

**EMERGENCY PREPAREDNESS AND EVACUATION PLAN
FOR RESIDENTS OF
BOLSA CHICA MOBILE ESTATES**

Arroyo Grande, California

Adopted by the
Bolsa Chica Mobile Estates Board of Directors

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1.0 INTRODUCTION

Information in this Emergency Preparedness and Evacuation Plan provides guidelines and communication protocols to residents of Bolsa Chica Mobile Estates (BCME) that may be followed during an emergency, and establishes resident-evacuation protocol. It is intended to provide specific information to minimize injuries and property loss and to organize a plan for efficient and quick evacuation under emergency conditions. Three basic principles followed in this document are **preparedness, communication, and efficient evacuation**.

Each BCME resident will receive a copy of the plan and should familiarize themselves with the details of the recommendations and evacuation plans. Preparedness for emergencies and disasters should be a high priority for all individuals. Appropriate and thorough preparedness is a benefit not only to ourselves but may also benefit our neighbors. The goal of this Emergency Preparedness and Evacuation Plan is to minimize impacts to residents during emergencies, disasters, and hazardous conditions.

During an emergency, it may be necessary to contact residents to warn of hazards, to help individuals as needed, or to aid in evacuations. All BCME residents receive a list of resident's names with contact information on an annual basis. The list is updated as changes occur, and these updates are available upon request at the BCME office. All residents are asked to notify the office if their contact information changes. During an emergency, efficient and coordinated communication will be critical to avoid injury or loss of life to residents and to minimize property damage. **Emergency contact information is included in Appendix A.**

In an emergency or disaster, the nearest route providing evacuation from the area is U.S. Highway 101, located one and two-tenths miles from the BCME clubhouse. In the event of the highway closure, California State Route 227 may be used to drive north to San Luis Obispo, and is three tenths miles from the clubhouse. **During an emergency requiring evacuation, residents should follow local radio and television station notifications for listings of gathering locations for evacuees.** A gathering location that is appropriate and safe will be dependent on the type of emergency. If conditions warrant, the American Red Cross may set up shelter at the Arroyo Grande High School gym.

The Board of Directors and the Emergency Preparedness Committee will schedule periodic meetings for residents in the BCME clubhouse to discuss and review emergency and evacuation topics. These meetings may include presentations from local emergency planners, first responders, or BCME residents. Residents are encouraged to suggest topics for these meetings. The purpose of the Emergency Preparedness Committee is to assist residents in preparing for and responding to possible emergencies. The committee will provide periodic updates to the Emergency Preparedness and Evacuation Plan.

To address specific emergencies related to the BCME-owned gas distribution system, the **Gas System Emergency Plan** was developed by the BCME Board of Directors. The plan complies with requirements of the California Public Utilities Commission and is distributed to all residents.

2.0 EMERGENCY RESPONSE COORDINATION

In order to aid residents efficiently and safely during an emergency, a group of 12 Emergency Response Coordinators has been formed. This emergency response program was established in August, 2019, and involves six teams consisting of two Emergency Response Coordinators in each team that will check on all the residents of the park during an emergency event. Each coordinator team has been assigned to one of six sectors of the park and will render help when needed and assist in evacuation if necessary. The coordinators will be in close communication with two additional liaison coordinators that will provide information to first responders such as Fire, Police, and Ambulance services and may direct first responders to people and places that require their services. A map showing the six Emergency Response Sectors with the current names of coordinators is maintained in the BCME office.

Each resident of BCME is provided with a **laminated placard** that is **red** on one side and **green** on the other side. During an emergency, residents should place the **placard in a window** to the street with **the red side showing outward if they need help, and the green side showing outward if they are okay** and do not need immediate help from the Emergency Response Coordinators. All residents with pets have been given a Pet Alert window sticker indicating the presence of animals that may need rescue.

Emergency Response Coordinators are available prior to emergencies to answer resident's questions concerning how best to prepare for an emergency, to discuss what to do during an emergency, and to discuss possible evacuations. During an emergency requiring evacuation, a coordinator will unlock the two gates at the RV storage area to allow a quick and safe alternative exit from the park.

All Emergency Response Coordinators have received cardiopulmonary resuscitation (CPR) training. Future classes in CPR will be held periodically at BCME and will be available to all residents.

3.0 POTENTIAL EMERGENCIES AND MINIMIZING RISKS

This section includes scenarios that may be expected to impact BCME and have historical basis of occurrence in the Arroyo Grande area. The focus is principally on earthquakes, fire, flooding, and extreme weather conditions. The purpose of this section is to describe the physical effects of the disaster and provide standards for reducing the risk of exposure to the hazards. When distilled, the rules are simple: **be aware of the risks, prepare, take protective action, communicate, and evacuate if necessary.**

3.1 Earthquakes

BCME and the central coast are located in a geologically complex and seismically active region. Numerous active and potentially active faults in our area are capable of producing strong ground motion in response to earthquakes. The faults nearest to BCME that could produce significant earthquake impacts are shown in the table below:

TABLE 1
Sources of Ground Shaking

Fault Name	Distance From BCME (miles)	Maximum Magnitude ¹	Activity
Wilmar Avenue	0.8	?	Potentially Active
Los Osos	3.7	7	Active
San Luis Range	3.2	7.2	Potentially Active
West Huasna	6.0	7	Potentially Active
Hosgri	16	7.5	Active
San Andreas	40	8.25	Active

¹California Geological Survey, (Cao, 2003)

There have been no faults identified or mapped by geologists beneath the BCME property, and there are no topographic indications suggestive of faulting. Therefore, ground rupture along a fault is not considered a risk at the property.

The San Andreas fault zone is widely known because it is historically active (during the last two-hundred years) and has produced numerous damaging earthquakes. It passes through San Luis Obispo County approximately forty miles northeast of the property. **A large-magnitude earthquake on the San Andreas fault resulting in damage at BCME should be expected to occur during the lifetime of the facility.** Earthquakes of lesser magnitude may occur along the closer faults listed in Table 1. Because of the closer proximity of these source faults than the San Andreas fault, these earthquakes could result in stronger ground shaking that may exceed the design limitations of structures at BCME. However, because the postulated recurrence of potentially damaging earthquakes on these faults is much longer, the risk of this hazard actually occurring is considered very low. No evidence of more recent earthquake activity on the Wilmar Avenue and West Huasna faults has been found (City of Arroyo Grande Safety Element).

