



CITYGATE ASSOCIATES, LLC  
FIRE & EMERGENCY SERVICES

# SAN DIEGO FIRE-RESCUE DEPARTMENT

## LIFEGUARD SERVICES DIVISION DISPATCH AND OPERATIONS STUDY

DECEMBER 1, 2016



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## **EXECUTIVE SUMMARY**

### ***INTRODUCTION***

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Citygate Associates, LLC (Citygate) was retained by the City of San Diego Fire-Rescue Department (Fire-Rescue or Department) to perform a Lifeguard Services Division Dispatch and Operations Study, which includes assessing the feasibility of merging Fire-Rescue’s Emergency Command & Data Center (Fire Dispatch) with the Lifeguard Services Division’s Communications Center (Lifeguard Dispatch). The review was to include the operational and economic issues related to maintaining separate centers, or merging them. Additionally, given the operational issues to be reviewed regarding Lifeguard Dispatch and coordinated response with Fire-Rescue Operations Division resources, Citygate was to evaluate other opportunities for improved coordination between the Lifeguard Services Division and Fire-Rescue’s other functions.

It must be stated up front, that this independent peer review of certain facets of Fire-Rescue’s Lifeguard Services and Operations Divisions is a best-practices-based tune-up. Both Divisions perform at a high level and are considered to be leaders in the state in the provision of their respective services. Over several decades, the lifeguards have appropriately grown into a multi-dimensional organization as the firefighters also did. No longer do firefighters “just put the wet stuff on the red stuff” or lifeguards “just save people from drowning.” Now both Divisions provide a variety of all-risk, first and specialty response services to handle the City’s emergencies. As such, the two Divisions can and will further increase their coordination to best serve the residents and visitors to the City of San Diego by responding to emergencies with the most appropriate teams, in the best possible timeframe.

### ***PROJECT EVALUATIVE CRITERIA***

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Within the United States and abroad, the typical agencies that provide lifesaving services to the general public are quite varied; local government, state government, federal government, Department of Defense facilities, and all-volunteer agencies regularly provide these services to residents and visitors. In California, the United States Lifesaving Association is the body which evaluates and promotes common standard practices among lifeguard agencies. Also, the Southern California Marine Safety Chiefs Association is another group of lifesaving professionals that regularly meets to review and promote best practice-based operating practices. There are no state or federal statutes which *require* a local agency to provide these services, or how to do so; however, most government entities in Southern California assume the responsibility to protect people on the beach and in the water and, in doing so, created lifeguard service departments to provide protection.

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For lifeguard dispatch centers, like fire and ambulance dispatch operations, there are no federal or state-required performance standards. However, common standard practices have been identified by organizations such as the National Fire Protection Association (NFPA), the National Emergency Number Association (NENA), and the International Association of Public-Safety Communications Officials (APCO) for the management and operations of 9-1-1 call receipt and emergency unit dispatch centers. Citygate has conducted performance reviews of agencies similar to the San Diego Fire-Rescue Department which also have integrated the dispatching of fire and lifeguard units.

Citygate's consultants have worked in and led large lifesaving services agencies. These consultants have been with agencies during the transition from a single, stand-alone lifeguard service to become a division within a large fire agency, understanding the successes and failures along the way. Our observations and findings are a result of our review of the San Diego Fire-Rescue Lifeguard Services Division, its people, policies, and practices, utilizing model best practices where feasible and always using lessons learned in similar agencies.

### ***CITYGATE'S OVERALL OPINIONS ON THE STATE OF THE SAN DIEGO FIRE-RESCUE LIFEGUARD SERVICES DIVISION***

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Citygate's staff was provided open access to all levels of operations for the Lifeguard Services Division, along with the Fire Dispatch operation. We interviewed and listened to a wide array of people with varied job descriptions and responsibilities. From the Fire Chief to the Lifeguard Chief, the Marine Safety Captain, Lieutenants, Sergeants, and permanent and seasonal lifeguards, including the Dispatchers of both Fire and Lifeguard centers, we have found a professional, capable workforce whose primary interest is providing top tier protection to the public. We find them to be proud, talented, and very aware of the history and culture imbedded within the Lifeguard Services Division. In both the Fire Dispatch and Lifeguard Services Division listening sessions, we encountered dedicated people, eager to learn, train, and provide for the public. They spoke candidly in interviews about agency strengths and areas needing improvement. We have considered all of their concerns and suggestions, along with the review of data metrics where available, in developing our findings.

Citygate should point out one area of concern which is not an operational best practice for two agencies that are supposed to be one operational department. Existing within the Standard Operating Procedures of both the Fire Operations and Lifeguard Services Divisions is a complex operational construct stemming from requirements found in the Lifeguard Services Division's negotiated Memorandum of Understanding. This issue is how the Department utilizes the Lifeguard Services Division's Cliff Rescue personnel and equipment for cliff rescues during daylight hours but then utilizes the Fire Operations Division special rescue personnel at night to provide the same services. Additionally, while the Fire Operations Division has a number of Swift Water Rescue-trained personnel, it does not staff or participate in the deployment of the

Lifeguard River Rescue Team, thus not following a best practice of sending the closest, most appropriate resources to persons in need. It should be the mission of the entire Fire-Rescue Department to send the closest, most appropriate resource and personnel to any emergency, including cliff and inland swift water rescue situations, on a 24/7/365 basis.

### ***SUMMARY OF FINDINGS***

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Throughout this report, Citygate makes key findings, and, where appropriate, specific action item recommendations. Overall, there are 19 key findings and 20 specific action item recommendations. All findings are listed below for ease of reference, followed by all recommendations. The finding and recommendation numbers refer to the sequential numbers as these are presented in Sections 2 through 3 of this report.

- Finding #1:** The physical location of the Lifeguard Dispatch center facility is basic to the functional requirements and responsibilities of the Harbor Master and Marine Operations, including the safe operation of the Mission Bay channel from the ocean. The co-location of the facility (Lifeguard Headquarters (HQ) and Lifeguard Dispatch) is advantageous for senior staff to access the Lifeguard Dispatch center when needed. In addition, the third-story observation by Lifeguard Dispatch staff or other Boating Safety Unit (BSU) personnel allows some visual security to be provided for the facility, including the vessel impound storage adjacent to the facility. The BSU's watercraft are also co-located, along with the Division's primary Cliff Rescue vehicle.
- Finding #2:** Better operational integration and administrative integration may occur if common, redundant, and conflicting Policies and Standard Operating Procedures can be consolidated. Since the Policies and Standard Operating Procedures for both Fire Operations and Lifeguard Services Divisions are written independently of each other, this produces redundant and/or conflicting standards.
- Finding #3:** The physical location and facility housing the Lifeguard Headquarters and Lifeguard Dispatch pose a security risk. Threats against the facility include naturally-occurring events (tidal change, seismic, etc.), man-made (civil unrest, public aggression, etc.), and environmental (exposure from toxins, accidental toxic substance release, etc.). A separate Continuity of Operations Plan (COOP) does not exist that addresses this Division and its needs. This facility likely does

not meet current Essential Services Buildings Seismic Safety Act<sup>1</sup> and Americans with Disabilities Act (ADA)<sup>2</sup> requirements.

- Finding #4:** The City of San Diego Continuity of Operations Plan (COOP) Fire-Rescue Department Annex contains information for the entire Department relative to continuing to function during an emergency with a loss of systems and/or facilities; however, it does not contain sufficient specific information for the Lifeguard Services Division that may be needed in the event that the Lifeguard Dispatch center becomes uninhabitable. Understandable instructions should be available to all employees informing them where to go, the necessary equipment to take with them, and how to continue to function. Regular training and practice of these requirements are necessary. In addition, the Standard Operating Procedures do not contain information about how to react to specific systems becoming unavailable (e.g., telephones, radios, computers, etc.).
- Finding #5:** The current methods of capturing requests for assistance from both the general public and field units, assigning resources and tracking those resources, is inadequate for the Lifeguard Services Division and does not follow current recognized public safety best practices.
- Finding #6:** The geographic location information for the beaches and bays found in the Fire Dispatch Computer Aided Dispatch system database does not reflect the higher level of local coastline and waterside information retained in Lifeguard Dispatch records and in the legacy knowledge of the veteran lifeguards assigned to dispatch duties.
- Finding #7:** All statistical reporting is based upon hand-written reports, either generated by the Lifeguard Dispatch personnel, the district towers, or by field personnel themselves.

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<sup>1</sup> In 1986, The California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be designed and constructed to minimize fire hazards and resist the forces of earthquakes, gravity and winds. The enabling legislation can be found in the California Health and Safety Code, Chapter 2, Sections 16000 through 16022. *California Department of Consumer Affairs, California Architects Board website 2016.*

<sup>2</sup> The Department of Justice's revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 were published in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design, "2010 Standards." On March 15, 2012, compliance with the 2010 Standards was required for new construction and alterations under Titles II and III. *United States Department of Justice Civil Rights Division, ADA.gov website 2016.*



- Finding #8:** The Lifeguard Services Division does not have sufficient technology when compared to not only the City of San Diego’s Fire Operations Division and the Police Department, but also to other similar lifeguard agencies in Southern California. Investments in relevant technology will enable the Division to provide high levels of service to a wide population, not only in day-to-day activities, but also during multiple events, both local and regional, in addition to providing for the safety of its personnel.
- Finding #9:** While the Lifeguard Services Division has deployed a small number of Mobile Data Computers (MDCs) to some mobile response units, none of these resources are listed in the Fire Dispatch database and therefore cannot be effectively assigned or tracked and viewed. Both Divisions would benefit from having MDCs installed in all assignable mobile units by providing increased Situational Awareness.
- Finding #10:** The current recording/logging technology utilized in Lifeguard Dispatch is not properly supported in a manner consistent with the functional importance of a Secondary Public Safety Answering Point. This is not advisable, and is not in keeping with best practices in public safety dispatch operations.
- Finding #11:** The current practice of deploying specialized Lifeguard and Fire-Rescue Operations Division resources separately, such as the River Rescue Team and High Angle Rescue (under the limitations found in external agreements) does not meet the Fire-Rescue Department mission of sending the closest, most appropriate resource to each request for assistance.
- Finding #12:** At every level of both Fire Operations and Lifeguard Services Divisions, a fundamental lack of cross-training in each Division’s culture and operational needs has resulted in a stunted level of understanding of each Division. As with any organization, issues arising from a misunderstanding of procedural purpose can lead to decreased efficiency at emergency incidents, and in worst-case scenarios, dysfunction. Seeking to understand the varied service and mission needs among the Divisions can work to stem these misunderstandings.
- Finding #13:** Where cultural differences in the Fire Operations and Lifeguard Services Divisions are due to varied historical beginnings, these must be addressed in all training and authoritative documents, at all levels, to ensure clear direction. Some public safety agencies have utilized a facilitated workshop with the executives to plan and adopt an approach to the homogenization of Rules and Regulations, Standard Operating Procedures (SOPs), and other documents deemed necessary and important. A workshop outline should include, but not be limited to:

- ◆ Revised operational SOPs
- ◆ Revised operational cross-training
- ◆ New familiarization training for both Divisions
- ◆ Revised expectations for hiring, academy orientation, annual evaluations, and promotional exams to instill one Departmental team culture across different specialties.

