Agenda Item A.2
PRESENTATION
Meeting Date: October 17, 2017

TO: Mayor and Councilmembers

FROM: Peter Imhof, Planning & Environmental Review Department Director

CONTACT: Anne Wells, Advance Planning Manager
Andy Newkirk, Senior Planner

SUBJECT: Beach Hazards Removal Project Update

RECOMMENDATION:

Receive a presentation on historic oil and gas operations in Ellwood, remnant beach hazards, beach hazards removal efforts to date, future removal work, related legislation, and City letter of support for Senate Bill 44 (2017).

EXECUTIVE SUMMARY:

Extensive oil and gas operations occurred along the City's Ellwood coastline during the early and mid-20th century. When these operations ceased, the infrastructure created to support the operations were not properly abandoned. As a result, the Ellwood coastline is littered with remnant oil and gas operations hazards. These hazards include protruding wellheads and well casings, wood and steel piles, pipelines, and wood beams and structures. Since 2002, the California State Land Commission (CSLC) has worked to identify and remove these remnant hazards along both the Ellwood coastline and other locations in Santa Barbara and Ventura Counties. Removal activities took place along Ellwood on six different occasions since 2011. However, extensive hazards remain. Over the past two years, the City produced a Beach Hazards Inventory Report that identifies over 65 beach hazard locations along the City's shoreline, including several abandoned wellheads. To address future hazards removal and well re-abandonments, the State legislature has sought to provide a funding program to be administered by CSLC. This resulted in the Governor's veto of Senate Bill 900 in 2016. A similar bill, Senate Bill 44 was signed into law by Governor Brown on October 10, 2017. The City submitted a letter of support for Senate Bill 44 to the Governor on September 11, 2017.

BACKGROUND:

Historic Oil and Gas Operation in Ellwood

The first oil discovery in the area was in July 1928, by Barnsdall Oil Co. of California and the Rio Grande Company. The oil was largely accessed and processed from what is now the City's Ellwood Mesa Open Space and Sandpiper Golf Course. This area, known as the Ellwood Field, reached peak production in 1930, but remained productive through the 1960s.

Remnant Hazards

Due to a lack of regulation in the early 20th century, there was often little to no oversight of subsequent well and associated infrastructure abandonment activities on Ellwood. Consequently, the level of demolition or removal, if any, varied from structure to structure. As a result, remnants of the oil and gas infrastructure still litter the City's coastline.

Remnant hazards include protruding wellheads and well casings, wood and steel piles, H piles and H beams, railroad irons, cables, angle bars, pipes, pipelines, pipeline frames, riprap, and wood beams and structures. Many of these hazards, especially those containing metal, have jagged edges that create hazards to humans and the marine environment.

Many of the hazards only become visible during beach erosion events associated with storms, as most recently seen after the storm of February 17, 2017. Over time, many of the hazards become covered with sand and lie just below the surface along the beach and intertidal zone. In many cases, these structures are seaward of the mean high tide line and thus lie within the jurisdiction of the California State Lands Commission (CSLC).

Since incorporation, the City has supported beach hazards removal. This position is emphasized in two General Plan policies, Safety Element Policies SE 3.8 and 3.9. Safety Element Policy SE 3.8 expresses the City's desire to see the removal of derelict coastal armoring structures. This policy specifically references the steel-reinforced wooden seawall along the eastern frontage of the Sandpiper Golf Course. Safety Element Policy SE 3.9 expresses the City's support for existing and new efforts to remove beach hazards and specifically encourages the implementation of the CSLC Beach Hazards Removal Project, as detailed below.

Permits and Environmental Review

The first inventory of coastal hazards was performed by CSLC in the mid-1980s and identified over 400 hazards in Los Angeles, Santa Barbara and Ventura Counties. While some of the hazards were traced to responsible parties, most could not be traced to a surviving party and consequently became the state's responsibility. In response to public safety and environmental concerns, CSLC initiated the Santa Barbara Channel Coastal Hazards Removal Project (Beach Hazards Removal Project).

On March 1, 2002, CSLC adopted an Initial Study/Mitigated Negative Declaration (MND) for their Beach Hazards Removal Project and authorized staff to pursue removal activities. The MND covers 21 beach hazards sites along the Santa Barbara and Ventura County coastlines. These sites include the following along the City's coastline: Site No. 4 (Ellwood West of Venoco PRC 421 Piers), Site No. 5 (Ellwood East of Venoco PRC 421 Piers), Site No. 6 (Santa Barbara Shores A), and Site No. 7 (Santa Barbara Shores B). The MND has been used for removal activities described below and is still in effect. The MND does not include well re-abandonment activities. Well re-abandonments are more complicated and raise more complex environmental issues than those addressed in the MND.

On April 11, 2003, the California Coastal Commission approved coastal development permit (CDP) E-02-024 allowing CSLC to remove hazardous or derelict structures from 17

sites in and along the Santa Barbara Channel between Gaviota in Santa Barbara County and the Ventura River in Ventura County. With amendments, the CDP covers sites 4-7 referenced above along Ellwood.

The City issued two Land Use Permits (LUPs) to CSLC for removal activities related to beach hazards removal within and adjacent to the City's jurisdiction. LUP 10-083 permits removal activities at sites 4-6 referenced above. LUP 12-165 permits removal activities at site 7 referenced above. Both permits identify removal activities, staging areas, hazard disposal methodology, and site restoration requirements. Both LUPs are still in effect.

Removal Activities

Hazards removal work has occurred intermittently since the issuance of the City's first LUP in 2010. Timing of the work is subject to several factors, including: the visibility of hazards, State funding availability, favorable tide conditions, and sufficient sand remaining on the beach to allow construction equipment access. These circumstances typically follow beach erosion events associated with large storms during the winter months. Removal activities to date include: April 18-21, 2011; January 8-10, 2013; March 24-April 11, 2014; April 6-8, 2016; December 12-13, 2016; and March 6-9, 2017.

The most significant hazards removal occurred in March and April, 2014. On March 1, 2014, the City experienced a strong weather event that resulted in extensive debris along Goleta's shores due to the deterioration of the retaining wall running along the bottom of the bluff and the extensive exposure of other oil and gas infrastructure. Because of this event and the need to remove these hazards, a local emergency was proclaimed by the City Manager/Director of Emergency Services and ratified by the City Council on March 18, 2014. From March 24 to April 11, 2014, 120 H-piles, 60 railroad irons, 52 wood piles, 60 steel tieback rods; 60 feet of wood sheet piling, 70 feet of pipe, and extensive retaining wall debris was removed. Because CSLC funding for the beach clean-up work is limited to activities below the mean high tide line, the City contributed funds in the amount of $49,346.13 to CSLC to cover the cost of cleanup above the mean high tide line on City beaches.

DISCUSSION:

Remaining Hazards

While substantial progress has been made since 2010, a significant number of hazards remain. In order to inventory and track hazards, the City conducted a beach hazards inventory and produced a Beach Hazards Inventory Report for the City of Goleta beaches in 2016. The City updated this report in 2017. The Beach Hazards Inventory Report is provided as Attachment 1. The report identifies over 65 beach hazards sites along the City's shoreline. Each hazard has an identification number, a date of identification, GPS coordinates, a photo, and a description of the hazard or hazards at that site.

This past year, CSLC created a list of "legacy wells" along the California coastline. CSLC defines legacy wells as old oil and gas wells that are:

- Located offshore up to the mean high tide line within the State waters;

- Plugged or abandoned prior to 1938 or with unknown date of abandonment identified by California Division of Oil, Gas and Geothermal Resources (DOGGR) as plugged/buried oil and gas wells and as "not abandoned to current standards" or "not verified" in that time frame; and
- Drilled by operators that are no longer in business (and not associated with any current operators or lessees) making them the responsibility of the State in the event of a leakage.

As of March 2017, CSLC identified 200 legacy wells along the California coast. Five of these identified legacy wells are located along or adjacent to the City's shoreline.

In addition to CSLC efforts to identify legacy wells, City staff has utilized the Beach Hazards Inventory Report to gather more information on the historic wellheads that become exposed on City beaches after storm events. Staff compared the coordinates of exposed wellheads in the Beach Hazards Inventory Report to the mapped locations of wellheads provided by DOGGR on their online well finder map service (https://maps.conservation.ca.gov/doggr/wellfinder/). Through this online service, staff identified the American Petroleum Institute (API) well number for exposed wellheads. With the assistance of DOGGR staff, City staff was then able to gather the well closure and abandonment histories for these wells. A preliminary summary table of this information is provided as Attachment 2.

Recent Legislation

In 2016, State Senator Jackson introduced Senate Bill (SB) 900. This bill sought to establish and fund the Commission's coastal hazard removal and legacy oil and gas well remediation program. The bill was also intended to provide a framework for the State to remove coastal hazards, many of which are remainders of legacy oil and gas development infrastructure. SB 900 initially included annual funding for this work in the amount of $2 million. The amended bill approved by the legislature provided for annual funding of $500,000. Governor Brown vetoed SB 900 on September 23, 2016 and directed DOGGR to work with the CLSC to develop an inventory of legacy oil and gas wells and other hazards along the California coastline to determine oil seepage locations, rates and environmental impacts. CLSC staff has since worked on the legacy well inventory as described above.

For the 2017 legislative session, Senator Jackson introduced a similar bill — SB 44. SB 44 proposes to create a legacy oil and gas well and coastal hazard removal and remediation program (Program) in statute and provide funding to CSLC to administer it.[1] The Program outlined in SB 44 would:

- Assess legacy oil and gas wells and coastal hazards along the California coastline, including conducting aerial surveys and dives;
- Determine high priority hazards and legacy wells to remediate;

[1] SB 44 focuses on remnants of the state's extensive offshore oil production that began in the late 1800s, including abandoned oil and gas wells, groins, jetties, piers, pilings, oil and gas related infrastructure, and seawalls. The purpose is not to address decommissioning and/or abandonment of existing oil and gas facilities and infrastructure.

- Survey, study, and monitor oil seepage in state waters and tidelands to determine seepage locations, rates, and environmental impacts;
- Partner with experts to commission studies and facilitate innovative solutions; and
- In cooperation with DOGGR, begin the process of remediating improperly abandoned legacy wells that have a high risk of leaking oil and are hazardous to public health and safety and the environment.

SB 44 provides annual funding for this Program in the amount of $2 million through at least 2028. The estimated full cost of the program includes:

- One-time cost of $350,000 to complete the in-depth inventory of legacy wells;
- Annual costs of approximately $50,000 to survey and monitor oil seepage;
- Annual costs of approximately $200,000 to remove coastal hazards;
- Up to $396 million to plug and abandon legacy wells (up to $2 million per well for 198 wells);
- Minor and absorbable costs to CSLC to report activities and accomplishments to the Legislature; and
- Minor and absorbable costs to DOGGR for permitting and consultation activities related to plugging and abandoning wells.

On or before January 1, 2027, CSLC must submit a report to the Legislature that will cover the life of the program and include information necessary to aid the Legislature in determining whether funding for the program should be reauthorized. SB 44 is provided as Attachment 3.

In anticipation of a CSLC meeting on February 7, 2016, Mayor Perotte submitted a letter to CSLC dated February 2, 2017 requesting CSLC take the affirmative action to support SB 44. On February 7, 2017, CLSC formally supported SB 44 through a unanimous vote. SB 44 passed through the State Senate on May 31, 2017. SB 44 passed through the State Assembly on September 7, 2017 through a unanimous vote. SB 44 was presented to Governor Brown on September 22, 2017. He signed the bill into law on October 10, 2017. The enactment of SB 44 will establish a program to support beach hazards removal along our coastline and also identifies funding.

FISCAL IMPACTS:

Preparation of this report was included in the adopted FY 2017/18 Budget under Program 4300 of the Advance Planning Division.

Approved By:

Michelle Greene
City Manager

ATTACHMENT:

1. Beach Hazards Inventory for the City of Goleta Beaches - Ellwood Pier to Coal Oil Point, Santa Barbara County, California (2017)

2. Preliminary Goleta Coastline Well Abandonment History Table

3. Senate Bill 44

4. City of Goleta Letter to Governor Brown in Support of Senate Bill 44

Attachment 1

Beach Hazards Inventory for the City of Goleta Beaches - Ellwood Pier to Coal Oil Point, Santa Barbara County, California (2017)

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BEACH HAZARDS INVENTORY

FOR THE

CITY OF GOLETA BEACHES
ELLWOOD PIER TO COAL OIL POINT
SANTA BARBARA COUNTY, CALIFORNIA

Prepared for:

City of Goleta
Planning & Environmental Review Department
130 Cremona, Suite B
Goleta, California 93117

Prepared By:

Storrer Environmental Services, LLC
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March 2017

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1.0 INTRODUCTION

The following is a summary of the 2nd annual shoreline inventory conducted between Ellwood Pier (Haskell's Beach) and Coal Oil Point, Goleta, California on March 06, 2017. Intensive storm activity and sand scour in early 2017 exposed additional remnants of former oil production facilities along the shoreline of Haskell's Beach and Ellwood Beach. The purpose of the annual inventory is to identify and map locations of exposed hazards (i.e., metal H-piles, wooden pilings, exposed pipes, well casings, etc.), many of which present acute hazards to public safety, and track where hazards have been removed or are no longer present.

1.1 PROJECT BACKGROUND

Previous shoreline hazards abatement between Haskell's Beach and Devereux Slough was conducted in March and April of 2014 by the California State Lands Commission (CSLC) as part of an ongoing program of hazards removal at 21 sites along the Santa Barbara/Ventura County shoreline. Permit approvals for the shoreline hazards mitigation was administered through a joint effort by CSLC and the City of Goleta Environmental Planning and Environmental Review Department (City). Compliance monitoring and reporting were conducted by Padre Associates, Inc. (Padre) under contract to CSLC and Storrer Environmental Services, LLC (SES) under contract to the City (SES 2014).

The project was described as a component of a larger shoreline hazards mitigation effort evaluated in *Mitigated Negative Declaration (MND) – Santa Barbara Channel Coastal Hazards Removal Project, Santa Barbara County and Ventura County, California* prepared by Padre for CSLC (July 29, 2002). The City's portion of the 2014 shoreline hazards mitigation focused on recovery of debris from a seawall that formerly extended along the base of the coastal bluff from the State Lease 421 facilities to the Ellwood Marine Terminal. The seawall was severely damaged by wave action, resulting in wooden piles, planks, and tie-backs being dislodged, carried down-current, and cast ashore.

