

US EPA ARCHIVE DOCUMENT

HIRI NEWS

Salt Lake City conducts series of cool communities outreach meetings; Sacramento hosts paving conference

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Urban Heat Island Pilot Project (UHIPP)/Cool Community updates

Salt Lake City

Cool Communities outreach presentations

Camille Russell (Utah Office of Energy Services) and Meryl Redisch (TreeUtah) participated in a series of eighteen outreach meetings with a variety of public and private professionals to discuss heat island reduction strategies. Camille, Meryl, and Renee Gluch, the Salt Lake City

cool communities program technical liaison, worked with four NASA representatives; Broch LeBaron, a scientist from the Utah Department of Environmental Quality (DEQ) Division of Air Quality; Merrill Ridd, a professor from the Department of Geography at the University of Utah; and the chief legislative aid from U.S. Senator Bennett's office to give these cool communities presentations. They met with about 100 people, including the Governor, state and local government officials, private industry representatives, and Senator Bennett.

One of the key meetings held included the incorporated cities of Salt Lake City County. These cities had not previously been involved in the Salt Lake City cool communities program.

Camille mentioned that there is a draft report of the results of the meetings. Several outcomes of the meetings are listed below.

- C The State of Utah recently passed the Quality Growth Act, and the Governor asked for cool communities language to be included in the guidelines developed by the Growth Commission. (The Quality

Growth Act requires the preservation of a certain percentage of open space.) This is the first act of its kind passed in Utah.

- C Envision Utah, an organization that addresses growth issues in Utah, asked for cool communities guidelines for their community-based outreach materials.
- C There might be an opportunity to obtain Federal Highway Transit funding through the Metropolitan Planning Organization (MPO).
- C Participants discussed conducting a cool roof demonstration project with the University of Utah. They met with several people that develop the specifications for reflective roofs, and the University offered to hire a summer intern to conduct a rooftop analysis comparing black EPDM and reflective roofs.
- C The Salt Lake City cool communities program plans to convene a county-wide meeting in May with planners from around the region. The purpose of this meeting will be to launch a project that will involve the

planners in conducting a series of field samples this summer.

- c The Salt Lake City cool communities program also discussed partnering with Utah State University's Rocky Mountain NASA Space Grant Consortium.

The Salt Lake City cool communities program and the Salt Lake Organizing Committee (SLOC) received \$1 million to implement a community-based tree planting initiative involving state and local governments and non-profit organizations.

The Salt Lake City cool communities program also met with SLOC. Together, they plan to launch a community-based tree planting project in May with \$1 million from the Federal Government. They plan to use the NASA-generated data to locate "hot spots," which will be targeted for the tree planting projects. They will hire someone to coordinate the efforts of the different partners involved in this effort. The Director of NASA may attend the first meeting to be held in May to highlight the link between the NASA research and the tree planting program.

"Kool Kids" Curriculum

Camille reported that the Salt Lake City cool communities program is in the process of developing cool communities curriculum to include in the "Kool Boxes" for their "Kool Kids" project. (The Kool Kids project is designed to incorporate urban heat island curriculum for

sixth graders in 10 Salt Lake City schools.)

Camille encouraged participants to submit ideas or information about available cool community educational materials to her or Meryl for inclusion in these Kool Boxes. Fran Stewart (Louisiana DEQ) said that she has information about a GIS curriculum for kids that she will send to Camille.

Life cycle cost analysis

Camille reported that the life cycle cost analysis comparing concrete and asphalt is inaccurate. The Salt Lake City cool communities program submitted a proposal to the Utah Transit Authority regarding offsetting the incremental costs for redesigning one of the large park-n-ride parking lots with concrete instead of asphalt. The Office of Energy Services had offered to pay for half of the incremental cost of this redesign project.

However, after they began implementing the project, they determined that the cost of concrete was much greater than that determined by the life cycle cost analysis. Camille and Meryl emphasized that accurate life cycle cost information is critical for projects like this one.

Sacramento

Full-time coordinator

Alan Hirsch (Sacramento Tree Foundation) reported that the Foundation recently received funding to support his position as the full-time cool communities coordinator for Sacramento.