BCME is underlain by layers of unconsolidated sand and fine gravel deposited by the ancestral Arroyo Grande Creek. These layers present an increased risk of damage because of the amplifying effect that occurs when unconsolidated materials are subject to ground shaking. Areas of Arroyo Grande underlain by consolidated bedrock would experience less severe ground shaking from the same earthquake affecting BCME.

Ground shaking during an earthquake can cause several cascading events affecting BCME and the surrounding region such as fires, utility disruptions, hazardous material spills, flooding, transportation emergencies, structural hazards, and the possible, yet unlikely failure of Lopez Dam. **Because of these cascading potential events, it is likely that governmental emergency responders will be overwhelmed by the immediate impact of a large earthquake. Residents of BCME should be prepared to wait several days for these public services to arrive on site.**

3.1.1 Historic Earthquakes

Following are historic earthquakes that had an effect on San Luis Obispo County (from Topozada, 2000, “Epicenters of and Areas Damaged by Magnitude greater than five California Earthquakes, 1800-1999”; and U.S. Geological Survey, Menlo Park, California). As a note, the “Magnitude” scale has replaced the “Richter” scale and has greater accuracy when measuring large earthquakes. Also used below is the Modified Mercalli Intensity scale, which uses the observations of people who experienced the earthquake to estimate its intensity. It is always expressed in Roman numerals with higher values representing greater intensity of ground shaking (for additional information on the Modified Mercalli Intensity scale, visit the U.S. Geological Survey website <https://earthquake.usgs.gov/learn/topics/mercalli.php>).

1830 San Luis Obispo Earthquake. The 1830 earthquake is noted in the annual report from the Mission, and had an estimated magnitude of five. The earthquake reportedly occurred somewhere near San Luis Obispo.

1906 San Francisco Earthquake. This earthquake has been studied in detail and the effects in San Luis Obispo County have been documented. Modified Mercalli Intensity ratings ranged from III-IV in the inland and north-coast portions of the County, and IV-V in the south-coast areas. The higher intensities were felt in areas underlain by unconsolidated alluvial soil.

1916 Avila Beach Earthquake. This magnitude 5.1 event occurred offshore of Avila Beach in San Luis Bay. The earthquake reportedly resulted in tumbling smokestacks of the Union Oil Refinery at Port San Luis, and a landslide that blocked the railroad tracks. The maximum intensity appears to be approximately VI.

1952 Arvin-Tehachapi Earthquake. This 7.7 magnitude earthquake occurred on the White Wolf fault, located south and east of Bakersfield. Throughout most of San Luis Obispo County, ground shaking intensities of VI were felt. Intensities of IV-V were experienced in the northwest portion of the County, and magnitude VIII intensities were felt in the Cuyama area, in the southeast portion of the County. The higher intensities were likely due to closer proximity to the earthquake epicenter.

1952 Bryson Earthquake. This magnitude 6.2 earthquake likely occurred on the Nacimiento fault, and resulted in intensity ratings of VI throughout most of the western portion of the County. Higher intensities were generally felt in the coastal valley areas that are underlain by unconsolidated alluvial soils.

1934, 1966 and 2004 Parkfield Earthquakes. These earthquakes all had magnitudes of about six, and occurred on the San Andreas fault in or near the northeast corner of the County. Moderate shaking was experienced in most of the central and western parts of the County.

2003 San Simeon Earthquake. The San Simeon Earthquake struck at 11:15 a.m. on December 22, 2003. The magnitude 6.6 earthquake was determined to have occurred within the Oceanic fault zone. The epicenter was approximately six miles from the community of San Simeon. In addition to significant property and other damages, two fatalities resulted from damages caused by the earthquake.

Where earthquakes have struck before, they will strike again. Earthquakes strike suddenly, without warning. Earthquakes can occur at any time of the year and at any time of the day or night. Ground

movement during an earthquake is seldom the direct cause of death or injury. **Most earthquake-related injuries result from collapsing walls, flying glass, and falling objects as a result of the ground shaking, or people trying to move more than a few feet during the shaking.** Much of the damage in earthquakes is predictable and preventable.

3.1.2. Earthquake Safety

There is no way to completely eliminate hazards and damage from earthquakes; however, injuries and damage can be minimized if specific steps are taken before, during, and after the ground shaking stops. The following is excerpted or modified from the California Geological Survey “Faults and Earthquakes in California”, 2003:

Before an earthquake

- 1) Store emergency supplies: food, water, first-aid kit, flashlight, and battery-powered radio. If you have a pet, keep extra pet food and sanitary items with your emergency supply kit. Have fresh batteries available and keep a portable cell-phone charging device handy. A detailed list of earthquake and general emergency supplies is included in Appendix B.
- 2) Take a first-aid course.
- 3) Locate your house’s main switches and valves for water, gas, and electricity. Know how to turn each utility off. For the gas utility, keep an appropriate wrench such as a gas shut-off wrench, ordinary pipe wrench, or crescent wrench next to the gas valve. To close the valve during an emergency, turn the valve tang (the flat metal bit that fits in your wrench) ninety degrees so it is crosswise to the pipe. Visually determine that there is no obstruction to the full wrench movement required to close the gas valve. **Do not close the valve except during an actual emergency and only when you smell leaking gas.** You may wish to install an automatic earthquake-actuated gas shut-off valve. This valve is designed to automatically shut off the gas flow to the house during ground shaking of a predetermined intensity. The valve must be certified by the State of California and a licensed plumbing contractor must install it according to the manufacturer’s instructions.
- 4) Have a plan for each resident of the house to follow after the earthquake.
- 5) Have tall, heavy furniture secured to wall studs with brackets and screws.
- 6) Have water heater strapped to wall.
- 7) Strengthen or eliminate structures inside and outside of the house that are not earthquake resistant.
- 8) Support local and state building codes that require earthquake-resistant construction and careful foundation preparation and grading.

During an earthquake

- 1) Don’t panic.