Despite a considerable expenditure of effort in 2014, numerous significant shoreline hazards remain within the project reach. The 1st annual beach hazards inventory was conducted by Storrer Environmental Services, LLC (SES) on February 19 and 23, 2016. The inventory documented additional locations of remnant shoreline hazards that had become exposed since or were not included in the 2014 removal efforts. The February 2016 inventory resulted in data collection at sixty-five (65) locations where beach hazards were observed along the approximate 3-mile project reach (SES 2016).

Additional shoreline hazards abatement was conducted in December and April of 2016 and in March of 2017 by the CSLC. A summary of the removals that took place between the February 2016 and March 2017 beach hazards inventory is provided in Appendix B – Beach Hazards Removal Log.

2.0 METHODS

The shoreline inventory was conducted by SES biologists, Jessica Peak and John Storrer. The survey was timed to coincide with -0.17 foot low tide to ensure that as many hazards as possible

could be observed and mapped. The 2016 Beach Hazards Inventory and historic photographs of the project reach were also reviewed for comparison with current conditions.

Mr. Storrer and Ms. Peak walked the shoreline from Coal Oil Point west to Ellwood Pier, documenting exposed hazards. At each location where hazards were observed a representative photograph and notes describing the hazards were taken in 2016. If conditions changed since the 2016 inventory or a new hazard location was observed, a new representative photograph was taken in 2017. In locations that remained unchanged, the photos from the 2016 inventory are provided (see Appendix A – Beach Hazards Photographic Log). Each location was also documented using a Garmin GPSmap 60CSx handheld Global Positioning System (GPS) unit. The data points collected on the GPS unit were then mapped using ArcGIS software.

GPS data points were taken as close to the location of the hazards as possible. In some cases, the features were underwater and the exact location was not accessible. At numerous locations, one data point represents the central point of multiple features. The representative photographs were taken to depict the features in context with the surrounding landscape.

3.0 RESULTS

Data were collected at 70 locations where beach hazards were observed along the approximate 3-mile project reach (see Figures 1A-1F). This includes 65 locations from the 2016 inventory and five (5) new locations that had become exposed (BH-6a, BH-47a, BH-48a, BH-58a, and BH-63a).

The majority of the hazard locations (44) were documented between Ellwood Pier and the west end of Sperling Preserve. Nineteen (19) hazard locations were documented fronting the Sperling Preserve, and six (6) locations were documented between the east end of Sperling Preserve and Coal Oil Point.

Beach hazards observed along the project reach during the 2017 inventory included approximately 350 metal H-piles, 13 wooden piles, 2 steel piles, 40 lengths of pipe, 15 steel tie-backs, 7 locations with concrete and metal debris, 1 cable, 18 well casings/wellheads, and 10 locations with remnant seawall timber (see Attachment A – Photographic Log). These numbers are estimated from what was observed during the 2016 and 2017 inventories, adjusted to reflect what was removed during CSLC mitigation in December and April of 2016 (see Appendix B – Beach Hazards Removal Log). Beach hazards removals that took place in March 2017, following the inventory, are not reflected in these totals but are included in Appendix B.

4.0 DISCUSSION

Although sand levels along the shoreline were lower than during the 2016 surveys, historic photographs of the project reach indicate that some beach hazards were still buried in 2017 and thus not visible for inventory. The total number of exposed H-piles was estimated at several locations and it is expected that additional remnant H-piles were buried or underwater. There may also be several submerged wellheads/well casings that were not visible.

Remnant seawall timber and concrete/metal debris are reasonably accessible and would require minimal excavation to remove. Portions of the seawall are still intact (e.g., BH-32 to BH-36) and are supporting the bluff face. Many of the H-piles and exposed pipes are located in bedrock

or are protruding from the bluff faces and will require special techniques and equipment or more extensive excavation to remove.

Locations where public safety was a clear concern included Haskell's Beach (BH-01 to BH-12) and between the east end of Sperling Preserve and the mouth of Devereux Slough (BH-57 to BH-65). Shoreline erosion at Haskell's Beach has resulted in numerous exposed pipes extending out from the bluff face. The exposed pipes were cut flush with the bank during CSLC mitigation in April 2016. Shoreline protection measures (i.e., erosion control blankets, sandbags) are in place along portions of the bluff at Haskell's Beach, but heavy wave action has accelerated bluff retreat, exposing more pipes. The steel H-piles in the lower intertidal zone at the east end of Sperling Preserve and near the mouth of Devereux Slough pose a safety risk to swimmers and surfers that frequent those areas.

Access to the hazards fronting the Sandpiper Golf Course and Sperling Preserve is challenging due to limited points of ingress/egress and rocky intertidal terrain. Heavy equipment can access the shoreline at Haskell's Beach, at the Venoco SL 421 Road, and at the east end of Sperling Preserve, but the centrally located data points (BH-43 through BH-56) would still require driving along the beach for approximately 0.5-mile from either direction. Heavy equipment can be damaging to bedrock exposures.

In summary, a significant number of remnants of former oil production facilities are still present along the shoreline of Ellwood and Haskell's Beaches, despite CSLC clean-up efforts in 2016. Access to many of these features is challenging and removal will require the use of heavy or specialized equipment. Locations where beach hazards pose an acute public safety risk include the pipes exposed at Haskell's Beach and the metal H-piles in the surf zone near the eastern end of Ellwood Beach.

5.0 LITERATURE CITED

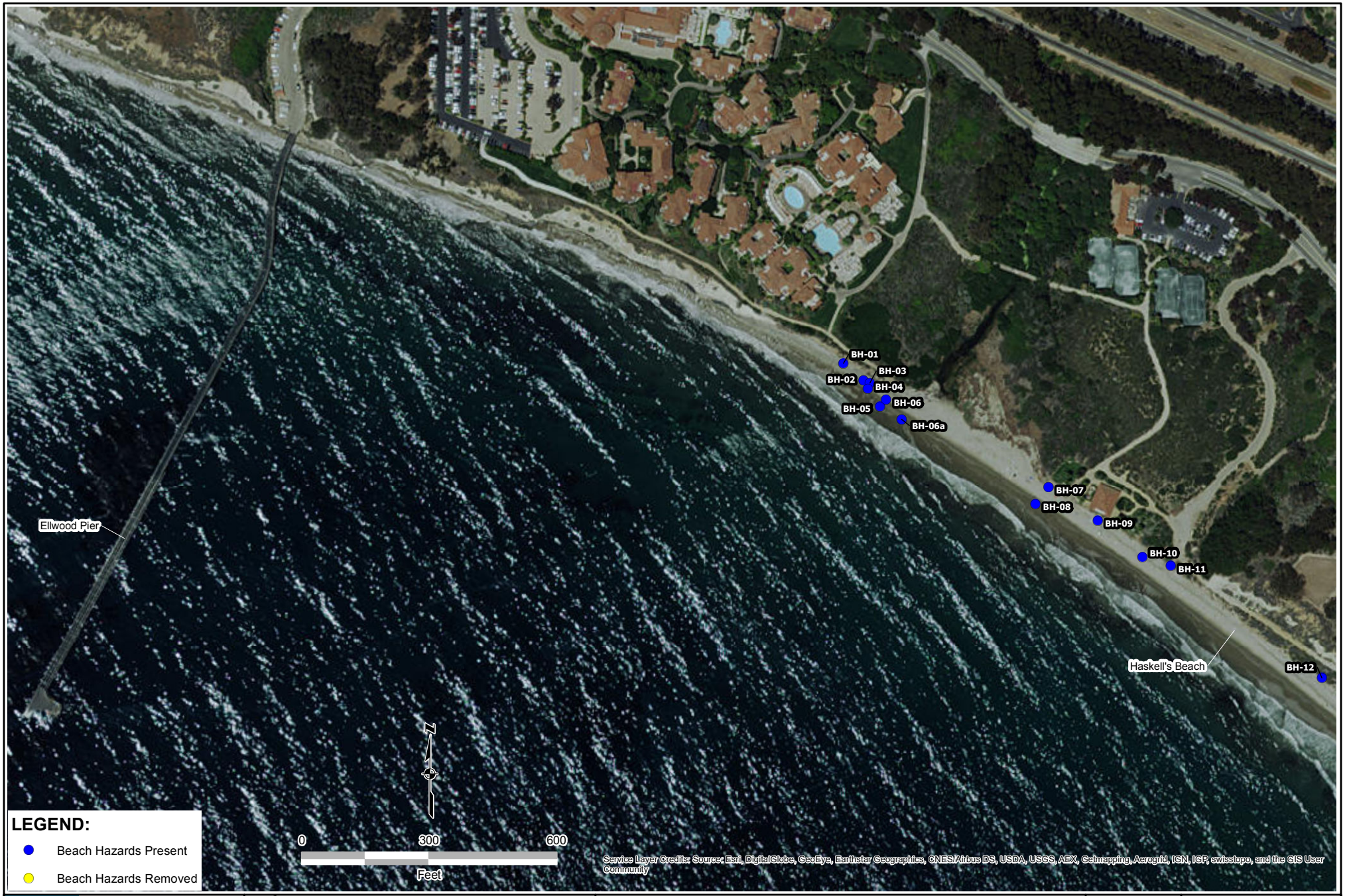
Padre Associates, Inc. (Padre). 2002. Mitigated Negative Declaration (MND) – Santa Barbara Channel Coastal Hazards Removal Project, Santa Barbara County and Ventura County, California. Prepared for California State Lands Commission. July 29, 2002.

Storrer Environmental Services, LLC. (SES). 2014. California State Lands Commission, Santa Barbara Channel Hazards Removal Project – Ellwood Beach – Compliance Report. May 20, 2014.

Storrer Environmental Services, LLC. (SES). 2016. City of Goleta Beach Hazards Survey Summary, Santa Barbara County, California. March 9, 2016

FIGURES

R:\Projects\Storrer\Ellwood Beach\Hazard Removal\2017\a-ellwood-beach-hazard-removal-march-2017-1a.mxd



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Ellwood Beach Hazards Removal Project
Goleta, California

Figure 1A

March 21, 2017

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Goleta, California

Figure 1B

March 21, 2017

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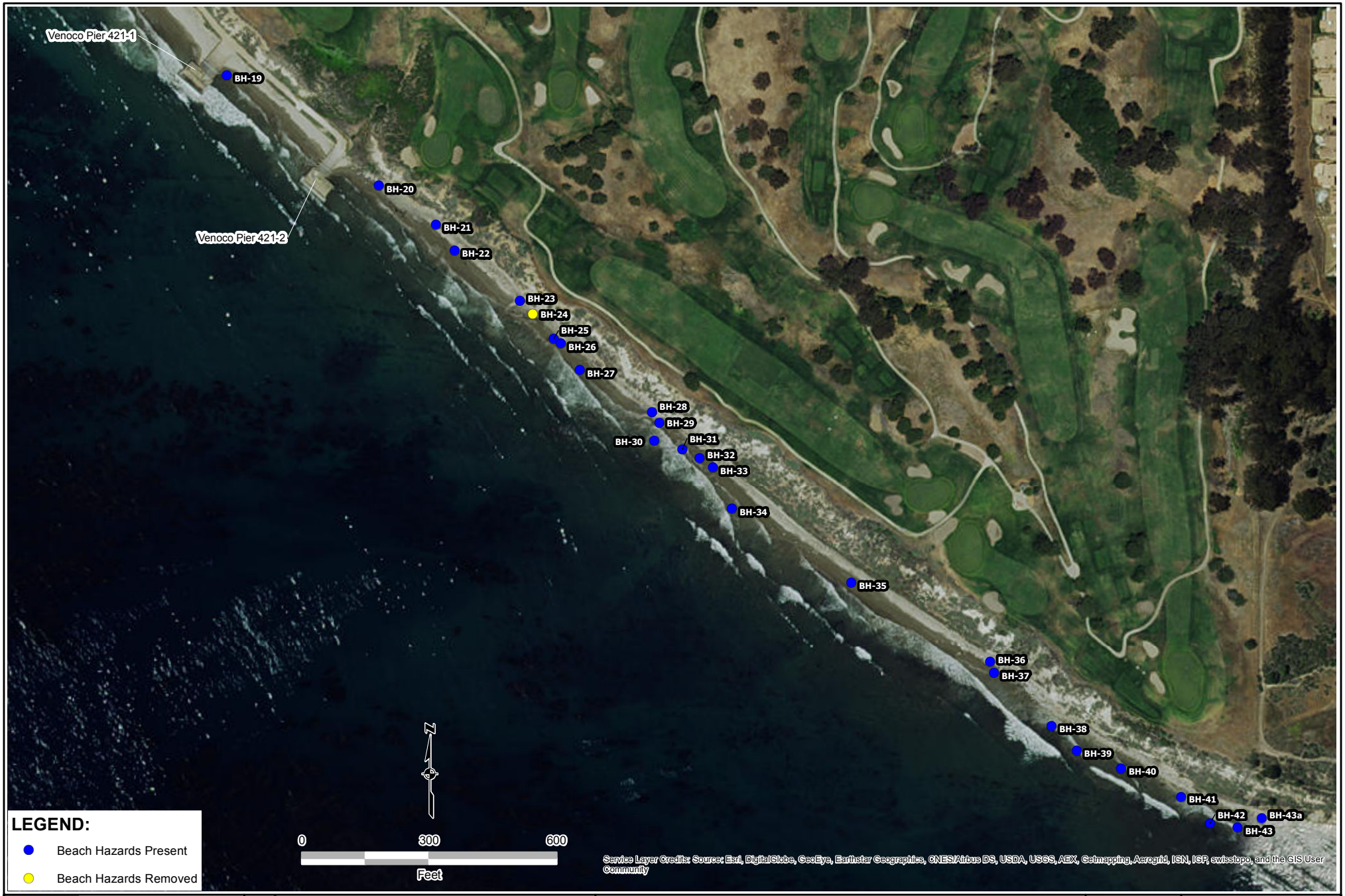

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Ellwood Beach Hazards Removal Project
Goleta, California

