



# Beach Fire Management Pilot Program

Program Approved June 2016 (amended February 2018)

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## Executive Summary

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The City of Carmel-by-the-Sea Beach Fire Management Pilot Program (Program) provides for recreational beach fires while simultaneously minimizing the impacts of wood-fueled beach fires on the community and the sensitive environmental resources of the beach. The Program consists of up to 12 City-supplied wood-fueled fire devices along the beach in designated areas, as well as the allowance of user-supplied propane-fueled beach fire devices in designated areas along Carmel Beach. City-supplied wood-fueled beach fire devices will be in place for use during the peak beach use season: from March 1 to November 1. User-supplied propane-fueled beach fire devices are allowed year-round. The wood-burning devices are located at designated locations near beach access staircases and a minimum of 75 ft seaward of the base of the coastal bluff or seaward limit of the dunes. The Program area is delineated as between 10th Avenue and Martin Way, and the devices are available at no cost. The City is responsible for ensuring that the City-supplied fire devices are regularly maintained and cleaned. Propane-fueled grills are permitted in designated areas under the Program, but charcoal briquette fires are not allowed.

In addition to the wood-fueled devices, the City encourages the use of user-supplied propane fire devices along the beach within the Program area. The propane-fueled devices must be a minimum of 25 ft from the base of the bluff. There are no restrictions on the number of user-supplied propane-fueled devices, but the City reserves the right to restrict their use in the event of public safety needs or other unforeseen issues. The Program also includes enhanced educational and enforcement efforts, including the use of private security, City police officers and volunteers to educate the public about the Program and its associated rules. The Program duration is three years and includes active management to refine the Program in response to lessons learned.

### Objectives

The principles of the Beach Fire Management Pilot Program (Program) are twofold: (1) to manage the number of beach fires and (2) to refine the beach fires rules. The objectives of the Program are: (1) to preserve the quality of Carmel Beach's white sand, (2) to enhance recreational use and public safety of Carmel Beach, and (3) to protect the resource values of the beach environs including ambient air and water quality. The City's Land Use Plan provides broad guidance regarding beach use, protection, and management:

***“Provide for a wide variety of passive and active recreational experiences for all beach users while protecting the resource values of beach environs (Goal 4-4)”***

***“Manage the City's beach, park and open space resources in a manner to encourage use and enjoyment by residents and visitors (Objective 4-9)”***

***“Allow beach users the opportunity to enjoy a fire for warmth or cooking, while protecting the sand from degradation (Objective 4-10)”***

***“Lower cost visitor and recreational facilities shall be protected and encouraged and where feasible, provided. Developments providing public recreational opportunities are preferred (Policy P4-62).”***

***“Provide adequate facilities that will serve the needs of the public, mitigate damage to the environment and respect the neighborhood (Goal 4-3)”***

Managing the number of wood-fueled beach fires together while providing for propane-fueled devices minimizes the degradation of the sand while also increasing public safety and enhancing ambient air and water quality in accordance with the Coastal Access and Recreation Element of the City’s Local Coastal Plan (LCP). The Program attempts to balance these objectives and develop options in accordance with the goals and objectives contained within the LCP.

#### **Keys to Success: Measurement, Reporting and Evaluation**

Pictured below is a close up of sand grains on Carmel Beach



#### **Program Elements:**

##### **Objective O-1 Preserve Sand Quality**

**Measurement: Eliminate charcoal and burned logs from the sand.** The City’s Program provides for a limited number of wood-fueled fires (up to 12) in designated areas. City staff is responsible for regularly emptying any City-supplied wood-fueled devices. User-supplied propane-fueled devices are also allowed, and these devices do not generate charcoal or ash.

By eliminating wood and charcoal residue from the sand, the quality of Carmel's white sand beach will be preserved / enhanced. Prior to or at the beginning of the pilot program as well as throughout its implementation, City will undertake a beach clean-up and sand sifting. The condition of the beach will be documented through photographs and/or video footage to demonstrate the effectiveness of the Program in improving the aesthetics of the beach and shoreline areas. Photos will be taken from the bluff top at the set (fixed) locations at quarterly intervals to assess beach cleanliness and appearance.