**Finding #14:** During moderate and severe emergency incident periods, senior-level officers of both Divisions are challenged to attain adequate Situational Awareness of their resources and are unable to operate within an adequate Common Operational Picture.

**Finding #15:** Without an opportunity to share Situational Awareness information and develop a Common Operational Picture, both Divisions are often unaware of situation status and resource utilization of the other Division when responding to the same incident. The two agencies may be on different radio channels as well for the same incident.

**Finding #16:** Within Fire-Rescue, training and certification levels for Cliff Rescue and Water Rescue are different for Fire Operations and Lifeguard Rescue Teams and Dispatchers.

**Finding #17:** Best practices recommend that complex organizations conducting work with dangerous equipment possess and employ “common and consistent training levels” to ensure safety and positive outcomes under emergency and high risk/high consequence situations.

**Finding #18:** Scheduling and adhering to regular management meetings along with training and practice sessions between the Fire Operations and Lifeguard Services Divisions ensures safe and efficient incident operations for both Divisions.

**Finding #19:** Within the two Divisions and beyond when operating in regional large incident command, there is anecdotal evidence that the differences in rank cause confusion and concern when both Fire Operations and Lifeguard Services Divisions are present at an incident. Rank-for-rank equivalencies and/or “rank normalizing” of the Lifeguard Services Division rank titles would be beneficial to reduce misunderstanding.

**SUMMARY OF RECOMMENDATIONS AND PRIORITIES**

In any operations study there are recommendations with differing priorities for implementation. Many recommendations will have different budgetary impacts and require different timeframes for full implementation, such as cross-training, facility replacement needing a lengthy lead-time, etc. For all these reasons, and based on our review and interaction with staff, Citygate identifies the following priorities for each recommendation and suggests implementation timing by Fiscal Year:

Recommendation	Priority Timing
<b>Recommendation #1:</b> San Diego Fire-Rescue should acknowledge that the current location of Lifeguard Dispatch best serves the Lifeguard Services Division, its employees, and those it protects in Mission Bay and the ocean access channel.	<b>Immediate Fiscal Year 17</b>
<b>Recommendation #2:</b> Convene a multidisciplinary team from the Fire Operations and Lifeguard Services Divisions to review <u>all</u> field operations policies and procedures. Focus first on policies and procedures involving responses requiring resources from both Divisions, then expand to procedures including all types of responses, training, staffing, reporting emergencies, career advancement, etc.	<b>Immediate Fiscal Years 17 and 18</b>
<b>Recommendation #3:</b> San Diego Fire-Rescue should embark on a project to determine the best method of providing a secure and adequate facility on the Mission Bay property for the Lifeguard Service Division’s current and future needs.	<b>Moderate Fiscal Years 18 and 19</b>
<b>Recommendation #4:</b> The front access to the Lifeguard Headquarters building should be secured with a gate and electronic/voice access system where the entry road broadens into the parking lot.	<b>Moderate Fiscal Years 18 and 19</b>
<b>Recommendation #5:</b> The City should design and fund a capital replacement project to replace the Lifeguard Headquarters at the current location with a secure complex compliant with the California Essential Services Building Act, built to last 50 years and that is also above the expected sea level rise over that timeframe.	<b>Long-Term Capital</b>

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Recommendation	Priority Timing
<p><b>Recommendation #6:</b> The San Diego Fire-Rescue Department should develop, as soon as possible, a comprehensive Continuity of Operations Plan (COOP) that provides details needed to ensure that the Lifeguard Services Division performs as directed prior to, during, and after an emergent event occurs that disrupts systems, services, or facilities operated by the Division. Such a plan should include specific information for all employees that outlines roles and responsibilities, lines of authority, task assignments, and equipment requirements for the Lifeguard Services Division. Such a plan should include direction for employees to receive regular training and opportunities to practice executing the plan. The plan should be regularly reviewed and modified as necessary. This COOP should be developed in a manner that supports and compliments other annexes within the larger City plan.</p>	<p style="text-align: center;"><b>Moderate Fiscal Year 18</b></p>
<p><b>Recommendation #7:</b> Standard Operating Procedures should be codified and placed in writing by the Lifeguard Services Division that address disruption and restoral of each of the important systems operated by the Division such as telephone, radio, and computer systems.</p>	<p style="text-align: center;"><b>Immediate Fiscal Year 17</b></p>
<p><b>Recommendation #8:</b> The Lifeguard Services Division should immediately procure and deploy two Fire Dispatch Computer Aided Dispatch (CAD) workstations to the Lifeguard Dispatch center and, in cooperation with Emergency Command &amp; Data Center management, properly train its dispatchers in the effective use of CAD. Appropriate Standard Operating Procedures should also be developed in accordance with the CAD utilization.</p>	<p style="text-align: center;"><b>Immediate Fiscal Year 17</b></p>
<p><b>Recommendation #9:</b> Both Fire and Lifeguard Dispatch should immediately coordinate their geo-location files, resource files, and standard response files to synchronize operations. For example, create a fictitious street generic to the coast (Pacific Ocean) with streets as the cross locations.</p>	<p style="text-align: center;"><b>Immediate Fiscal Year 17</b></p>
<p><b>Recommendation #10:</b> The Lifeguard Services Division should identify the appropriate amount to place in the next fiscal year budget to resolve the security and redundancy problem involving the logging recorder for its telephone systems.</p>	<p style="text-align: center;"><b>Immediate Fiscal Years 17 and 18</b></p>

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Recommendation	Priority Timing
<b>Recommendation #11:</b> The Lifeguard Services Division should, through cooperation with other lifeguard agencies, research the best approaches to providing a useful, dependable, supportable electronic Records Management System to effectively record incident response data.	Moderate Fiscal Year 19 to purchase
<b>Recommendation #12:</b> The Lifeguard Services Division should complete the installation of Mobile Data Computers and Automatic Vehicle Location in all Lifeguard resources which will ensure a Common Operational Picture between Fire Operations and Lifeguard Services Divisions.	Immediate Fiscal Years 17 and 18
<b>Recommendation #13:</b> Develop appropriate incident types in the Fire-Rescue Computer Aided Dispatch system specific to the marine environment within which Lifeguard Service Division resources routinely respond.	Immediate Fiscal Year 17
<b>Recommendation #14:</b> Add all Lifeguard Services Division mobile resources into the Fire-Rescue Computer Aided Dispatch system so they can be utilized on an active incident to which both the Fire Operations and Lifeguard Services Divisions respond.	Immediate Fiscal Year 17
<b>Recommendation #15:</b> A multidisciplinary group should be assembled to research the costs and benefits of providing identical basic dispatcher training to newly-hired dispatch personnel. Citygate recommends that since Lifeguard Dispatch is also considered a secondary Public Safety Answering Point, that Fire-Rescue should consider also requiring Lifeguard Dispatch personnel to be trained in Emergency Medical Dispatch procedures to limit the amount of situations in which a caller has to be transferred from one dispatch point to another.	Immediate Fiscal Year 17
<b>Recommendation #16:</b> Senior management of both Divisions should endeavor to remove or modify field operations policies from future bargaining unit agreements where such clauses limit the operational efficiencies needed by the Fire-Rescue Department.	Immediate On-Going Effort
<b>Recommendation #17:</b> Convene an interdisciplinary team of both Fire Operations and Lifeguard Services Division Executive Managers to identify the cultural issues and mission similarities and differences, and then develop an educational program to introduce common operating expectations, policies, and culture to all levels of both organizations. Conduct the initial identification work in a facilitated workshop format for clear communication and workable results.	Immediate Fiscal Year 17

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Recommendation	Priority Timing
<p><b>Recommendation #18:</b> Establish common training and certification levels between the Fire Operations and Lifeguard Services Divisions’ teams and ensure both teams participate in refresher training quarterly together on disciplines such as Incident Command System Course Level 300, Rescue Systems I, Low Angle Rope Rescue, High Angle Rope Rescue, Confined Space Rescue, Trench Rescue, and Swift Water Rescue.</p>	<p><b>Immediate On-Going Effort</b></p>
<p><b>Recommendation #19:</b> Establish an annual master training calendar by month that shows scheduled training for both Divisions to ensure they have opportunities to train together at the local and station levels whenever appropriate and possible.</p>	<p><b>Immediate On-Going Effort</b></p>
<p><b>Recommendation #20:</b> Fire-Rescue Department leadership and the affected bargaining units should study and discuss the merits (or lack thereof) of converting the Lifeguard Services Division rank structure to the Fire-Rescue model.</p>	<p><b>Immediate Fiscal Years 17 and 18</b></p>

**SUMMARY OF CRITICAL PRIORITIES BY FISCAL YEAR**

- ◆ Immediate – Fiscal Year 17:
  - Coordinate the Fire and Lifeguard Dispatch geo-location files, resource files, and standard response files.
  - Procure and use Computer Aided Dispatch workstations in Lifeguard Dispatch.
  - Convene technical work groups to address Standard Operating Procedures review and cultural training.
  - Convene the cultural work retreat for executive-level managers.
    - Develop and publish cultural cross-training and an integrated set of core values. Develop a work plan sequence to achieve this.
  - Complete Mobile Data Computers and Automatic Vehicle Location deployment.
  - Install updated logging recorder for telephones at Lifeguard Dispatch.
  - Address Memorandum of Understanding (MOU)-driven operational limitations and negotiate revisions to the MOU.