Paving workshop

The Sacramento cool communities program recently conducted a paving workshop involving representatives from the asphalt and concrete industries. Twenty-five people attended the workshop held at the local MPO's facility. Alan noted that the MPO's support allowed the workshop to convene with a relatively small amount of resources.

Ray Tretheway (Sacramento Tree Foundation) said that the concrete industry discussed their "ultra thin white topping" reflective pavement. The asphalt industry was concerned about the mandated use of reflective paving materials. They also mentioned that concrete loses more heat than asphalt in the winter. One important outcome of the workshop was that the California Cement Council expressed an interest in becoming a participant in the Sacramento cool communities program steering committee.

Camille and Meryl said that Salt Lake City should also conduct a similar workshop and asked Ray to send a copy of the invitation list to Virginia to distribute to the other city coordinators.

An architect who attended the workshop expressed an interest in porous pavement. The Sacramento cool communities program will work with him to conduct a parking lot study that will demonstrate four to five reflective paving techniques.

Urban forestry intern

Ray reported that the Sacramento cool communities program is obtaining an urban forestry summer intern from Southern University in

Baton Rouge to begin the parking lot study. He said that urban forestry interns will also be working in Chicago, Seattle, Philadelphia, and Milwaukee.

Tree canopy study

Ray mentioned that a recent study showed that Sacramento could save \$875,000 per year if the streets were 30 percent shaded by trees. Heat weakens the structure of asphalt streets, which then must be repaved. This study showed that planting street trees could eliminate the need for repaving. Ray will send this study to Virginia to distribute to the other city coordinators.

Sacramento goals

Ray noted that Sacramento has the following goals for its cool communities program:

- C The Sacramento cool communities program plans to strengthen the steering committee and Sacramento's relationships with the other UHIPP cities.
- C Sacramento plans to finalize the MOU with EPA.
- C Sacramento is working to develop a two-year strategic plan. This plan will focus on activities for the first year. The second year will consist primarily of analyzing the data received by LBNL and NASA. (The LBNL and NASA data will be available in six to nine months.) This strategic plan should be completed in four to six weeks.
- C After the strategic plan is finalized, they plan to initiate

the activities outlined in the strategic plan (e.g., conduct a parking lot conference, revise local ordinances, consider using a new 7,000-acre community development as a demonstration project) through the various committees.

- C After the projects are identified, the full-time coordinator will seek funding from private sector and other sources.
- C Sacramento plans to use the data and information obtained from the various project outcomes as part of its effort to conduct outreach and gain participation and support from a broad range of stakeholders.

Ray will send a copy of the one-page strategic plan to Virginia to distribute to the UHIPP and cool communities coordinators. Camille will also send a copy of the Salt Lake City work plan that outlines what each of the committees are tasked to do to Virginia for distribution. Camille said that it would be useful for cities to share this kind of information so that cities can learn from what the other cities have already done or plan to do.

Ray also said that Sacramento has developed a color brochure that includes a picture from the NASA flyover.

California urban forestry initiative

Ray noted that the new Governor of California, Gray Davis, will be announcing an urban forestry initiative. The Sacramento cool communities program would like to be mentioned during the Governor's announcement of this initiative.

Baton Rouge

Fran Stewart is the new cool communities coordinator for Baton Rouge. She is working on developing a team of participants in the cool communities program in Baton Rouge. Once these individuals are identified, they will work together to develop an action plan to implement demonstration projects.

Fran reported that she is working on creating a presentation for new or potential team members that describes the goals and purpose of the project. Virginia said that LBNL sent her a presentation with some interesting graphics that she will distribute to coordinators. Fran is also in the process of analyzing the data received from LBNL and NASA.

HIRI website

Virginia said that she is working on determining the cost of creating a HIRI website and a discussion database for the coordinators. Ray said that the California Energy Commission offered to host the Sacramento cool communities program website, which is at <http://www.energy.ca.gov/coolcommunity/description.html>.

Virginia said that she would like to create a website that provides a link to all of the cities. She suggested using a map of the U.S. that allows the user to click on the different cities to find out what they are doing. Meryl said that she would like to include a thermal image map on the Salt Lake City cool communities program website that allows the user to click on different parts of the city to find out

the temperatures and roof materials of different building rooftops (e.g., the Delta Center). Camille said that her office plans to create a website soon that could link to other cities.