Figure 1C

March 21, 2017

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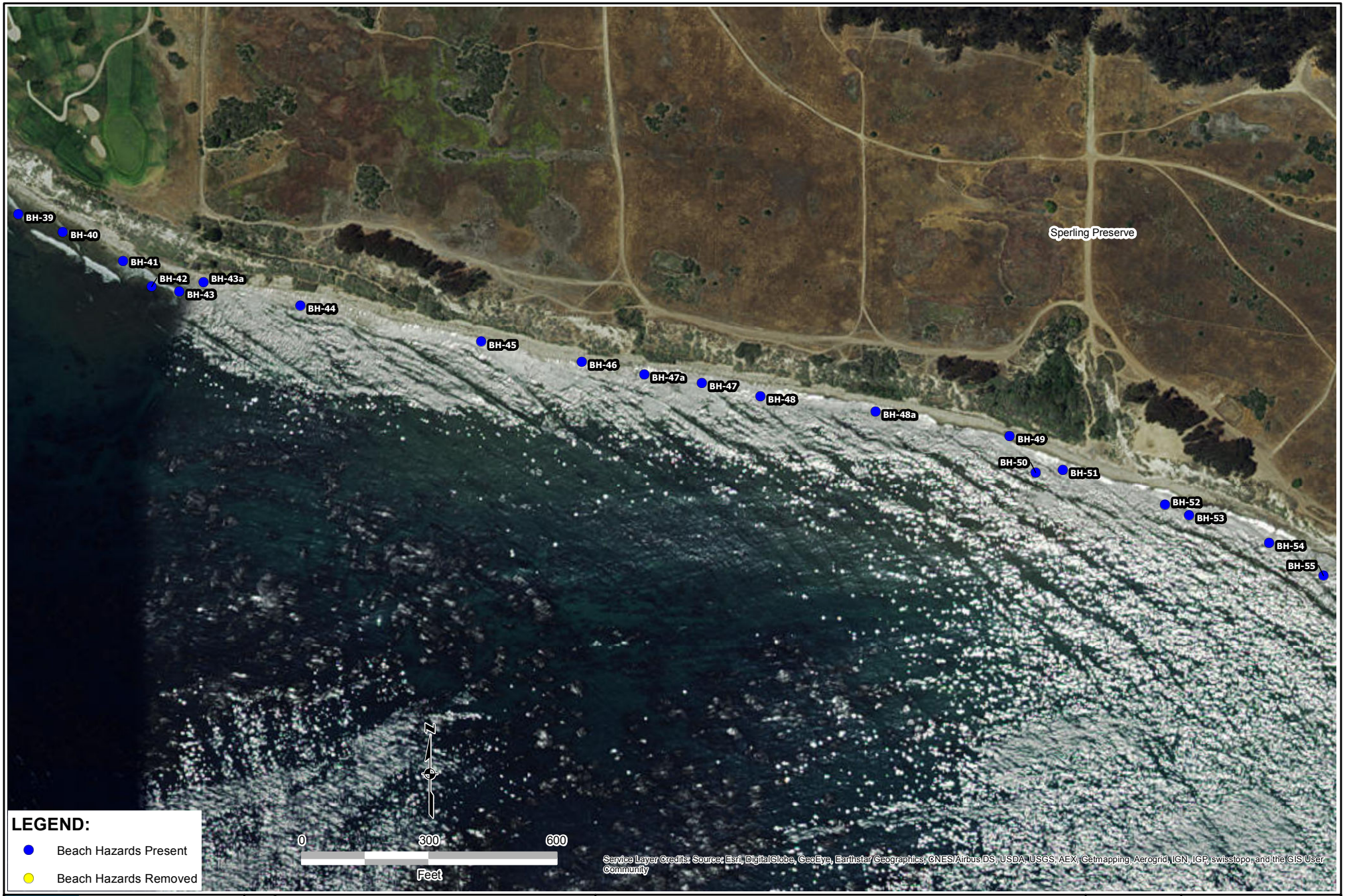

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Ellwood Beach Hazards Removal Project
Goleta, California

Figure 1D

March 21, 2017

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Ellwood Beach Hazards Removal Project
Goleta, California

Figure 1E

March 21, 2017

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Ellwood Beach Hazards Removal Project
Goleta, California

Figure 1F

March 21, 2017

APPENDIX A

BEACH HAZARDS PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-01	03/06/2017

GPS Coordinates:
N 34.43222˚
W 119.91853˚
(Garmin GPSmap 60CSx)

Description:
4 exposed pipes: largest pipe is 12-inch diameter, also historic trash deposit eroding from bluff.

Still present during March 2017 inventory. Pipe cut flush with the bank.

Photo No.:	**Date of Inventory:**
BH-02	03/06/2017

GPS Coordinates:
N 34.43211˚
W 119.91837˚
(Garmin GPSmap 60CSx)

Description:
3 exposed pipes: (1) 4-inch diameter, (2) 2-inch diameter.

Pipes still present during March 2017 inventory, but some have been cut flush with the bank.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-03	03/06/2017

GPS Coordinates:
N 34.43209˚
W 119.91832˚
(Garmin GPSmap 60CSx)

Description:
3 H-piles in upper tidal zone.

No change from February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-04	03/06/2017

GPS Coordinates:
N 34.43206˚
W 119.91833˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles, ~10 feet apart.

No change from February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-05

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.43194˚
W 119.91824˚
(Garmin GPSmap 60CSx)

Description:
2 wooden pilings, 12 inches diameter, ~ 12 feet apart.

No change from February 2016 inventory.

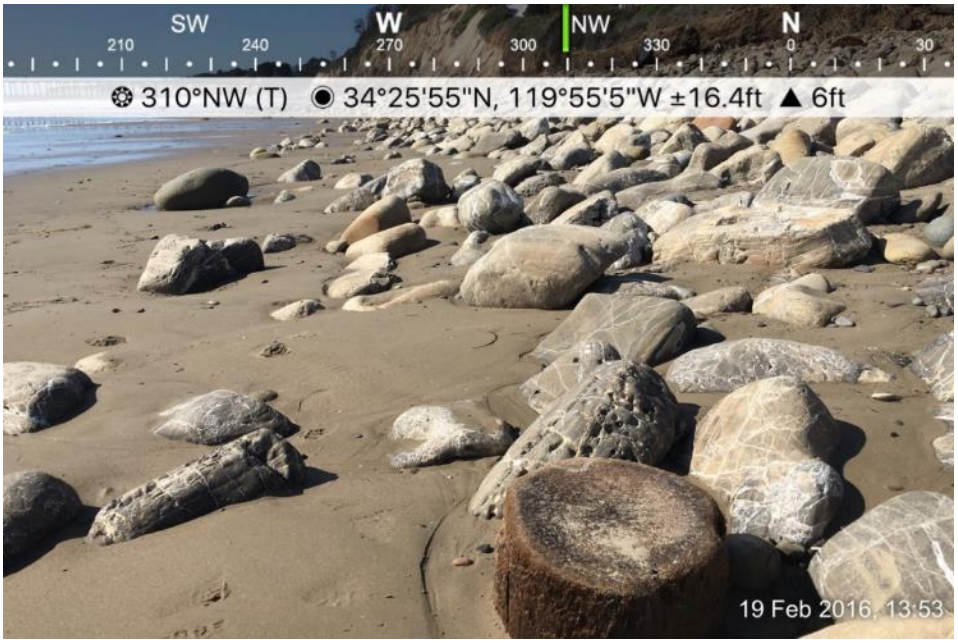


Photo No.: BH-06

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.43199˚
W 119.91819˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile

No change from February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-06a

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.43186˚
W 119.91807˚
(Garmin GPSmap 60CSx)

Description:
4-foot segment of pipe exposed at high tide line.

New location. Not observed in February 2016 inventory.

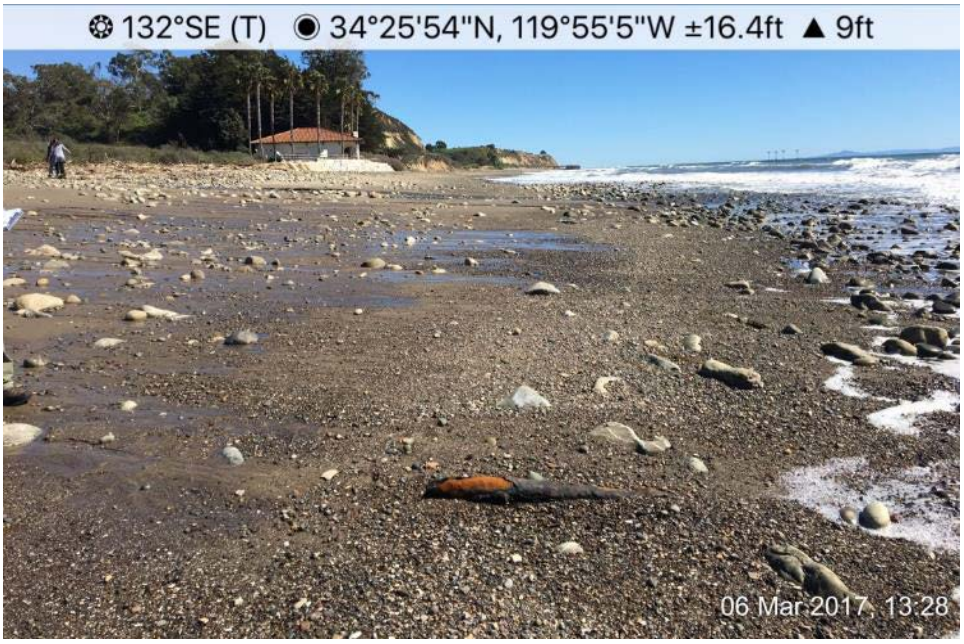


Photo No.: BH-07

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.43144˚
W 119.91691˚
(Garmin GPSmap 60CSx)

Description:
10 exposed pipes cut flush with bluff in April 2016.
Pipes still present.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-08	03/06/2017

GPS Coordinates:
N 34.43133˚
W 119.91701˚
(Garmin GPSmap 60CSx)

Description:
Concrete debris and 12-inch diameter wooden piling in mid-tidal.

No change from February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-09	03/06/2017

GPS Coordinates:
N 34.43123˚
W 119.91652˚
(Garmin GPSmap 60CSx)

Description:
Wooden pilings, exposed cable, steel H-piles removed in April 2017.

3-4 steel H-piles remain (pers observation J. Storrer, 01/23/2017). Not visible during March 2017 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-10	03/06/2017

GPS Coordinates:
N 34.43100˚
W 119.91617˚
(Garmin GPSmap 60CSx)

Description:
1 wooden piling, 2 exposed pipes, (1) 4-inch diameter, (1) 2-inch diameter.

Pipes cut flush with bank and wooden piling removed in April 2016. Pipes still present.

Photo No.:	**Date of Inventory:**
BH-11	03/06/2017

GPS Coordinates:
N 34.43095˚
W 119.91595˚
(Garmin GPSmap 60CSx)

Description:
Concrete debris, 1 exposed pipe, 14-inches diameter.

No change from February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-12

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.43024˚
W 119.91474˚
(Garmin GPSmap 60CSx)

Description:
Concrete debris, 2 exposed pipes along bank, 2 wooden pilings. Pipes are 2-inch and 4-inch diameter.

Pipes still present along bank. Additional pipe observed exposed in sand ~150 feet seaward of bluff.

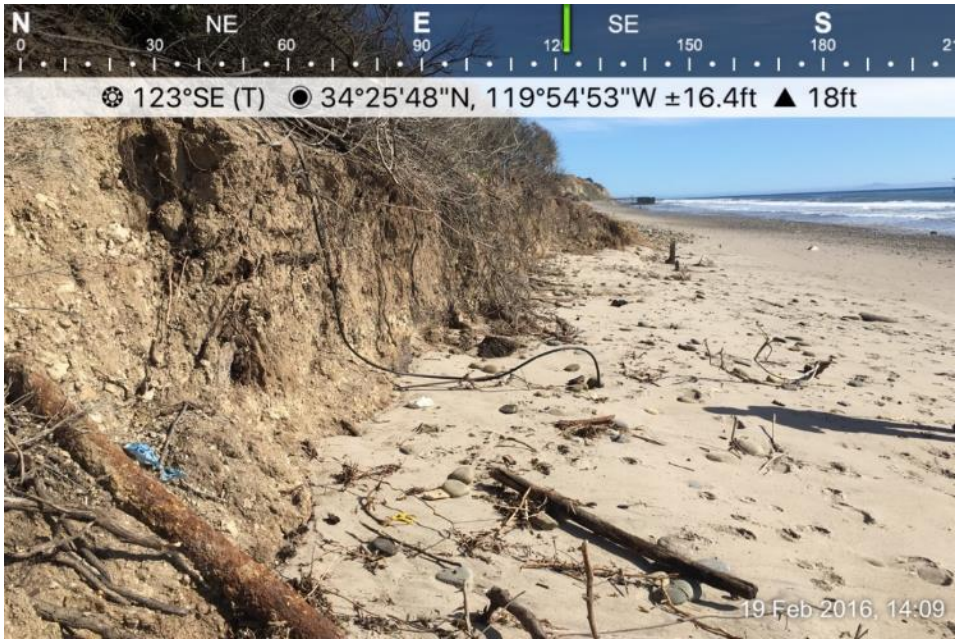


Photo No.: BH-13

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42957˚
W 119.91390˚
(Garmin GPSmap 60CSx)

Description:
5 wooden pilings, 5 steel H-piles and wood debris in mid-intertidal zone.

More material exposed in this location than during February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-14

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42854˚
W 119.91257˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal zone.

No change from February 2016 inventory.