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- Implement cultural cross-training and other outputs from the cultural work retreat.
- ◆ Moderate – Fiscal Years 18 and 19:
  - Develop Dispatch Continuity of Operations Plan.
  - Implement Lifeguard Headquarters facility upgrade protection.
- ◆ Long-term capital:
  - Design, and when feasible, rebuild the Lifeguard Headquarters building and adjoining small buildings and storage container sheds at the Mission Bay site.

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## SECTION 1—PROJECT APPROACH

### 1.1 SCOPE OF WORK ITEMS

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The San Diego Fire-Rescue Department identified the following scope of work items for Citygate to address in this Lifeguard Dispatch and operations study:

- ◆ Future technology needs of Lifeguard Dispatch
- ◆ Future physical space needs, either for Fire and Lifeguard Dispatch to operate individually or merged together
- ◆ Advantages, both for dispatching and field operations, of a different dispatching arrangement between Fire and Lifeguard Dispatch
- ◆ Disadvantages of a cooperative arrangement
- ◆ Conversion and long-term operating cost projections
- ◆ Political realities of a merger or other proposed scenarios
- ◆ Training needs and opportunities to enhance operations of both agencies
- ◆ Likely implementation timeline and conversion costs if a merger of Lifeguard Dispatch functions into Fire Dispatch is a chosen path.

### 1.2 OUR RESEARCH PROCESS

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Citygate requested many documents about the operation, staffing, procedures, and budgets for the appropriate Fire Operations and Lifeguard Services Division operations. We reviewed this information and then conducted several on-site listening interviews and physical assessments of the Fire and Lifeguard Dispatch centers. We gained an understanding of the provision of services by each center including personnel, facilities, infrastructure, and technology systems. We then briefed Fire and Lifeguard Executive Management regarding our draft findings and opinions as a necessary fact-check of our working solutions.

### 1.3 USE OF BEST PRACTICES AND STANDARDS AS APPLICABLE

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Citygate is well versed in the operations of public safety agencies. We have participated in the formation, operation, evaluation, merging, and dissolution of public agencies of all types in California and other states. Additionally, many of our consultants have extensive experience prior to working for Citygate as practitioners in not only fire and lifeguard services, but also in the law enforcement, communications, dispatch, training, finance, and human resources fields. We also considered the best practices of the following professional associations:

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- ◆ United States Lifesaving Association
- ◆ Southern California Marine Safety Chiefs Association
- ◆ National Fire Protection Association (NFPA)
- ◆ National Emergency Number Association (NENA)
- ◆ International Association of Public-Safety Communications Officials (APCO) for the management and operations of 9-1-1 call receipt and emergency unit dispatch centers.

## **SECTION 2—CURRENT LIFEGUARD SERVICES DIVISION FACILITIES AND FUNCTIONS**

### **2.1 OVERVIEW**

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In the City of San Diego, the unique terrain, types of calls, harbor patrol functions, technical rescue services, pleasure craft and small commercial boat maritime fire suppression, and multiple and diverse beach staffing duties are challenging and different from those that many lifeguard agencies in Southern California encounter.

The Lifeguard Services Division currently has one main headquarters and eight permanent substations strategically located throughout the 17 miles of coastline and 4,600 acres of Mission Bay consisting of 26 miles of shoreline within the bay. The Division has approximately 43 seasonal towers and outposts that are primarily used for the seasonal staff during high peak summer activity. The Lifeguard Dispatch center is also located in the main headquarters building on the Mission Bay main channel.

Appendix B depicts the Lifeguard Services Division Organizational Chart, illustrating the functions performed by the Division's 108 permanent and 240 seasonal employees.

### **2.2 HEADQUARTERS FACILITY**

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The Lifeguard Headquarters (HQ) and Lifeguard Dispatch are in a multi-functional facility which houses the administration function of the Lifeguard Services Division of the Fire Department in addition to the Harbor Master responsibilities of Mission Bay. Assigned to this facility is the Lifeguard Chief, Marine Safety Captain, field supervising Lieutenant, Scheduling/Training Sergeants, and three civilian administrative personnel. The administration function includes, but is not limited to, policy development, training standards, and record keeping. This location manages the strategic function of the Lifeguard Services Division and Harbor operations.

The facility also houses the Division's Boating Safety Unit (BSU), which maintains an operational fleet of rescue and small craft fire boats as well as one emergency coastal Cliff Rescue vehicle. The Division stores equipment at this location used in its provision of both Dive Rescue-Recovery and River Rescue capabilities throughout the City and surrounding areas.

Members of the BSU receive additional training in many areas. One important component is that personnel assigned to the BSU also receive training in dispatch and are the personnel assigned to staff Lifeguard Dispatch.

Lifeguard Dispatch serves as an official secondary Public Safety Answering Point (PSAP) as well as the dispatch center for lifeguards and all coastal emergencies that occur in San Diego

City's jurisdiction and the adjacent maritime ocean and bays. This location is also a designated National Weather Service reporting station of importance to the safe control of the Mission Bay ocean access channel and harbor functions.

### **2.2.1 Harbor Master Functions**

San Diego Municipal Code authorizes the Chief of Lifeguards as the Harbor Master<sup>3</sup> for Mission Bay whose duties are delegated as appropriate to staff in Lifeguard Dispatch, the Boating Safety Unit, and others. Throughout California, Harbor Master duties include, but are not limited to: maintaining safe boating practices in the harbor, enforcing boating safety laws, issuing citations when appropriate, and providing secure boating impound and quarantine anchorage areas. Critical to San Diego is the responsibility to monitor the conditions in the ocean channel opening for Mission Bay, and to direct boating or close the channel as needed, based on conditions.

The Harbor Master also is required to provide 24-hour/365-day monitoring of the marine calling and distress channel (Very High Frequency (VHF) Channel 16), as well as monitor and provide information to the maritime community visiting Mission Bay harbor including where to safely moor, current weather conditions, transient berthing, and other directions.

Serving on behalf of the Harbor Master, Lifeguard Dispatch staff also coordinates with the U.S. Coast Guard Sector San Diego (Captain of the Port) on maritime emergencies and the closing of Mission Bay harbor due to unsafe surf conditions. The Harbor Master provides coordination with City departments, specifically the Real Estate Asset Department (READ) regarding boats and marina operations in Mission Bay.

Certain lifeguards are also given Peace Officer status and provide law enforcement on Mission Bay and on beaches throughout the City.<sup>4</sup>

Many of the Harbor Master duties are conducted by the Lifeguard Dispatch watch staff, as the Lifeguard Dispatch center is a small room at the top of a tower on Lifeguard Headquarters. The center receives 9-1-1 call transfers from the Police Department, beach lifeguard tower reporting, and Channel 16 receipt of emergency requests. Additionally, Lifeguard Dispatch has long-range binoculars and night searchlights to monitor the Mission Bay ocean access channel conditions along with the boating impound mooring behind the headquarters. As such, members of the BSU are trained as dispatchers and monitor the harbor on behalf of the Harbor Master on a 24/7/365 basis.

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<sup>3</sup> San Diego Municipal Code, Sections 63.20 and 63.20.1 identify the authority and control over beaches and bays within the City limits.

<sup>4</sup> San Diego Municipal Code Section 63.20.6 gives Harbor Police authority to certain lifeguards and authorizes enforcement of certain codes.

**Finding #1:** The physical location of the Lifeguard Dispatch center facility is basic to the functional requirements and responsibilities of the Harbor Master and Marine Operations, including the safe operation of the Mission Bay channel from the ocean. The co-location of the facility (Lifeguard Headquarters (HQ) and Lifeguard Dispatch) is advantageous for senior staff to access the Lifeguard Dispatch center when needed. In addition, the third-story observation by Lifeguard Dispatch staff or other Boating Safety Unit (BSU) personnel allows some visual security to be provided for the facility, including the vessel impound storage adjacent to the facility. The BSU's watercraft are also co-located, along with the Division's primary Cliff Rescue vehicle.

**Recommendation #1:** San Diego Fire-Rescue should acknowledge that the current location of Lifeguard Dispatch best serves the Lifeguard Services Division, its employees, and those it protects in Mission Bay and the adjacent ocean access channel.

### 2.2.2 Boating Safety Unit

This unit is comprised of approximately 57 highly trained and senior lifeguard specialists and supervisors which staff not only Lifeguard Dispatch but also the Division's Fire and Rescue vessels and one coastal Cliff Rescue trucks which provide emergency response, support, and back-up for field lifeguard personnel as well as maritime fire suppression in and adjacent to Mission Bay. The unit also staffs and responds to major coastal incidents that require additional lifeguards, and also staffs and responds to coastal cliff rescues.

### 2.2.3 Administration

The Administrative functions for the Lifeguard Services Division also occur at the Headquarters facility. The number of persons employed to provide these functions is comparatively small to the overall numbers of employees in the Division. These employees, however, are an integral part of the performance of the Division. While this specific function was not a part of Citygate's overall Lifeguard Services Division review, it should be noted that there was no evidence (either anecdotal or factual) discovered that suggested any deficiencies exist in the Administrative function.

The amount of office space dedicated to this function appeared to be both appropriate and efficient.

Overall, Lifeguard Services Division training appears to be satisfactory and consistent with similar California lifeguard agencies. However, our review of the Fire Operations and Lifeguard Services Divisions documents revealed opportunities to enhance the operations of both Divisions.

We found that both organizations perform several functions that may involve duplicating services such as human resources, finance, training, and operations.

**Finding #2:** Better operational integration and administrative integration may occur if common, redundant, and conflicting Policies and Standard Operating Procedures can be consolidated. Since the Policies and Standard Operating Procedures for both Fire Operations and Lifeguard Services Divisions are written independently of each other, this produces redundant and/or conflicting standards.

**Recommendation #2:** Convene a multidisciplinary team from the Fire Operations and Lifeguard Services Divisions to review all field operations policies and procedures. Focus first on policies and procedures involving responses requiring resources from both Divisions, then expand to procedures including all types of responses, training, staffing, reporting emergencies, career advancement, etc.

#### **2.2.4 Facility**

The Lifeguard Headquarters / Lifeguard Dispatch building is of wood-frame construction on fill land just above current sea level. The core building was constructed as a Parks and Recreation community building in the early 1960s. Typical of the period, there were very few code standard requirements for seismic safety and other public safety essential services facility requirements for this type of building. The building currently has three levels. There has been discussion that this building may have some historical significance; however, Citygate was not provided any historical findings, covenants, or other restrictions to document this observation of staff.