- 2) If you are indoors, stay there. **Duck or drop to the floor, take cover under a sturdy desk or table, and hold onto it so that it doesn't move away from you.** Wait there until the shaking stops. Stay away from windows. Do not move to a perceived safer place.
- 3) Do not rush outside. Falling debris has caused many deaths and injuries.
- 4) Watch for falling plaster, and other objects.
- 5) If you are outside, move away from buildings and power lines. Stay in the open.
- 6) If you are in a moving car, stop as soon as it is safe. Remain in the car.

After an earthquake

- 1) If you are safe and free from personal injury, check the people near you for injuries. Always make sure of your own safety and well being before attempting to help someone else.
- 2) Inspect your utilities for damage to water, gas, and electrical lines. If damage is detected, turn off the utility.
- 3) If you smell gas, there may be a leak, so you should immediately close the gas valve. Leaking gas will give a sulfur-like rotten egg smell. **Following the earthquake emergency, please do not turn the gas on yourself.** Ask a gas utility representative or another qualified professional to perform a safety check, restore gas service and re-light your appliance pilots, even if an earthquake was not the cause for the closure.
- 4) Extinguish open flames. Be very cautious. If the open flame is gas fed, extinguishing the fire may result in a greater hazard.
- 5) Do not use a phone except to report an emergency.
- 6) Turn on battery-powered radio for emergency information.
- 7) Do not go sightseeing.
- 8) Following a severe earthquake, aftershocks capable of producing additional damage should be expected.

3.2 Fire

BCME is susceptible to wildfires and structural fires. Wildfire hazard severity is a function of fuel conditions, historic climate, and topography. BCME is within an urban setting, although it is also contiguous to the riparian vegetation of the Arroyo Grande Creek. Because of the coastal location, cool marine-influenced temperatures and relatively high humidity levels help to minimize potential wildfire risks (San Luis Obispo County Local Hazard Mitigation Plan, 2005).

Gusty and erratic wind conditions can cause a fire to spread irregularly, making it difficult to predict its path and effectively deploy fire suppression forces. Relative humidity is also an important fire-related weather factor. As humidity levels drop, the dry air causes vegetation moisture levels to

decrease, thereby increasing the likelihood that plant material will ignite and burn. During late summer, and fall, warm to hot, dry Santa Lucia winds commonly occur and result in these severe, high fire-hazard conditions. Although BCME may not be immediately adjacent to a possible wildfire, it may be possible for airborne embers to travel a significant distance to ignite homes in BCME.

Structural fires may be caused by a variety of reasons, such as kitchen fires starting during cooking accidents, ignition of natural gas from leaky gas pipes or gas-appliance valves left open, and the ignition and explosion of improperly stored propane (barbecue) tanks or gasoline containers. Structural fires can spread rapidly, engulfing the home and quickly spread to adjoining structures.

If an uncontrolled fire is detected in a home, or anywhere in BCME, the area affected should be evacuated and the emergency number **9-1-1** should be called immediately. The BCME manager, the BCME office, and neighbors should then be notified. During a structure fire, residents should not be concerned about shutting off utilities such as gas and electricity. The fire responders will close the utility valves as soon as they arrive at the scene. If the fire is not out of control, and if it is safe to do so, fire extinguishers should be used by the residents to extinguish the fire.

During an uncontrolled fire, affected residents should immediately go to a safe place and inform emergency personnel of any flammable, explosive, or chemical hazards such as oxygen tanks, propane tanks, pressurized paint cans, gasoline containers, firearms and ammunition, etc. that are stored at the home. Emergency personnel should also be informed whether or not all persons and pets have been evacuated from the home.

3.2.1. Fire Prevention

To minimize fire risk from wildfires or neighboring structure fires, a defensible space around the home is necessary. The area need not be cleared of all vegetation, but be able to provide fire fighters with enough room to defend structures and maneuver (San Luis Obispo County Safety Element, 1999). Dry and dead vegetation adjacent to the home should be removed and not be allowed to accumulate.

The National Fire Protection Organization (NFPO) has established the following safety guidelines:

- To minimize risks of fires in the home, functioning smoke detectors should be placed in the kitchen area, in or near every sleeping room, and in or near the living room.
- Test your smoke alarms at least once a month. Press the test button to be sure the alarm is working. Replace all smoke alarms in your home every ten years.
- If you experience frequent nuisance alarms, consider relocating the alarm further away from kitchen cooking fumes or bathroom steam. Selecting a photoelectric smoke alarm for the areas nearest kitchens and baths may reduce the number of nuisance alarms experienced.
- Occasionally dust or lightly vacuum smoke alarms.
- Plan your escape. Know ahead of time how you will get out if you have a fire. Develop an escape plan which includes having an alternate exit out of every room. Make sure you can open and get out of windows and doors. All post-HUD Standard manufactured homes are

required to provide windows designed for use as secondary escape routes for the bedroom. Familiarize yourself with their operation and don't block access to them. Immediately fix any windows that have been painted or nailed shut, doors that are stubborn or stuck, and locks that are difficult to operate. Security bars or grates over windows or doors should have quick-release devices installed inside, which allow you to open them in an emergency.

- A closed door may slow the spread of smoke, heat and fire.
- If you have to escape through smoke, get down low, and go under the smoke to your way out.
- Hire a licensed electrician if you notice flickering lights, frequent blown circuits, or a "hot" smell when using electricity. Use extension cords for temporary convenience, not as a permanent solution. Avoid overloading electrical receptacles (outlets). Electrical cords should not be run under carpets or rugs, as the wires can be damaged by foot traffic, then overheat and ignite the carpet or rug over them. Ground-fault circuit interrupters reduce the risk of electrical shock and should be installed by electricians in kitchens and baths. Arc Fault Circuit Interrupters monitor electric circuits for arcing and should be installed by electricians on bedroom circuits.
- Unattended cooking is the leading cause of cooking fires in U.S. homes. Keep cooking surfaces clean and place anything that can burn well away from stoves and ovens. Heat oil slowly and be prepared to slide a lid over a pan if you experience a grease fire.
- Keep space heaters at least three feet away from anything that can burn. When purchasing new space heaters, select appliances with automatic shut-off switches. Kerosene heaters are illegal for home use in California. Turn off portable space heaters before falling asleep or when leaving the room.
- Never use your oven to heat your home.
- Have your central heating system inspected and cleaned every fall just before heating season.

