



## CITY OF SANTA BARBARA

### PARKS AND RECREATION COMMISSION REPORT

**AGENDA DATE:** January 25, 2012

**TO:** Parks and Recreation Commission

**FROM:** Parks Division, Parks and Recreation Department

**SUBJECT:** Beach Maintenance Program

**RECOMMENDATION:** That the Commission receive a report on the Parks Division Beach Maintenance Program.

#### **DISCUSSION:**

The purpose of this report is to provide the Commission with information about Parks Division beach maintenance operations, sensitive resources on the beach, and environmental requirements for beach maintenance activities.

#### **Background**

The City of Santa Barbara has an estimated 6 linear miles of beach available for public use and enjoyment. Public beach within the City boundary extends east of the Arroyo Burro Estuary at the County Arroyo Burro Beach Park to the eastern end of East Beach, adjacent to the Clark Estate and opposite the Andrée Clark Bird Refuge. As shown in the attachment, the Parks and Recreation Department's beach maintenance program is limited to the 2.9 miles of beach that encompass Leadbetter Beach, West Beach, and East Beach.

While data is not collected about actual beach use, it is estimated that between 150,000 and 250,000 residents and visitors use the 2.9 miles of maintained beach on an annual basis. On a peak summer day, 7,000 or more people may use the beaches, making them one of the busiest areas in Santa Barbara's waterfront. This does not include special events, and recreational use of the many beach parks, the beachway, and other coastal areas for recreational activities.

Common beach and coastal ocean activities include swimming, sailing, kite boarding, volleyball, walking, running, sunbathing, kayaking, surfing, paddle boarding, and picnicking. The Department operates summer programs such as Junior Lifeguards, and other camps and classes as well as popular sporting events, such as Reef and Run, Nite Moves and the Santa Barbara Tri-athlon are held on City beaches each year.

## **Beach Maintenance Operations**

The Parks Division is responsible for all beach maintenance operations. The Parks Division uses mechanized equipment to groom and rake the beaches. Beach grooming is completed for public safety and aesthetic purposes. Beach grooming includes raking, cleaning (sifting sand for debris removal), and re-contouring sand by mechanical and physical labor. All mechanized equipment is restricted to the dry sand area only, above the ordinary high water mark.

Beach maintenance activities are permitted under the City's Sediment Management Plan, which also includes the Waterfront Department's harbor dredging operations. The Sediment Management Plan is reviewed and approved by the City and seven Federal and State agencies. Permits and permit conditions are required from the agencies to perform the beach maintenance and harbor work.

*Beach King Operation.* The Beach King is used from May to October. A specialized tractor pulls the Beach King as it sorts sand and debris. A "paddle like" tool drags across sand to a depth of four inches, places the sand and debris onto a conveyor belt and the sand is dropped back to the beach and the debris/trash is released into a hopper. The hopper is emptied into a dump truck and hauled to a local recycling center. The grooming cycle generally takes four days and is done 10 times from May to October. On an annual basis approximately 250 tons of debris is removed and recycled (based on a five-month period).

*Raking Operations.* Beach raking occurs primarily between November and April. A tractor drags a rake attachment and the top four inches of sand are cleaned and groomed. No debris is removed in this process. Raking equipment can be used on wet sand. Due to budget reductions, the Parks Division only completes the raking cycle six times, compared to ten times in past years. The rake is also used to re-level the volleyball courts, as needed during summer, and to level out depressions made from normal recreational volleyball activities

*Hand Crew Operations.* In addition to mechanical grooming operations, Parks Division hand crews pick up debris and trash along the beaches, creek mouths, and below the wrack line where mechanized equipment is restricted. Hand crews are also used after large events such as the 4<sup>th</sup> of July, on City beaches up coast of Leadbetter Point, and to assist in cleaning up beached vessels. Trash is loaded into trucks and disposed of as appropriate. Hand crews clean the beaches at least twice a week year round. The average weight of trash removed by hand crews is 26 tons annually.

*Storm Events/Emergencies.* Approximately once every five years, a winter storm event delivers substantially higher than normal loads of debris to the beach. Debris is primarily composed of green waste, but can also include garbage such as old furniture, car parts,

broken boat and vessels parts, fiberglass, metal, broken glass, etc. These types of garbage can pose a safety hazard for beach users and swimmers and require removal.