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The facility has a non-secured entrance and extensive glass fronting a public parking lot. Behind a fence to the rear of the facility, over several decades, multiple small buildings and storage containers have been added to support the Division’s personnel and boat needs. Below the buildings are mooring piers for the Division’s boats. The site at present is very crowded, even though the aerial image below does not convey the density of use and the lack of secured spaces for equipment maintenance and training.

**Figure 1—Lifeguard Headquarters Entrance**



**Figure 2—Lifeguard Headquarters Aerial View**





**Finding #3:** The physical location and facility housing the Lifeguard Headquarters and Lifeguard Dispatch pose a security risk. Threats against the facility include naturally-occurring events (tidal change, seismic, etc.), man-made (civil unrest, public aggression, etc.), and environmental (exposure from toxins, accidental toxic substance release, etc.). A separate Continuity of Operations Plan (COOP) does not exist that addresses this Division and its needs. This facility likely does not meet current Essential Services Buildings Seismic Safety Act<sup>5</sup> and Americans with Disabilities Act (ADA)<sup>6</sup> requirements.

While quaint, and in some respects, still functional, the Lifeguard Headquarters and Dispatch building by no means has the capacity to resist major seismic, weather, and/or human caused damage. It is an essential facility to the operation of the entire Lifeguard Services Division and for the safety of the mariners operating in Mission Bay.

**Recommendation #3:** San Diego Fire-Rescue should embark on a project to determine the best method of providing a secure and adequate facility on the Mission Bay property for the Lifeguard Service Division’s current and future needs.

**Recommendation #4:** The front access to the Lifeguard Headquarters building should be secured with a gate and electronic/voice access system where the entry road broadens into the parking lot.

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<sup>5</sup> In 1986, The California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be designed and constructed to minimize fire hazards and resist the forces of earthquakes, gravity, and winds. The enabling legislation can be found in the California Health and Safety Code, Chapter 2, Sections 16000 through 16022. *California Department of Consumer Affairs, California Architects Board website 2016.*

<sup>6</sup> The Department of Justice’s revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 were published in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design, “2010 Standards.” On March 15, 2012, compliance with the 2010 Standards was required for new construction and alterations under Titles II and III. *United States Department of Justice Civil Rights Division, ADA.gov website 2016.*

**Recommendation #5:** The City should design and fund a capital replacement project to replace the Lifeguard Headquarters at the current location with a secure complex compliant with the California Essential Services Building Act, built to last 50 years and that is also above the expected sea level rise over that timeframe.

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## **2.3 LIFEGUARD DISPATCH CENTER**

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The Lifeguard Dispatch center serves as a secondary PSAP for the City, receiving 9-1-1 and 10-digit phone calls and radio requests from both inside and outside the organization. The Lifeguard Dispatch center occupies the top level of the Lifeguard Headquarters facility, and shares the first and second levels for multi-use functions such as kitchen and lavatory facilities along with dormitories. Supervisors have offices within the Lifeguard Headquarters complex.

### **2.3.1 Functional Capabilities**

#### ***Physical***

The Lifeguard Dispatch center has two dedicated dispatch consoles, each having nearly identical capabilities. A third console exists in which personnel can utilize a telephone and a writing surface. The center occupies approximately 200 square feet of dedicated space, including an exterior 360-degree catwalk.

#### ***Security***

There exists only one method of access to the Lifeguard Dispatch center, that being a narrow staircase leading from the kitchen/briefing area. No secondary means of egress from the third level was noted.

#### ***Redundancy and Reliability***

The dispatch function could be duplicated elsewhere; however, there are no formal plans in place to achieve a seamless transfer. While infrastructure elements have some redundancy (electricity, phone, radio, etc.), the age and location of the physical plant expose it to both environmental and man-made threats that cannot be easily mitigated. In addition, there is virtually no additional space available to add operators to the dispatch floor should future needs arise.

The importance of both the Lifeguard Services Division functions *and* the Lifeguard Dispatch center in the protection of the general public must be recognized as a facility essential to the public safety on the beaches, cliffs, and near shore waters. In addition, the specific functionality of Lifeguard Dispatch operating as a secondary PSAP demands that this function be capable of performing 24/7/365. To accomplish this, a plan needs to be in place that addresses immediate

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steps to be taken in the event of an unplanned outage of systems or facilities, or both. This plan must provide personnel assigned specific information on which functions to perform, and where and how to perform them in the event that there is a disruption of normal system performance, or inability to occupy the Lifeguard Dispatch center, or both.

The City of San Diego has an updated Continuity of Operations Plan (COOP) that is designed to provide instructions for carrying out City services and business in the event of circumstances that make the normal provisions of services to the public either difficult, delayed, or not possible. Each department within the City (and some of the departments' sub-divisions) has detailed instructions in the various annexes of the plan. The COOP, to be of value when needed, must be practiced and updated regularly.

**Finding #4:** The City of San Diego Continuity of Operations Plan (COOP) Fire-Rescue Department Annex contains information for the entire Department relative to continuing to function during an emergency with a loss of systems and/or facilities; however, it does not contain sufficient specific information for the Lifeguard Services Division that may be needed in the event that the Lifeguard Dispatch center becomes uninhabitable. Understandable instructions should be available to all employees informing them where to go, the necessary equipment to take with them, and how to continue to function. Regular training and practice of these requirements are necessary. In addition, the Standard Operating Procedures do not contain information about how to react to specific systems becoming unavailable (e.g., telephones, radios, computers, etc.).

**Recommendation #6:** The San Diego Fire-Rescue Department should develop, as soon as possible, a comprehensive Continuity of Operations Plan (COOP) that provides details needed to ensure that the Lifeguard Services Division performs as directed prior to, during, and after an emergent event occurs that disrupts systems, services, or facilities operated by the Division. Such a plan should include specific information for all employees that outlines roles and responsibilities, lines of authority, task assignments, and equipment requirements for the Lifeguard Services Division. Such a plan should include direction for employees to receive regular training and opportunities to practice executing the plan. The plan should be regularly reviewed and modified as necessary. This COOP should be developed in a manner that supports and compliments other annexes within the larger City plan.

**Recommendation #7:** Standard Operating Procedures should be codified and placed in writing by the Lifeguard Services Division that address disruption and restoral of each of the important systems operated by the Division such as telephone, radio, and computer systems.

### ***Technology Facilities***

A new electrical distribution panel and associated electrical and communications equipment room was created by sharing space with a hallway connecting the first level to the adjacent buildings. This space, while air conditioned for this use, does not offer much room to add equipment or security. There currently is no true “Server Room” where it is common to locate the associated computer equipment. Within the public safety industry, it is acknowledged that the dependence on hardware and software systems will only grow in the future to keep up with both public expectations and need. The Lifeguard Services Division is facing the reality in the current facility that there is very limited space available for added equipment.

Public safety agencies nationwide continue to harden their infrastructure facilities<sup>7</sup> by restricting access to such equipment rooms to only those individuals that are required for operation and maintenance of the systems, along with deploying separate and redundant environmental control systems that are now needed to keep the computer systems running at peak capacity 24/7/365. The infrastructure and equipment rooms located at Lifeguard Headquarters currently have only minimal security measures in place.

### **2.3.2 Harbor Master Functions Occurring in Mission Bay**

As previously mentioned, the Harbor Master responsibilities within the Lifeguard Dispatch center oversee the safe operation of Mission Bay and the egress and ingress of boating traffic. The Harbor Master must be spatially aware of all maritime traffic throughout San Diego's coastal jurisdiction and constant weather changing conditions. Harbor Master communications are a primary coordinating function within maritime operations and the standard expectations of boaters are to make all communications on a Marine Calling and distress frequency (Marine Channel 16) and harbor traffic operations (Marine Channel 12).

The standard expectation for all Harbor Masters is to monitor and provide emergency service delivery and real-time information of navigational hazards to boaters. This maritime communications must be monitored and maintained 24/7/365. Many boating emergencies occur while a vessel is moored in a slip and the report may come in via the 9-1-1 system, so it is imperative that both communication systems are linked for minimum delay and rapid emergency delivery.

Often incidents are reported by the public using very vague location descriptions, sometimes delaying the dispatch of resources until a reportable location can be found. By utilizing experienced lifeguard personnel as dispatchers, the length of time to determine the actual location of a call for service can be greatly diminished. The senior guards assigned to the BSU each have extensive experience on all of the City's beaches and bays. Thus, when a 9-1-1 caller is looking at a landmark or using a local commonplace name (e.g., "Bird Rock") to determine where assistance is needed, the BSU members can use their experience to identify the caller's location.

This critical function must remain at this location given the design of Mission Bay's entrance channel, along with the responsibility to monitor and control the vessel impound area. As such, even if the Lifeguard Dispatch tele-communication functions were moved to Fire Dispatch, the Lifeguard Harbor Master duties would have to always be staffed at this location.

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<sup>7</sup>[http://icma.org/en/icma/knowledge\\_network/documents/kn/Document/308165/National\\_Homeland\\_Security\\_Consortium\\_2016\\_National\\_Issues\\_Brief](http://icma.org/en/icma/knowledge_network/documents/kn/Document/308165/National_Homeland_Security_Consortium_2016_National_Issues_Brief). Also an APCO White Paper: <http://psc.apcointl.org/2011/01/05/national-homeland-security-consortium-offers-recommendations-to-enhance-national-homeland-security-efforts/>

### **2.3.3 Dispatch Coordination**

For Field Operations, due to the vast differences in beach and bay use between day and night, the initial incident report can take varied paths to report it to authorities. From a lifeguard observing a swimmer in distress from a seasonal tower, to a 9-1-1 report of a missing swimmer after dark, these reports are provided to Lifeguard Dispatch in a variety of methods. During daylight hours, most incidents are either observed or reported to the towers directly. Coordination for these takes place at the area Supervisor level and is closely monitored by the district towers. After hours, most incidents are reported by phone to either Fire Dispatch or to Lifeguard Dispatch, which then alerts the appropriate night crews on duty.

For Fire-Rescue and Police Department response and coordination, a request is made between agencies and appropriate resources assigned. While all Fire-Rescue Operations Division responders have multiple radio talk groups (channels) with which to coordinate, the status and locations of assigned units are not currently shared between the Fire Operations Division, the Lifeguard Services Division, or the Police Department.