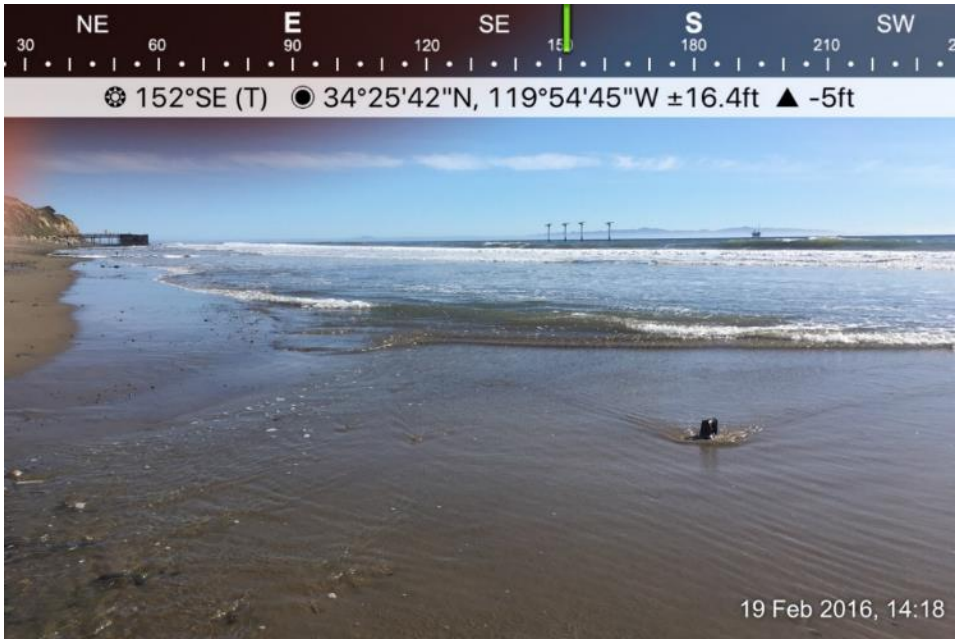


Photo No.: BH-15

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42842˚
W 119.91177˚
(Garmin GPSmap 60CSx)

Description:
3 exposed pipes, (2) 12-inch diameter, (1) 14-inch diameter.

No change from February 2016 inventory.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-16

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42751˚
W 119.91093˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal zone.

No change from February 2016 inventory.

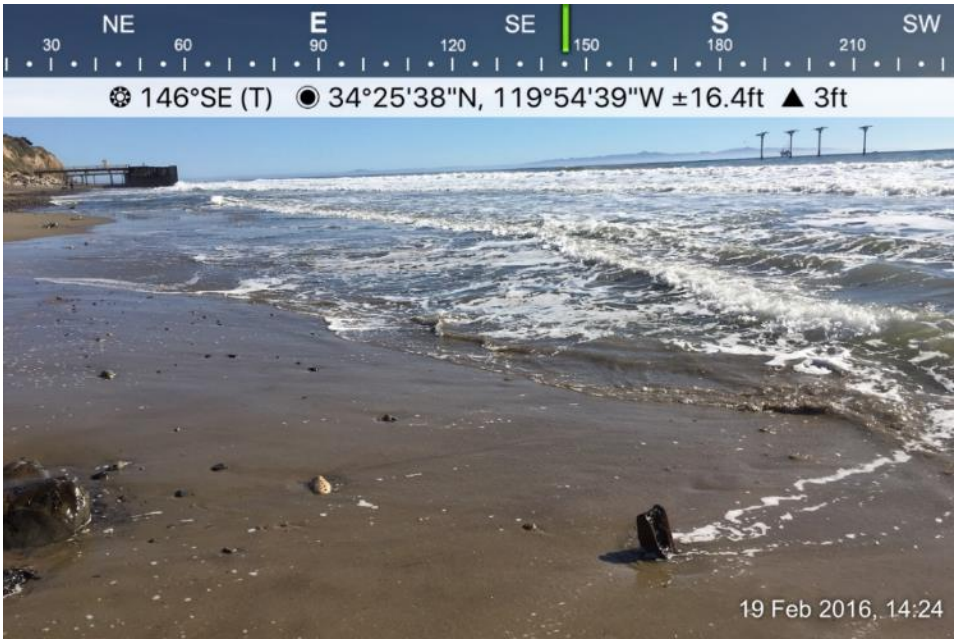


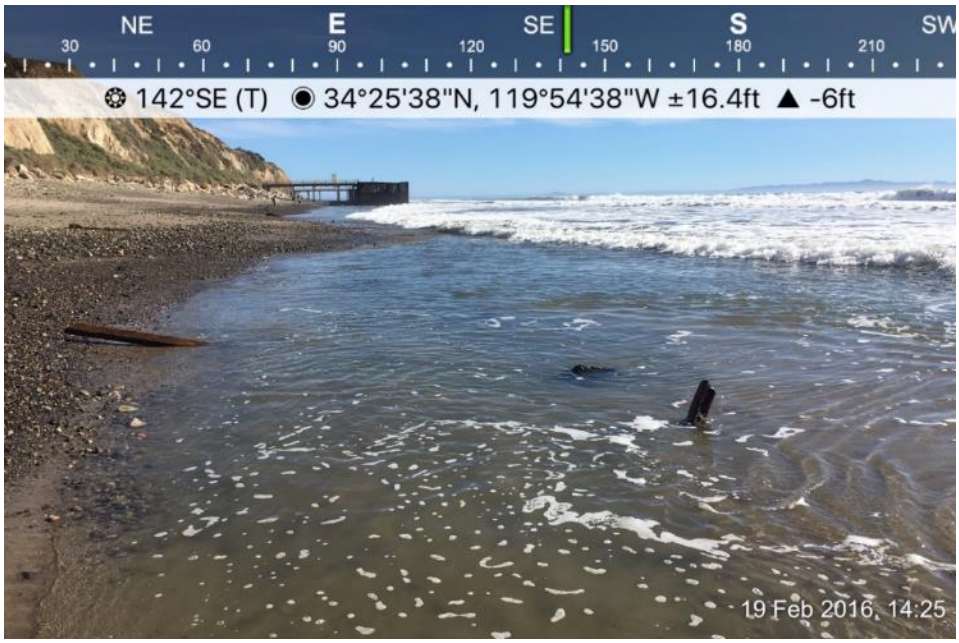
Photo No.: BH-17

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42727˚
W 119.91052˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal zone.

No change from February 2016 inventory.



Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-18	03/06/2017

GPS Coordinates:
N 34.42682˚
W 119.90977˚
(Garmin GPSmap 60CSx)

Description:
8 exposed H-piles, (2) 16-inch diameter steel pilings ~25 feet seaward of row of H-pile. 8-10 buried H-piles.

No change from February 2016 inventory.

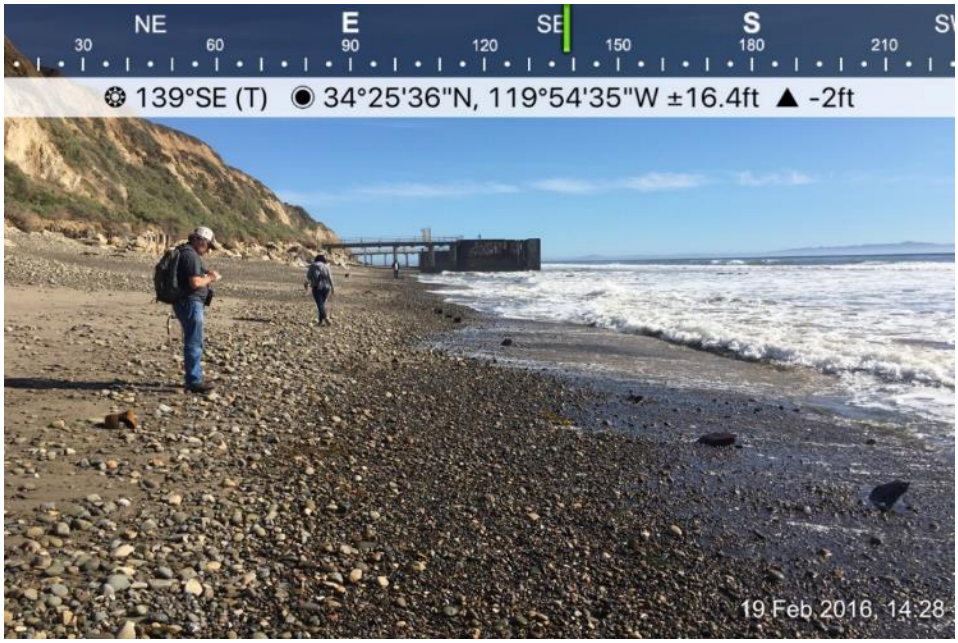


Photo No.:	**Date of Inventory:**
BH-19	03/06/2017

GPS Coordinates:
N 34.42580˚
W 119.90845˚
(Garmin GPSmap 60CSx)

Description:
8 H-piles in lower intertidal just east of SL 421-1.

No change from February 2016 inventory.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-20	03/06/2017

GPS Coordinates:
N 34.42511˚
W 119.90725˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile, remnant timber from seawall, concrete debris.

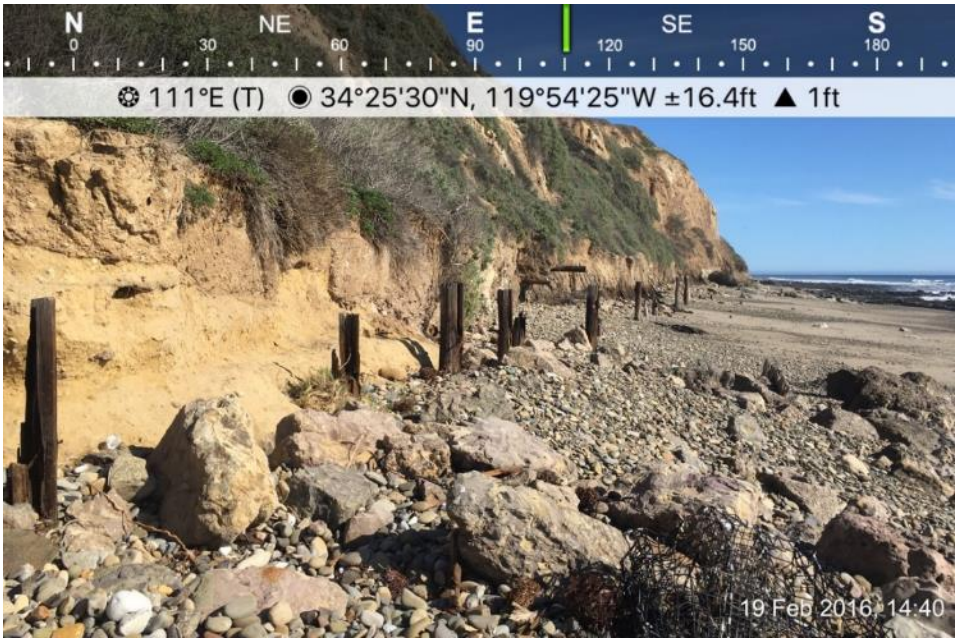
No change from February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-21	03/06/2017

GPS Coordinates:
N 34.42486˚
W 119.90679˚
(Garmin GPSmap 60CSx)

Description:
(2) exposed 6-inch diameter pipes in bluff, remnant timber from seawall, including (20) seawall pilings.

Steel tie-backs and 2 H-piles observed ~150 feet seaward in lower intertidal zone in March 2017.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-22

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42470˚
W 119.90665˚
(Garmin GPSmap 60CSx)

Description:
Concrete block with rebar (wellhead?)

1 Steel H-pile, 4 railroad irons, 2 sheet pilings were removed in March 2017 during the inventory.

Photo No.: BH-23

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42438˚
W 119.90613˚
(Garmin GPSmap 60CSx)

Description:
H-pile in bedrock – upper intertidal zone.

No change from February 2016 inventory.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-24	03/06/2017

GPS Coordinates:
N 34.42430˚
W 119.90602˚
(Garmin GPSmap 60CSx)

Description:
1" steel tie-back buried in sand.

No longer present during March 2017 inventory.

Photo No.:	**Date of Inventory:**
BH-25	03/06/2017

GPS Coordinates:
N 34.42414˚
W 119.90586˚
(Garmin GPSmap 60CSx)

Description:
West end of seawall section, remnant timber.
(see BH-28 for east end of seawall section)

No change from February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-26	03/06/2017

GPS Coordinates:
N 34.42411˚
W 119.90580˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles, remnant timber from seawall.

No change from February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-27	03/06/2017

GPS Coordinates:
N 34.42394˚
W 119.90565˚
(Garmin GPSmap 60CSx)

Description:
Well casing (24-inch diameter), remnant timber from seawall.

Additional H-pile observed in March 2017, 100 feet seaward of well casing in lower intertidal.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-28

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42368˚
W 119.90508˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles in bedrock, east end of seawall – upper intertidal zone; section/ remnant timber.
(see BH-25 for west end of seawall section)

3 additional H-piles observed in the lower intertidal zone in March 2017.

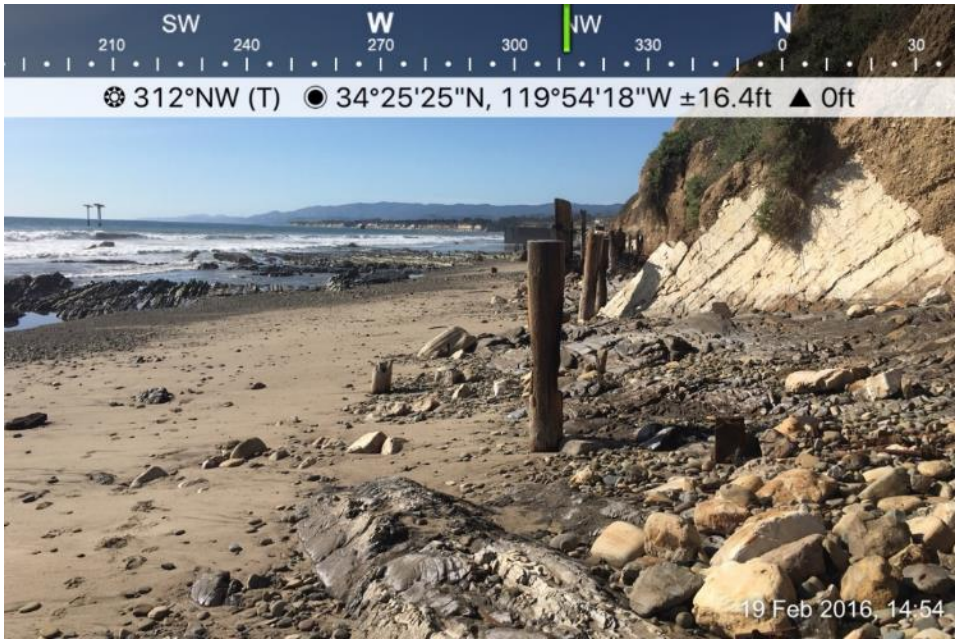


Photo No.: BH-29

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42361˚
W 119.90502˚
(Garmin GPSmap 60CSx)

Description:
3 H-piles in bedrock in upper tidal zone.