Portable Fire extinguishers

The NFPA offers the following safety tips regarding fire extinguishers. Additional information is available online at www.nfpa.org/Public-Education.

A portable fire extinguisher can save lives and property by putting out a small fire or containing it until the fire department arrives; but portable extinguishers have limitations. Because fire grows and spreads so rapidly, the number one priority for residents is to get out safely.

Use a portable fire extinguisher when:

- the fire is confined to a small area, such as a wastebasket;
- the fire is not growing;
- everyone has exited the building;

- the fire department has been called or is being called; and
- the room is not filled with smoke.

To operate a fire extinguisher, remember the word **PASS**:

- **P**ull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
- **A**im low. Point the extinguisher at the base of the fire.
- **S**queeze the lever slowly and evenly.
- **S**weep the nozzle from side-to-side.

For the home, select a multi-purpose (2A:10B:C) extinguisher (can be used on all types of home fires) that is large enough to put out a small fire, but not so heavy as to be difficult to handle. Read the instructions that come with the fire extinguisher and become familiar with its parts and operation before a fire breaks out. It is important to have your fire extinguishers serviced annually. Local fire departments or fire equipment distributors often offer hands-on fire extinguisher trainings.

Install fire extinguishers close to an exit and keep your back to a clear exit when you use the device so you can make an easy escape if the fire cannot be controlled. If the room fills with smoke, leave immediately. Know when to go. Fire extinguishers are one element of a fire response plan, but the primary element is safe escape.

3.3 Flooding

Flooding will generally occur in response to heavy rainfall events if Arroyo Grande Creek overtops its bank or if storm drains fail. Flooding may also occur in low-lying areas, including the north side of the BCME Clubhouse, that have poor drainage, even during moderately-sized storms. Several factors can increase the severity of floods, including recent fires in watershed areas, the placement of structures or fill material in flood-prone areas, improperly placed or clogged roof drains, blocked storm-drain inlets, and increased runoff that results from the development of impervious surfaces such as roadways and rooftops. For planning purposes, the flood event most often used to delineate areas subject to flooding is the 100-year flood. This is an event that statistically has a one percent chance of occurring in any given year (San Luis Obispo County Safety Element, 1999).

Portions of the BCME property are located within a Federal Emergency Management Agency 100-year flood zone (Flood Insurance Rate Map, community-panel number 06079C1364 G). These areas are located adjacent to the Arroyo Grande Creek. Since BCME was established, there has been no reported damage to homes located adjacent to the creek as a result of water rising above the top of the stream bank. However, during periods of high creek flow, any structures located below the top of the bank are subject to damage during severe storms of lower magnitude than 100-year storm events.

Floods can also cause several cascading effects. Fires may break out as a result of failed electrical equipment. Hazardous materials can be released into floodways, causing health concerns and polluted water supplies. Although areas in and near BCME that are subject to flooding from a 100-year flood are limited, floodwater could cause roadways to become impassable, thereby impacting evacuation and response efforts.

Areas of potential flooding in response to a 100-year storm are located adjacent to Corbett Canyon and Arroyo Grande Creeks, and a limited area along Los Berros Creek in the southeastern portion of the City. Areas that would be inundated in response to a 100-year flood along these creeks are generally located along the stream channels; however, in isolated areas, adjacent properties could be adversely affected. Near the confluence of Corbett Canyon and Arroyo Grande Creek, the 100-year floodplain widens, resulting in impacts to properties between Crown Terrace and Mason Street. The floodplain along Arroyo Grande Creek also widens slightly on the north and south sides of U.S. Highway 101. Floodwaters could cause roadways such as Bridge Street, Traffic Way and U.S. Highway 101 to become impassable (San Luis Obispo County Safety Element, 1999). It is important to remember that it is not safe to drive through flooded roadways.

3.3.1. Historic Flooding

There have been several severe flooding events in San Luis Obispo County that have resulted in extensive property damage. Areas that have been affected by flooding impacts in the recent past are the areas that are most likely to be affected by events in the future. Flooding events that have occurred since the inception of BCME are briefly summarized below: (From San Luis Obispo County Safety Element, 1999; and County of San Luis Obispo Local Hazard Mitigation Plan, 2005):

January-February, 1969. In January of 1969, a series of storms delivered rainfall totals that ranged from approximately twelve inches in Paso Robles, to twenty-one inches in San Luis Obispo over an eight-day period. In February, another series of storms delivered over five inches of rain in Paso Robles and 9.5 inches in San Luis Obispo. The most severe flood damage occurred in the City of San Luis Obispo. Arroyo Grande was largely spared much of the damage, due to the newly constructed Lopez Dam.

January, 1973. Much like the floods of 1969, the 1973 storm produced a ten-hour period of unusually heavy rainfall. San Luis Obispo Creek, and its tributary, Stenner Creek, overtopped their banks and inundated a wide area of downtown San Luis Obispo.

January and March, 1995. Serious flooding occurred in all coastal and many inland streams. San Luis Obispo Creek caused damage in the City of San Luis Obispo, and especially near the ocean, where the San Luis Bay Golf Course and other properties received extensive damage. Cambria was completely inundated, with water as deep as six feet on Main Street.

March 5, 2001. San Luis Obispo County including Nipomo, Arroyo Grande, Oceano and Pismo Beach received two to thirteen inches of rain. A powerful and slow-moving storm brought heavy rain, strong winds and snow to Central and Southern California and extensive flooding to the County. Arroyo Grande Creek overflowed in Oceano, destroying numerous crops and damaging one home. The Pacific Dunes RV Park flooded. Flooding along Corbett Creek damaged four homes and five classrooms at AG High School.

Late December, 2005 and early January, 2006. Cambria and Oceano received four to six inches of rain. High winds and saturated soils resulted in significant tree falls particularly in the Cambria area where heavy damage was reported to a number of homes and businesses. There was one fatality which was a result of a tree falling on a pick-up truck traveling on U.S. Highway 101 in Paso Robles. Damage estimates for both private property loss and the loss and cost to local governments totaled approximately \$3,000,000.