In extreme storms, the City will hire a contractor to remove the dense debris deposition. The sandy beach areas covered in debris are skimmed by a specially fitted rake attachment to a depth of approximately four to six inches. A dozer pushes debris into centralized piles at various locations on the beach where it is loaded onto trucks and disposed of as appropriate. The weight of storm debris removed can vary from approximately 500 to 1,000 tons during extreme storm years.

### **Lifeguard Towers**

Once a year in May, five or six lifeguard towers are installed at designated locations on Leadbetter, West and East Beach for public safety purposes during high summer recreational use times. Front-end loaders are used to position the towers which are then anchored into hand dug trenches. The towers are repositioned further away from the water in October and November.

### **Sensitive Resources on City Beaches**

Santa Barbara beaches are home to protected wildlife and sensitive habitats. Sensitive wildlife resources include:

- California least tern (Federal/State Endangered),
- Western snowy plover (Federal Threatened/CA Species of Concern),
- Steelhead southern California (Federal/State Endangered)
- Tidewater goby (Federal/State Endangered and
- California grunion (CA State Fishing Regulations);

Other sensitive wildlife on City beaches include birds protected by the Migratory Bird Treaty Act and marine mammals protected under the Marine Mammal Protection Act. The beach areas include a number of environmentally sensitive habitats such as marine, intertidal, beach, upland (sand), creeks (Mission, Laguna and Sycamore Creeks) and associated estuaries; and archaeological resources. Sensitive resources are considered and protected during beach maintenance activities.

### **Permit Requirements for Beach Maintenance Activities**

Sensitive resources in the area of beach maintenance activities come under the protection of the City and seven federal and state agencies, including:

- California Coastal Commission
- State Lands Commission

- Regional Water Quality Control Board
- US Army Corps of Engineers
- National Marine Fisheries Service
- CA Department of Fish and Game
- US Fish and Wildlife Service

Permits from agencies include mitigation measures that control and limit activities for beach maintenance. Failure to comply with these measures, or violation the Endangered Species Act, could result in steep fines and/or imprisonment. Permits include measures to avoid, minimize and protect sensitive resources. As an example, qualified biologists survey for sensitive wildlife species prior to all beach maintenance activities, including the 16 grooming/raking cycles, lifeguard tower deliveries and any other maintenance that could disrupt or impact wildlife. If the biologist observes protected wildlife species that may be impacted by maintenance activities, staff is informed and the area is avoided or protected and work proceeds when the area is clear.

Under the permits for beach maintenance activities, several measures limit the timing and location of maintenance. Of particular note is the area at and below the ordinary high tide line. Wrack, or kelp washed from offshore to the beach, is deposited by waves at and below the tide line and is an important food source for invertebrates that in turn provide food for dozens of Santa Barbara shorebirds. Permits restrict all mechanized beach grooming to the dry sand area only and at a distance of at least 10 feet landward of the wrack line, or the ordinary high tide line, whichever is further landward.

Permits also prohibit the removal of wrack from beaches during grooming, with the exception of debris that is entangled in wrack and may pose a threat to the public. In that case, debris is removed from wrack by hand. Within and below the wrack line is where California grunion spawn and corresponding egg incubation occurs (March 14 – August 31). Wintering western snowy plover are regularly documented foraging in the wrack on Santa Barbara beaches (August 1 – March 1) and California least tern, if present, forage in near shore waters and opportunistically on wrack (July and August). Permit conditions include a Signage Plan educating the public on the biological significance of beach wrack.

Permits require that a buffer of 200 feet from the creek centerlines be used to protect sensitive fish species and the creek and lagoon habitats where they reside. Species include steelhead (Mission Creek, Laguna Lagoon) and tidewater goby (Mission Creek, Laguna Channel, Sycamore Creek or Andrée Clark Refuge outlet). No mechanical equipment is used within the 200 foot buffer zone. Grooming and trash removal in the buffer zone is performed by hand and is labor intensive.

Permit conditions for the protection of archaeological resources include limits regarding burying dead shorebirds and mammals, at a maximum three feet in depth, and

monitoring within specified areas sensitive for subsurface deposits. Permit conditions to protect water quality, coastal zone access and recreation uses are related primarily to sediment management. Beach nourishment, dredging and discharge provide positive impacts to navigation, recreation, operation, economic and shoreline protection for the Santa Barbara harbor and the waterfront area.

**ATTACHMENT:** Beach Maintenance Location Map

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