Potential funding sources

Virginia reported that the Rebuild America grant program may be more applicable for the cities than The Energy Foundation in terms of funds available because the Foundation does not provide money for local initiatives or demonstration projects; its focus is on national or regional efforts. The Energy Foundation also only funds 501(c)(3) non-profit organizations.

The Rebuild America program seems appropriate because it uses partnerships, similar to the cool communities committees that the pilot cities have created, to develop programs that promote energy efficiency in buildings.

EPA participation

Ray asked whether EPA plans to continue its involvement with the cities after the two-year time frame for the MOUs expires. Virginia said that EPA strongly supports HIRI and it plans to continue its involvement indefinitely. EPA will continue to work on developing a methodology for integrating HIRI-induced air quality improvements into long-term air quality planning.

APA Annual Meeting

Camille, Virginia, and Maury Estes (NASA) will be leading a session on HIRI at the American Planning Association's Annual Meeting on

Sunday, April 25, 1999. They plan to conduct a role-playing exercise to involve the planners in a discussion about implementing HIRI policies and programs. Some of the planners will act as cool community advocates and the others will be city council members. This exercise might help the planners see the different perspectives of the people involved in these issues.

LBNL future research

Virginia noted that Jeanne Briskin (EPA) will be meeting next week with LBNL to review and provide comments on their past work. She also will be making recommendations about potential research LBNL could conduct in the future. Virginia asked the coordinators to provide her with ideas for research needs. Coordinators suggested the following research topics.

- C Accurate life cycle cost data on concrete and asphalt pavements are needed.
- C The life cycle costs for roof products and information about the life expectancy of various roof products would be useful.
- C Cost-effective residential roof products should be made available.

(Camille noted that she is being considered for a Board member position on the Cool Roofs Rating Council, and if she is chosen, she will bring this residential issue up at board meetings.)

- C Alan expressed an interest in information about the albedo of

paint when used on a variety of surfaces (e.g., brick, asphalt).

- C An analysis of the options available for reflective pavement would be useful.

Camille said that Salt Lake City has already developed an options analysis for roof products. This spreadsheet includes the roof materials that are available, the roof product manufacturers, and the costs involved. She will provide a copy of this analysis to Virginia for use as a possible template for pavement options.

This options analysis would include various options for new parking lots and roads and existing parking lots and roads; and it would include various heat island mitigation strategies for each situation (e.g., grass pavers, tree cover, vines). (Virginia noted that Chris Steele, who works in Austin, is interested in conducting a demonstration project involving shade vines, if cities are interested.)

Monthly mailing

Each month Virginia will send out a mailing with information that UHIPP coordinators submit to her to help cities share information.

Next steps

- C Ray will send a copy of the Sacramento one-page strategic plan to Virginia to distribute to the UHIPP and cool communities coordinators.
- C Camille will send a copy of the Salt Lake City work plan to Virginia for distribution.

- C Ray will send a copy of the study on tree canopy and savings to Virginia for distribution.
- C Ray will send a copy of the list of people invited to the paving workshop to Virginia for distribution.
- C Fran will send information about a GIS curriculum for kids to Camille.
- C Camille will provide a copy of the reflective roof materials analysis to Virginia for use as a template for an analysis of pavement options.
- C Virginia will distribute a presentation that LBNL created to coordinators.
- C Virginia will distribute copies of three papers on paving that she received from LBNL to coordinators.
- C Ray will distribute copies of *The Sacramento Bee* article on NASA's flyovers to city coordinators.
- C Nancy will send a copy of the land use ordinance to Virginia for distribution to city coordinators. Gary mentioned that Los Angeles has developed a similar landscape ordinance. (Could Gary send a copy of this ordinance to Virginia as well?)
- C Virginia will continue to investigate the possibility of developing a HIRI website and a discussion database for city coordinators.

The next EPA/Pilot City conference call is scheduled for Thursday, May 13, 1999, from 4:00 to 5:00 p.m. EDT.
