



Office of the City Manager

INFORMATION CALENDAR
February 11, 2014

To: Honorable Mayor and Members of the City Council
From:  Christine Daniel, City Manager
Submitted by: Andrew Clough, Director, Public Works
Subject: Closed Landfill: Rodent Population Control at Cesar Chavez Park

INTRODUCTION

The City completed closure of its former 90-acre landfill at the Berkeley Marina in 1991. The entire site subsequently became Cesar Chavez (North Waterfront) Park, and has been open for public use since then. An inspection of the area was performed in January 2009 by staff of the Regional Water Quality Control Board (RWQCB), which identified significant erosion of the cover along the 3 shorelines of the closed landfill. This erosion resulted from significant tunneling by ground squirrels, whose population has been a concern at the site. The increased ground squirrel population appears to be, in part, the result of park visitors feeding the squirrels.

As a consequence of the RWQCB inspection, the City's 2010 Waste Discharge Order No. R2-2010-0064 (Item 8) requires the City to develop and implement an Operations and Maintenance Plan for the closed landfill. This Plan must address maintenance of the cover, and control of the rodent population. Public Works will be implementing a pilot project that includes rodent abatement of current and future rodent populations, to meet regulatory Orders.

CURRENT SITUATION AND ITS EFFECTS

In response to the requirement that the City develop and implement an Operations and Maintenance Plan that reduces the rodent population at Cesar Chavez Park (formerly the Berkeley landfill), the City included this task in the contract with SCS Engineers (SCS), executed in September 2012. SCS in turn subcontracted with Animal Damage Control (ADC), a qualified and licensed pest control service provider, to conduct initial visual surveys of the site in February and March 2013. These surveys found evidence for the presence of large populations of both California Ground Squirrels and Western Pocket Gophers (see Attachment 1: Rodent Survey Photos; and Attachment 2: Site Plan, which includes marked impacted areas).

Observations from Initial Surveys

The primary problem at the site is that ground squirrels take harborage and are prevalent throughout the levee structures around the entire Park perimeter. The squirrels were also observed in landscaped areas and in the brush near pedestrian

pathways, responding to unauthorized feedings by the public, in spite of signs posted throughout the site to discourage this (see Attachment 1). These warnings have had limited effect on some community members, and during the survey animals were observed feeding on drifts of bird seed and peanuts near the picnic area north of Spinnaker Way.

In addition to the ground squirrels, Western Pocket Gophers were also observed in landscaped areas, in non-landscape (natural) areas, and along perimeter trails as evidenced by small soil mounds from animal burrows, which are often enlarged by dogs that frequent the site. These burrows can compromise the integrity of landfill cover and drainage systems. In the past, significant repairs to the cover and drainage systems have been undertaken by the City in response to damage caused by burrowing animals.

Rodent Abatement Pilot Plan

SCS and ADC considered various methods for rodent abatement, including the use of poisonous baits and disking, and re-grading of select areas. They concluded that the most effective abatement measure would be to selectively trap, remove, and abate the rodents. A pilot plan is recommended to evaluate measures for both the ground squirrels and pocket gophers.

For ground squirrel populations: the consultant will cordon off an approximate 1-acre area with barrier fencing, and install signs indicating “keep out – habitat restoration in progress”. After marking the area, they will place up to 24 mechanical, baited traps and check the traps twice a day over a 3 week period. The traps are about 4-inches x 4-inches x 14-inches, small enough not to entrap other non-targeted animals. Captured ground squirrels will be removed and abated. The consultant will record and gauge the capture and removal rate, which will be used to more accurately estimate the rodent population in the test plot area, and evaluate program effectiveness.

For western pocket gophers: within the same 1-acre test plot, in below-grade locations near trails and in landscape areas, mechanical, non-baited tunnel cinch type specialty gopher traps will be installed. Below grade tunnel cinch traps are effective for this species, and are not visible to the public or accessible to pets. Traps will be checked once every 3 days over a 3 week period, and captured animals will be removed. Traps will be replaced as warranted, and when the traps are permanently removed, soil will be restored to its original condition. The consultant will record and gauge the animal capture and removal rate. Again this information will be used to more accurately estimate initial animal population in the test plot area, and evaluate program effectiveness.

Estimates of pre- and post abatement rodent populations will be made from results of the pilot plan, along with evaluation of the plan’s effectiveness. A report and recommendations for long-term abatement and maintenance for the entire site will be provided based on the pilot plan results. The City will present the long-term abatement and maintenance plan to the RWQCB for approval.

BACKGROUND

Following closure of the City's landfill at the Berkeley Marina in 1991, the site became Cesar Chavez Park. Since the landfill closure, the Bay Area Air Quality Management District (BAAQMD) issued an operations permit for the Landfill Post Closure Operations; and the maintenance program is annually inspected, monitored and tested to ensure compliance with state and federal regulations through BAAQMD, the Regional Water Quality Control District, and CalRecycle (formerly the Integrated Waste Management Board). The RWQCB, the lead agency for water quality protection at landfills, identified the rodent population problem and has required that control measures be undertaken.

POSSIBLE FUTURE ACTION

Further abatement measures are warranted to reduce ground squirrel and gopher populations, and prevent potential damage to landfill levee and containment systems.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

The City has a contract in place with SCS Engineers to perform this work.

CONTACT PERSON

Phil Harrington, Deputy Director, Public Works, 981-6661
Lorin Jensen, Supervising Civil Engineer, Public Works, 981-6411
Reeve Battle, Assistant Public Works Engineer, Public Works, 981-6336

Attachments:

- 1: Closed Landfill Rodent Survey Photos
- 2: Closed Landfill Site Plan

RODENT SURVEY PHOTOS
CLOSED CITY OF BERKELEY LANDFILL / CESAR CHAVEZ PARK



Spoils from ground squirrel activity in the perimeter levee area.



Spoils from tunneling by Western Pocket Gophers.



Ground squirrels attracted to bird seed from illegal feeding.



Sign posting at closed Berkeley Landfill (typical).



LEGEND		RIP RAP ARMOR	 APPROXIMATE SCALE IN FEET
GROUNDWATER MONITORING WELL	CONCRETE DRAINAGE DITCH (V-ditch)	SITE BOUNDARY	
LEACHATE MONITORING WELL	IMPACTED BY GROUND SQUIRRELS	IMPACTED BY WESTERN POCKET GOPHERS	
LIQUID COLLECTION SUMP			

SCS ENGINEERS
 ENVIRONMENTAL CONSULTANTS & CONTRACTORS
 6601 KOLL CENTER PARKWAY, SUITE 140
 PLEASANTON, CALIFORNIA 94566
 PH. (925) 426-0080 FAX. (925) 426-0707

PROJ. NO. 01210112.01	DWN. BY TMS	SCAD FILE Fig 1 Site Plan.dwg
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NOTE:
 ORIGINAL TOPOGRAPHY BY AERIAL METHODS
 2010. BASE PROVIDED BY HJW GEOSPATIAL
 AERIAL PROVIDED BY HJW GEOSPATIAL

SHEET TITLE:
 SITE PLAN SHOWING BURROWING ANIMAL IMPACTS

PROJECT TITLE:
 CLOSED BERKELEY LANDFILL
 CITY OF BERKELEY

DATE:
 3/25/2013

SCALE:
 AS SHOWN

FIGURE NO.
 1