### **2.3.4 Beaches and Bays**

#### ***Locations and Capabilities***

The Lifeguard Services Division is divided into four districts each having a supervisor (one sergeant or more depending on size and personnel span of control). Each district also has a staff of both permanent and seasonal personnel (the seasonal personnel are used primarily during summer months to augment the permanent staff). Each district operates semi-independently to safeguard the public and provide a safe environment. The districts report to Lifeguard Dispatch for additional staffing and resource needs.

#### ***Staffing***

To provide appropriate public protection within its jurisdiction, the Lifeguard Services Division staffs approximately 108 permanent and approximately 240 seasonal employees. Lifeguard Services Division senior staff directs the staffing and scheduling of both permanent and seasonal lifeguards to meet the current needs of the agency.

### ***Incident Occurrences***

In 2015, the Lifeguard Services Division handled the following incidents:

**Table 1—Lifeguard Service Division Incident Occurrences**

Incident Type	Amount
Preventative Actions	343,569
Water Rescues	7,303
Minor Medical Aids (no ambulance needed)	4,148
Significant Medical Aids (ambulance called)	319

Many incidents that the Lifeguard Services Division responds to are emergencies taking place in the presence of a lifeguard or physically reported by a beach patron to the local lifeguard who, in turn, reports it to his/her supervisor or Lifeguard Dispatch (known as “still alarms”). This is consistent with all Southern California agencies that provide lifeguard functions. Those still alarms are either observed by lifeguards that are posted strategically along the coastline or brought to the attention of lifeguards through the public.

The mobile response units and the outlying towers respond to and handle thousands of those routine calls including: responses that are proactively preventative to avoid a tragedy; responses that affect a physical water rescue or medical assistance classified as routine (minor); and responses to a major life-threatening medical emergency.

#### **2.3.5 Capital Equipment and Replacement**

A Citywide Capital Replacement Program (CIP) remains in place for supporting radio and telephone systems. There are no funds identified in the current Lifeguard Services Division budget for the CIP as per City practice. Should systems reach a replacement age or show signs of needing replacement, funds are identified and the needs prioritized along with all City CIP needs.

#### **2.3.6 Facility Needs**

The Lifeguard Services Division has been “making-do” with the Headquarters and Lifeguard Dispatch facility. As previously stated, the building is sub-standard for this use in many areas (e.g., location, space, construction type, environmental issues, and security issues to name a few). It also lacks the space available to add services that will be needed not only to cope with future demands on services (e.g., call volume, additional or modified duties, changes in resource deployment, etc.) In addition, there is no secure space available to add dispatch staff to handle any surge in call volume beyond what currently occurs.

### **2.3.7 Dispatch Procedures**

While some SOPs exist that describe response assignments for certain types of incidents, not all incident types are listed in the Division's SOPs. A large percentage of coastal water rescue calls are observed by the lifeguards assigned to observation posts (Lifeguard Towers). Once a potential rescue is observed by the lifeguard he/she radios the supervisor, then immediately responds alone to affect the rescue. Back up is provided by adjacent staffed observation posts and monitored by the supervisor. The supervisor, once within observation range, determines if dispatch procedure enhancement needs to occur (i.e., notification to Fire and Lifeguard Dispatch for additional resources, etc.) When significant responses are required upon the initial report of the incident as it occurs in the field, the appropriate supervisor (usually a Lifeguard Sergeant) is notified and makes the appropriate resource assignments. If resources from the BSU, Dive Team, Cliff Rescue, or other team are required, Lifeguard Dispatch then records the needs as a manually written log entry, and causes requested resources to respond.

Many of the incidents handled by the Lifeguard Services Division do not rise to this level, such as a single swimmer in moderate distress, lost child, preventative public advisory contact, user education, and others. In these cases, records are generated at the local level by hand and sent along to a District tower for a monthly statistical tally. The process utilized by San Diego is consistent with all Southern California lifeguard programs.

A small number of incidents require a more detailed narrative report, such as EMS calls that require additional medical attention, calls that potentially have a higher chance of resulting in liability for the Department, etc. For more complicated incidents, there should be expanded written SOPs that direct Lifeguard personnel how and when to file report information for incidents that require a Fire-Rescue incident number to be generated and a more detailed narrative provided, such as filling out a fire incident (NFIRS) report. While the more complicated incidents are captured in the overall Lifeguard statistics, they are not captured with an incident number or formal Fire-Rescue report.

### **2.3.8 Dispatch Technology**

All modern public safety agencies have become very reliant upon functional technology to provide efficient and effective service to the public. The Lifeguard Services Division is no different, and has grown over the years from just using landline telephones and single-channel radios to the present day use of modern telephone equipment and a public-safety grade radio system, which is compatible with assisting agencies. However, the Lifeguard Dispatch center has not kept pace with technology improvements in all categories as most of its peer agencies have.

#### ***Telephones***

The Lifeguard Dispatch center is adequately equipped with 9-1-1 and 10-digit telephone systems, in addition to several direct lines with cooperating agencies. They utilize current



technology that is upgradeable and expandable when the City of San Diego migrates to Next Generation 9-1-1 technology. There is currently no published timetable for this transition.

### ***Radios***

The Lifeguard Dispatch center and field units are equipped with 800 megahertz (MHz) trunked radios which are capable of interoperability among all City departments and also programmed with the County's Regional Communications System (RCS) 800 MHz trunked fleetmap for county-wide interoperability. The City of San Diego trunked radio system is being modified currently with upgrades to a Federal Communications Commission (FCC) Project 25 compliant, digital trunked network system. In addition, the Lifeguard Dispatch center has complete and redundant Marine Band capabilities for communicating with both the boating public and the U.S. Coast Guard. There are also handheld radios in the Lifeguard Dispatch that are intended to communicate with other federal agencies during special operations, as needed.

### ***CAD and RMS***

The Lifeguard Services Division is not currently using a Computer Aided Dispatch (CAD) software system or an electronic records management system (RMS). Most record keeping is performed on paper or in log books.

### ***MDCs and AVL***

One Fire Operations Division Mobile Data Computer (MDC) is located in Lifeguard Dispatch. This device is used solely for Fire Dispatch to notify Lifeguard Dispatch of incidents when needed. MDCs are deployed in some, not all, specific field resources such as Cliff Rescue and River Rescue units, and senior-level (Lieutenant) assigned vehicles. These MDCs are equipped with Automatic Vehicle Location (AVL); however, there is no ability to view the location of any MDCs at Fire or Lifeguard Dispatch, and no ability to view locations of other Fire-Rescue Operations Division responders by Lifeguard Services Division field units.

### ***Recording/Logging Devices***

The City maintains modern recording devices on the phone systems in use by the Fire-Rescue and Police Department for both short- and long-term records retention. When the 9-1-1 phone system was replaced this year, complete with a new state-of-the-art logging recorder, the decision was made to take the existing functional logging recorder from the old telephone system and reinstall it to serve only the telephones at Lifeguard Dispatch. This decision was made due to economics, and the Lifeguard Services Division was instructed to include in a future budget approximately \$55,000 to connect the telephone systems at Lifeguard Dispatch to the logging recorder serving Fire-Rescue and the Police Department.

The two Lifeguard Dispatch consoles are capable of playing back recordings immediately of both telephone and radio conversations, in addition to long-term retention. For the other business

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phone sets located in the Lifeguard Dispatch center and throughout the facility, no immediate or long-term playback opportunities exist. The City maintains and operates the radio logging devices at a centralized server location. It is reported by Lifeguard Service Division personnel that there is secure, redundant storage for logging information by the City Communications Department. The telephone system recording equipment at Lifeguard Dispatch is now located in a room provided for communications equipment with a minimum level of security. Currently this older recording system, while adequately functioning and of appropriate size, is not maintained and supported under contract. There are SOGs in place for the requesting of recordings by both Lifeguard Services Division personnel and the public at large.

#### ***Camera Networks***

The Lifeguard Services Division maintains a network of video cameras to monitor safety and security conditions. These cameras are utilized principally in investigations by both the lifeguards and other cooperating agencies. The playback function is restricted by log in function, and is performed in a separate closed office. There are plans to also place viewing screens on the third console in dispatch for observation opportunities to aid in security and response.

**Finding #5:** The current methods of capturing requests for assistance from both the general public and field units, assigning resources and tracking those resources, is inadequate for the Lifeguard Services Division and does not follow current recognized public safety best practices.

**Finding #6:** The geographic location information for the beaches and bays found in the Fire Dispatch Computer Aided Dispatch system database does not reflect the higher level of local coastline and waterside information retained in Lifeguard Dispatch records and in the legacy knowledge of the veteran lifeguards assigned to dispatch duties.

**Finding #7:** All statistical reporting is based upon hand-written reports, either generated by the Lifeguard Dispatch personnel, the district towers, or by field personnel themselves.

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**Finding #8:** The Lifeguard Services Division does not have sufficient technology when compared to not only the City of San Diego's Fire Operations Division and the Police Department, but also to other similar lifeguard agencies in Southern California. Investments in relevant technology will enable the Division to provide high levels of service to a wide population, not only in day-to-day activities, but also during multiple events, both local and regional, in addition to providing for the safety of its personnel.

**Finding #9:** While the Lifeguard Services Division has deployed a small number of Mobile Data Computers (MDCs) to some mobile response units, none of these resources are listed in the Fire Dispatch database and therefore cannot be effectively assigned or tracked and viewed. Both Divisions would benefit from having MDCs installed in all assignable mobile units by providing increased Situational Awareness.

**Finding #10:** The current recording/logging technology utilized in Lifeguard Dispatch is not properly supported in a manner consistent with the functional importance of a Secondary Public Safety Answering Point. This is not advisable, and is not in keeping with best practices in public safety dispatch operations.

**Recommendation #8:** The Lifeguard Services Division should immediately procure and deploy two Fire Dispatch Computer Aided Dispatch (CAD) workstations to the Lifeguard Dispatch center and, in cooperation with Emergency Command & Data Center management, properly train its dispatchers in the effective use of CAD. Appropriate Standard Operating Procedures should also be developed in accordance with the CAD utilization.

