

Fire Pits on Mission Beach

Position Paper and Resolution

Mission Beach Town Council



November ____, 2014
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“The particulate emissions rate per minute from one beach bonfire is equal to that from three average big-rig diesel trucks or the secondhand smoke from 800 cigarettes.”

Source: South Coast Air Quality Management District based on air monitoring in March 2013

OVERVIEW

Beach bonfires on Mission Beach are tradition. Beachgoers love to relax around the fire pits as the summer sun goes down and the evenings start to chill. But, at what price to Mission Beach residents?

The mission statement of the Mission Beach Town Council (MBTC) is to act on community issues related to the health, safety and welfare of members within the community. The fire pits, including City-maintained, commercial and private, are negatively impacting the quality of life of Mission Beach residents. For health and safety reasons, the City of San Diego has banned alcohol and smoking on City beaches. For similar reasons, now is the time to ban fire pits.

The City of San Diego has 186 fire pits at 22 sites ^(a). The issues discussed in this paper apply to all 186 pits, but the MBTC is only addressing the 16 fire pits in Mission Beach. Namely, 4 fire pits in front of Belmont Park, 11 fire pits in South Mission Beach near the jetty and 1 fire pit at Mission Point. The MBTC is also addressing commercial fire pit rental services and private fire pits on Mission Beach.

Following discussions at the MBTC October meeting and a vote at the November 2014 meeting, the MBTC passed a resolution in support of banning all public, commercial and private fire pits from Mission Beach. Based on the vote, the MBTC will now seek the City's support in implementing the ban.

The proposed Mission Beach fire pit ban is intended to cover all of the beach and bay side of the Mission Beach peninsula from Pacific Beach Blvd. to and including the south jetty area.

The MBTC position is based on six major concerns:

1. Health
2. Safety
3. Cost/Benefit
4. Environmental
5. Noise
6. Enforcement

1. Health Issues Associated with Fire Pits

Many Mission Beach residents are impacted by the noxious fumes that emanate from fires on the beach. The smoke permeates the homes and lungs of community residents. Mission Beach is very narrow and the prevailing offshore breezes blow the smoke from the fires directly into local homes. What smells like a great outdoor experience at the beach turns into noxious fumes inside homes. If you watch people sitting by the fire pits, you will notice they move away from where the smoke is blowing and sit on the opposite side of the fire pits. Beach residents don't have the option to reposition their homes away from the smoke.

Beach residents have long suspected the smoke to be unhealthy. A recent study by the South Coast Air Quality Management District (SCAQMD) confirmed the health risk of fires on the beach. *[SCAQMD is the air pollution control agency for Orange County, and major portions of Los Angeles, San Bernardino, and Riverside counties. It does not control San Diego County.]*

In 2013, SCAQMD announced results from air monitoring of beach fires. Their report showed that smoke from beach fires is impacting air quality of nearby residents, specifically stating:

The particulate emissions rate per minute from one beach bonfire is equal to that from three average big-rig diesel trucks or the secondhand smoke from 800 cigarettes.^(b)

Other significant health findings found on the SCAQMD website www.aqmd.gov include:

- One fire pit in one evening emits as much fine particulate pollution as one big-rig diesel truck driven 564 miles.
- Fine particles in wood smoke contain cancer-causing chemicals as well as common combustion pollutants. These carcinogenic toxic pollutants include: Benzene, Formaldehyde and Polycyclic Aromatic Hydrocarbons.
- Fine particles in wood smoke can aggravate chronic heart and lung diseases and are linked to premature deaths in people with these conditions. Respiratory irritants include Acrolein.
- Recognizing that wood smoke is harmful, SCAQMD initially proposed in 2013 a complete ban on beach fires in Orange and Los Angeles counties. However, following extensive public reaction, they allowed fire pits to remain if they are located at least 700 feet from the nearest residence or at least 100 feet apart.

There are two May 2013 Power Point presentations on the SCAQMD website entitled "Air Quality Impacts of Recreational Beach Fires" that are very informative and present detailed results of their pollution monitoring^(b).

