

# Eelgrass Update

**Common Name:** eelgrass

**Scientific Name:** *Zostera marina*

## **Distribution in Southern California:**

- Coastal wetlands, bays, and harbors at depths between +1 ft to about –25 ft
- Nearshore coastal sand bottoms to depths of 50 to 80 ft (*Zostera* spp.)
- Channel Islands (*Zostera* spp.). Forms small patches, beds, and larger meadows

## **WHAT IS EELGRASS?**

- Eelgrass (*zostera marina*) is a grass-like marine plant that provides shelter for many species of juvenile fish and invertebrates and also serves as a foraging area for federally and State listed endangered and threatened bird species.
- The conditions favorable for the growth of this plant are periods of low rainfall, runoff and sedimentation, good light penetration, optimum temperature range (50 to 68 degrees F), moderate dissolved oxygen concentration, limited algal growth and good water quality.
- The plants grow from a depth of about +1 ft. MLLW to an average depth of -8 to -10ft (narrow blade type).
- Eelgrass itself is not a threatened or endangered species of plant; however, it is highly protected by the Federal and State Resources Agencies for its habitat value.

## **Distribution in Newport Bay (*Z. marina*)**

- Depths between +1 to –8 ft (MLLW) (most common)
- Silts and muds, 3 cm to 1 meter in length (typical), “narrow bladed form”
- Along bulkheads
- Between bulkheads and docks
- In open spaces between neighboring docks
- In boat slips that have not been occupied by boats for a long period of time
- In front of sandy beaches
- On shoals (i.e., near Coast Highway Bridge)
- On dredge channel slopes
- Depths between approximately –7 to –28 ft in Entrance Channel, Sandy sediments, grows to about 2 meters in length, “wide bladed form”.

## **Lower Newport Bay Locations Known To Date:**

- Entrance Channel to Coast Guard Base, Corona del Mar, along Bayside Drive
- Yacht Club Basins and Docks in Balboa Channel
- Balboa Island (south, east, north, and northwest sides)
- Harbor Island (entire perimeter)
- Linda Isle (entrance and entire inlet)
- Channels around Harbor Island and Linda Isle

- Bay Isle (in front of beaches, patchy in channel between peninsula and Bay isle)
- Between docks and along on Balboa Peninsula from entrance channel to Bay Isle (patchy)
- Between docks and along bulkhead along Mariner's Mile to Sea Scout Base
- Bayshores to Coast Highway Bridge

### **Relative Distribution of Eelgrass in the Lower Bay**

- Water area in the Lower Bay = 750 acres
- Eelgrass coverage per 2002 survey = 35 acres or 5%
- Lowest recorded eelgrass coverage in 1993 = 3 acres or 0.5%

### **Upper Newport Bay Known Locations to Date:**

- Castaways to Dover Shores (patchy)
- Bayside/De Anza Peninsula (lower ½ of peninsula, patchy)
- Early records up to Shellmaker Island and Middle Island
- Recorded in 1960s near the Dunes Marina

### **Other Southern California Embayments With Eelgrass**

- San Diego Bay, Mission Bay and Agua Hedonia Lagoon account for about 98 % Of the eelgrass in Southern California embayments
- Eelgrass found in recreational water areas, commercial and Navy Port areas, small boat harbors and wildlife reserves
- San Pedro Bay (Ports of LA & LB) eelgrass is found in outer LA harbor and Cabrillo Beach
- Los Alamitos Bay eelgrass is found in the ocean entrance and former marine stadium area
- Anaheim Bay/Sunset Bay/Huntington Harbour eelgrass is found in the ammunition barge area, wildlife refuge area, Sunset Bay entrance channel, Sunset Marina and adjacent to homeowner bulkheads (Humboldt and Trinidad Islands)

### **WHY IS THE EELGRASS ISSUE IMPORTANT?**

- The ability of property owners (both commercial and residential) and the City to dredge slips and channels and to maintain docks and bulkheads is critical to keeping our Harbor viable for commercial and recreational boating.
- Even the simplest of dredging proposals requires permits issued by 3 federal and 4 state agencies before our Harbor Resources Department can allow the dredging to proceed.
- If eelgrass is located in the area to be dredged, property owners are required to reestablish the eelgrass on site if possible, or pay for the planting of eelgrass at an approved offsite location called a mitigation site.
- The City did not choose this costly replanting or mitigation requirement - but we are trying our best to implement it according to the provisions of our Regional General Permit (RGP) that allows Harbor property owners to dredge.

- Balancing recreational boating use with environmental protection required by US and California resources agencies is the goal of the City in developing a sound and implementable strategy.

