



# Recycling Water at Richmond Refinery

## Dave Smith, managing director of WateReuse California

Water, air and soil are the keys to life on this planet. We rely on water for our drinking, food preparation. We rely on it for our food production, and we rely on it in manufacturing.

Because of the increasing demand for water, we still need to develop additional water resources.

Refineries use about one gallon of water for every gallon of gasoline produced. And recycled water can provide much of that water that is used for gasoline and other petroleum product production.

Now with the Chevron Richmond Refinery recycling project in place, all of the water from the local municipal waste water treatment plant is being diverted and further treated and used at the refinery.

## Evan McGreevy, Chevron Richmond Refinery engineer

The RARE [Richmond Advanced Recycled Expansion] project has made Chevron the largest user of recycled water in the San Francisco Bay Area. And every gallon of recycled water that we use is a gallon of fresh water that we can give back for the community to use. This project allows us to use less fresh water and allows us to make steam – which is an essential component of refining more efficiently.

The RARE plant, which we just finished building with East Bay MUD [Municipal Utility District], produces 3.5 million gallons a day of high-quality recycled water. We use that water to make steam. The water is of such high quality, that it allows us to make steam in a much more efficient manner than in the past, and that also allows us to run our plants much more reliably. The project brings in the water, on this pipe right here, into our plant and is, in turn, made into high-quality water. The high-quality water is used to make steam in many boilers throughout the refinery. That steam is an essential component in our refining process. With RARE, about 75 percent of our water that we use in this refinery is recycled water.

## Dave Smith

This project takes waste water and reuses it in the refinery to avoid the need for drinking water that can now be used in the community by families and businesses.

The WateReuse Association in California awarded the Chevron Richmond Refinery its Customer of the Year Award because of the exemplary nature of this project.

## Evan McGreevy

I'm very proud of what we do here. For every gallon of recycled water we use, that's one gallon we can give back to thousands of homes. It feels good every day to be part of an organization that is doing projects like this.