Environment and Human Health, Inc., a nonprofit organization dedicated to protecting human health from environmental harms through research, education and the promotion of sound public policy has listed the following health hazards associated with smoke from wood fires on their website ^(c):

- Although wood smoke conjures up fond memories of sitting by a cozy fire, it is important to know that the components of wood smoke and cigarette smoke are quite similar, and that many components of both are carcinogenic. Wood smoke contains fine particulate matter, carbon monoxide, formaldehyde, sulfur dioxide and various irritant gases such as nitrogen oxides that can scar the lungs. Wood smoke also contains chemicals known or suspected to be carcinogens, such as polycyclic aromatic hydrocarbons (PAHs) and dioxin.
- Wood smoke interferes with normal lung development in infants and children. It also increases children's risk of lower respiratory infections such as bronchitis and pneumonia.
- Wood smoke exposure can depress the immune system and damage the layer of cells in the lungs that protect and cleanse the airways.
- According to the Environmental Protection Agency (EPA), toxic air pollutants are components of wood smoke. Wood smoke can cause coughs, headaches, eye, and throat irritation in otherwise healthy people.
- For vulnerable populations, such as people with asthma, chronic respiratory disease and those with cardiovascular disease, wood smoke is particularly harmful— even short exposures can prove dangerous.
- The particles of wood smoke are extremely small and therefore are not filtered out by the nose or the upper respiratory system. Instead, these small particles end up deep in the lungs where they remain for months, causing structural damage and chemical changes. Wood smoke's carcinogenic chemicals adhere to these tiny particles, which enter deep into the lungs.
- Recent studies show that fine particles that go deep into the lungs increase the risk of heart attacks and strokes. EPA warns that for people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias. If you have heart disease, these tiny particles may cause you to experience chest pain, palpitations, shortness of breath, and fatigue.
- The particulate matter in wood smoke is so small that windows and doors cannot keep it out—even the newer energy-efficient weather-tight homes cannot keep out wood smoke.

An article in Scientific American ^(d) on the environmental dangers of fire pits stated:

- Free radicals from wood smoke are chemically active for twenty minutes; tobacco smoke radicals are chemically active for thirty seconds. Wood smoke attacks the body's cells up to forty times longer than tobacco smoke.
- Wood smoke chemicals and particulates can stay near the ground for up to three weeks and can travel up to 700 miles from the source. It can be in the air harming health even when the smell isn't easily discernible. [This is extremely compelling, as it truly affects every single person living in the beach area.]

In a letter to the California Coastal Commission dated May 23, 2012 ⁽ⁱ⁾, Dr. David Brown, a public health toxicologist, stated, “Community beaches with fire pits bring together all three of the components of a health hazard; emission of toxic materials, susceptible persons and the potential for local weather conditions that can trap emissions at ground level. This would be a health hazard to some people who are coming to the beach and those living near the beach with fire pits.” He also stated that “we have measured high numbers of inhalable particles inside houses at 1500 feet or more from ground level wood burning sources such as fire pits.”

The studies mentioned above discuss wood burning fires. However, fires in Mission Beach are often fueled by plastic chairs, plastic cups, plastic plates, soda bottles, plastic bags, Styrofoam cups, broken beach toys, wood pallets that been chemically treated and even Christmas trees. The pollutants released by these substances are significantly more hazardous than wood fires.

2. Safety Issues Associated with Fire Pits

A quick Internet search^(e) of injuries caused by beach fire pits in Southern California revealed numerous cases of children being treated for second and third degree burns from falling into fire pits or stepping on smoldering embers inside the pits. One horrific case involved children participating in a beach clean-up in Corona del Mar. They spotted trash inside a fire pit and came out with second and third degree burns. Most people don't realize that a fire needs to be put out with water. Pouring sand over a fire can allow the embers to smolder for hours and only disguise the danger hidden in the fire pits. Health professionals in Orange County say the fact that so many children have been seriously injured shows that something more must be done to prevent accidents. “It is our biggest problem during the summer,” said the president of the Orange County Burn Association. The City needs to be concerned about potential litigation concerning fire pit injuries.

Wire hangers left over from marshmallow roasts can be buried in the sand and present an invisible hazard for people to step on.

3. Cost/ Benefit

City officials have told the MBTC that the cost to maintain the City's 186 fire pits is about \$173,000. This cost seems excessive given the small number of San Diegans who actually use the fire pits. It is interesting to note that a few years ago an anonymous donor came forward with \$259,000 to preserve the fire pits, but a fundraising campaign to keep the pits raised only \$1,210 (reported in the San Diego Union on December 3, 2009 ^(h)). Residents in Mission Beach who have observed the City workers cleaning the fire pits stated how quickly and haphazardly the pits are cleaned. One resident was told that these City workers quickly finish their jobs so they can just hang out unobserved on Fiesta Island.

