# News Release

## Riverside Public Utilities Facilitates Summer STEM PULL Academy for Local High School Students

RIVERSIDE, Calif. – A group of 70 Riverside high school students recently participated in several days of intensive, hands-on training with the Riverside Public Utilities Department to learn about potential careers in the utilities industry.

The week, facilitated by the Science and Technology Education Partnership (STEP), provided students with Science, Technology, Engineering and Math (STEM) training through experiential learning and gave them the opportunity to apply those skills in the Riverside Public Utilities Learning Lab (PULL).

"When the students got up and presented their projects, I was floored with how knowledgeable they were in such a short period of time and the amount of effort and out-of-the-box thinking the projects entailed," said Jo Lynne Russo-Pereyra, Chair of the Board of Public Utilities. "Their parents were in the audience, and they're learning not only about RPU, but also infrastructure needs through the eyes of their children.  It really shows the value of a public utility to the community."

Employees of the various divisions of Riverside Public Utilities provided the curriculum for STEM PULL, which included: Lineman Demonstrations with bucket trucks and equipment; the role STEM plays in the utility industry; field trips to the Riverside Energy Resource Center (RERC), Wastewater Treatment Plant, and Customer Service Locations; Team Skills Development; 3D Computer Design and Printing; Laser Cutting and Engraving; Welding and Woodworking; Electronics and Soldering; Engineering and Water Reuse Processes and Water Quality Testing; Brick Pi Robots; Advanced Utility Technologies; IT: Cyber Security; Public Benefits, Community Engagement and Crisis Communication Workshops.

At the end of the week, students developed and presented their innovative STEM PULL projects during the design challenge competition. Riverside Public Utilities Board members attended the presentations and judging.

"The students did a great job, and I want to applaud the students and RPU and the City for supporting the program and education," Utilities Board Member Gil Oceguera said.

Twelve teams of 4-5 students presented their concepts to a panel of judges. The top three teams won scholarships of $1000, $750 and $500. Even more valuable however, they are able to participate in a year-long mentorship opportunity with Gordon Bourns, Bourns, Inc. and graduate students from both the UCR and CBU Bourn's College of Engineering.

Through this mentorship, students will have the opportunity to continue to work on their projects, further refining their ideas. At the end of the mentorship, some teams may even be on their way to having a marketable project and/or a patent on their idea. Students in the mentorship will also have many opportunities to participate in community activities, such as presenting at a City Council meeting or other events.

The top three teams from the first year of STEM PULL included:

1st place – For their project "Line Down", an app that would detect problems with utility poles and utilize GIS technology to locate the exact location of the faulty poles.

Samuel Green – Martin Luther King High School

Jordan Whiting – Martin Luther King High School

Brett Hile – Martin Luther King High School

Leonardo Acosta – STEM Academy High School


2nd place – For their project "Leak Master," a sensor that would be placed on all new pipes as they are installed, which would notify RPU of pipe leaks that are too small to be detected from above ground

Isaac Garcia – Woodcrest Christian High School

Caleb VanHaster Woodcrest Christian High School

Iliana Lazaro – Arlington High School

Leslie Zamora – Arlington High School

Jose Ibarra – Arlington High School


3rd place – For their project P.A.T. (Public Alert technology), a sensor that would be used with GIS technology to immediately identify and specifically locate outages and problems in transmission lines

Molly Dewitt– Arlington High School

Shevani Patel – Arlington High School

Shahnawaz Lateef – La Sierra High School

David Polach – La Sierra High School

Angela Figueroa – La Sierra High School