2003 Bond Project: Landfill Levee Construction

Briefing to:

Neighborhood Quality of Life Committee

January 9, 2006

Sanitation Services Department
Purpose of Briefing

- Advise Committee members of this bond project completion
- Update on landfill development
- Look ahead to other landfill projects
Background

- McCommas Bluff Landfill
  - opened in 1980
  - 156M cubic yard (cy) capacity
    - Largest landfill in this region and in state
    - 112M cy remaining – 70%
    - Projected lifespan to 2050
  - Original levees provided 60M cy of space from 1980 through 2007
  - Levee extension was needed to get balance of capacity
Background

- **2003 Bond Program: Proposition 9**
  - Issuance of $24 for flood protection and storm drainage for the McCommas Bluff Landfill
  - Project features:
    - Massive earthwork project – 2.5M cy of soil moved
    - 3 miles of earth levee
    - Drainage swale of 155 acres
      - Additional swale of 210 acres in Phase 2 of project
    - Major utility relocations (gas and wastewater)
    - Wetlands protection and enhancements (238 acres)
Construction Sequence

1) Design work and permitting - Dec 2003
2) Wastewater line relocation – Jan 2005
Construction Sequence

3) Phase 1 Levee / Swale Construction (cont.)

- Awarded March 2004
- 30-month construction period - to end Aug 2006
- Flooding throughout summer and fall of 2004
  - Included record rainfall of July 2004
  - Non-productive period of 6 months
Landfill development, as of November 2002
Record flood washes out construction roads and inundates all work areas
Earthwork resumes with dry weather – dozens of vehicles needed to catch up on lost time.
Slurry wall work proceeds in parallel with levee construction
Landfill development with levee and swale in progress - May 2005
Landfill development with levee and swale near completion - Nov 2005
Construction Sequence

3) Phase 1 Levee / Swale Construction (cont.)

- Substantially complete 12/28/2005
- Assures disposal capacity for city’s needs for next 40 years
- Offers opportunity for regional partnerships
Construction Sequence

3) Phase 1 Levee / Swale Construction (cont.)

- Remaining work:
  - Vegetation of slopes
  - Plantings in wetlands areas
  - Road surface for levee top
    - uses recycled concrete
  - Will complete ahead of Aug 2006 schedule
Other Landfill Projects

- South Slope improvements
  - Council approved on December 14, 2005
  - Contractor to mobilize Feb 2006
  - Complete work ~ Jul 2006

- Phase 2 swale excavation
  - Over twice the volume of Phase 1 swale
  - Complete over next 10+ years, as soil needs dictate
Other Landfill Projects, cont

- Consider selling waste space
  - Advance sale of disposal capacity via auction or bidding process
  - Provides stability for landfill revenue
  - Affords stability of market for commercial waste haulers and their customers
Other Landfill Projects, cont

- Introduce landfill bio-technology
  - accelerates the biodegradation of waste
  - produces green energy (methane) at increased rate
  - results in re-usable landfill capacity
  - decreases landfill closure costs