Why Should I Care?- El Niño

As winter sets in, Californians are pinning their hopes on a robust El Niño to ease the drought. In addition to drought relief, water managers and public works directors are acutely aware of the water running through their storm drains—impervious channels used for controlling floods but which can also carry pollutants.

That said, the behavior of El Niño is unpredictable and could precipitate at least two surprises water managers can plan for. The first is the public expectation that run-off from rooftops, lawns and streets will be diverted and stored for dry years. The second is the potential for steep fines if urban runoff exceeds water quality limits defined by the Los Angeles Regional Water Quality Control Board. Key to ensuring public confidence in local water systems is the ability to anticipate questions from elected officials and the public in an informed and timely manner.

“If we don't take control of the needs now and plan and invest for the future, we will either tap ourselves out of water or have to pay a lot more due to the increase in the cost of imported water,” said Adel H. Hagekhalil, assistant director of the Los Angeles Bureau of Sanitation.

Investing in the San Gabriel Valley region’s stormwater and flood management future requires a multitude of responses from government agencies, non-profit organizations and individual residents, experts say. This is especially true when you consider that one inch of rain can generate more than 10 billion gallons of stormwater runoff.

Matthew King, spokesman for Heal the Bay, said he is very concerned about the impact of El Niño stormwater on local water quality.

“All the accumulated waste--trash, chemicals, animal waste, car fluids, etc.--will get carried out to the sea by the rains,” King said. “Almost all of it is washed directly into storm drains and out to sea without any benefit of treatment. The water quality will plummet.”

The Clean Water Act (CWA) requires that municipal, industrial or commercial facilities that discharge wastewater directly into waters of the United States obtain a permit. The National Pollutant Discharge Elimination System (NPDES) Stormwater Program regulates stormwater discharges from three potential sources: municipal separate storm sewer systems (MS4s), or systems serving a population of 250,000 or more, construction activities, and industrial activities. In California, the state issues all permits through the State or Regional Water Quality Control Boards.

MS4 permits cover entire municipal sewer systems. These are permits which are generally given to a city, or groups of cities, to regulate harmful pollutants from entering their storm drains and channels and reaching receiving waters. “These permits have specific conditions for each discharger and put the burden on the individual industrial facility or construction site to prevent pollutants from running off their sites and into receiving waters,” said U.S. Environmental Protection Agency (EPA) spokeswoman Nahal Mogharabi.

Fines are steep, up to $16,000 per day, for cities, counties, businesses and other entities that fail to comply with water quality regulations, Mogharabi said.

Michael Kaspar, spokesman for the Los Angeles County Department of Public Works (County), said his agency is prepared. He added that the County's year-round program monitors the quality of water, both stormwater and urban runoff, in rivers and channels.

"This program has been in effect since the 1990s and the expected increased rainfall from El Niño will not necessitate altering the program," Kaspar said. Under the program, at least three samples are collected at multiple locations during storm events and two samples are collected during dry weather for a large variety of water quality indicators including metals, pesticides, bacteria and other toxics, Kaspar said. The County can impose a penalty of $1,000 per day per violation.

Hagekhalil said the city of Los Angeles, has also invested greatly in management of urban runoff. The city, which imports up to 87 percent of its water, has launched a water management program to not only cut dependence on imported water but also decrease its discharge of polluted stormwater runoff. This ambitious approach, the Green-Blue City of Los Angeles One Water Management Program, addresses potable water, wastewater, and stormwater as "one water" rather than separate components. Estimates for the city's groundwater treatment system range from $400 million to $900 million.

But not all cities are Los Angeles. Smaller municipalities, without the tax base and resources of large cities, have shelved some long-term water capture and conservation including street and roof-top stormwater capture projects during normal rain years due to their high price tags. Furthermore, many municipalities, including some of the state's poorest cities, must cope with reduced sales and increased overhead costs following a state-mandated 25% water reduction.

"(People in San Bernardino) are not using water like they are in Redlands right next to us, or Bel-Air or Beverly Hills," said Stacey Alstadt, general manager of the San Bernardino Water Department. San Bernardino, the poorest city for its size in California, already cut its water use 30% in 2008 during the mortgage crisis, she added. "It's an all-around horrible system. If the state imposes these measures on disadvantaged communities, they need to figure out some way to help us."

The impending El Niño could mean further devastation for cities. The National Weather Service Prediction Center has warned that this winter's El Niño could be as costly as the one that pummeled California with record rainfall in 1997-98. Back then, devastating storms caused $550 million in damage.

Still, even with enhanced water management plans adopted by local agencies, Bruce Reznik, Executive Director of Los Angeles Waterkeeper, a water quality watchdog, said Los Angeles is still not prepared.

"(Water agencies) need to do a better job getting into the field, particularly in rain events, to see what's happening," Reznik said. "Much of what we rely on is discharger monitoring, through the NPDES permits, but this ignores the facts that 1.), many businesses don't even file their NPDES

permits. And 2.), even those that are ‘filers’ often do not do their monitoring and reporting properly if at all. Therefore, better enforcement is another critical need for better monitoring.”

Reznik said that his organization conducts monthly monitoring and is increasing the frequency of its water sampling tests during the El Niño storm season. The group’s legal team will advocate for fines and seek legal action if necessary, he said. Los Angeles Waterkeeper’s legal victories include a landmark case against Los Angeles County. In 2014, Los Angeles Waterkeeper and Natural Resources Defense Council won a six-year legal battle that ultimately went to the U.S. Supreme Court. In that case, Los Angeles County was found liable for untreated stormwater pollution.

Legal battles aside, the County, agencies and non-profits all agree on the importance of a comprehensive approach to watershed management involving agencies, communities and residents to help ensure compliance.

“We are embarking on a lot of public outreach, to city councils, community clubs, … explaining what people can do to prepare their properties for the El Niño storm season,” said Steven Frasher, spokesman for Los Angeles County Department of Public Works. Since 2005, the Board of Supervisors has invested more than $160 million to improve the operational readiness of the flood control system to reduce flood risk and improve stormwater capture, he said.

Lester Snow, Executive Director of the California Water Foundation, recently told the Senate Natural Resources and Water Committee that the future of water management involves incentivized approaches.

“We’re seeing these kinds of examples -of where a liability, stormwater flooding, can be turned into a water source for pocket parks and neighborhoods that don’t have pocket parks- and to recharge basins that are designed to remove contaminants as they’re being recharged,” Snow said.

Even with a strong El Niño, water officials and advocates said everyone needs to continue their smart water-saving behavior.