December 19, 2010. Oceano received five to eight inches of rain. A series of slow-moving storms brought heavy rain, strong winds and light snow to the area. The most severe damages in the County occurred in the Oceano area. Reported damages were just over \$2,000,000 in private property losses and an estimated cost to local governments of just over \$1,100,000.

February 17, 2017. Heavy rains and extreme winds caused local flooding and a large number of downed trees within and adjacent to BCME. An estimated ninety trees were damaged or fell within the City of Arroyo Grande due to February 2017 storms. Floodwaters damaged the interior of the BCME clubhouse. Total rainfall for the month of February 2017 was 7.2 inches with two inches falling on February 17.

3.3.2. Lopez Dam Failure

It is very unlikely that a large modern dam such as Lopez Dam would fail; however, if it failed the damage to property and loss of lives would be catastrophic. A sudden failure of Lopez Dam and the release of the impounded water would cause inundation in Arroyo Grande Valley, Cienega Valley, and Oceano as far as the coast. A map showing the areas of inundation with the arrival times of flood waters at various locations is included in Appendix C (San Luis Obispo County Public Works, Lopez Inundation Map, 1999).

At BCME, the estimated time following the dam failure for the water to arrive is forty minutes. The City of Arroyo Grande is responsible to maintain a dam failure evacuation plan including responsibilities for public officials on emergency notification and evacuation instructions, including use of the emergency alert system to notify the public (Arroyo Grande Safety Element). The inundation map indicates that an area including all of BCME would be entirely inundated up to the base of the hillside on the north side of Huasna Road.

Lopez Dam was completed by the San Luis Obispo County Flood Control and Water Conservation District in 1968. The lake has a storage capacity of approximately 51,000 acre-feet of water and is under the jurisdiction of the State of California Division of Safety of Dams that conducts periodic reviews to evaluate dam safety (Arroyo Grande Safety Element).

3.4 Extreme Weather Conditions

Extreme and damaging weather conditions have occurred at BCME in the past and can be expected to occur in the future. These conditions include high winds, intense rainfall, high temperatures, and less commonly, thunderstorms and hailstorms. Each of these weather events is capable of causing widespread power outages.

The National Weather Service continuously broadcasts current weather conditions, warnings and forecasts on National Oceanic Atmospheric Administration (NOAA) weather radios. NOAA Weather Radio (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information twenty-four hours a day, seven days a week.

An NWR may be purchased at radio and electronic stores, certain large department stores, or online. NWR also streams live on the internet. Local broadcast stations transmit Emergency Alert System messages which may be heard on standard radios. Local Television stations also broadcast

emergency alerts. Pacific Gas and Electric (PG&E) operates emergency siren systems that can be heard at BCME.

3.4.1 High Winds

During storms, high-velocity winds have knocked down trees at BCME resulting in damage to homes and property. Power and communications poles are also susceptible to being blown down. Residents should be aware of trees that pose potential hazards and should notify the BCME Board of Directors if a tree appears to be at risk based on its age or if it has been weakened by invasive plants or disease.

If a downed power line is encountered, residents should assume the power line is energized and extremely dangerous. Downed power lines should be reported by calling **9-1-1** and calling PG&E Residential Customer Service Center at **800.743.5000**.

Prior to expected high wind conditions, outdoor furniture that could be blown over or could cause damage should be secured. Residents should perform a quick survey of their property to identify any potential hazards that could result in damage from high winds.

3.4.2 Intense Rainfall

Cascading events from intense rainfall can have devastating effects in terms of property damage, injuries and possibly loss of life. Risks include previously discussed power and communication lines falling down, floods, and also mudslides associated with the stream bank of Arroyo Grande Creek. Bare soil, especially on slopes is readily eroded by storm runoff during intense rainfall events. Erosion may result in mud deposited on roadways or adjacent properties, and can undermine structures. Residents should maintain roof drains to prevent concentrated runoff on unprotected soil, and should avoid grading activities that result in steepened slopes.

3.4.3 High Temperatures

Arroyo Grande is located in an area of moderate temperatures because of the proximity to the ocean; however, it occasionally experiences very high temperatures when winds come out of the northeast. These so called Santa Lucia Winds can cause temperatures to become extreme, resulting in health hazards to residents. During such conditions, residents are advised to drink plenty of water, and residents without air conditioning should go to a facility with an air-conditioning system. The BCME clubhouse should be considered as a meeting place where residents can congregate to avoid the heat.

3.5 Radiation Emergency

The Diablo Canyon Nuclear Power Plant (DCPP) is the primary radiation hazard risk in the region. An uncontrolled release of radioactive material would have the potential to result in significant health and safety impacts. To prepare for potential emergency situations that might develop at the power plant, extensive warning, reporting, and response plans have been developed. An Emergency Planning Calendar is provided to the public each year by the County of San Luis Obispo Office of Emergency Services (OES) and PG&E to help people prepare for a potential emergency at DCPP as well as other types of emergencies that may be experienced in the county.

If an emergency occurs, BCME residents are advised to tune to a local radio or television station or follow the OES on the internet to stay informed of the situation. **If residents hear a steady siren for three minutes, they should tune to a local radio or television station for emergency information.** People should not evacuate unless directed to do so. The purpose of the sirens is to alert people to listen to a local radio or television station to receive emergency information. All BCME residents are encouraged to review and familiarize themselves with the information contained within the Emergency Planning Calendar.

3.6 Home Intrusions – Violent Intruder/Active Shooter

Everyone can be a victim of a violent intruder. As older adults, we need to be especially aware of actions we can take that can help protect us from being victims at the hands of others.

3.6.1 Preventions

There are a number of actions that we can all take that can help to prevent home intrusions.

- Keep your home well-lit and make sure your home looks occupied.
- Stay active and engaged with others. Minimize isolation.
- Do not let strangers into your home. Before allowing entry to service, delivery, or utility workers, ask for identification.
- Never leave a spare key under the mat or any other obvious location.