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- Recommendation #9:** Both Fire and Lifeguard Dispatch should immediately coordinate their geo-location files, resource files, and standard response files to synchronize operations. For example, create a fictitious street generic to the coast (Pacific Ocean) with streets as the cross locations.
- Recommendation #10:** The Lifeguard Services Division should identify the appropriate amount to place in the next fiscal year budget to resolve the security and redundancy problem involving the logging recorder for its telephone systems.
- Recommendation #11:** The Lifeguard Services Division should, through cooperation with other lifeguard agencies, research the best approaches to providing a useful, dependable, supportable electronic Records Management System to effectively record incident response data.
- Recommendation #12:** The Lifeguard Services Division should complete the installation of Mobile Data Computers and Automatic Vehicle Location in all Lifeguard resources which will ensure a Common Operational Picture between Fire Operations and Lifeguard Services Divisions.
- Recommendation #13:** Develop appropriate incident types in the Fire-Rescue Computer Aided Dispatch system specific to the marine environment within which Lifeguard Service Division resources routinely respond.
- Recommendation #14:** Add all Lifeguard Services Division mobile resources into the Fire-Rescue Computer Aided Dispatch system so they can be utilized on an active incident to which both the Fire Operations and Lifeguard Services Divisions respond.

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**Recommendation #15:** A multidisciplinary group should be assembled to research the costs and benefits of providing identical basic dispatcher training to newly-hired dispatch personnel. Citygate recommends that since Lifeguard Dispatch is also considered a secondary Public Safety Answering Point, that Fire-Rescue should consider also requiring Lifeguard Dispatch personnel to be trained in Emergency Medical Dispatch procedures to limit the amount of situations in which a caller has to be transferred from one dispatch point to another.

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## **SECTION 3—LIFEGUARD TRAINING AND CULTURAL INTEGRATION WITHIN FIRE-RESCUE**

### **3.1 LIFEGUARDS AS A DIVISION WITHIN FIRE-RESCUE**

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Over the years, multiple City departments have been responsible for managing the Lifeguard Service Division. These departments include the Police Department, the Parks and Recreation Department, and now currently the Fire-Rescue Department. The majority of lifeguard organizations in Southern California have realized that the contemporary lifeguard responsibilities are most in line with the core mission of fire services rather than those of parks and recreation or law enforcement organizations. Currently, although most view lifeguarding as one discipline, both Fire Operations and Lifeguard Services Divisions have also become responsible for EMS delivery, swift water rescue, search and rescue, Hazardous Materials incidents, and cliff rescue (among a myriad of other similar responsibilities).

### **3.2 POLICIES AND PROCEDURES**

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Developing policies and procedures that are clearly documented, updated, and followed can bring structure and order to an organization. Maintaining written policies and procedures assists in day-to-day decision-making on a wide range of administrative issues and emergency incidents.

Overlap can occur in large organizations with varying disciplines. This problem can become a critical issue during emergency operations, and can lead to miscommunication and deficiencies in incident safety.

Both the Fire Operations and Lifeguard Services Divisions' Standard Operating Procedures (SOP) are written, implemented, and trained within their respective organizations. However, the policies are not evaluated for adequacy and relevance across both respective Divisions when they operate together. Within public safety agencies, it is widely recognized that effective and legitimate policies and procedures ensure efficient operations. Divisions using independent SOP development can, and does, lead to conflicting inter-division procedures.

Some of the response policies of the Lifeguard Services Division are also embedded into the bargaining unit's labor relations contract. This occurred as a "protection" mechanism over time as the Division was transferred between City departments and the Lifeguard personnel understandably did not feel that their core mission was understood. However, for the last two decades, the lifeguards have been part of Fire-Rescue. The Fire-Rescue and Police labor agreements do not contain field response procedures and nor should the Lifeguard Services Division's.

The Lifeguard Services Division response procedures in the labor agreement do not serve the public trust well in that they do not allow the closest, properly trained unit to be the *first responder* and then request specialty resources as needed from the other divisions, such as Fire-Rescue, ambulance, and police.

**Finding #11:** The current practice of deploying specialized Lifeguard and Fire Operations Division resources separately, such as the River Rescue Team and High Angle Rescue (under the limitations found in external agreements) does not meet the Fire-Rescue Department mission of sending the closest, most appropriate resource to each request for assistance.

**Recommendation #16:** Senior management of both Divisions should endeavor to remove or modify field operations policies from future bargaining unit agreements where such clauses limit the operational efficiencies needed by the Fire-Rescue Department.

### **3.3 CULTURE**

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Organizational culture can be defined as “a set of understandings or meanings shared by a group of people. The meanings are largely tacit among members, are clearly relevant to the particular group, and are distinctive to the group. Meanings are passed on to new group members.”<sup>8</sup> It is further defined by the values and behaviors that contribute to the unique social and psychological environment of an organization. In short, culture is the reason people think and behave differently than others.

Separate cultures exist in both the Fire Operations and Lifeguard Services Divisions. These cultures continue to evolve independently over time as a result of their separate origins, histories, and traditions. Although this single fact does not prevent the peaceful coexistence of each Division, it does establish an environment for discrepancy between them. To resolve and neutralize this possibility, all personnel must become aware of the specific cultural differences (e.g., the roots and respective purpose(s) of the separate cultures) and ultimately acknowledge the existence of these differences. Then training must take place in common formats, using

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<sup>8</sup> Louis, M. R. (1985). “An Investigator’s Guide to Workplace Culture” in P. J. Frost, L. F. Moore, M. R. Louis, C. C. Lundberg and J. Martin. *Organizational Culture*. Beverly Hills, Page: 73-93



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common procedures and tools. This training will result in less procedural ambiguity and more functional commonality, which can minimize the cultural differences. However, because there remains an element of history and tradition, it is not realistic to think that both cultures could be completely blended (nor is it desired).

When a merger of two agencies occurs, it is important for individuals to first understand the attributes of their agency's culture before learning about the other agency's culture. This starts with agency personnel understanding their organization's recruitment practices, socio-economic backgrounds of applicants, education and physical fitness requirements, and vocational aptitude of applicants and then seeking to understand those elements of the other agency's culture.

Although the Fire Operations and Lifeguard Services Divisions have co-existed within the Fire-Rescue Department for more than 20 years, neither is completely familiar with the other's mission and culture. There has never been a systemic attempt or approach to completely cement lifeguards into Fire-Rescue. Such processes start with entry-level hiring, use continued cross-training and common procedures, set cultural expectations in job descriptions, and test for culture knowledge with promotional exams.

Citygate examined this topic during this project and listened to personnel at all levels within these two Divisions explain their separate culture and understanding of the other's history and culture. In doing so, we found that multiple gaps exist including a compelling lack of cross-Division procedural integration, employee cross-training, common "one department" expectations in hiring and promotional processes, and annual performance evaluations of supervisors and managers *in either Division*.

**Finding #12:** At every level of both Fire Operations and Lifeguard Services Divisions, a fundamental lack of cross-training in each Division's culture and operational needs has resulted in a stunted level of understanding of each Division. As with any organization, issues arising from a misunderstanding of procedural purpose can lead to decreased efficiency at emergency incidents, and in worst-case scenarios, dysfunction. Seeking to understand the varied service and mission needs among the Divisions can work to stem these misunderstandings.

**Finding #13:** Where cultural differences in the Fire Operations and Lifeguard Services Divisions are due to varied historical beginnings, these must be addressed in all training and authoritative documents, at all levels, to ensure clear direction. Some public safety agencies have utilized a facilitated workshop with the executives to plan and adopt an approach to the homogenization of Rules and Regulations, Standard Operating Procedures (SOPs), and other documents deemed necessary and important. A workshop outline should include, but not be limited to:

- ◆ Revised operational SOPs
- ◆ Revised operational cross-training
- ◆ New familiarization training for both Divisions
- ◆ Revised expectations for hiring, academy orientation, annual evaluations, and promotional exams to instill one Departmental team culture across different specialties.

**Recommendation #17:** Convene an interdisciplinary team of both Fire Operations and Lifeguard Services Division Executive Managers to identify the cultural issues and mission similarities and differences, and then develop an educational program to introduce common operating expectations, policies, and culture to all levels of both organizations. Conduct the initial identification work in a facilitated workshop format for clear communication and workable results.

### **3.4 FIRE OPERATIONS AND LIFEGUARD SERVICES DIVISIONS' LEADERSHIP EMERGENCY OPERATIONS SITUATIONAL AWARENESS**

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Situational Awareness (SA) is the ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regard to the overall mission.

SA is critically important in all aspects of providing safety to the public. A rudimentary example of a basic level of Situational Awareness in our country is the precaution of “looking both ways”

for traffic before crossing the street. Because it is the law to drive on the right side of the road, citizens are taught to first look to the left because that is same direction a vehicle will first approach. When travelling to countries such as the Great Britain, looking to the left first before crossing the street may end with great harm because vehicles will be approaching from the right. If a person maintains SA, it becomes natural to be aware of the vast variances of circumstance and the effects of those differences on the level of potential danger. If public safety personnel are unable to gather or process all influencers before acting, they can endanger the public and themselves.

Absent a personal catastrophe resulting from a lack of SA, the most effective means of instilling new protocols is through repetition. This is why training is vastly important to public safety agencies. Turning lessons learned into “teachable moments” can influence decisions by those who have never been in the same situations, hence setting the foundation for the utmost importance of training within public safety agencies.

SA for both Fire Operations and Lifeguard Services Division leadership is critical to make informed decisions in providing safe, efficient, and cost-effective emergency services.

A fire dispatch center routinely provides important information such as weather, fuel moisture, burn index and resource drawdown (local and Operational Area) to its executive leadership from which to make deployment and response decisions.

A lifeguard dispatch center will provide the same type of information such as weather, tides, and projected surf to its executive leadership from which to make deployment and response decisions.

If both Fire and Lifeguard Dispatch were connected, critical information can be passed seamlessly between the dispatch centers and afford executive leadership, from both organizations, the opportunity to support and augment each other if needed.

**Finding #14:** During moderate and severe emergency incident periods, senior-level officers of both Divisions are challenged to attain adequate Situational Awareness of their resources and are unable to operate within an adequate Common Operational Picture.

**Finding #15:** Without an opportunity to share Situational Awareness information and develop a Common Operational Picture, both Divisions are often unaware of situation status and resource utilization of the other Division when responding to the same incident. The two agencies may be on different radio channels as well for the same incident.

### **3.5 TECHNICAL TRAINING**

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Robust training programs teach and reinforce safe and efficient emergency incident operations for firefighters and lifeguards. The Fire Operations and the Lifeguard Services Division have two separate and distinct training programs. While each are very strong programs, they can both learn from each other by combining their respective expertise in developing joint training programs where it is technically feasible that both Fire Operations and Lifeguard Services Division personnel either attend together or be taught from standardized curriculums (e.g., Incident Command System, EMS, Hazardous Materials First Responder Operational (FRO), Technical Rescue, and Water Rescue).