The \$173,000 could be put to better use to benefit a greater number of San Diegians. There are many ways to better use this money. For example, the annual salary and benefits for one police officer is approximately \$93,600 ⁽⁹⁾. Therefore, two officers could almost be paid for entirely by eliminating the fire pits. If there were a City proposition to hire two police officers or continue to spend \$173,000 annually on fire pits, it is hoped that the police officers would win. Or, \$173,000 could buy over 400 iPads for use in City schools each year. There are endless examples of how the funds could be better used to benefit a greater number of 1.3 million people who live in San Diego.

It would be hard to accurately calculate the number of people who actually use the City-owned fire pits in Mission Beach. But, making a rough guess, let's assume that 6 people are sitting around the 16 fire pits every night for 3 months (middle of June to middle of September). That would mean 8,640 pleasure uses of the fire pits. Let's further assume that the same person uses a pit two times during the 90 day period. That would mean 4,320 people enjoyed the fire pits. Let's further assume that 50% are not residents of San Diego. That would mean only 2,160 residents of San Diego use the fire pits and this is probably a high estimate. A few hours of fun for 2,160 San Diegians should not be more important than the health and safety of beach residents.

4. Environmental Issues Associated with Fire Pits

Trash is always a problem at the beach but more trash and discarded furniture can be found around the fire pits than in other areas. Often times, commercial and private fire pit users just dump the coals on the sand or into the ocean.

5. Noise Issues Associated with Fire Pits

Fire pits often attract large groups of party goers that result in loud parties which last late into the night and are frequently accompanied by illegal drinking. Beers cans and glass alcohol bottles are often found in the fire pits the next day.

6. Enforcement of Fire Pit Violations

Over-burdened police officers, firemen and lifeguards rarely have the time to respond to calls about fire pits. There are many illegal activities associated with local fire pits including:

- Drinking alcohol on the beach
- Underage drinking
- Loud parties continuing late into the night
- Using pits past midnight
- Burning wood pallets and painted or treated woods
- Burning non-wood items in the fire pit such as trash and plastic
- Using lighter fluid on the fires
- Having fuel for the fire exceeding a height of 12 inches above the fire pit
- Smoking cigarettes or marijuana
- Leaving trash, including glass on the beach

- Not properly extinguishing the fires in the pits. (Regulations state that coals must be removed or deposited in hot coal containers.)
- Beach Fire Guy running his business on the beach.

Enforcement of these violations is a low priority. It would be easier to enforce if all fires were ban from the beaches. Following is a letter to the editor of the San Diego Union appearing in the October 22, 2014 paper calling for a ban on beach fire rings:

“Sadly, beach fire rings have to be removed. Saturday’s 3 a.m. stabbing at a Mission Beach bonfire attended by 50 people emphasizes that the time has come to remove fire rings from Mission Beach and Pacific Beach. Our understaffed police force cannot enforce existing laws to prevent illegal activities at the fire rings. Loud parties with drinking and drug use continue after 10 p.m., gang activity is prevalent, transients drink and sleep overnight, and carcinogenic smoke and debris are the result of illegal burning of oil-soaked pallets. Callers to the police nonemergency numbers are told that there are too many emergencies and officers may not be able to respond to fire ring and beach-use violations. Unfortunately, times have changed since grandparents could take grandchildren to fire rings to roast marshmallows.”

Are Beach Fire Pits a “Nuisance”?

If a city has designated that beach fire pits within its boundaries cause a nuisance, as defined in California Health and Safety Code section 41700(a) ^(h), due to wood smoke exposure, then those fire pits may not be made available by a local authority. Section 41700 states:

- (a) Except as otherwise provided in Section 41705 [which is not applicable to beach fires], a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.
- (b) This section shall become operative on January 1, 2014.

Fire pits at Mission Beach should be designated a nuisance under this code and removed from the beach.

Location of the 16 Fire Pits in Mission Beach

The SCAQMD had to compromise their original decision to ban all fire pits and instead they allowed fire pits to remain if they are located at least 700 feet from the nearest residence or at least 100 feet apart.