3.6.2 When an intruder is present, and appearing to be trying to enter your house

- Verify their presence if possible
- Call police – 911, and provide the following information:
 - Your precise location in the house
 - Location of the intruder if known
 - Number of intruders, if observed
 - Physical description of intruder(s), if possible
 - Number and type of any weapons, if known
- After making the 911 call, be quiet
- Secure any pets – so as to not alert the intruder(s) as to your location in the house
- Decide if you need to/can escape
- Stay as calm as possible
- Take notes, if possible – so you can relay to police upon their arrival

3.6.3 When intruder is entering, or in house

- **Run** – immediately evacuate if there is a safe escape route, and leave belongings behind
- **Hide** – if you are not in immediate danger, or evacuation is not possible, hide in a safe place
 - if intruder is not inside house yet, lock and/or barricade the door(s)
 - Silence your cell phone, and all electronics
 - Hide behind large/thick objects
- **Fight** – As a last resort, and only if your life is in immediate danger
 - Attempt to incapacitate the intruder
 - Act with physical aggression
 - Use improvised weapons – common items such as chairs, books, fire extinguishers, sticks, etc.

- Do not pick up intruders' weapon if left at scene – leave that for police to do

3.6.4 How to react when law enforcement arrives

- Remain calm, and follow officers' instructions
- Raise hands, and spread fingers in order not to mistake you for the intruder
- Keep hands visible at all times
- Avoid making quick movements towards officers
- Relay to police any known information that you can provide about the intruder(s)

4.0 EVACUATION

Necessary evacuation of BCME may be the result of local emergency conditions within BCME, or the result of regional disasters, such as large-scale fires, flooding, or a radiation release at DCP. In the case of an emergency originating within BCME, residents will be instructed whether or not to evacuate by the BCME Emergency Response Coordinators, or by the BCME Board of Directors. In the case of emergencies impacting a larger area, residents should follow instructions from local radio or television stations.

4.1 Evacuation Instructions

The following is excerpted from the Emergency Planning Calendar, 2019 (PG&E, County of San Luis Obispo): If instructed to evacuate, immediately gather essential supplies including warm clothes, medications, and pets, and follow the emergency official's instructions. It is important to check on neighbors who may need evacuation assistance. Make a note of the reception center or shelter that you can go to that was announced over the radio or television stations.

For residents that are unable to evacuate themselves, the OES offers assistance to help with evacuations. The Emergency Planning Calendar includes a card on the back page of the calendar that may be completed to register for assistance. The card should be updated every year and submitted by mail to the OES. If an emergency occurs and the resident is not registered on the Evacuation Assistance List, but requires assistance, they should call **805.543.2444**.

During an emergency at DCP requiring regional evacuation, there will be locations designated as "Carless Collection Points". These are locations set up for people without access to vehicles. People without their own transportation should find a ride with a friend or neighbor, or walk to the nearest Carless Collection Point. During an emergency, PG&E will send out buses to the collection points to provide transportation to Monitoring, Decontamination, and Reception Centers (PG&E, County of San Luis Obispo, 2019). The nearest Carless Collection Point to BCME is the Arroyo Grande City Hall, 214 East Branch Street at Mason Street.

4.2 Evacuation Routes from BCME

There are two exit routes from BCME that may be used during an emergency. The primary exit is through the main entrance to BCME. A secondary exit is available only during an emergency and can be accessed through the gate to the RV storage area located between spaces 46 and 47 in the western part of BCME. There are two gates located on the secondary exit route which have

padlocks that will be unlocked by an Emergency Response Coordinator prior to evacuations. Figure 1 shows the two evacuation routes.

Residents located generally in the western portion of BCME should plan to use the secondary exit, while residents in the center or eastern portion of BCME should plan to use the primary exit. Because road conditions during an emergency cannot be fully predicted, and some routes could be hazardous or blocked, residents may need to evacuate BCME through an exit that may not be nearest to them. After exiting BCME, remain tuned to emergency broadcast stations for further evacuation instructions and road conditions.

5.0 CONCLUSION

Emergency situations have occurred in the past at BCME, and should be anticipated in the future. We live in a very close, age-specific community where even under normal conditions we are somewhat dependent on each other. It is the intent of this document that all residents will become adequately prepared to face an emergency situation and be prepared to give assistance to neighbors and friends as we are able. Appropriate and thorough preparedness is a benefit to each of us and our entire community. It is likely that during an evacuation, following public information sources, using efficient communication, and checking on each other will be the most important things we can do to prevent injuries or loss of life.

In order to maintain an ongoing culture of preparedness, the Board of Directors and the Emergency Preparedness Committee will organize and host periodic informational meetings for residents in the BCME clubhouse to discuss and review emergency and evacuation topics. **Preparedness, however, is everyone's responsibility. During emergencies, disasters, and hazardous conditions, we at BCME are all in this together.**



Map reference: County of San Luis Obispo
 Public Works Department
www.slocountywater.org/map

Scale 1:1,700

During an emergency requiring evacuation from BCME, there will be **two exit routes**:

- 1) Through the main entrance to BCME;**
- 2) Though the RV storage area and through to Huasna Road.** There are two gates with padlocks on this exit route. These gates will be unlocked to prior to the evacuation.

Figure 1

Bolsa Chica Mobile Estates Evacuation Routes

950 Huasna Road
 Arroyo Grande, California 93420
 Office: 805.481.9948

6.0 REFERENCES

- Cao, T. et al, 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, Department of Conservation, California Geological Survey
- California Governor's Office of Emergency Services, Earthquake! Ready to Ride it Out?
- City of Arroyo Grande, Safety Element, City of Arroyo Grande General Plan, County of San Luis Obispo, 2007, Department of Planning and Building, Interactive GIS Mapping (www.sloplanning-maps.org)
- County of San Luis Obispo, 1999, Safety Element, San Luis Obispo County General Plan, Public Hearing Draft.
- Department of Conservation, California Geological Survey, 2003, Faults and Earthquakes in California, Note 31.
- Emergency Planning Calendar, 2019, Pacific Gas & Electric, County of San Luis Obispo
- Federal Emergency Management Agency Flood Insurance Rate Map, November 16, 2012, Community-Panel Number 06079C1364 G
- Federal Emergency Management Agency, Emergency Supply List, www.ready.gov
- Hall, C.A., 1973: Geology of the Arroyo Grande Quadrangle, California, California Division of Mines and Geology, Map Sheet 24, scale 1:48,000.
- Jennings, C. 1994, Fault Activity Map of California and Adjacent Areas, Department of Conservation, Division of Mines and Geology.
- National Fire Protection Organization internet (website) resources: www.nfpa.org/Public-Education
- San Luis Obispo County Local Hazard Mitigation Plan, November 2005, Revision 1.
- San Luis Obispo County Water Resources, Division of Public Works, slocountywater.org, Lopez Inundation Map
- Topozada, T. et al., 2000, Epicenters of and Areas Damaged by $M \geq 5$ California Earthquakes, 1800-1999, California Division of Mines and Geology, Map Sheet 49.
- U.S. Geological Survey internet (web site) resources:
[https://earthquake.usgs.gov/hazards/qfaults/;](https://earthquake.usgs.gov/hazards/qfaults/)
[https://earthquake.usgs.gov/earthquakes/browse/;](https://earthquake.usgs.gov/earthquakes/browse/)
[https://earthquake.usgs.gov/learn/topics/mercalli.php;](https://earthquake.usgs.gov/learn/topics/mercalli.php)
[https://earthquake.usgs.gov/learn/topics/mag_vs_int.php.](https://earthquake.usgs.gov/learn/topics/mag_vs_int.php)

