Working to Keep the City Protected

The city of West Sacramento (City) and the West Sacramento Area Flood Control Agency (WSFCA) consider flood protection a high priority and have worked diligently to improve the levee system that protects the city. WSFCA is a joint powers authority between the city and Reclamation Districts 537 and 900. The goal of WSFCA is to achieve a minimum of 200-year flood protection through the implementation of the West Sacramento Levee Improvements Program.

There are many different treatments that can be constructed to achieve a minimum of 200-year flood protection in the city. The type of deficiency, its location, and the adjacent land use will determine which improvement, called a “treatment,” is implemented. Common treatments for levee deficiencies include:

- **Berm** — Small levee constructed against the landside toe of the existing levee to increase stability and/or prevent seepage
- **Crown raise** — Increasing the height of the levee
- **Remove vegetation**
- **Rock slope protection** — Placing rocks on the waterside of the levee to prevent erosion
- **Set back levee** — A secondary levee constructed behind the existing levee
- **Slurry wall** — Soil-bentonite clay or cement-bentonite clay slurry wall installed in the center of the levee to prevent seepage

Who’s paying for the improvements?

In the past, the state and federal governments have paid up to 90 percent for construction of levee improvements. However, for the upcoming improvements, local contributions will fund a greater portion of the project cost. In July 2007, property owners in West Sacramento approved a new annual parcel assessment to fund their half of the required local match for levee improvements and repairs. Revenues from the assessment in the amount of $42 million (10.5 percent of the overall cost of $400 million) will help fund improvements necessary to provide the city with 200-year flood protection as well as ongoing operations and maintenance of levees. New development is expected to provide the remaining $42 million of required matching funds through the payment of an in-lieu fee required for proposed developments that do not demonstrate 200-year flood protection.

Davis Road Repair Site

Heavy rain between the end of December 2005 and early January 2006 produced high water along the Sacramento River. This led to the development of “boils” in West Sacramento along a short segment of levees south of Davis Road.

Boils consist of the concentrated seepage of flood water through or under a levee. Under the right conditions, this concentrated seepage can transport soil from within or under the levee and deposit it on the landside away from the river. This erosion of the levee from the “inside out” can destabilize the levee or cause it to subside, increasing the potential for failure.

Recent engineering evaluations of the levees surrounding the city found a high potential for seepage along other reaches of levee adjacent to theSacramento River. After representatives from Reclamation District 900 stabilized the boils near Davis Road, they requested assistance from the US Army Corps of Engineers (Corps) to repair the site. In response, the Corps completed the design of a seepage berm for installation at the damaged levee site. The seepage berm is over 200 feet long and 80 feet wide. Seepage berms are commonly used to manage seepage through the placement of rock and soil along the levees.