Within Fire-Rescue, the training and certification levels for Cliff Rescue and Water Rescue are different for Fire and Lifeguard Rescue Teams and Dispatchers. For Cliff Rescue, Fire Operations follows both the State Fire Marshal and NFPA 1006/1670 Standards. For Cliff Rescue, Lifeguards follow certifications from the State Fire Marshal, Rescue 3 International, Rigging for Rescue, and Peak Rescue Institute. In Swift Water, Fire Operations and Lifeguard Services Divisions have varying levels of training from Swift Water I and II to River and Flood Rescue Technician. Dispatcher training varies widely for both Fire and Lifeguard Dispatch.

**Finding #16:** Within Fire-Rescue, training and certification levels for Cliff Rescue and Water Rescue are different for Fire Operations and Lifeguard Rescue Teams and Dispatchers.

**Finding #17:** Best practices recommend that complex organizations conducting work with dangerous equipment possess and employ “common and consistent training levels” to ensure safety and positive outcomes under emergency and high risk/high consequence situations.

**Recommendation #18:** Establish common training and certification levels between the Fire Operations and Lifeguard Services Divisions’ teams and ensure both teams participate in refresher training quarterly together on disciplines such as Incident Command System Course Level 300, Rescue Systems I, Low Angle Rope Rescue, High Angle Rope Rescue, Confined Space Rescue, Trench Rescue, and Swift Water Rescue.

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Combined training, wherever possible, will ensure the Department's best and brightest are working together and may also result in reduced overall cost in providing training. Where training is unique and task-specific to each discipline, familiarization curriculums must be developed and given to each Division's employees. This allows each Division to understand the need for a technically different approach by the other team members when they work together. This needs to start with new hire academy training and continue upwards as part of preparing for advancement in rank.

As permanent Lifeguard staff are strategically assigned throughout the jurisdiction, assembling staff for a classroom lesson or an on-site training exercise, without compromising service delivery or adding additional inconsistent overtime costs, is difficult. The current creative scheduling by the Lifeguard Services Division ensures most training occurs during non-peak months when the schedule will allow overlapping days of staffing (Wednesdays). This scheduled training allows permanent personnel to have a designated training day every other Wednesday to meet minimum training standards.

However, there are still ways that the Fire Operations Division personnel can attend some of the needed joint training. In light of this operational constraint for both Divisions, it must be acknowledged that each of the Divisions must retain their own priorities and schedules for developing and delivering a training calendar and the programs for their respective agencies. However, attention and executive-level direction should be given to coordinate training programs at all times.

**Finding #18:** Scheduling and adhering to regular management meetings along with training and practice sessions between the Fire Operations and Lifeguard Services Divisions ensures safe and efficient incident operations for both Divisions.

**Recommendation #19:** Establish an annual master training calendar by month that shows scheduled training for both Divisions to ensure they have opportunities to train together at the local and station levels whenever appropriate and possible.

### **3.6 RANK STRUCTURE AND EQUIVALENCIES**

The Lifeguard Services Division has a different rank structure than the Fire Operations Division. The Lifeguard Services Division rank structure is more comparable to that of a common law enforcement rank structure. A comparison of the rank structure of both Divisions is shown below:

**Table 2—Comparison of Fire Operations and Lifeguard Services Division Rank Structure\***

<b>Fire-Rescue</b>	<b>Lifeguard</b>	<b>Fire Function</b>	<b>Lifeguard Function</b>
Deputy Chief	Lifeguard Chief	Division Management	Division Management
Division Chief	Marine Safety Captain	Fire Operations	Lifeguard Operations
Battalion Chief	Marine Safety Lieutenant	Multi-crew command	Multi-crew command / specialty crew command
Fire Captain	Sergeant	Single crew supervisor	One or two crew supervisors
Fire Engineer	Lifeguard III	Apparatus operator	Field training officer / rescue apparatus operator
Firefighter	Lifeguard II	Crew member	Field training officer/rescue apparatus operator Crew member

\*This table represents full-time employees only. This does not include the rank of Lifeguard I (seasonal/as-needed Lifeguard).

In the mid-1990s, lifeguard organizations throughout Southern California began the process of integrating into fire department organizations due to the similarities in department missions (saving life and property) in both disciplines. The presence of different rank structures *and the authority conveyed* by each rank can create situations of misunderstandings where both divisions from the same department work together in stressful situations. Although cross-training can overcome the aforementioned problem, the rank differences might not be apparent to other outside agency partners. Additionally, in some agencies, lifeguards are trained and work well as command staff members on regional incident management teams. Nonetheless, rank differences might not be perceived correctly.

In other agencies that have integrated lifeguard services into their respective fire departments, rank structures were modified to become more in-line with the fire service structure, to reduce the possibility of misunderstandings. Los Angeles County and Newport Beach are two agencies in Southern California that have successfully implemented a common rank structure within their agency. Citygate’s suggested revised Lifeguard Services Division rank structure cross-over is illustrated in the following table.

**Table 3—Suggested Revised Lifeguard Services Division Rank Structure**

<b>Lifeguard Current</b>	<b>Lifeguard Modified</b>	<b>Lifeguard Function</b>
Lifeguard Chief	Deputy Chief	Division management
Marine Safety Lieutenant	Marine Battalion Chief	Multi-crew command / specialty crew command
Sergeant	Marine Captain	One or two team supervisor

Lifeguards are also a valuable asset to large incident command teams, even where water skills are not needed. However, employing a fire service rank structure is important in these situations. They are trained public safety professionals, not just rescue swimmers. Many agencies (including San Diego) now utilize Lifeguard personnel in other emergency functions to assist the overall needs in a public safety response and doing so is a notable improvement.

Major incident command positions in areas such as the Plans, Logistics, and Finance Sections of an incident lend themselves well to talents and experiences of seasoned lifeguards and have proven to be valuable and cost-effective. Use of lifeguard personnel for command staff functions in wildland fires and other large-scale incidents is common. In California, it is exceedingly common to have staff fill positions in the Incident Management Teams from many different agencies. Over the years, the California fire service has taken great strides in “normalizing” ranks, training, and experience levels. This provides a common understanding of the roles people fill on multi-discipline event responses. Introducing an abnormal (to the fire service) rank identity produces questions and uncertainty. A person wearing personal protective equipment and/or uniforms identifying themselves as a “Lifeguard” or “Sergeant,” even though they have adequate training and experience, can be quite confusing to other team members, the news media, and the public.

**Finding #19:** Within the two Divisions and beyond when operating in regional large incident command, there is anecdotal evidence that the differences in rank cause confusion and concern when both Fire Operations and Lifeguard Services Divisions are present at an incident. Rank-for-rank equivalencies and/or “rank normalizing” of the Lifeguard Services Division rank titles would be beneficial to reduce misunderstanding.

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**Recommendation #20:** Fire-Rescue Department leadership and the affected bargaining units should study and discuss the merits (or lack thereof) of converting the Lifeguard Services Division rank structure to the Fire-Rescue model.



## SECTION 4—RECOMMENDATION COSTS

### 4.1 COSTS

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This section provides an estimate of the costs for implementing recommendations; however, the implementation costs for many recommendations cannot be determined without further detailed analysis. Also, many recommendations only require time existing staff to implement. The costs for several recommendations that can be determined at this time are listed below:

- ◆ Training/Organizational Development:
  - The costs for integrated training and organizational development are unknown; however, these costs could be minimal if instruction cadre is created among existing subject matter experts from both Divisions.
- ◆ Operations and Integration:
  - Technology:
    - CAD: \$26,000 in one-time fees; \$5,000 for annual maintenance.
    - RMS: Costs are unknown; additional research is required.
    - MDCs/AVL: Adopt plan after CAD is upgraded.
  - Facility:
    - To preserve some of the historical features of the facility and rebuild the remainder of the building, the costs are estimated at \$5,000,000-7,000,000 to upgrade to Essential Services Building Act Standards.

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## **SECTION 5—NEXT STEPS**

In any operations study there are recommendations with differing priorities for implementation. Many recommendations will have different budgetary impacts and require different timeframes for full implementation, such as cross-training, facility replacement needing a lengthy lead-time, etc. For all these reasons, and based on our review and interaction with staff, Citygate identifies the following priorities for each recommendation and suggests implementation timing by Fiscal Year:

### **5.1 SUMMARY OF CRITICAL PRIORITIES BY FISCAL YEAR**

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- ◆ Immediate – Fiscal Year 17:
  - Coordinate the Fire and Lifeguard Dispatch geo-location files, resource files, and standard response files.
  - Procure and use Computer Aided Dispatch workstations in Lifeguard Dispatch.
  - Convene technical work groups to address Standard Operating Procedures review and cultural training.
  - Convene the cultural work retreat for executive-level managers.
    - Develop and publish cultural cross-training and an integrated set of core values. Develop a work plan sequence to achieve this.
  - Complete Mobile Data Computers and Automatic Vehicle Location deployment.
  - Install updated logging recorder for telephones at Lifeguard Dispatch.
  - Address Memorandum of Understanding (MOU)-driven operational limitations and negotiate revisions to the MOU.
  - Implement cultural cross-training and other outputs from the cultural work retreat.
  
- ◆ Moderate – Fiscal Years 18 and 19:
  - Develop Dispatch Continuity of Operations Plan.
  - Implement Lifeguard Headquarters facility upgrade protection.

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- ◆ Long-term capital:
  - Design, and when feasible, rebuild the Lifeguard Headquarters building and adjoining small buildings and storage container sheds at the Mission Bay site.

## **APPENDIX A—GLOSSARY**

**9-1-1:** The 3-digit telephone number utilized in North America to access emergency services such as law enforcement, fire and rescue, and emergency medical services. Basic “9-1-1” enables the caller to reach the appropriate emergency services without having to know “who” to call and “what” number to call to reach them.