Over the past few years, the City has relocated most of the fire pits in Mission Beach, but the remaining fire pits are still too close to homes. Measurements show that most of the 11 fire pits in South Mission are closer than 700 feet to the nearest residence, but two may be slightly over 700 feet. In any event, all of them are a nuisance and at times blow smoke into local homes. The one fire pit on Mission Point is much closer than 700

to the nearest residence. All but one of the four fire pits in front of Belmont Park are closer than 700 to the nearest residence.

Commercial and Private Fire Pits

Commercial and private fire pits present the same health and safety issues that the City-owned fire pits present and should be banned. In addition, over the past few years, at least one business has been providing a fire pit rental service on Mission Beach. The SDPD has stated that this business is not licensed to operate on the beach. The police should cite this business for operating without a proper license.

There has been a proliferation of private fire pits in recent years. These pits are typically placed close to the seawall and certainly much closer than 700 feet from the nearest home. One local resident observed a renter setting up a private fire pit directly in front of her house. She asked why they didn't set it up in front of their rental unit. The response -"We didn't want the smoke blowing into our house".

Conclusion

The fire pits are not a popularity contest. They are not about beach residents having an elitist attitude. The fire pits are a real health, safety, environmental and quality of life issue for this community. Residents of Mission Beach are entitled to breathe clean air. All public, commercial and private fire pits should be banned from Mission Beach.

References

(a) Location and Fire Pit Count 2013 (*per Dan Daneri with the City of San Diego*):

Belmont	5*
Bonita Basin	6
Crown Point	16
Dana Landing	2
De Anza Boat Launch	2
De Anza Cove	8
Fiesta Island	37
Hilton – south side	3
Hilton – north side	2
La Jolla	7
Mariners	8
Mission Point	1*
Ocean Beach	9
Playa Pacifica	11
Ski Beach	12
South Mission	11*
South Shores Park	2
Sunset Park	4
Vacation Isle (3 sites)	30
Ventura Cove	<u>10</u>
Total	186

* *Total in Mission Beach 17 per City, an actual count shows there are only 4 in front of Belmont Park, so the total in Mission Beach is actually 16*

(b) Specific items of interest on SCAQMD website:

- SCAQMD Adopts Balanced Measure Governing in Beach Bonfires
<http://www.aqmd.gov/home/library/public-information/2013-news-archives/fire-pit-board-decision>
- Air Quality Impacts of Recreational Beach Fires May 17, 2013
<http://www.aqmd.gov/docs/default-source/air-quality/special-monitoring-and-emissions-studies/beach-fire-monitoring/monitoring-results-presentation-huntington-beach-may-17-2013.pdf?sfvrsn=0>
- Air Quality Impacts of Recreational Beach Fires May 15, 2013
<http://www.aqmd.gov/docs/default-source/air-quality/special-monitoring-and-emissions-studies/beach-fire-monitoring/beach-fire-monitoring-results.pdf?sfvrsn=0>
- Judge Refuses to Delay Measure Governing Beach Bonfires
<http://www.aqmd.gov/home/library/public-information/2014-news-archives/judge-won%27t-delay-measure-on-beach-bonfires>

- (c) http://www.ehhi.org/woodsmoke/health_effects.shtml
- (d) <http://www.scientificamerican.com/article/fire-pit-environmental-dangers/>
- (e) Articles relating to safety issues around fire pits in Southern California:
- LA Times “Girl ,2, Burned in Fall into Fire Pit at Beach”
<http://articles.latimes.com/2001/jul/09/local/me-20349>
 - LA Times “Boy,5, Burned in Beach Fire Pit near Balboa Pier”
<http://www.latimes.com/local/lanow/la-me-ln-boy-5-badly-burned-in-beach-fire-pit-near-balboa-pier-20140421-story.html>
 - LA Times “Parents, Children Are Cautioned as Fire Pit Burns on O.C. Beaches Rise”
<http://articles.latimes.com/2001/jul/18/local/me-23543>
 - LA Times “Beach-Goers Beware: Peril Buried in Sand”
<http://articles.latimes.com/1997/oct/03/news/mn-38817>
- (f) <http://www.utsandiego.com/news/2009/dec/03/snuffing-fire-pits-may-not-be-so-easy/>
- (g) <http://voiceofsandiego.org/2014/09/08/a-questionable-price-tag-for-departing-cops/>
- (h) <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=41001-42000&file=41700-41712>
- (i) <http://woodsmokehealth.org/wordpress/wp-content/uploads/2013/10/Brown.pdf>