### **Objective O-2 Enhance Public Use and Safety of Carmel Beach**

**Measurement: Install City-Supplied Fire Devices or Designate Areas for User-Supplied Wood Fire Devices.** The first phase of the Program includes a thorough clean-up of existing charcoal on the beach and installing up to 12 City-supplied and City-maintained wood- fueled fire devices at specific locations adjacent to public beach access points between Martin Way and 10th Avenue. The fire devices are available on a first come, first serve basis from 4 pm to 10 pm daily. Half of the devices shall be community devices in which sharing is encouraged. City-supplied devices shall be anchored into the sand at fixed locations during the spring, summer, and fall seasons, and remain in place until threatened by winter-season wave scour as discussed below in Hazard Avoidance. The devices will be removed for a portion of the winter storm season and may also be removed at other times of the year in response to a tsunami warning, or during other periods of unusually high tides, off-season storms, and low beach profile conditions. The City- supplied devices will be returned to the beach once storms and high tides subside. The specific location of the majority of the devices would be adjusted throughout the pilot period in order to determine locations that are least prone to seasonal beach scour, and as such, maximize their use throughout the year. User-supplied portable propane-fueled devices are allowed year round. The City anticipates that local- and area-wide stores may also to rent out user-supplied propane devices (or wood burning devices, should these be allowed in lieu of City-supplied wood-fueled devices), and the City would provide information on where such units may be acquired on beach area signage and on the City's website as well as a part of the beach fire management educational program. While not a part of the initial phase of the pilot program, the City may sponsor or contract with a vendor to provide propane-fueled devices for rent at a location within the City, if this is determined to be a necessary component for increasing access to portable user-operated units. This program component would need to be further refined and may involve a modification to restrictions in the City's Municipal Code regarding commercial activities in the shoreline area.

### **Objective O-3 Protect Resource Values: Air and Water**

**Measurement: Reduce the amount of wood smoke and charcoal debris generated by beach fires.** The Program restricts the number of wood-fueled beach fire devices to a maximum of 12, which will be cleaned and maintained by City staff or a contractor. The Program also allows the use of propane-fueled devices, which produce neither charcoal nor smoke, other than when used for grilling food. Charcoal-fueled (briquettes) fires are not permitted. The Program will substantially reduce wood smoke and its associated public health hazards, as well as eliminate the accumulation of charcoal on the beach and into the marine environment. New signage will be designed and installed to inform beach users of the pilot program's beach fire rules. Signage will also include information on the locations of and hours of operation for City-supplied devices, the types of user-supplied devices that are permissible, and options for obtaining user-supplied devices. Staff from the Monterey Bay Air Resources District (MBARD) operated an air quality monitoring station on private property along Scenic Drive between May and December 2015, and collected data on particulate matter (PM-2.5) levels. Although the monitoring station has been removed, the City will work with MBARD staff as necessary to evaluate the effectiveness of the program on maintaining acceptable air quality for beach goers, Scenic Road pathway users, and nearby residents. If wood smoke nuisance complaints persist, City staff would confer with MBARD staff regarding the reestablishing a monitoring station. As described above in Objective O-1, the City will regularly maintain the beach and provide both photographic and video footage demonstrating the condition of the beach.

#### **Reporting:**

Staff will return to the City Council with periodic updates following initial adoption of this Program. During the pilot program, City staff will provide quarterly updates to the City's Forest and Beach Commission at scheduled public meetings on the status of the pilot program and receive public comment on the components of the program. Approximately two to three months before the end of each year of the Program, a report will be presented to the City's Forest and Beach Commission, City Planning Commission, and City Council, to assist in determining if changes to the Program should be made, or if sufficient information has been collected such that a permanent change to the City's beach fires management should be implemented. The report will be shared in draft form with Coastal Commission staff for input prior to City Council discussion of the Program, and each year, a final year-end report will be provided to Coastal Commission staff for documentation.

## Fire Devices

### Dimensions and Style

The initial City-supplied wood-fueled devices to be tested and used are made from steel with approximate dimensions between 16-24 inches high and 30-48 inches wide. These devices weigh approximately 100-200 pounds and will be partially buried and secured in place. These devices are designed to remain fixed and not be moved to other locations by the public or special event organizers. The City may purchase and test two or more different units to gauge appearance, reliability, and ease of operation.

In addition, beach goers are encouraged to bring and operate user-supplied propane-fueled devices. These devices are typically smaller than the steel wood-fuel devices, and a variety of models are available from local hardware and garden stores. Propane tanks are also available in different sizes. City staff have identified several off-the-shelf models, and the City would disseminate information on its website regarding a list of off-the-shelf options, their cost, where they can be obtained. The website may also provide for user feedback on performance of different off-the-shelf fire device options.

Pictured below are three examples of potential initial options for the City-supplied fire devices.



Pictured below are two examples of potential user-supplied propane-fueled fire devices.



### Usage

User-supplied propane-fueled devices are allowed year-round and as close as 25 feet from the base of the coastal bluff. City-supplied wood-fueled fire devices are provided in the, spring, summer and fall season only, restricted to areas a minimum of 75 feet from the base of the bluff. The number of wood-fired devices is limited to a maximum of 12 such units at designated locations. Users of city-supplied wood-fueled devices are instructed to only use dry, cured wood, and no driftwood, pallets or other materials (such as Christmas trees, furniture, and trash). No trash, glass or other materials may be left in the device.