**ADA:** Acronym used for the Americans with Disabilities Act of 2009 that defines accommodations necessary. Find more at: *United States Department of Justice Civil Rights Division, ADA.gov website 2016*

**APCO:** Acronym for Association for Public-Safety Communications Officers International. A membership organization committed to providing complete public safety communications expertise, professional development, technical assistance, advocacy, and outreach to benefit its members and the public. [www.apcointl.org](http://www.apcointl.org)

**AVL:** Acronym for Automatic Vehicle Location. A means for determining the geographic location of a vehicle and transmitting this information to a point where it can be used. (Reference: National Emergency Number Association Standard #53-501)

**BSU:** Acronym for Boating Safety Unit, a group within the City of San Diego Fire-Rescue’s Lifeguard Services Division. See Section 2.2.2 of this document for complete explanation of duties and capabilities.

**CAD:** Acronym for Computer Aided Dispatch system. Defined as “The principal application used by public safety agencies to manage law enforcement, fire, and EMS incidents from the initial time an incident is reported to the conclusion of the incident. CAD is also used to track the status and location of resources, and the post-incident analysis of the response.” From [www.apcointl.org](http://www.apcointl.org); search Unified CAD Functional Requirements document.

**CIP:** Acronym for Capital Improvement Program. Public agencies often place funds internally under a CIP within a budget or financial plan to fund planned upgrades or replacement of capital items.

**Cliff Rescue Unit:** This term identifies, within the City of San Diego Fire-Rescue Department, a mobile resource designed and equipped to allow specially trained personnel to deal with persons who have fallen or become trapped on (or below) steep vertical cliffs throughout the City and neighboring areas. The Lifeguard Services Division has two such vehicles, a front-line and a reserve-use vehicle.

**Communications Center:** A commonly-used term among public safety agencies that describes the place in which calls from the public are received (when the public seeks assistance for an emergent event), and responder coordination takes place. Communications Center is

synonymous with the terms Dispatch Center and may also be used as a synonym for Public Safety Answering Point (PSAP).

**COP**: Acronym for Common Operational Picture. Borrowed from the military, this term refers to the opportunity for one or more persons to assess common data and information to develop the same understanding in which to base tactics and strategies with a shared goal to complete a mission.

**COOP**: Acronym for Continuation of Operations Plan. A strategic plan developed with either internal or external resources to guide an agency or a division on how to continue to adequately serve the public after a partial or total disruption of systems and/or facilities. This addresses how and where the agency or division will base all operations to effectively serve the public *during and after* an event that hinders and/or diminishes normal operations.

**Dispatch**: A verb, meaning “to send (someone or something) quickly to a particular place for a particular purpose” ([www.merriam-webster.com](http://www.merriam-webster.com)). For public safety agencies, this term is widely used to define the act of a specially trained person who accepts information relative to an emergent event, and determines the closest, most appropriate resource(s) capable of mitigating the emergency, notifies the resource(s), and tracks and supports the field resource(s) in accomplishing the mission. If used as “Dispatch Center,” this term becomes synonymous with Communications Center and may also be used as a synonym for PSAP.

**ECDC**: Acronym for Emergency Command & Data Center. This is San Diego Fire-Rescue Department’s Fire Dispatch center. Classified as a Secondary PSAP, the ECDC receives requests for service from the public and allied agencies, then dispatches the closest, most appropriate resource(s) to handle the event.

**EMS**: Acronym for Emergency Medical Services. This term is widely used in public safety as a term for the resources and trained personnel that handle emergent and non-emergent requests for medical assistance by the public.

**E9-1-1**: Acronym for “Enhanced 9-1-1.” This is the current 9-1-1 system in predominant use throughout the developed areas of North America. This system improves Basic 9-1-1 by also delivering the caller’s telephone number and location to the Public Safety Answering Point (if known).

**Fleetmap**: A fleetmap determines how the trunked radio system for each user group of an organization is controlled. Through controlling communications between different user groups and between individuals within a group, the trunked radio system resources are used efficiently.

Fleetmapping also provides a structured approach to the management of many radio users and provides the opportunity to plan for expansion or changes within an organization.

**Harbor Master:** A term describing the duties and responsibilities assigned to an individual and/or designated to others within an agency. San Diego Municipal Code authorizes the Chief of Lifeguards as the Harbor Master for Mission Bay. (SDMC Section 63.20 et al)

**Heavy Rescue Unit:** A term used to describe a fire-rescue specialty vehicle specifically equipped and staffed with trained personnel to deal with a wide array of complex or technically difficult rescue emergencies. The Fire Operations Division operates two such resources.

**LCC:** Acronym for Lifeguard Communications Center. Within this document, the LCC is referred to as “Lifeguard Dispatch” for clarity and simplification. The LCC is considered a Secondary PSAP, taking calls from both the public and allied agencies requesting assistance with an emergent event.

**Law Enforcement:** Due to the number of specific types of law enforcement agencies that may deal with both crime and safety (police, sheriff, highway patrol, marshal, etc.), this term is used to refer to the agency that performs the law enforcement function.

**MDC:** Acronym for Mobile Data Computer. This term commonly refers to the data appliance used in the field to retrieve and view electronic files. When connected to CAD appropriately, MDC can be used to message, change status, share data files and view AVL information on maps.

**NENA:** Acronym for the National Emergency Number Association ([www.nena.org](http://www.nena.org)), an organization founded to promote a single emergency number to be used throughout North America. This organization develops standards, training, and support programs for public safety dispatch and communications centers in this country, and worldwide.

**NG9-1-1:** Acronym for Next Generation 9-1-1. Term used to describe an Internet Protocol (IP) based 9-1-1 system. NG9-1-1 is a system comprised of managed IP-based networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provide additional capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for PSAPs and other emergency service organizations. (Extract from NENA Master Glossary of 9-1-1 Terms. [www.nena.org](http://www.nena.org))

**Project 25:** Also known as P25, this refers to a suite of standards for two-way Public Safety radios developed by APCO. As part of the Federal Communications Committee’s requirements for changes in how certain areas of the radio spectrum shall be divided and shared to maximize this finite resource, the FCC adopted these standards and required agencies to modify some of their existing radio channels in certain bands. To be P25-compliant, the system and all radios must be capable of operating on both digital and analog systems, and both trunked and conventional systems. The City of San Diego’s 800 Megahertz Trunked Radio system is being modified to become P25-compliant.

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**PSAP**: Acronym for Public Safety Answering Point. A set of call takers authorized by a governing body and operating under common management which receives 9-1-1 calls and asynchronous event notifications for a defined geographic area and processes those calls and events according to a specified operational policy. (Extract from NENA Master Glossary of 9-1-1 Terms. [www.nena.org](http://www.nena.org)). *Primary PSAPs* (the first point to answer a 9-1-1 call) will be a law enforcement agency in this county. *Secondary PSAPs* are generally fire/EMS agencies that accept the transferred calls from the Primary PSAPs, then provide call taking operations to discern the location and type of call, and any other pertinent information. The Fire-Rescue Lifeguard Services Division is also a Secondary PSAP.

**RCS**: Acronym for San Diego County’s *Regional Communications System*, a trunked radio system serving public safety and public service agencies as a primary radio system in San Diego and Imperial Counties.

**Resources**: Defined as “a source of supply or support,” ([www.merriam-webster.com](http://www.merriam-webster.com)) this term is commonly used within public safety agencies to describe personnel or equipment, or personnel and equipment, which can be dispatched to a request for service to mitigate an emergent situation or satisfy a need. Formerly referred to as a “unit,” the term resource can represent a piece of mobile equipment (lifeguard truck), watercraft, or person.

**River Rescue Unit**: This is a non-FIRESCOPE and Incident Command System term used within the Lifeguard Service Division to describe a group of Swift Water Rescue-trained personnel, together with appropriately equipped mobile resources, assembled and assigned for the specific task of dealing with rescues in moving water. These resources are often pre-deployed when wet-weather events are expected or experienced.

**RMS**: Acronym for Records Management System. A software system designed to collect data from activities performed by public safety agencies, and provide methods for extraction and analysis and/or transfer of the stored data to analyze performance and statistics. Most often in California public safety agencies, these RMS systems are designed to extract specific data components from CAD systems in a logical fashion. However, there are some RMS systems that can provide adequate data storage and review with manual entry.

**SA**: Acronym for Situational Awareness. SA is a term utilized by military institutions to describe the perception of environmental elements as they relate to events (with respect to time or space), the comprehension of their meaning, and the projections of their status after some variable has changed (e.g., time, a predetermined event, or some other variable). SA includes understanding the environment critical to decision-makers in complex areas for emergency services such as firefighting and law enforcement, to more ordinary (but nevertheless complex) tasks such as driving an automobile or riding a bicycle.



**SOPs**: Acronym for Standard Operating Procedures. The SOP is a written directive that provides a guideline for carrying out an activity. The guideline may be made mandatory by including terms such as “shall” rather than “should” or “must” rather than “may.”

**Still Alarm**: A fire service term describing the situation in which a person reports an emergency directly to a fire station or firefighting personnel via telephone or in person, without reporting to the Dispatch Center or PSAP. In the case of the Lifeguard Services Division, this term is used to describe the reporting of a situation directly to Lifeguard personnel at a tower, in a vehicle, or in a boat.

**Talkgroup**: A talkgroup is an assigned group of frequencies on a trunked radio system. As many people understand that “channels” are a frequency (or set of frequencies) on a radio that allow one radio to contact and speak with another radio (if both are on the same channel. In trunked radio systems, a talkgroup becomes synonymous with the old term “channel.” Unlike a conventional radio which assigns users a certain frequency), a trunk system takes a number of frequencies allocated to the system and establishes a control channel that coordinates with the system which ultimately allows the talkgroups to share these frequencies seamlessly. The primary purpose of talkgroups is to dramatically increase bandwidth. Currently, many modern-day radios treat talkgroups as if they were frequencies because of functional similarity. (For example, it is common to be able to assign the talkgroups of radio scanners into banks or lock them out, exactly like that of conventional frequencies.)

**Trunked Radio**: A trunked radio system is a complex type of computer-controlled radio system that allows sharing of relatively few radio frequency channels among a large group of users. For example, instead of assigning a radio channel to one particular organization at a time, users are assigned to a logical grouping (i.e., a “talkgroup”).

**VHF**: An acronym for Very High Frequency. VHF, used in the context of this report (e.g., the “VHF Marine Band”) refers to the section of radio spectrum that is set aside by the Federal Communications Commission (FCC) to be used for mariners to communicate with other mariners, harbors, and various other maritime uses.

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## APPENDIX B—LIFEGUARD SERVICES DIVISION ORGANIZATION CHART

**Figure 3—Lifeguard Services Division Organization Chart**