No change since February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-30	03/06/2017

GPS Coordinates:
N 34.42349˚
W 119.90506˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in mid-intertidal zone.

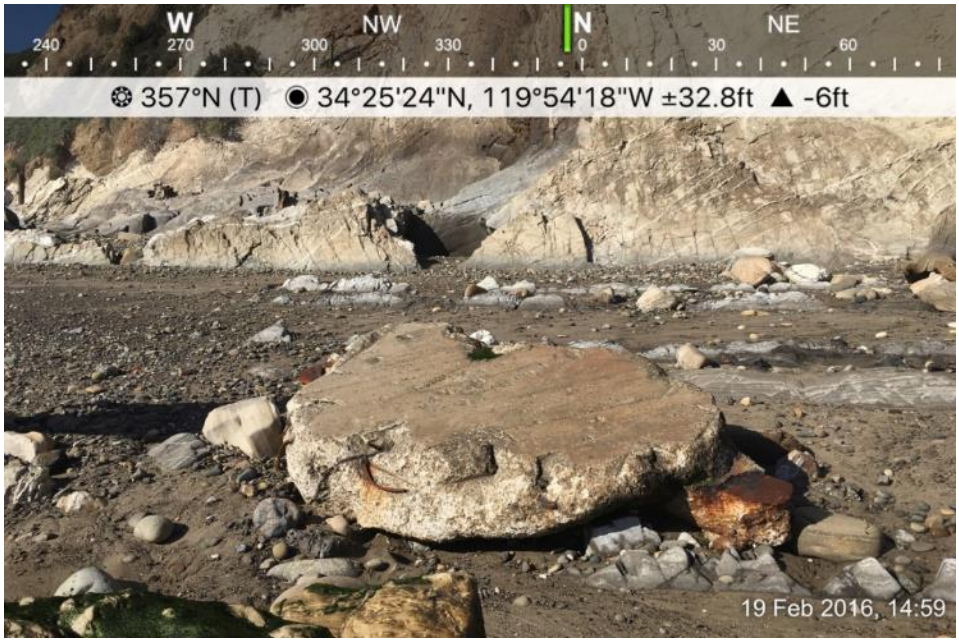
3 additional H-piles observed at this location in March 2017.

Photo No.:	**Date of Inventory:**
BH-31	03/06/2017

GPS Coordinates:
N 34.42344˚
W 119.90484˚
(Garmin GPSmap 60CSx)

Description:
Concrete block with rebar – appears to be dislodged wellhead.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-32	03/06/2017

GPS Coordinates:
N 34.42338˚
W 119.90470˚
(Garmin GPSmap 60CSx)

Description:
15 H-piles.

Removal of H-piles took place at this location on March 7, 2016, after the inventory was conducted. 5 H-piles still remain.

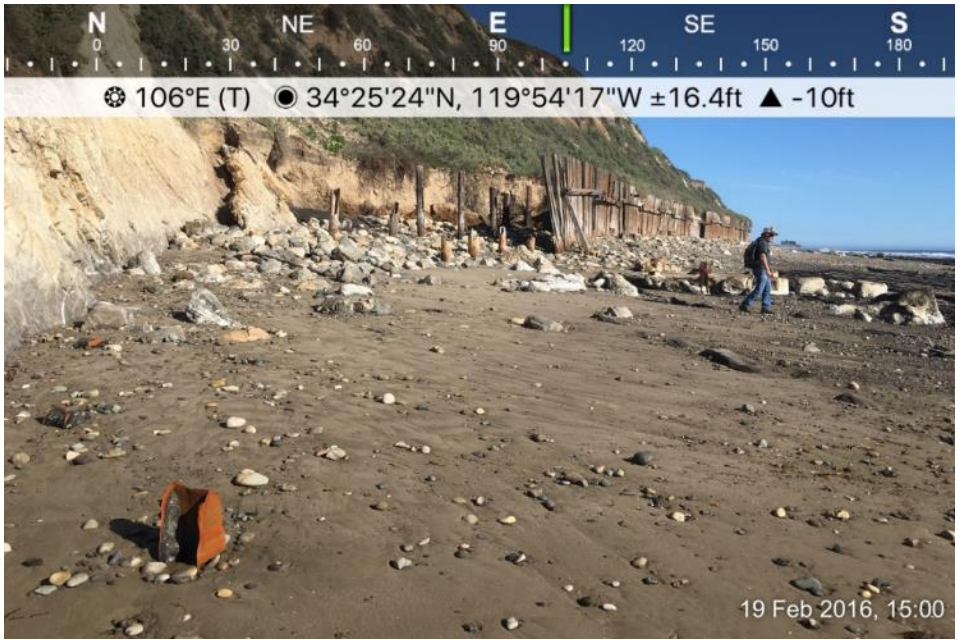


Photo No.:	**Date of Inventory:**
BH-33	03/06/2017

GPS Coordinates:
N 34.42332˚
W 119.90459˚
(Garmin GPSmap 60CSx)

Description:
Concrete wellhead, steel tie-back, 1 H-pile, west end of seawall section/remnant timber (see BH-36 for east end of seawall section)

Removal of 1 Steel H-pile, 1 steel tie took place at this location on March 7, 2016, after the inventory was conducted. Wellhead and seawall remnants are still present.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-34

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42306˚
W 119.90444˚
(Garmin GPSmap 60CSx)

Description:
5 H-piles along seawall.

No change since February 2016 inventory.

Photo No.: BH-35

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42260˚
W 119.90350˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles, concrete wellhead. Large diameter steel piling ~150 feet seaward of well head.

Removal of 5 steel H-piles, 1 railroad iron took place at this location on March 7, 2016, after the inventory was conducted. Wellhead and Large diameter steel piling are still present.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-36	03/06/2017

GPS Coordinates:
N 34.42210˚
W 119.90240˚
(Garmin GPSmap 60CSx)

Description:
10 H-piles along seawall, east end of seawall section/remnant timber. Eastern half of seawall relatively intact.

(see BH-33 for west end of seawall section)

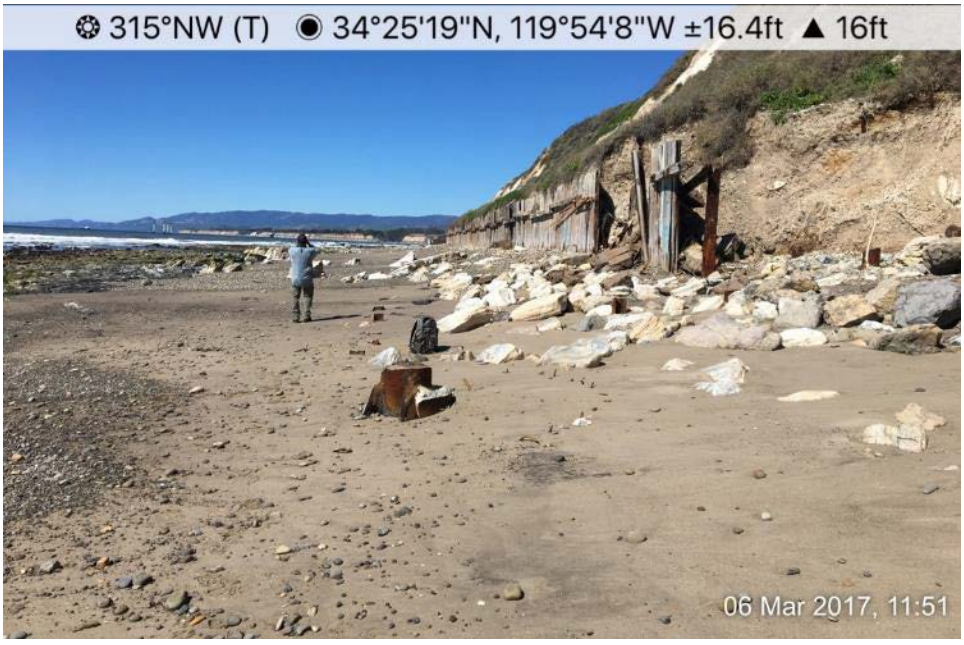
Removal of 4 Steel H-pile, 1 railroad iron took place at this location on March 7, 2016, after the inventory was conducted. 6 Steel H-piles, remnant timber from seawall are still present.

Photo No.:	**Date of Inventory:**
BH-37	03/06/2017

GPS Coordinates:
N 34.42203˚
W 119.90237˚
(Garmin GPSmap 60CSx)

Description:
Concrete wellhead, 33 H-piles extending eastward along gap in seawall.

Removal of 5 Steel H-piles, 3 railroad irons, 1 pipeline segment took place at this location on March 7, 2016, after the inventory was conducted. Concrete wellhead and 28 Steel H-piles are still present.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-38

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42169˚
W 119.90191˚
(Garmin GPSmap 60CSx)

Description:
6 H-piles, 10 steel tie-backs, west end of seawall section/remnant timber.
(see BH-40 for east end of seawall section)

No change since February 2016 inventory.

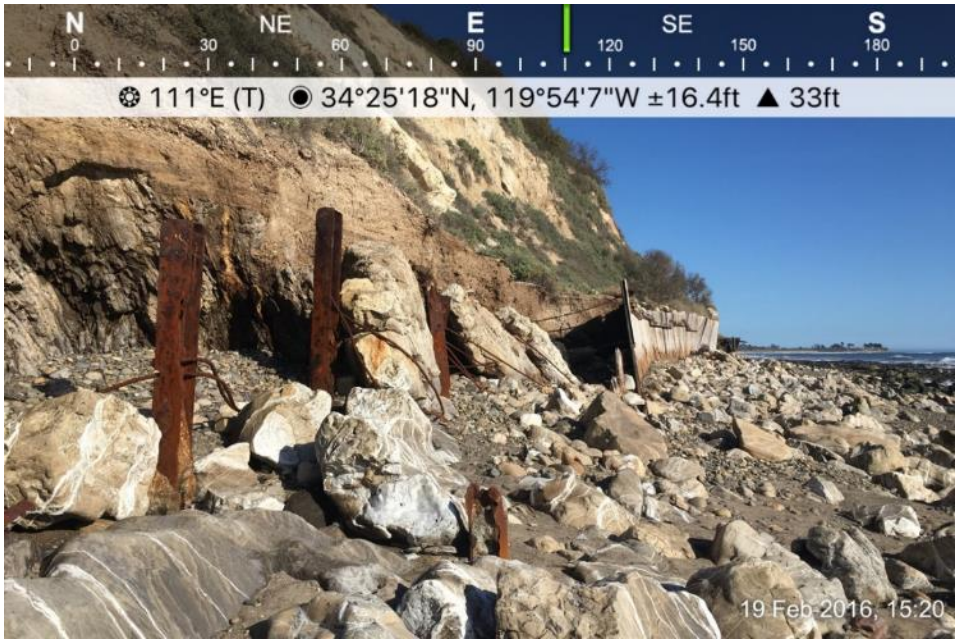


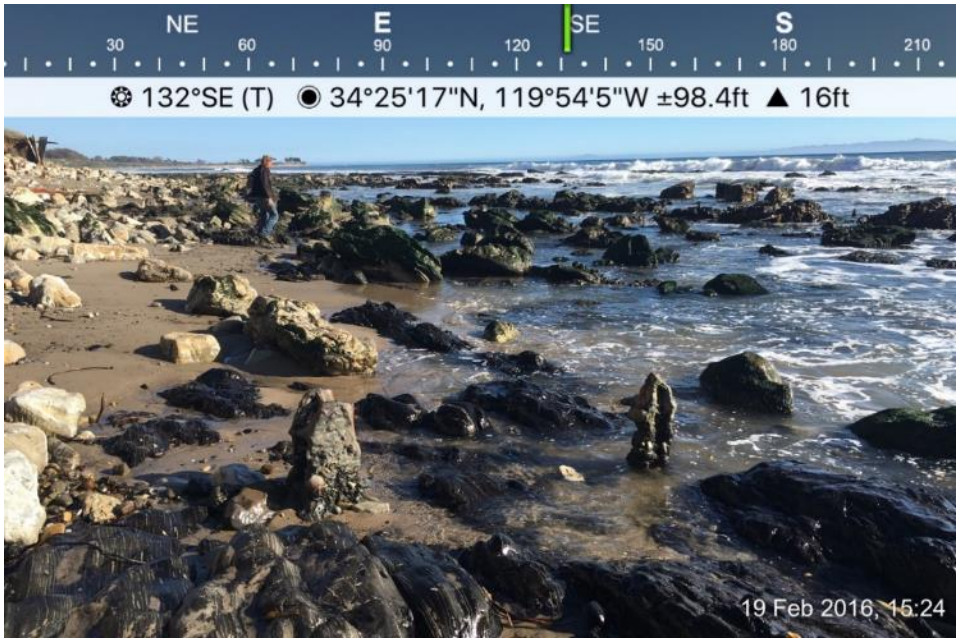
Photo No.: BH-39

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42154˚
W 119.90171˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles, 1 exposed loose pipe.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-40

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42142˚
W 119.90136˚
(Garmin GPSmap 60CSx)

Description:
4 concrete wellheads, 50 H-piles, east end of seawall section/remnant timber.

(see BH-38 for west end of seawall section)

No change since February 2016 inventory.

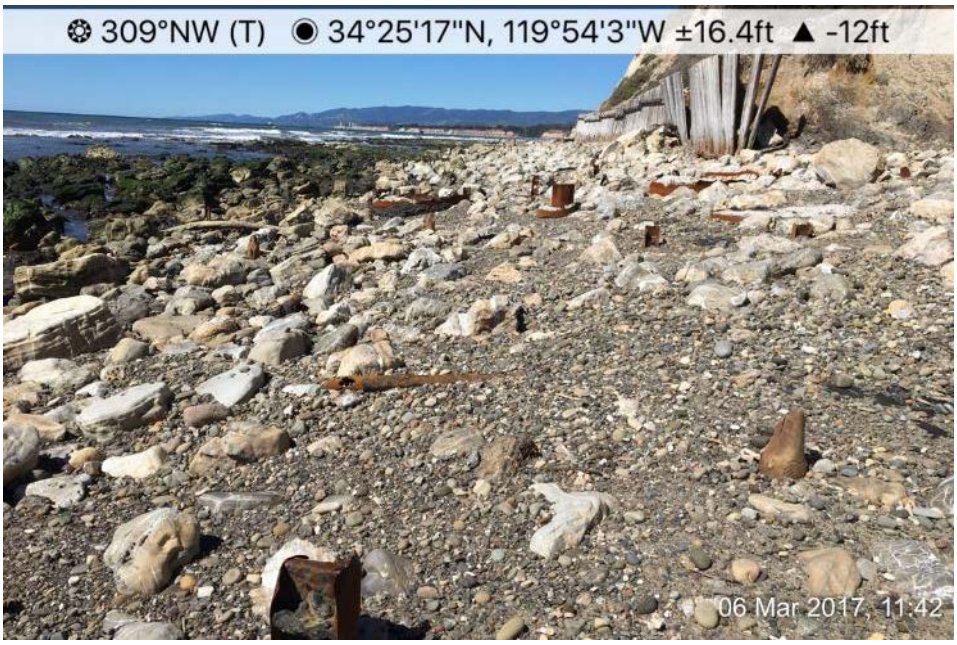


Photo No.: BH-41

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42125˚
W 119.90089˚
(Garmin GPSmap 60CSx)

Description:
3 steel tie-backs, exposed 6-inch diameter pipeline, west end of seawall section/ remnant timber.