### Hours of Use

Wood-fueled beach fire devices are allowed between the hours of 4 p.m. and 10 p.m., seven days a week during the portion of the year that the beach is wide enough to support such devices (March 1 to November 1) within the Program area. Similarly, Beach fires in user-supplied propane devices would be allowed from 4 p.m. to 10 p.m., seven days a week, and year-round within the Program area.

## Availability

The City-supplied fire devices are available on a “first come, first served” basis and can not be reserved or held in advance for use except in limited circumstances associated with a properly-issued special event permit. Half of the units are designated as community devices for shared use by beach goers, with the City potentially supplying the firewood for these community devices. In addition, one fire device may be reserved in association with the issuance of a special event permit from the City and in accordance with the City’s special event policies. The City limits this special event permit-related reservation to one of the devices on any given day. The City would also limit these reservations to no more than two such reservations in any given week and no more than four such reservations in any given month. The remaining City-supplied fire devices are available for the general public. The City will consult with Coastal Commission staff on the specifics of any Program adjustment.

## Exceptions

During the holiday weekends of July 4<sup>th</sup> and Labor Day, to meet peak beach fire demand, the City may set up a program to distribute up to 25 additional portable propane-fueled devices for public rental. The fee for use would be reasonable: on the order of \$20-\$50 for the day. These could be made available at a temporary station such as a trailer or similar mobile facility located at a suitable location. Potential locations include in the Del Mar Parking Lot, at the intersection of 10th Avenue and Scenic Road, or a similar location. This component would only be developed and implemented if other means of sales or rentals of user-supplied units are determined to be inadequate by the City in consultation with Coastal Commission staff. This component may constitute commercial activity in the shoreline area, which is currently prohibited under the City’s Municipal Code. As such, the implementation of such a rental component, if made permanent, may require a Zoning Ordinance Amendment and Local Coastal Program Amendment.

## Cleaning

Over several months in 2015, air quality data was collected along with photographic and video footage of beach conditions (sand quality). The August 2015 implementation of the City’s Interim Moratorium on weekend wood-fueled beach fires has reduced air pollutant levels and has resulted in a lower rate of accumulation of charcoal on the beach. However, there still are areas of charcoal that could be further cleaned using sifting devices and small equipment (above the kelp line and in the corridor where the devices will be located). The City may undertake these additional cleaning measures in advance of seasonal installation of City-supplied fire devices. Regular cleaning of the City-supplied devices is necessary. It is anticipated that the devices will be cleaned at least 3 or 4 days a week, and this cleaning would be done by City staff or a City contractor.

## Hazard Avoidance

The program includes hazard avoidance guidelines and trigger points for the timely removal of City-supplied fire devices prior to the devices being threatened by high tides, large storms, and wave action. The intent of this program component is to make fire devices available as long as possible throughout the year while being cognizant of shoreline hazards and protective of sensitive environmental resources (i.e., air and water quality).

Beach width and the upper reach of the wash of the waves vary throughout the year and from season to season. In general, the beach is widest in the summer months and narrows considerably in the winter storm season, when storm-induced waves erode the berm and lower the beach profile. The extent and timing of winter beach scour varies from season to season. In some winters, the beach is nearly completely scoured out, such that the wash of the waves is all the way up to the base of the bluff. In milder winters, there are areas of the beach that are never scoured out, particularly in the more landward and protected areas of the beach, such as near 10th Avenue. In the typical winter, however, most if not all, of the fire devices would be threatened by scour.

It is anticipated that the City-supplied beach fire devices will be in place for use during the peak beach use season: from March 1 to November 1. This is typically when the threat from shoreline hazards is lowest. The beach fire devices may be retained for some period beyond the March 1 to November 1 period, provided that favorable weather conditions and a low threat of storm-driven wave inundation continue. Outside the peak periods (i.e., November 1 through March 1), the City-supplied fire devices will be removed from the beach to avoid potential hazards and inundation. At the beginning of the winter storm season (on or about November 1), City staff will monitor the condition of the beach at least weekly, including measuring the width of the beach berm in the vicinity of the fire devices. Beach fire devices will be removed or relocated prior to being threatened by wave-induced beach scour and/or inundation.

The initial threshold for removal of a device is if the upper wash of the waves is within 10 feet of the device. If this distance, in practice, does not provide sufficient time for City staff to remove the device, a larger distance may be established. Management of the City-supplied fire devices may be modified in response to extreme ocean conditions. If, there is an unusually early or heavy winter storm season, such that wave-induced scour threatens to undermine the fire devices, City staff will remove any threatened devices earlier in the year. Similarly, if a heavy winter storm season delays the post-winter recovery of the beach, the City may delay the springtime installation of some of the devices. In addition, if there is an extraordinary storm or high-wave event forecasted outside of the target use period, the devices will be removed and returned as soon as it is practical. Both the threshold for removal and replacement timing are components that the pilot program will further develop.

