

## **Item No. 9 Document No. 3**

### **Chronology of Events and Background**

- The Cities of Vista and Carlsbad independently own and operate approximately 412 miles of sewer lines within their municipal jurisdictions.
- The Cities jointly own and operate a sewer interceptor line that originates in Vista and terminates at the Encina Wastewater Treatment Plant in Carlsbad.
- This includes a force sewer main that conveys sewage from the Buena Vista Pump Station. This station is located on Jefferson Street south of Highway 78 within the City of Carlsbad.
- The City of Vista owns 89.6 % of the force main and the City of Carlsbad owns the remaining 10.4 %.
- The force main was originally installed in 1963 under Jefferson Street.
- In 1970 the street was realigned away from the lagoon edge, making room for the present wildlife viewing area, while the underground utilities remained in their present alignment.
- The current force main was installed in 1982. It is a 24-inch diameter ductile iron pipe (DIP) within a polyethylene encasement (PE).
- The pipe has a life expectancy of 50 years.
- A parallel force main was scheduled to be installed in 2017, however the existing line was to continue in service.
- The force main runs along the edge of the Buena Vista Lagoon, which is owned and operated by the California Department of Fish and Game. The lagoon has been designated as an ecological reserve.
- Based upon available water quality data, the lagoon is listed as a Clean Water Act section 303(d) impaired waterbody.
- From March 31, 2007 to April 3, 2007, a total of 7.3 million gallons of untreated sewage discharged from the force main into the Buena Vista Lagoon.
- The break occurred as a result of corrosion on the bottom of the pipe. The PE was apparently breached, most likely at the time of its construction.

- The discharge was discovered by a private citizen at approximately 7:00 PM on Sunday, April 1, 2007, and reported to the Carlsbad Police Department. The on call city employee responded to the site within three minutes.
- Emergency response protocols and an Incident Command System were immediately initiated.
- One of the first calls was to the City of Oceanside to receive permission to divert as much sewage as possible into their sanitary sewer system. This ultimately resulted in the diversion of two million gallons of sewage.
- By 9:00 PM, Sunday, April 1, 2007, the senior public works staffs of Vista, Carlsbad and the Encina Wastewater Authority were on site. A backhoe had been delivered and vegetation clearing, utility markout and site preparation such as scene lighting were procured.
- Staff excavated down ten to twelve feet without uncovering the pipe. It was then determined that it would be too dangerous to continue and a larger contractor would need to be brought in to repair the pipe and buttress the slopes against an excavation failure.
- The contractor arrived at the site in the morning of Monday, April 2, 2007, and commenced repairs. They constructed a sheet piling coffer dam, dewatered the area around the leak, cut out the damaged section of the pipe and installed a repair coupling. The work was completed by Noon the next day, Tuesday, April 3, 2007.
- While the repair work was underway, the cities hired four 5,500 gallon capacity trucks to haul away sewage that was diverted into a million gallon containment basin outside the Buena Vista Pump Station. This resulted in the recapture of 669,000 gallons.
- The cities also placed pumps into the lagoon to recapture sewage. The Cities estimate that 5.8 million gallons were reclaimed from the lagoon by pump-back.
- The Cities also aerated the lagoon from April 2 to April 16, 2007, to increase the dissolved oxygen content to protect aquatic life.
- The Cities disturbed the following habitats during the spill response: Atriplex/Isocoma Scrub 9,292 ft<sup>2</sup>; Exotic Vegetation 378 ft<sup>2</sup>; Non-tidal Alkali Marsh 350 ft<sup>2</sup>; and Freshwater Marsh 152 ft<sup>2</sup>.
- The sewage spill resulted in the loss of the following organisms that were collected in the lagoon: fish 1,694; avian 4; amphibian 1; and invertebrate 3.