



City of Santa Barbara
Airport Department

Memorandum

DATE: October 21, 2015
TO: Airport Commission
FROM: Hazel Johns, Airport Director
SUBJECT: Airport Winter Weather Preparations

RECOMMENDATION:

That Airport Commission receive a presentation on preparations being made to ready the Airport and its tenants for the forecasted El Niño weather pattern.

DISCUSSION:

Background:

The Santa Barbara Airport and Goleta Slough are at the bottom of a watershed that drains approximately 45 square miles of front country from Highway 154, west to Glen Annie Canyon. The drainage that discharges to the Pacific Ocean at Goleta Beach includes seven creeks: Atascadero, Carneros, Las Vegas, Maria Ygnacia, San Jose, San Pedro, and Tecolotito. Four of the seven creeks pass through the Airport.

During the month of February 1998, California was struck by a series of storms due in part to the affects of an El Niño weather pattern. According to the National Climatic Data Center, Santa Barbara received an incredible monthly rainfall total of 21.74 inches, breaking the old monthly record, established in 1962, of 17.33 inches. The February storm also established a record for rainfall during any month in Santa Barbara since recordkeeping began in 1867.

Santa Barbara Airport experienced significant flooding as a result of the 1998 storm, including inundation of the airfield and tenant buildings. As a result the Airport was closed for one day to remove silt and heavy debris deposited by the floodwaters. Conditions that contributed to flooding of the Airport were the amount of precipitation received in a 24-hour period and a very strong ocean storm surge coupled with very high tides.

The National Weather Service has detected the presence of a strong El Niño weather pattern. El Niño weather patterns are associated with above normal winter rainfall.

Facility Preparations:

Airport staff are making proactive efforts to lessen the impact of a potentially wet winter. During a typical winter Airport experiences some roof leaks and localized minor flooding at some Airport streets and buildings. To prepare the facility for these impacts, Airport staff will:

- Inspect roofs and perform maintenance where needed
- Clear Airport stormwater conveyance infrastructure to ensure adequate drainage
- Coordinate with County Flood Control to manage sediments and to open the slough mouth when emergency conditions exist
- Seal manholes known to frequently become inundated with plastic membranes to prevent flood water infiltration into the sewer system and sanitary sewer overflows
- Plan ahead to provide pedestrian access to buildings with chronic flooding issues

Flood Emergency Response Preparation:

During more severe rain events the Airport may experience catastrophic flooding up to inundation of the entire airfield and many buildings. Airport staff are planning and preparing for an above normal rainfall year associated with the strong El Niño condition.

To prepare for potential flooding Airport staff prepare flood emergency supplies and equipment to facilitate an emergency response that will minimize the impact of flooding and return the facility to operation as soon as possible. To prepare for an emergency response caused by flooding, Airport staff will:

- Inventory and prepare emergency signage, lights, and barricades
- Ready emergency response equipment including water pumps and emergency generators
- Ready heavy equipment; loader, backhoe, and sweepers
- Make sand bag materials available to all tenants
- Make advance contact with contractors and vendors for potential future emergency response
- Update emergency contact information for staff and tenants
- Stock emergency rations to accommodate shelter in place

CONCLUSION:

Due to the geographical location of the Airport, the drainage system can become overwhelmed by heavy rainfall, leading to flooding. Airport staff is making efforts to prepare the facility to optimize drainage and to minimize the impact of wet winter weather associated with the El Niño weather pattern.

The Airport is also prepared to respond to a flood emergency with a goal to minimize the impact to Airport operations, caused by potentially severe winter weather associated with the El Niño weather pattern.

PREPARED BY: Facilities Maintenance