantify their emissions and impacts.

Recommendations for what you can do now:

- Improve asphalt pavement life by enforcing asphalt compaction specifications.
- Consider use of rubberized hot mix
- Improve concrete specifications
- Keep heavy traffic routes smooth
- Get ready to use LCA in design and to evaluate other questions
- Consider asking for Environmental Product Declarations

NEXT STEPS

Here are the other programs the Sustainability Exchange is planning for 2020. We welcome your ideas for speakers, venues, and additional program topics.

Q2 2020	Microgrids – what exactly are they and how do you set one up?
Q3 2020	Visual Communication Strategies
Q4 2020	Climate Action Planning