Appendix A
Emergency Contact Information

Emergency Contacts

Call 9-1-1 first if there are **injuries** or immediate **life-threatening hazards**

Fire/Rescue: **911**

Ambulance: **911**

Police: **911**

Bolsa Chica Mobile Estates

Office: **805.481.9948**

Park Manager: **805.481.6490**

Hospital & Urgent Care Information:

Arroyo Grande Community Hospital

345 South Halcyon

Arroyo Grande, California 93420

805.245.3198

Driving directions to Arroyo Grande Community Hospital:

- From Bolsa Chica Mobile Estates, head west on Huasna Road
- Turn left onto East Branch Street
- Continue on East Grand Avenue
- Turn left onto South Halcyon Road
- Destination will be on the left (total 2.1 miles)

Med Plus Pismo Beach

877 North Oak Park Blvd

Pismo Beach, California 93449

805.474.8450

Driving directions to Med Plus Pismo Beach:

- From Bolsa Chica Mobile Estates, head west on Huasna Road
- Turn left onto East Branch Street
- Take the U.S. Highway 101 North-bound onramp
- Take Exit 188 to West Branch Street
- Turn right onto North Oak Park Blvd.
- Destination will be on the left in shopping center (total 3.0 miles)

In case of Power Outage, call Pacific Gas & Electric

24-hour Power Outage Information Center: **800.743.5002**

Pacific Gas & Electric provides gas service to residents in **spaces 28 through 65**. In a gas-related emergency, those residents should call: **Park Utilities, Inc: 916.944.1824**

Southern California Gas Company provides gas service to residents in **spaces 1 through 27**. In a gas-related emergency, those residents should call: **800.427.2200**

For additional information during an emergency:

San Luis Obispo County Phone Assistance Center: **805.543.2444**

County of San Luis Obispo Office of Emergency Services: **805.781.5011**

www.slocounty.ca.gov/oes

Information from the Office of Emergency Services is also available on social media.

Emergency Telephonic Notification System (Reverse 911)

San Luis Obispo County officials have the capability to inform the public of an emergency by utilizing an emergency telephonic notification system. This system uses the 9-1-1 telephone database, and is able to contact listed and unlisted land-line telephones. If you have a Voice-over IP or cellular telephone that you would like to be notified on, you must self-register those telephone numbers. To register, go to **www.slocounty.ca.gov/oes/reverse911**

National Oceanographic and Atmospheric Administration (NOAA) National Weather Service Radios

Weather radios may be used to alert the public of any emergency, not only weather events. For additional information go to the National Weather Service website at **www.nws.noaa.gov/nwr/**

Resident's Contact Information:

Bolsa Chica Mobile Estates residents receive a list of residents' names with contact information on an annual basis. The list is updated as changes occur, and are available upon request at the BCME office.

Appendix B

Emergency Supplies

Emergency Supply Kits

- **Water** - At least three gallons of drinking water to provide one gallon of water per person per day for at least three days, for drinking and sanitation purposes.
- **Food** - At least a three-day supply of non-perishable food.
- **First aid kit.**
- **Tools** – An adjustable or pipe wrench for closing utility valves. Or a wrench designed specifically to operate gas valves.
- **Battery-powered or hand crank radio and a NOAA Weather Radio.** Includes tone alert and extra batteries for both.
- **Flashlight and extra batteries.**
- **Fire Extinguisher** – Suitable for all types of fires (ABC extinguishers).
- **Whistle** - To signal for help.
- **Dust mask** - To help filter contaminated air.
- **Moist towelettes, garbage bags** and plastic ties for sanitation.
- **Can opener.**
- **Local maps.**
- **Cell phone** - With chargers, inverter or solar charger
- **Prescription medications** – At least one week’s supply.
- **Pet food and extra water for your pet.**
- **Important documents** - such as copies of insurance policies, identification and bank account records in a waterproof, portable container.
- **Extra blankets, clothing, shoes, and money.** Keep an extra pair of shoes next to your bed.

