DATE ISSUED: March 9, 2012

ATTENTION: Public Safety and Neighborhood Services Committee

SUBJECT: Report on Public Safety on Mission Bay and Lifeguard Rescue Vessels

REFERENCE: None

REQUESTED ACTION
This is an informational item only. No action is required by the Committee or the City Council.

STAFF RECOMMENDATION
Accept the Report.

INTRODUCTION
Recognized as one of the world’s finest aquatic playgrounds, the 4,600 acre Mission Bay Park encompasses twenty-seven miles of shoreline with six resort-quality hotels; two full service campgrounds; five natural preserve areas; seven seasonally lifeguarded swimming beaches; and many camps, clubs, and businesses serving a range of outdoor and aquatic-oriented user groups.

SUMMARY
Mission Bay Park is an ideal location for both land and water-based recreation. Activities on the water include swimming; human-powered paddle sports such as kayaking, outrigger canoeing, and stand-up paddle boarding; wind surfing, kite boarding, and sailing; fishing; water skiing and wake boarding; and power boating in craft ranging from remote controlled model yachts to personal water craft to commercially operated whale watching, sport fishing and dive charter vessels up to eighty-five feet and larger. Many of the larger vessels operated out of Mission Bay are capable of carrying large numbers of passengers.

Examples of land-based recreational amenities available in Mission Bay Park include picnic and barbeque facilities, play grounds, basketball and volleyball courts, walking and running trails, an off-leash dog park on Fiesta Island, a remote controlled model airplane field, Belmont Park with its Giant Dipper rollercoaster, and the world famous Sea World theme park.

Services available to boaters include eleven marinas with over 2,200 slips accommodating vessels up to ninety feet in length and larger; five free public launch ramps; two fuel docks; 126 moorings and 232 beach bars available for long-term lease; free temporary docking and pump out facilities; permit-only specialty water ski and personal water craft use areas; and many boating-related equipment and service vendors including the only do-it-yourself boat yard in San Diego, featuring 35- and 100-ton travel lifts. There are also recreational vessel rental operations on Mission Bay.
As a testament to its desirability as a recreational destination, Mission Bay is home to several nationally and internationally attended boating-related special events. For example, over the past four decades, the San Diego Crew Classic has become the largest regatta in the world for eight-oared rowing shells. The Crew Classic hosts high school junior programs, collegiate teams, masters’ clubs, and even Olympic-level competitors. And the annual Thunderboat Regatta attracts elite powerboat racers and thousands of spectators from across the country. Lifeguards also provide protection for numerous swimming and triathlon events on Mission Bay.

STATISTICAL DATA

Boating Safety Unit

The Lifeguard Boating Safety Unit (BSU) is responsible for patrolling Mission Bay and the San Diego City coastline up to three miles off shore. The types of emergency services provided by BSU staff include swimmer rescue, boat rescue, medical aid, marine fire suppression, sinking vessel pump outs, emergency boat tows, boating enforcement, and other related maritime services. During calendar year 2011, the BSU performed 166 swimmer rescues and backed up the oceanfront lifeguards on hundreds more. Additionally, the BSU handled 766 boating related incidents. These efforts saved an estimated vessel property value of $1,181,100.

BSU Lifeguards are Peace Officers and are authorized and empowered to carry out duties of Harbor Police as defined by Section 830.33 of the California Penal Code. Another important function of the BSU staff is to serve as Dispatchers in the 911 equipped Lifeguard Communication Center (LCC).

In addition to patrolling Mission Bay and staffing the LCC, the BSU is the support hub for all Lifeguard Operations. They provide emergency backup to beach areas when rescue activity is high and specialty responses for cliff rescues, scuba rescues and swiftwater river rescues. The BSU staff also work with the Fire-Rescue Department, Office of Homeland Security, the United States Coast Guard, Customs and Border Protection, San Diego Police and other agencies on a wide range of incidents including vessel and dock fires, environmental hazards, illegal immigration and trafficking of contraband, and preventive radiological and nuclear material detection on small crafts. The BSU works closely with California Fish and Game officers on fish and game enforcement.

BSU Staffing Levels

Day time staffing levels at the BSU vary depending on the season and day of the week. Each year is divided into two schedule periods called the Winter Rotation and the Summer Rotation. The Winter Rotation starts in October and is our primary training season for full time lifeguards. The Summer Rotation starts in April and includes the Non-Peak Season and the Peak Season. Summer Peak Season is a twelve week period that starts in June and ends on Labor Day. The Summer Non-Peak Season includes the spring and fall months that shoulder the Peak Season. The following chart identifies the staffing levels for the different seasons.
Some lifeguards work at night after stations close and in the early morning hours before stations open. We refer to these lifeguards as Night Crew. Lifeguards in this assignment provide Dispatch functions as well as emergency response for all beach areas. BSU staffing levels at night stay consistent throughout the year. One dispatcher and two personnel respond from Lifeguard Headquarters on Mission Bay and two additional personnel respond from the La Jolla area. The following chart identifies staffing levels at night.

Law Enforcement

Boating law enforcement is an important function of the BSU. Mission Bay is one of the heaviest used recreational boating areas in the nation. BSU staff patrol and attempt to prevent boating accidents from occurring by issuing boating citations and providing warnings and education (referred to as preventative acts) to the boating community. The top three categories of citations issued by BSU Lifeguards are 1) vessel speeding, 2) vessel registration & carriage requirements, and 3) water ski violations. Additionally, BSU Lifeguards made nearly 2,000 preventative contacts during 2011.