## Locations

The initial locations for the City-supplied wood-fueled devices is between 10th Avenue and Martin way and shall be spaced a minimum of 200 feet apart. All locations must be at least 75 feet from the base of the bluff. Utilizing adaptive management, the location of the devices may be adjusted as needed due to topography of the beach, wave and tidal activity, or to better meet the needs of beach users. A map of access points and approximate locations for the City-supplied devices are contained in Figure 1. User-supplied propane fire devices would be allowed from Martin Way to 10th Avenue with a setback requirement of at least 25 feet from the base of the bluff.

## Public Education and Enforcement

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Public education and outreach are a key component of the pilot program with an emphasis on proper use of propane devices. The City will develop and distribute public education materials to try to reach the public regarding the pilot program and the new beach fire rules before they arrive at Carmel Beach. In addition, the City will use a combination of private security staff and a dedicated police beach patrol officer to educate the public about the rules, gather data and assist in monitoring the effectiveness of the pilot program. The use of docents and other volunteers to help explain the rules to the public may also be added as part of the communication strategy.

**Online Information:** Both the City's website and other associated websites, such as the Carmel Chamber of Commerce and the Monterey Visitors and Convention Bureau, will be updated to reflect the use of the allowed fire devices and other beach rules. The City will also reach out to other website providers that are geared toward activities at California beaches and travel-related sites to explain the new rules and request assistance in providing updated information to the public.

**Other Sources of Information:** Press releases to local newspapers and television stations will also occur regarding the beach rules and the use of both City-supplied and user-supplied beach fire devices, as well as outreach to schools, colleges and community groups. The hotel industry will be contacted and given informational cards that could be provided to guests about the beach fire rules. Local grocery stores will be provided information to distribute to customers, including information regarding where user-supplier propane devices could be purchased or rented, and where propane tanks can be refilled.

**Signage:** Signage will be installed that provides information regarding allowed devices and the locations where fire devices are allowed. Locations for new signage will include the Del Mar parking lot, at the beginning of the Scenic Road pathway (Scenic and 10th Avenue), at the beach access stairways along Scenic, and at both ends of the 4<sup>th</sup> Avenue beach access pathway. Informational signage regarding the purpose of the pilot program and the rules and restrictions will be installed at key locations starting at the Del Mar Parking Lot. As the northern limit for beach limits may change under the Pilot Program, the Del Mar area, the 10th Avenue access, and the 10<sup>th</sup> Avenue access as appropriate will have a marker to delineate and differentiate where fires are allowed and not allowed. Signage indicating the use of fire devices, with a simple message such as “wood fires only in City-supplied fire devices”. Signage will be placed near the staircases and other beach access points. Such signage will be installed in locations that minimize obstructions of coastal views, e.g. on railings, near the side of the staircases and/or, on landings half-way down the beach staircases. Signage materials for the pilot program may be metal; however, permanent (post-pilot program) signage will be simple, rustic, and primarily made of wood, in keeping with Carmel’s existing aesthetic. Universal symbols will be used where appropriate. Specific sign designs for the pilot program will be developed within approximately the first two or three months of the program’s approval and presented to the Planning Commission for review and approval of sign design.

**Messaging:** The City’s public education materials and signage program will explain the purpose of the pilot program, which is to encourage responsible and safe beach use while protecting the character of Carmel Beach and the resource values of the beach environs (i.e., ambient air and water quality).

**Personal outreach/contact:** The City intends to use a combination of police staff, private security staff, and volunteers to explain the rules to the public. The City has recently provided for a beach patrol police officer staffing from 5 pm to 11 pm, seven days a week. This officer is dedicated to patrolling the beach and will be on site to address issues regarding violations of beach fire rules. Private security officers, if retained to assist with beach fire management, will be trained by the Carmel Police Department regarding the beach fire rules, and will serve as a friendly and helpful educational resource to explain the rules to the public. The City also plans to utilize local volunteers, some stationed at the beach staircases, and others walking the beach, to explain the rules, help notify the public about the availability of City-supplied fire devices or the allowable location of user-supplied fire devices, track data regarding where beach users are from (in order to help target additional public education and outreach), and document compliance with the beach fire rules. These volunteers may also provide other observations about the pilot program in general. The volunteers will carry and distribute informational cards that explain the rules to members of the public. The cards will have a comment suggestion and link to a comment form on the City’s website and an email address so the public can provide feedback on the pilot program.

Figure 1: Map of Carmel Beach Access Points and Potential Initial City-Sponsored Fire Device Locations (Extend Map to 10th Ave)