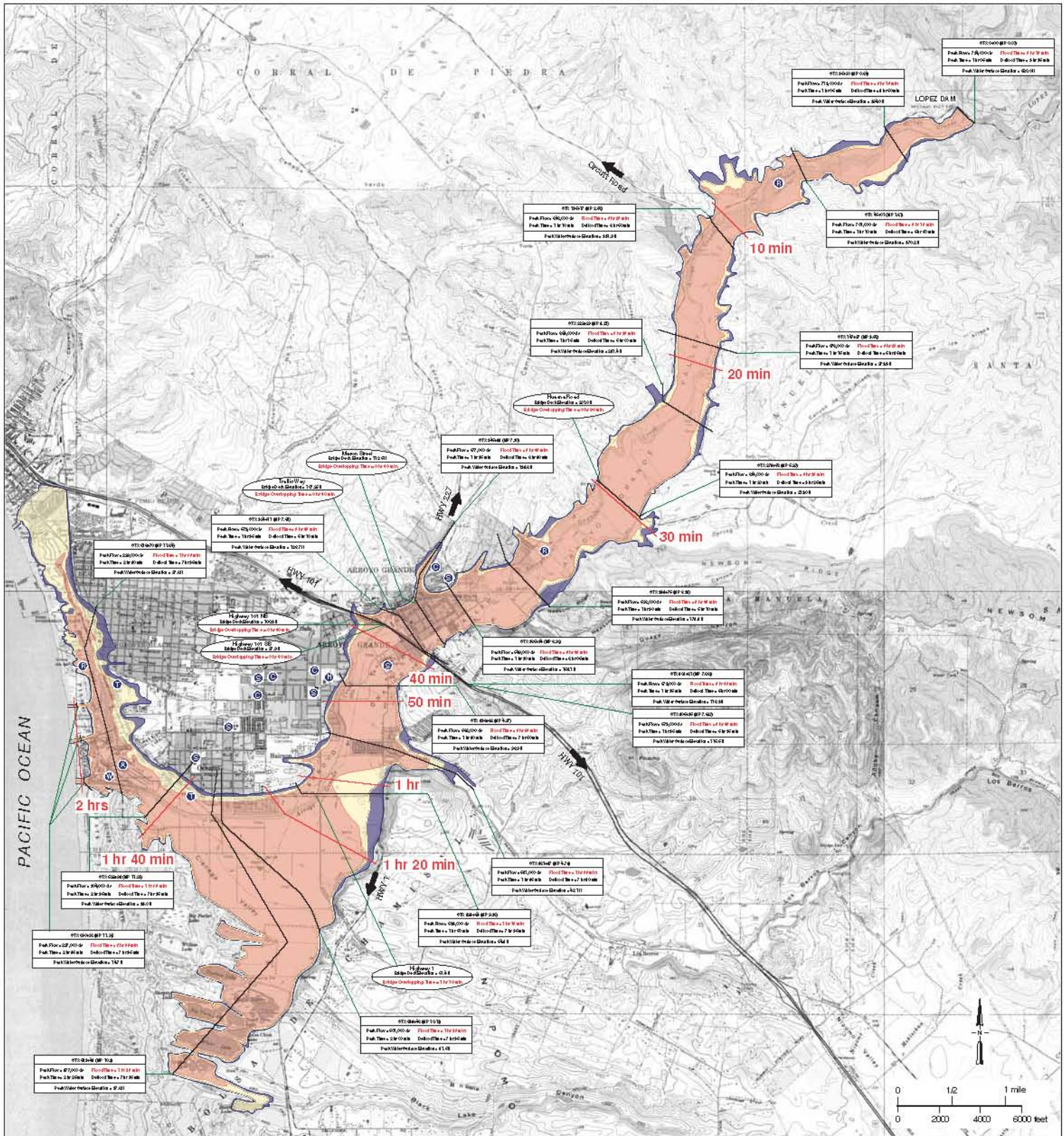
Consider making a second kit that could be taken with you if you have to evacuate. The second kit should be a lightweight, smaller version of the first kit. It should include medical prescriptions and medications to last at least one week. Also include medical insurance cards, physician contact information, list of allergies, and health history.

In case of Power Outages

From PG&E

- **Keep a battery-operated flashlight and radio within easy reach.** Ensure those items are always accessible and that your batteries are fresh. Listen for updates on storm conditions and power outages.
- **Use safer LED candles.** Wax candles are not recommended.
- **Plan for a secondary way to communicate.** Don't depend on a phone that requires electricity to use. Keep a standard handset or mobile phone ready as a backup.
- **Store water-filled plastic containers in your freezer.** You can use them as blocks of ice to prevent food from spoiling.

Appendix C
Lopez Inundation Map



- LIMITATIONS/ASSUMPTIONS:**
- The flood characteristics presented on this map are based on the methodology, assumptions and limitations presented in this accompanying report (Downstream Flooding due to the Hypothetical Failure of Lopez Dam, February 1999 - URS Greiner Woodward Clyde).
 - Inundation depths are provided for informational purposes only.
 - Inundation depths may vary ± 6 feet upstream of Station 05401.
 - Inundation depths may vary ± 6 feet downstream of Station 05401.
 - Peak, flood and bridge overtopping times may vary ± 6 minutes.
 - Deflood times may vary ± 15 minutes.
 - Initial reservoir storage is 100% full (reservoir elevation 830.0 ft).

STA (MP) [Distance in feet (miles) downstream from Lopez Dam]
Peak Flow (maximum discharge rate in cubic feet per second)
Flood Time (time of maximum flood inundation)*
Deflood Time (time when flood flows overlap channel banks, levees or flood walls)*
Peak Water Surface Elevation (maximum water elevation)

*Breach begins at time = 0.0 hour

- Lopez Dam Inundation Area Special/Unique Institutions in Urban Locations**
- (A) Airport (Non-Commercial)
 - (B) Residential Care Facilities
 - (C) Hospital
 - (D) Recreation Area
 - (E) School (Public)
 - (F) Railroad Tracks
 - (G) Wastewater Treatment Plant

Bridge Name
Bridge Overtopping Time
 Time when flood flows overlap the deck of a bridge
 1 Approximate elevation
 2 Breach begins at time = 0.0 hour

Flood Time
 Time when flood flows overlap channel banks, levees or flood walls

← Evacuation Route

INUNDATION DEPTHS

0 - 5 feet
5 - 10 feet
> 10 feet

REVISIONS	
BY	DATE

- Evacuation Routes** →
- Crout Road
 - Highway 227 North
 - Highway 101 North
 - Highway 101 South
 - Highway 1 South

OWNER: Zone 3 (Lopez Water) of the San Luis Obispo County Flood Control and Water Conservation District
 County Government Center, Room 207
 San Luis Obispo, CA 93409

County Representative: Deve O'Halloran, P.E.
 Phone No.: (805) 781-5252
 Date: February 1999

URS Greiner Woodward Clyde
 500 12th Street, Suite 200, Oakland, CA 94607

Engineer: Max Ramos, P.E.
 Phone No.: (510) 893-3600

INUNDATION MAP 1999
GIVEN THE HYPOTHETICAL FAILURE OF LOPEZ DAM
 California Dam No. 1055-000
 DWR Registry No. CA 00887

SAN LUIS OBISPO COUNTY Sheet No. 1 of 1