

OVERWINTERING
MONARCHS

NATURAL BRIDGES
STATE PARK

SWANTON BLVD.

PYRAMID
BEACH

STOCKTON AVE
WEASEL REEF

SWIFT ST.

DE LA COSTA AVE.

EXPERIENCED ON AVERAGE, 6FT+ OF
EROSION OVER THE LAST 70 YEARS

WEST CLIFF DR

TIDEPOOLING

SWIFT STREET
GETCHELL'S

MITCHELL'S
COVE

KELP FORREST

WITHIN THE SHORT TERM, TWO AREAS OF
EROSION CONCERN WERE IDENTIFIED AS HIGH
RISK TO THE TRAIL AND WEST CLIFF DRIVE

EXISTING BEACH FLOODING
(100 YR STORM)

KELP FORREST

WAVE HEIGHTS GENERALLY RANGE BETWEEN
2-5 FEET, BUT CAN REACH OVER 20 FEET
DURING SEVERE STORMS

SURF BREAKS IN THIS ZONE BREAK RARELY
TO INFREQUENTLY BESIDES MITCHELL'S COVE,
WHICH IS SURFABLE REGULARY

AS **GROUNDWATER LEVELS INCREASE** DUE TO SEA LEVEL RISE, **STORMWATER INFRASTRUCTURE** WILL BE IMPACTED

HIGHER BLUFF ELEVATIONS ALONG WEST CLIFF HELP **BUFFER IMPACTS OF SEA LEVEL RISE** ON RISING GROUNDWATER LEVELS

NATURAL BRIDGES
STATE PARK

SWANTON BLVD.

POCKET BEACHES, SUCH AS PYRAMID BEACH, WILL **NARROW** AND LIKELY BE **LOST WITH SEA LEVEL RISE**

DE LA COSTA AVE.

WEST CLIFF DR

PYRAMID
BEACH

COASTAL FLOODING PROJECTIONS
(WITH 100 YR STORM)

UNARMORED AREAS OF THIS ZONE COULD **ERODE UP TO 8 FT** WITH 3 FT OF SEA LEVEL RISE, AND UP TO 20 FT WITH 6FT OF SEA LEVEL RISE

CLIMATE CHANGE WILL HAVE THE **GREATEST IMPACT ON BLUFF RETREAT** IN THE WESTERN REGION OF THIS ZONE

WITH 3 FT OF SEA LEVEL RISE, **SURF BREAKS** MAY BECOME **RARE OR INFREQUENT**

SEA LEVEL RISE WILL DROWN OUT **TIDE POOL HABITAT** AND **SEABIRD PERCHING AND NESTING HABITAT** WILL BE LOST TO BLUFF EROSION

RIISING SEA LEVELS AND MORE **INTENSE STORMS** WILL INCREASE **FLOOD RISK AND BLUFF EROSION**, IMPACTING THE TRAIL AND SMALL PARKING OVERLOOK AREAS

Coastal Flooding (100yr storm)

- Existing Conditions
- 1.6 ft sea level rise
- 3.1 ft sea level rise
- 6.6 ft sea level rise

MITCHELL'S COVE BEACH **FULLY ERODES**
DURING MAJOR WINTER STORMS

6,895 FEET OF RIPRAP ALONG WEST CLIFF SHORELINE,
COVERING POCKET AND LARGER BEACHES SUCH AS
MITCHELL'S COVE BEACH AND ITS BEACH

BETHANY CURVE

WAVE OVERTOPPING
DURING 2023-2024
WASHED INLAND **150 FT**
FROM THE BLUFF EDGE

**MITCHELL'S
COVE BEACH**

EXISTING BEACH FLOODING
(100 YR STORM)

SURF BREAK IS SURFABLE
REGULARLY

**OVER 19 FT OF NON-
EPISODIC BLUFF EROSION**
HAS OCCURRED OVER THE
LAST **70 YEARS**

FINGER BOWL

OF THE **27 DIFFERENT COASTAL ARMORING STRUCTURES** IN THIS ZONE, **11 ARMORING**
STRUCTURES ARE **PROJECTED TO FAIL** IN THE NEXT **10 YEARS**. MAJOR REPAIRS HAVE TAKEN
PLACE FOLLOWING THE 2023-2024 STORMS TO ADDRESS A FEW AREAS OF CONCERN

THE COASTAL BLUFFS AND HEADLANDS IN THIS ZONE HAVE
BEEN **CARVED BY WAVE ACTION** OVER THE YEARS, PROVIDING
TIDEPOLING OPPORTUNITIES



PROJECTED WIDTHS FOR MITCHELL'S COVE BEACH ARE PREDICTED TO REMAIN STABLE OR INCREASE THROUGH 2050, THEN DECREASE BY 2100

BETHANY CURVE

UNARMORED AREAS OF THIS ZONE COULD EXPERIENCE UP TO 35 FT OF EROSION BETWEEN 3-6 FT OF SEA LEVEL RISE

MITCHELL'S COVE BEACH

SURF BREAK PROJECTED TO BE RARELY SURFABLE WITH 3 FT SEA LEVEL RISE

COASTAL FLOODING PROJECTIONS (WITH 100 YR STORM)

EROSION FROM MORE INTENSE STORMS 3 FT OF SEA LEVEL RISE IN UNARMORED AREAS WILL IMPACT THE ROADWAY, TRAIL, PARKING AREAS, AND STORMWATER OUTFALLS

Coastal Flooding (100yr storm)

- Existing Conditions
- 1.6 ft sea level rise
- 3.1 ft sea level rise
- 6.6 ft sea level rise