(see BH-45 for east end of seawall section)

Pipeline is exposed eastward to BH-45. No change since February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-42

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42108˚
W 119.90066˚
(Garmin GPSmap 60CSx)

Description:
5 H-piles in bedrock, metal debris, exposed 6-inch diameter pipeline.

Pipeline is exposed eastward to BH-45. No change since February 2016 inventory.

Photo No.: BH-43

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42105˚
W 119.90044˚
(Garmin GPSmap 60CSx)

Description:
8 H-piles, metal beam (red arrow), and 50ft of exposed 6-inch diameter pipeline in mid intertidal zone.

Additional hazards exposed in March 2017 inventory, including stretch of exposed 6" pipeline between BH-41 and BH-45.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-43a

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42112˚
W 119.90025˚
(Garmin GPSmap 60CSx)

Description:
Loose rusted pipe fitting, 12-inch diameter.

New location. Not observed in February 2016 inventory.

Photo No.: BH-44

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42098˚
W 119.89950˚
(Garmin GPSmap 60CSx)

Description:
35 H-piles in mid and upper intertidal zones.

5 additional H-piles and 50 feet of exposed 6-inch diameter pipeline (dashed line) observed at this location during the March 2017 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-45

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42077˚
W 119.89808˚
(Garmin GPSmap 60CSx)

Description:
45-50 H-piles in upper to lower tidal zones, east end of seawall section/remnant timber. (see BH-41 for west end of seawall section)

40 feet of exposed 10-inch diameter pipeline (dashed line) also observed at this location during the March 2017 inventory.

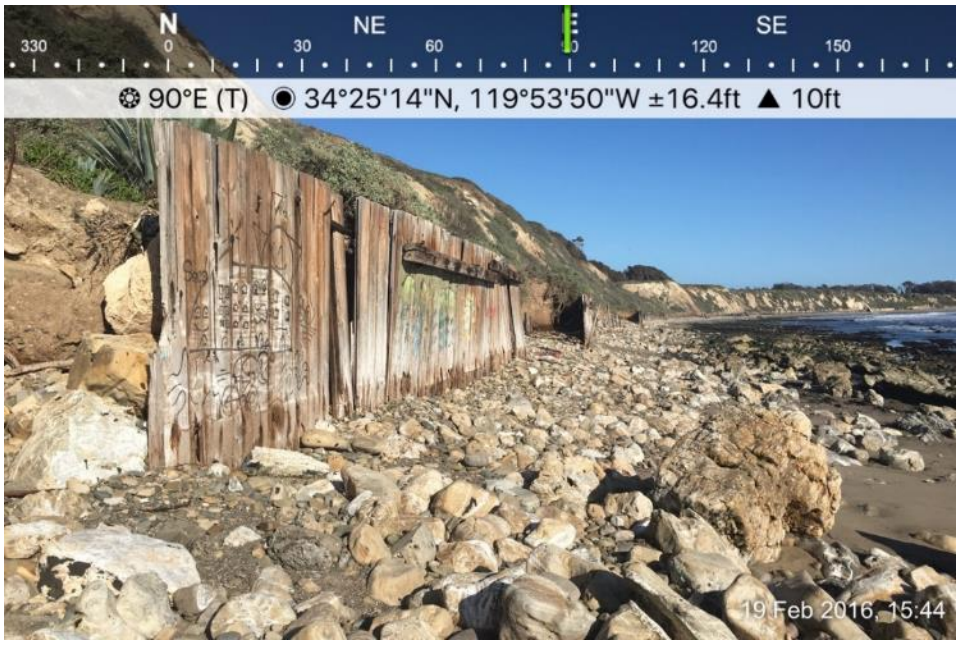
Photo No.: BH-46

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.42065˚
W 119.89729˚
(Garmin GPSmap 60CSx)

Description:
West end of seawall section/remnant timber
(see BH-49 for east end of seawall section)

2 additional H-pile observed at the west end of the seawall during March 2017 inventory.



PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-47	03/06/2017

GPS Coordinates:
N 34.42052˚
W 119.89635˚
(Garmin GPSmap 60CSx)

Description:
4 H-piles in mid intertidal zone.

No change since February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-47a	03/06/2017

GPS Coordinates:
N 34.42057˚
W 119.89680˚
(Garmin GPSmap 60CSx)

Description:
2 segments of 3-inch diameter pipe, 8-10 feet in length.

New location. Not observed in February 2016 inventory.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name: Ellwood Beach Hazards Removal Project	**Site Location:** Ellwood Pier to Coal Oil Point, Santa Barbara County, California **Client:** City of Goleta

Photo No.:	**Date of Inventory:**
BH-48	03/06/2017

GPS Coordinates:
N 34.42045˚
W 119.89589˚
(Garmin GPSmap 60CSx)

Description:
2 H-piles and 1 exposed 8-inch diameter pipe (~150 feet long) partially buried with cobble.

No change since February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-48a	03/06/2017

GPS Coordinates:
N 34.42036˚
W 119.89499˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in mid-intertidal zone.

New location. Not observed in February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-49	03/06/2017

GPS Coordinates:
N 34.42022˚
W 119.89394˚
(Garmin GPSmap 60CSx)

Description:
East end of seawall section/remnant timber.
(see BH-46 for west end of seawall section)

No change since February 2016 inventory.

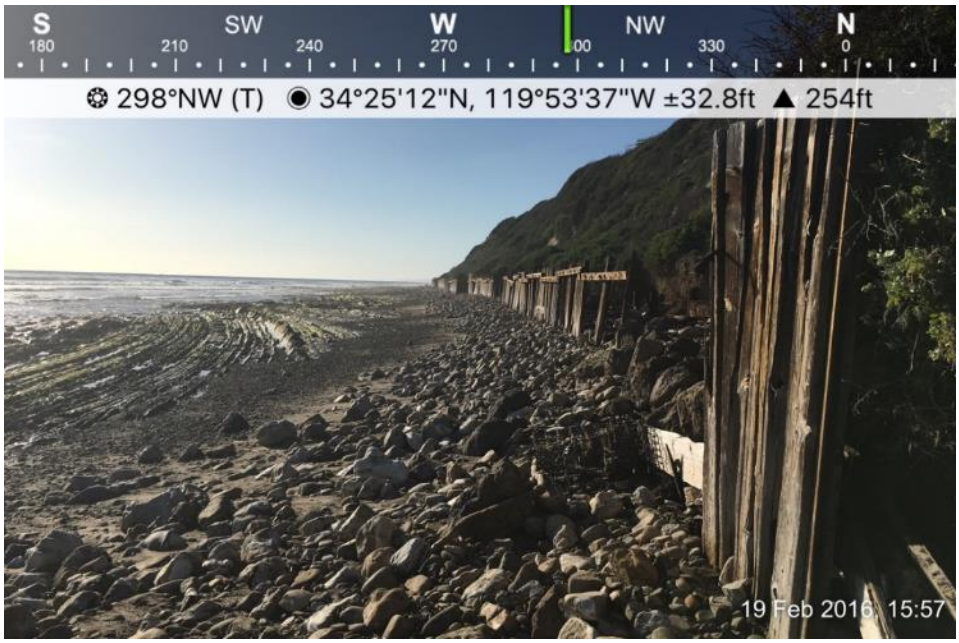


Photo No.:	**Date of Inventory:**
BH-50	03/06/2017

GPS Coordinates:
N 34.41999˚
W 119.89373˚
(Garmin GPSmap 60CSx)

Description:
4 concrete wellheads, 25 H-piles in lower intertidal zone.

No change since February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-51	03/06/2017

GPS Coordinates:
N 34.42001˚
W 119.89352˚
(Garmin GPSmap 60CSx)

Description:
2 exposed 4-inch diameter pipes extending seaward, 5 H-piles in lower intertidal zone.

No change since February 2016 inventory.

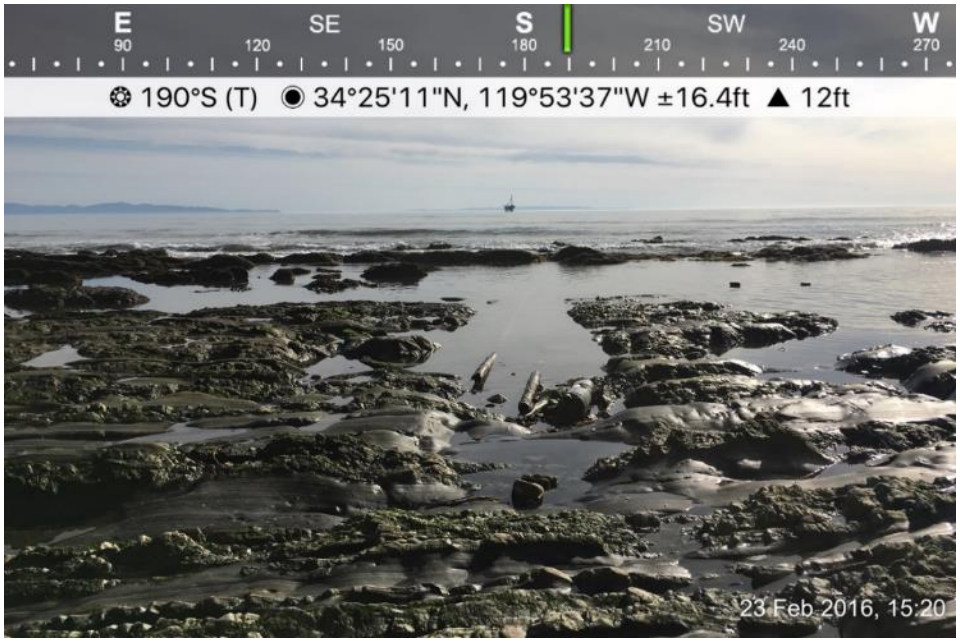
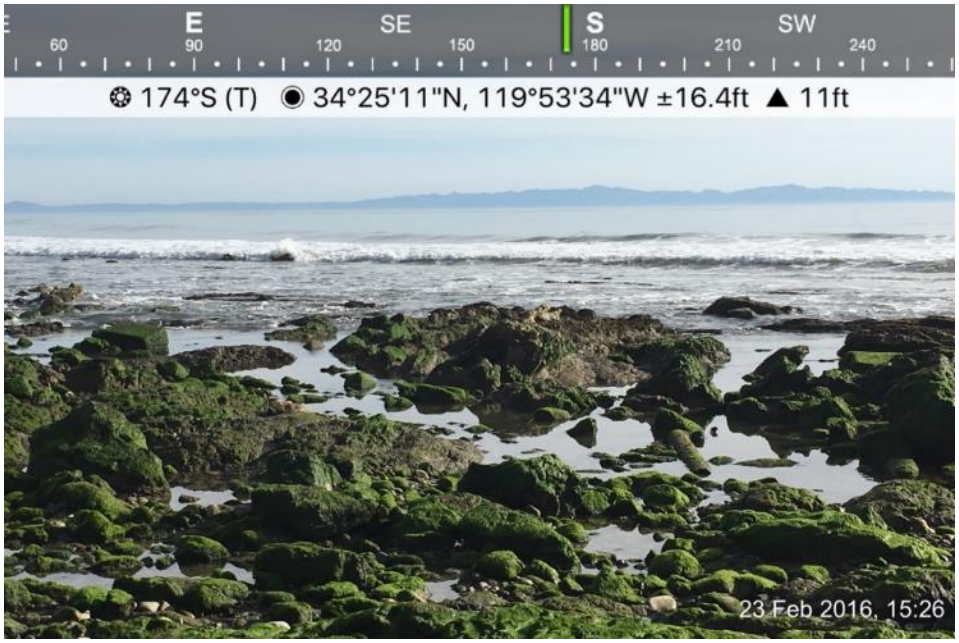


Photo No.:	**Date of Inventory:**
BH-52	03/06/2017

GPS Coordinates:
N 34.41980˚
W 119.89272˚
(Garmin GPSmap 60CSx)

Description:
(1) 10-foot segment of large diameter steel pipe, concrete footing, (1) H-pile in lower intertidal zone.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-53	03/06/2017

GPS Coordinates:
N 34.41973˚
W 119.89252˚
(Garmin GPSmap 60CSx)

Description:
5 H-piles in lower, rocky intertidal zone.

No change since February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-54	03/06/2017

GPS Coordinates:
N 34.41956˚
W 119.89189˚
(Garmin GPSmap 60CSx)

Description:
3 H-piles in rocky intertidal zone.

No change since February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-55

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41936˚
W 119.89146˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile, 1 exposed pipe

No change since February 2016 inventory.

Photo No.: BH-56

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41921˚
W 119.89096˚
(Garmin GPSmap 60CSx)

Description:
1 exposed 20-inch diameter pipe in lower intertidal.

No change since February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-57	03/06/2017

GPS Coordinates:
N 34.41800˚
W 119.88901˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal.

No change since February 2016 inventory.

Photo No.:	**Date of Inventory:**
BH-58	03/06/2017

GPS Coordinates:
N 34.41750˚
W 119.88861˚
(Garmin GPSmap 60CSx)

Description:
2 wellheads and 16 H-piles in lower intertidal, would be submerged at all but extreme low tide.

The 16 H-piles were not visible during the February 2016 inventory.