## **WHAT IS NEXT**

An eelgrass management strategy under development includes the following:

- The establishment of a federally funded cooperative project with the City and County which creates eight eelgrass pilot project areas that may be utilized for mitigation areas for future slip and channel eelgrass removal.
- We intend to establish a mitigation bank and distribute eelgrass mitigation credits once the pilot project is determined successful and permission is granted by the resource agencies.
- Under existing federal rules which govern fishery conservation and management, we intend to negotiate a defined minimum baseline for the distribution, density and productivity of the eelgrass beds needed in Newport Harbor for essential fish habitat.
- We currently are training and certifying more eelgrass surveyors and mitigation bank monitors to reduce these costs to project applicants and to provide information concerning the success of eelgrass transplant mitigation projects as required by federal and state regulations.
- We will work to include eelgrass mitigation measures in the next iteration of the RGP. As you are aware, the RGP is a streamlined process dealing with small dredging projects (typical to homeowners) as agreed to by federal and state agencies and renewable every five years.
- The City is currently attempting to certify a Local Coastal Program (LCP) which includes a discussion of coastal resources protection. It is important to note that the California Coastal Commission, along with other state and federal agencies, will retain permitting authority over dredging, filling, structures and eelgrass mitigation in the water area of Newport Harbor, even with a certified LCP.

## **Public Awareness Outreach**

In addition to the recent newspaper articles, Harbor Resources is working on providing accurate information regarding the eelgrass issues by:

- Teaming up with the Chamber of Commerce Marine Committee to develop a public information bulletin. Mark Silvey is leading a group of bayfront Homeowner's Associations and interested citizens to help develop the most appropriate method of information dissemination.
- The City's Public Information Officer is developing a newsletter and public television public service announcements.

## **Strategy Development**

The Southern California Eelgrass Mitigation Policy adopted by the National Marine Fisheries Service in 1991 has detailed specifications on **how** to perform eelgrass mitigation. What is needed is a scientific basis for determining **when** mitigation is necessary and development of a baseline delineation of essential fish habitat (such as eelgrass) areas. In addition, a management plan is needed to have balanced protection of all beneficial uses of the harbor.

## **Strategy Goal**

Maintain the recreational and commercial uses of the harbor in balance with the environmental protection required by federal and state resources agencies.

## **Related Litigation**

- US Ninth Circuit Court of Appeals – Natural Resources Defense Council versus the National Marine Fisheries Service (NMFS) – January, 2003
- NMFS must provide notice and opportunity for comment before issuing specifications and management measures for the Pacific Coast Groundfish Fishery.
- Center for Biological Diversity, California Public Employees for Environmental Responsibility and Sierra Club versus Bureau of Land Management (BLM) for impacts to endangered plant species (Pierson's Milkvetch) by livestock and off road vehicles at the Imperial Sand Dunes Recreation Area – March 2000
- Closure of 49,000 acres to off road vehicles resulted in a counter suit by the American Sand Association, California Off-Road Vehicle Association and District 37 of the American Motorcycle Association.

## **Results of Litigation**

- NMFS must provide notice and opportunity for public comment before issuing specifications and management measures.
- BLM must prepare an EIS and a Recreation Area Management Plan that considers alternatives for cultural, natural and recreational resource management needs.

## **Special Area Management Plan (SAMP) - Introduction**

- On July, 24, 2003, City and County staff met with many of the state and federal agencies involved with issuing, dredging, dock and bulkhead permits and apprised them of our concerns regarding special conditions in their permits related to eelgrass monitoring and mitigation.
- We discussed some potential ways of dealing with the Newport Bay eelgrass issues and it was generally agreed upon that a SAMP was the way to achieve our goal of balancing beneficial uses and environmental protection.
- This approach is consistent with the end result of legal actions noted above and Harbor Management Plans for other locations such as Narraganset Bay and Charleston Harbor

## **What is the Purpose of a SAMP?**

- To provide a comprehensive area-wide aquatic resource plan that achieves a balance between aquatic resource protection and reasonable economic development and minimizes individual and cumulative effects of proposed projects.
- With the SAMP approach, future projects can be authorized with programmatic level permits, if they meet specific criteria designed to avoid and minimize impacts to aquatic resources.

### **How is a SAMP Prepared?**

- With the Army Corps of Engineers as the lead agency, a stakeholder group is assembled to:
  - inventory and characterize aquatic resources,
  - prepare baseline studies,
  - prepare planning level delineations,
  - prepare a functional assessment,
  - scope alternatives and relevant issues,
  - prepare an EIS
  - prepare a comprehensive management plan for the aquatic resources that provides predictability to local citizens and reflects the needs of the communities.

### **How much does a SAMP cost and how long will it take?**

- SAMP's typically take one to three years to complete depending on the complexity of the area and issues.
- Based on the watershed SAMP's currently in progress, we estimate the Newport Bay SAMP will take two years.
- Congressman Cox will be requested to support a first year study cost of \$600,000.
- SAMP's are typically 100% federally funded. Other types of area-wide management planning are possible with local cost sharing requirements and the benefits of each type needs to be further evaluated.

### **If we proceed with the SAMP process, will there be any short-term consideration regarding eelgrass mitigation?**

- The agencies expressed an initial willingness to consider that request.