Prior to 2009, both Lifeguards and San Diego Police Harbor Unit provided boating enforcement on Mission Bay. In 2009 the Police Harbor Unit was eliminated and reassigned to vehicle patrol as a budget reduction measure. Police reduced their vessel fleet to one boat, which they are capable of deploying when operationally necessary. The Lifeguard BSU remains as the primary enforcement agency on Mission Bay for boating laws. When Lifeguards have evidence or suspicion of violence or significant
illegal activity, a request is made for San Diego Police who respond and provide armed enforcement. Additionally, San Diego Police provide assistance for investigating serious boat accidents.

Lifeguard Vessels

The Lifeguard Division has eleven (11) rescue vessels in its fleet. There are three categories of vessels:

1. Surf Rescue Vessel (6)
   These are 22 foot hard-hulled Boston Whaler vessels custom designed for rescue work, including in-surf and ocean rescue operations.

2. Patrol Vessel (3)
   These vessels are designed for flat water operation and have an "open construction" that allows the operator and/or crew person to move about freely.

3. Multi-Purpose Rescue Vessel (2)
   These 32 and 35 foot wood construction vessels are also known as Fireboats, but serving as a firefighting platform is only one of its many functions.

Category 1 and 2 vessels are the heaviest used vessels in the fleet. They receive the most patrol hours because of their versatility. Although six of them are designed for ocean rescue operations they can also be used as bay patrol boats. This is especially important in the off season when staffing levels are lower. A rescue boat that is on bay patrol may need to respond immediately to an ocean emergency without an opportunity to switch vessels. These boats are used for a wide range of emergency and non-emergency uses. They are law enforcement platforms as well as medical aid and rescue response vessels. Rescue boats that outlive their life expectancy require more maintenance and begin to lose their structural integrity. Over time these boat become unsuitable for the tough demands of rescue work and may put Lifeguards and the public at a higher risk for injury. The following table shows a comparison of the vessels’ age and approximate life expectancy.

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<tr>
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<th>BSU Surf Rescue/ Patrol Vessels</th>
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<tr>
<td>Years</td>
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<td>Approx Life Expectancy</td>
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The Multi-Purpose Rescue Vessel is listed in this report as Category 3. Also known as Fireboats, they represent the most sophisticated rescue vessels operated by lifeguards. Both Marine 1 and Marine 2 have two V8 drive engines and one fire suppression pump engine on board. These vessels provide fire fighting capabilities for both vessels, as well as the boat marinas on Mission Bay. The twin propeller vessels are also particularly useful for towing larger boats and maneuvering through marinas. In addition to providing
fire suppression these boats are used to pump out sinking vessels, mitigate hazards of fuel spills, serve as rescue and medical aid platforms, support search and rescue operations, man overboard searches, and law enforcement detail. The following table shows a comparison of the fireboats age and approximate operation life expectancy.

<table>
<thead>
<tr>
<th>Years old</th>
<th>Marine 1</th>
<th>Marine 2</th>
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<tr>
<td>Approx Life Expectancy</td>
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**BSU Multi-Purpose Rescue Vessel**
**(AKA Fireboat)**

**Gasoline vs. Diesel Engines for Fireboats**

Currently one of the two Fireboats is out-of-service due to problems with its starboard engine. According to the Lifeguard Division Marine Mechanic, the standards for gasoline engines have become stricter and require cleaner emissions at lower RPM’s. However, the changes made to address exhaust concerns are not compatible with the marine application. This has created ongoing mechanical problems that require repeated repairs.

The Lifeguard Fireboats have historically been powered by inboard gasoline engines. Replacement gas engines were normally budgeted and purchased as necessary to keep the vessels in serviceable condition. During fiscal year 2011 the Lifeguard Division became aware that the marine industry stopped manufacturing and supporting the gas engines currently installed on both Fireboats. This reality forced the Lifeguard Division to consider diesel engines as an alternative solution for the Fireboats. Funding has been identified in this year’s budget to outfit one vessel with diesel engines and a Request for Bid through the City’s Purchasing and Contracting Department has been initiated. It is the intent of the Lifeguard Division to re-power Marine 1 with new diesel engines as soon as possible and to use existing gasoline engines for Marine 2 for its remaining years of service.

Marine 2 is currently 21 years old. As a result of City budget challenges during the past several years, estimated vessel operational life spans have been increased. Annual repairs and refurbishment have enabled us to delay replacement. However, despite these efforts, we will need to address the need for a replacement boat soon.

**FISCAL CONSIDERATIONS**

Each vessel in the BSU fleet has an estimated operational life span based on its category of use. Historically, replacement of these vessels has occurred through one-time, individual budget solutions, such as through Department of Boating and Waterways (DBW) grant, a corporate partnership, or City budget allocation. Currently, the Mayor’s Office is considering options for addressing future vessel replacement.
PREVIOUS COUNCIL and/or COMMITTEE ACTIONS
N/A

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS
Ongoing

KEY STAKEHOLDERS AND PROJECTED IMPACTS
Community and Citizens

Javier Mainar, Fire Chief