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-58a

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41706˚
W 119.88810˚
(Garmin GPSmap 60CSx)

Description:
H-pile approximately 150 east of the wellheads at BH-58.

New location. Not observed in February 2016 inventory.

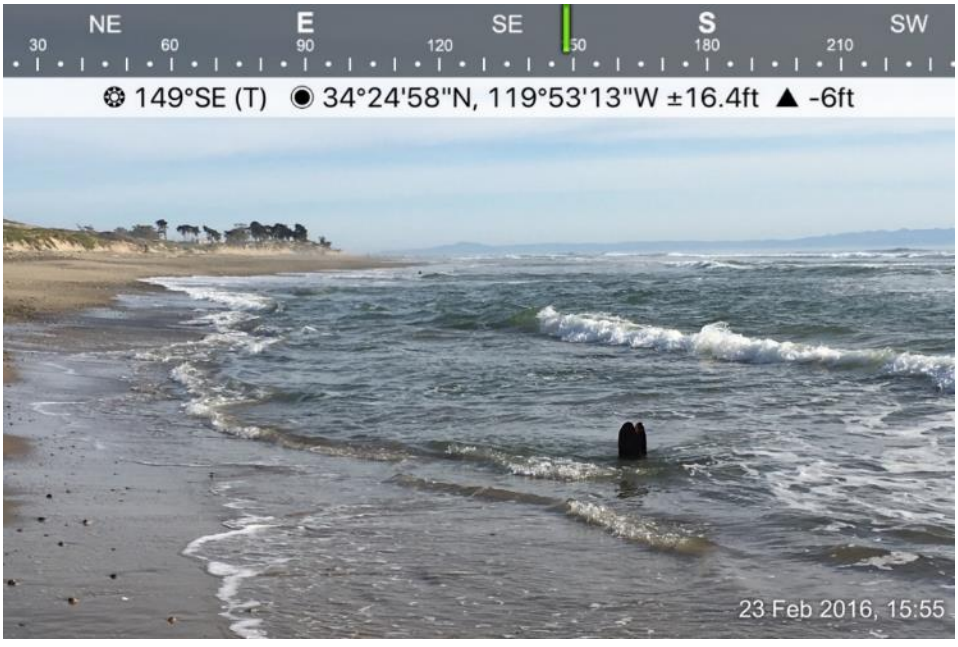
Photo No.: BH-59

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41615˚
W 119.88710˚
(Garmin GPSmap 60CSx)

Description:
H-pile in lower intertidal zone.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.:	**Date of Inventory:**
BH-60	03/06/2017

GPS Coordinates:
N 34.41578˚
W 119.88668˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile 100 feet from water line at low tide.

No change since February 2016 inventory.

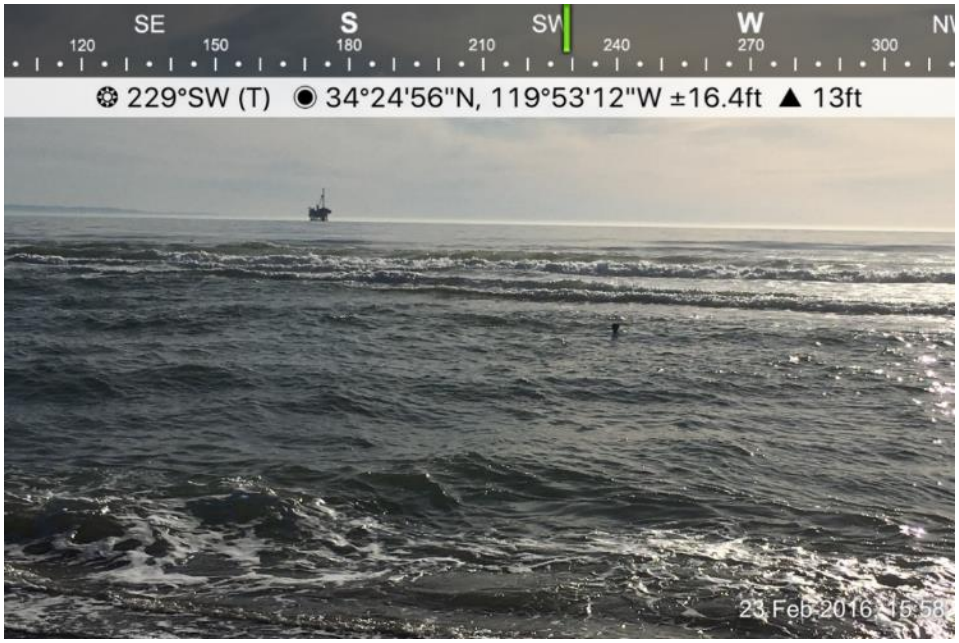
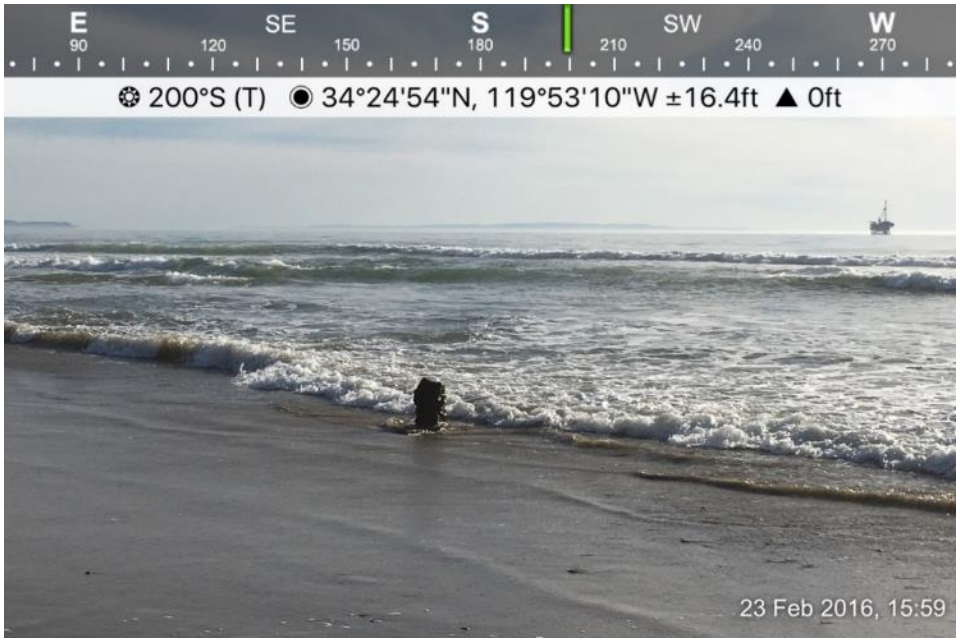


Photo No.:	**Date of Inventory:**
BH-61	03/06/2017

GPS Coordinates:
N 34.41500
W 119.88611˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower tidal zone.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-62

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41482˚
W 119.88602˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal zone.

No change since February 2016 inventory.

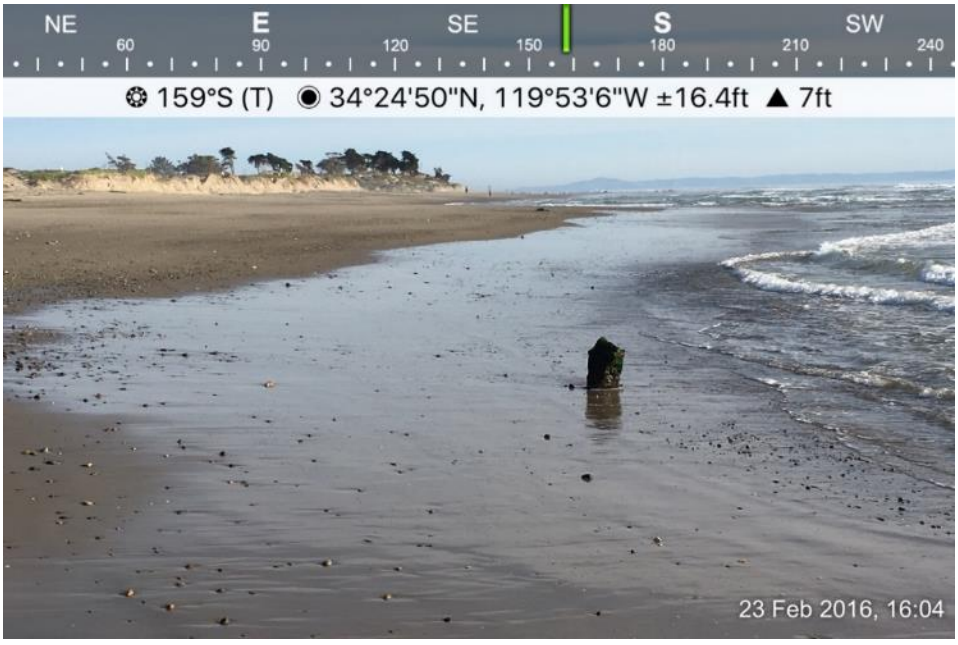
Photo No.: BH-63

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41209˚
W 119.88514˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile in lower intertidal zone.

No change since February 2016 inventory.



Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

Photo No.: BH-63a

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.413206˚
W 119.884587˚
(approximated in Google Earth)

Description:
8 H-piles, concrete block, and 16-inch diameter pipe segment(s) exposed. Extends westward to BH-62.

New location. Not observed in February 2016 inventory.

Photo No.: BH-64

Date of Inventory: 03/06/2017

GPS Coordinates:
N 34.41169˚
W 119.88319˚
(Garmin GPSmap 60CSx)

Description:
10-foot tall H-pile, 2 buried pipes (pers. comm. with Chris Sandoval 2/23/16),

No change since February 2016 inventory.

PHOTOGRAPHIC LOG
BEACH HAZARDS INVENTORY – MARCH 2017

Project Name:
Ellwood Beach Hazards Removal Project

Site Location:
Ellwood Pier to Coal Oil Point, Santa Barbara County, California

Client:
City of Goleta

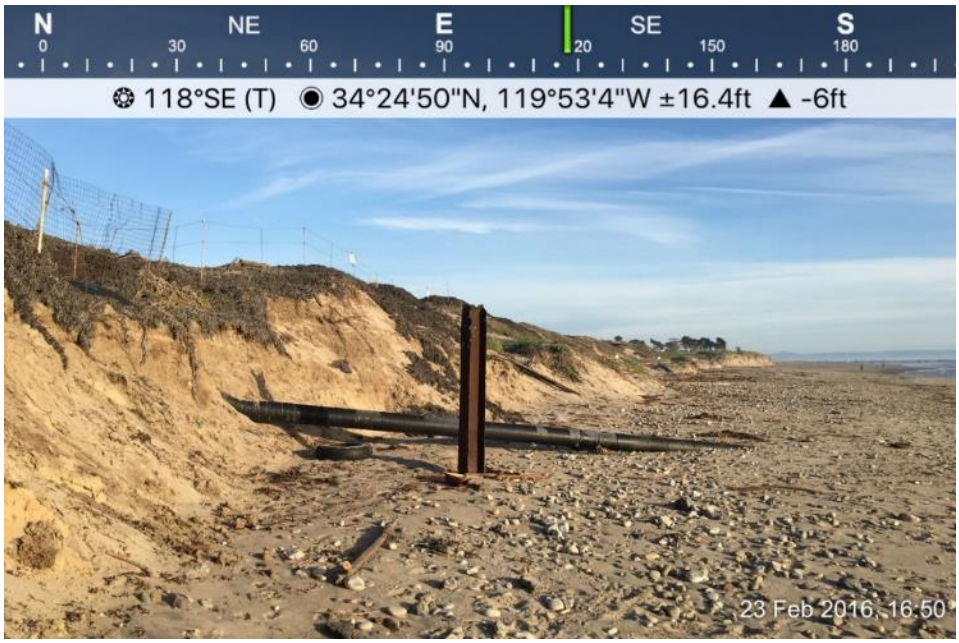
Photo No.:
BH-65

Date of Inventory:
03/06/2017

GPS Coordinates:
N 34.41394˚
W 119.88449˚
(Garmin GPSmap 60CSx)

Description:
1 H-pile adjacent to Venoco Ellwood Marine Terminal Shipping Line.

No change since February 2016 inventory.



APPENDIX B

BEACH HAZARDS REMOVAL LOG

Table 1. Beach Hazards Removal Log

Date	Monitor Name	Beach Hazard Location(s)	Hazards Removed	Debris/Hazards Still Present
04/06/2016	J. Storrer	BH-09	Loose pipe and wooden piles	Metal H-piles and wooden piles
04/07/2016	G. Ives	BH-09	Pipes, rusted cables, and wooden piles	Metal H-piles
04/08/2016	J. Storrer	BH-09	Metal H-piles	Metal H-piles
12/12/2016	G. Ives	BH-34	Metal H-piles	Metal H-piles, seawall
		BH-37	Metal H-piles and pipeline	Metal H-piles
12/13/2016	J. Cooper	BH-40	Metal H-piles	Concrete wellheads, remnant timber from seawall, metal H piles
		BH-44	Metal H-piles	Metal H-piles
		BH-45	Metal H-piles	Metal H-piles, remnant timber from seawall
03/06/2017	G. Ives	BH-22	1 metal H-pile, 4 railroad irons, 2 sheet pilings	Remnant timber from seawall, concrete debris
		BH-24	2 metal H-piles, 3 railroad irons	None
03/07/2017	G. Ives	BH-32	10 metal H-piles, 3 railroad irons	5 Metal H-piles
		BH-33	1 metal H-pile, 1 metal tie	Remnant timber from seawall
		BH-35	5 metal H-pile, 1 railroad iron	Concrete wellhead, large diameter metal piling
		BH-36	4 metal H-pile, 1 railroad iron	4 metal H-piles, remnant timber from seawall
		BH-37	5 metal H-pile, 3 railroad iron, 1 pipeline	Concrete wellhead, 28 metal H-piles
03/08/2017	J. Cooper	BH- 37	5 metal H-piles, 17 railroad spikes	Concrete wellhead, 23 metal H-piles
		BH-40	15 metal H-piles, 2 metal pipes (~6in diameter/1-2 feet long), 4 wooden pilings, 27 railroad spikes, metal sheeting	4 concrete wellheads, 35 metal H-piles, remnant timber from seawall
03/09/2017	J. Cooper	BH-19	1 metal H-pile, 1 wooden piling	7 metal H-piles
		BH-21 (LI)	2 metal H-piles, 3 metal tiebacks,	2 exposed 6-inch diameter pipes in bluff, 20 Seawall pilings, remnant timber
		BH-30	2 railroad irons	2 metal H-piles
		BH-40	10 metal H-piles, 1 railroad iron, 1 wooden piling	4 concrete wellheads, 25 metal H-piles, remnant timber from seawall

Attachment 2
Preliminary Goleta Coastline Well Abandonment History Table

API Well Number	Beach Hazards Inventory No.	Abandonment Date	Notes	Photo
08303579	BH-22	1971 10-10	Luton-Bell #16. Operated by Sun Oil Company.	
08303573	BH-27	1948 1-20	Luton-Bell #10. Operator was Barnsdall Oil Company.	

API Well Number	Beach Hazards Inventory No.	Abandonment Date	Notes	Photo
08303578	BH-33	1948 1-16	Luton-Bell #15. Operator was Barnsdall Oil Company.	
28303459	South (in water) of BH-35.1	1944 5-31	Well # 90-4. Operated by Honolulu Oil Corporation. Current owner is Chevron U.S.A.	

API Well Number	Beach Hazards Inventory No.	Abandonment Date	Notes	Photo
08303576	BH-35	1971 11-18	Luton-Bell #13. Operator was Sun Oil Company.	
08303575	BH-37	1970 9-14	Luton-Bell #12. Operator was Sun Oil Company.	

API Well Number	Beach Hazards Inventory No.	Abandonment Date	Notes	Photo
08303574	BH-40	1938 7-22	Luton-Bell #11. Operator was Barnsdall Oil Company.	
28302452	NA	1939 2-5	Well # 94-1. Operator was Barnsdall Oil Company.	No photo available
08303560	NA	1938 1-19	Doty #6. Operator was Barnsdall Oil Company.	No photo available
28302453	BH-50	1937 11-30	Well # 95-1. Operator was Barnsdall Oil Company. CSLC Category 1 Legacy Well.	

API Well Number	Beach Hazards Inventory No.	Abandonment Date	Notes	Photo
28302454	BH-58	1937 11-30	Well # 96-1. Operator was Barnsdall Oil Company. CSLC Category 1 Legacy Well.	

Attachment 3
Senate Bill 44

Senate Bill No. 44

CHAPTER 645

An act to amend Section 6217 of, and to add and repeal Section 6212 of, the Public Resources Code, relating to state lands.

[Approved by Governor October 10, 2017. Filed with Secretary of State October 10, 2017.]

LEGISLATIVE COUNSEL'S DIGEST

SB 44, Jackson. State lands: coastal hazard and legacy oil and gas well removal and remediation program.

(1) Existing law establishes the State Lands Commission in the Natural Resources Agency and prescribes the functions and duties of the commission. Under existing law, the commission has jurisdiction over various state lands, including coastal lands.

This bill would, upon appropriation of moneys by the Legislature, require the commission to, within 2 years, administer a coastal hazard and legacy oil and gas well removal and remediation program, as specified. The bill would authorize the commission to seek and accept on behalf of the state any gift, bequest, devise, or donation whenever the gift and the terms and conditions thereof will aid in actions undertaken to administer that program. The bill would require the commission, on or before January 1 of each year, until January 1, 2026, to submit a report to the Legislature on the activities and accomplishments of the program from the prior year. The bill would require the commission, on or before January 1, 2027, to submit a report to appropriate committees in the Legislature that covers the life of the program and includes information necessary to aid the Legislature in determining the effectiveness of the program and the extent to which funding for the program should be reauthorized. The bill would make these provisions inoperative on July 1, 2028.

(2) Existing law, with specified exceptions, generally requires the State Lands Commission, on and after July 1, 2006, to deposit all revenue, money, and remittances, derived from mineral extraction leases on state tide and submerged lands, including tideland oil revenue, into the General Fund, to be available upon appropriation by the Legislature for specified purposes. Existing law establishes the Land Bank Fund, a continuously appropriated fund, from which the commission may expend moneys for management and improvement of real property held by the commission, as trustee, to provide open space, habitat for plants and animals, and public access.

This bill would require that, for the 2018–19 fiscal year, out of those funds deposited into the General Fund by the commission, the sum of $2,000,000 be transferred to the Land Bank Fund and be available, upon appropriation in the annual Budget Act, for the purpose of implementing

the coastal hazard and legacy oil and gas well removal and remediation program. The bill would require that, for each fiscal year from the 2019–20 fiscal year to the 2027–28 fiscal year, inclusive, an amount sufficient to bring the unencumbered balance of the Land Bank Fund available for the purpose of implementing the program to $2,000,000 be transferred to that fund and be available, upon an appropriation in the annual Budget Act, for the purpose of implementing the program.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) Scattered along the California coastline are the remnants of the state's extensive offshore oil production that began in the late 1800s, including abandoned oil and gas wells, groins, jetties, piers, pilings, oil and gas related infrastructure, and seawalls.

(b) These remnants, often covered and uncovered by tides, are the legacy of the rapid and intensive offshore oil development along the coastline, primarily at Summerland Beach in the County of Santa Barbara, that began just before the turn of the 20th century.

(c) Most legacy oil and gas wells were abandoned in the early 1900s when there was little or no oversight of the abandonment, and virtually no records exist regarding the drilling and abandonment of these wells. Removal or plugging, if any, varied from well to well and involved rudimentary procedures that do not meet current health, safety, and environmental protection requirements.

(d) Based on work the State Lands Commission conducted, there are at least 198 high priority legacy oil and gas wells (identified as Category 1 wells), that could, depending on their condition, leak oil onto the surf zone, impacting swimmers, surfers, and other recreational users, and causing environmental degradation and public health hazards. A larger number of wells are categorized as medium (Category 2) to low (Category 3) priority wells because more information is available about the integrity and abandonment of the wells or because a responsible party is still available to address any potential leak that could occur.

(e) Residents and beach users in these areas regularly see oil on their beaches, smell the noxious odors associated with oil, and live with the negative impacts of oil to the ocean and coastline.

(f) The State Lands Commission has primary jurisdiction over sovereign lands along the California coastline that are held in trust for statewide public purposes, including near shore and offshore areas where oil and gas were produced.

(g) The State Lands Commission completed a baseline legacy oil and gas inventory that identifies surface well locations based on a review of historical documents.

(h) California's beaches should be clean and available for public enjoyment.

(i) Oil is a constant presence on Summerland Beach, which has resulted in frequent closures to prevent adverse public health effects.

(j) There is a critical need for funding to perform additional review of legacy oil and gas wells and related infrastructure along the California coastline in order to begin determining how to remove coastal hazards and how to identify exact locations of potentially leaking wells and prioritize remediating leaking legacy oil and gas wells.

(k) With funding, the State Lands Commission can gather additional data necessary to address the presence of oil on the coastline, including performing aerial surveys and dives with underwater cameras to determine precisely where wells are located and whether old wells are leaking oil, and prioritize remediation to address the highest risk wells first. Funding will also enable the State Lands Commission to survey and monitor oil seepage in state waters and on tidelands, and to request studies to determine oil seepage locations, rates, and environmental impacts, as well as pursue innovative solutions to address natural seeps.

SEC. 2. Section 6212 is added to the Public Resources Code, to read:

6212. (a) Upon appropriation of moneys by the Legislature for the purposes of this section, the commission shall, within two years, administer a coastal hazard and legacy oil and gas well removal and remediation program to do all of the following:

(1) Complete an assessment of legacy oil and gas wells and other coastal hazards along the California coastline, including conducting aerial surveys and dives, and determining high-priority hazards and legacy oil and gas wells to remediate.

(2) Survey, study, and monitor oil seepage in state waters and tidelands under its jurisdiction to determine oil seepage locations, rates, and environmental impacts, and partner with experts to facilitate innovative solutions.

(3) In cooperation with the Division of Oil, Gas, and Geothermal Resources, begin the process of remediating improperly abandoned legacy oil and gas wells that have a high risk of leaking oil and are hazardous to public health and safety and the environment.

(b) Notwithstanding Section 11005 of the Government Code and any other law requiring approval by a state officer of gifts, bequests, devises, or donations, the commission may seek and accept on behalf of the state any gift, bequest, devise, or donation whenever the gift and the terms and conditions thereof will aid in actions undertaken pursuant to subdivision (a).

(c) (1) On or before January 1 of each year, until January 1, 2026, the commission shall submit a report to the Legislature, in compliance with Section 9795 of the Government Code, on the activities and accomplishments of the program for the prior year. The commission may include this information in the annual report it submits pursuant to Section 8618.

(2) (A) On or before January 1, 2027, the commission shall submit a report to the appropriate policy and fiscal committees in the Legislature, including, at minimum, all of the following:

(i) The Senate Committee on Natural Resources and Water.

(ii) The Senate Committee on Environmental Quality.

(iii) The Senate Committee on Appropriations.

(iv) The Senate Budget Subcommittee 2 on Resources, Environmental Protection, Energy and Transportation.

(v) The Assembly Committee on Natural Resources.

(vi) The Assembly Committee on Appropriations.

(vii) The Assembly Budget Subcommittee 3 on Resources and Transportation.

(B) The report submitted pursuant to this paragraph shall cover the life of the program and shall include information necessary to aid the Legislature in determining the effectiveness of the coastal hazard and legacy oil and gas well removal and remediation program and the extent to which funding for the program should be reauthorized. At minimum, the report shall include the following information:

(i) Activities and accomplishments of the program.

(ii) Implementation challenges and, to the extent available, potential solutions to these challenges.

(iii) Program expenditures.

(iv) The amount of any gift, bequest, devise, or donation accepted by the commission on behalf of the state pursuant to subdivision (b), and the name, location, and organization type of the donor. The commission may provide aggregate information for some or all of the donations, if appropriate, as determined by the commission.

(v) Recommendations on whether the program should be reauthorized, any changes that should be included in the reauthorizing legislation, and activities and priorities for the program after July 1, 2028, if the program is reauthorized.

(d) The commission shall prioritize its activities under this section based on available resources.

(e) For purposes of this section the following definitions apply:

(1) “Coastal hazards” are legacy oil and gas wells and human-made structures that have been orphaned, including piers, jetties, groins, seawalls, and facilities associated with past oil extraction and other operations, that pose a hazard to public health and safety. Coastal hazards may include, but are not limited to, wood or steel piles or piling, sheet metal pilings, H piles and H beams, well casings, well caissons, railroad irons, cables, angle bars, pipes, pipelines, rip rap, and wood beams and structures.

(2) “Legacy oil and gas wells” are wells drilled before current abandonment standards, where there is little or no information on the well’s abandonment procedure and there is no viable company with the responsibility to reabandon the well should it start leaking or pose a threat to the environment or to public health and safety.

(f) This section shall become inoperative on July 1, 2028, and, as of January 1, 2029, is repealed.

SEC. 3. Section 6217 of the Public Resources Code is amended to read:

6217. With the exception of revenue derived from state school lands and from sources described in Sections 6217.6, 6301.5, 6301.6, 6855, and Sections 8551 to 8558, inclusive, and Section 6404 (insofar as the proceeds are from property that has been distributed or escheated to the state in connection with unclaimed estates of deceased persons), the commission shall deposit all revenue, money, and remittances received by the commission under this division, and under Chapter 138 of the Statutes of 1964, First Extraordinary Session, in the General Fund. Out of those funds deposited in the General Fund, sufficient moneys shall be made available each fiscal year for the following purposes:

(a) Payment of refunds, authorized by the commission, out of appropriations made for that purpose.

(b) Payment of expenditures of the commission as provided in the annual Budget Act.

(c) Payments to cities and counties of the amounts specified in Section 6817 for the purposes specified in that section, out of appropriations made for that purpose.

(d) Payments to cities and counties of the amounts agreed to pursuant to Section 6875, out of appropriations made for that purpose.

(e) (1) For the 2018–19 fiscal year, the sum of two million dollars ($2,000,000) shall be transferred to the Land Bank Fund and, notwithstanding Section 8610, shall be available, upon appropriation in the annual Budget Act, for the purpose of implementing the commission's coastal hazard and legacy oil and gas well removal and remediation program provided in Section 6212.

(2) For each fiscal year from the 2019–20 fiscal year to the 2027–28 fiscal year, inclusive, an amount sufficient to bring the unencumbered balance of the Land Bank Fund available for the purpose of implementing the commission's coastal hazard and legacy oil and gas well removal and remediation program provided in Section 6212 to two million dollars ($2,000,000) shall be transferred to the Land Bank Fund and, notwithstanding Section 8610, shall be available, upon appropriation in the annual Budget Act, for the purpose of implementing the commission's coastal hazard and legacy oil and gas well removal and remediation program provided in Section 6212.

O

Attachment 4
City of Goleta Letter to Governor Brown in Support of Senate Bill

CITY OF GOLETA

September 11, 2017

The Honorable Edmund G. Brown Jr.
Governor of the State of California
State Capitol, Suite 1173
Sacramento, CA 95814

RE: SENATE BILL 44 - COASTAL HAZARD REMOVAL AND REMEDIATION PROGRAM

Dear Governor Brown,

The City of Goleta would like to express its support for Senate Bill 44 that was recently passed by the Senate and Assembly and requests that you sign it in to law. Since 2002, the City has worked collaboratively with the California State Lands Commission (CSLC) on the Coastal Hazards Removal Program. This effort has improved public safety and helped to restore our beaches to a more natural condition.

While progress has been made, significant beach hazards remain. In 2016 and 2017, the City conducted surveys that identified over 65 historic oil and gas remnant hazards along the Goleta coastline including at least 8 exposed wellheads. Many of these hazards, especially those containing metal, have jagged edges that create hazards to humans and the marine environment. In addition, the wells are at risk of re-pressurization and leakage into the fragile marine ecosystem. This is why the City believes Senate Bill 44, as currently written, is crucial for public safety and environmental stewardship. The annual funding program provided in Senate Bill 44 ensures that the necessary funds are available to continue critical beach hazards removal work.

Thank you for your consideration of this important legislation. The City looks forward to working with CSLC to continue the removal and remediation of historic oil and gas remnants on and adjacent to the Goleta coastline.

Sincerely,

Paula Perotte
Mayor

cc: Goleta City Council
Michelle Greene, City Manager