INSTRUCTION PACKET:
DOCUMENTING THE KING TIDES

KING TIDE PROJECT:
VISUALIZING SEA LEVEL RISE IN OUR COMMUNITIES

A citizen science opportunity for all

www.sierraclub.org/sfbay/kingtides

PARTICIAPTING ORGANIZATIONS/CONTACTS

SIERRA CLUB SAN FRANCISCO BAY

SIERRA CLUB BAY ALIVE

SIERRA CLUB LOMA PRIETA CHAPTER

SAN FRANCISCO BAYKEEPER®

the watershed project

GREENACTION for Health & Environmental Justice

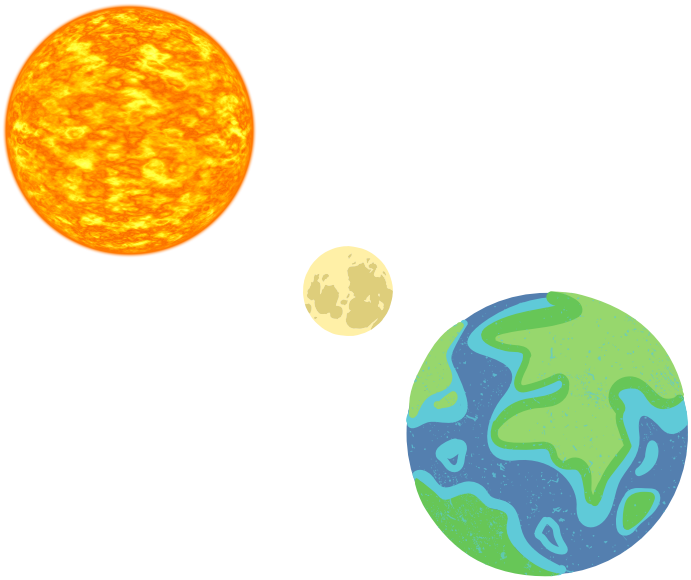
HOW TO USE THIS PACKET

This packet is your guide to understanding the King Tides Project, how you can participate, and the best practices for budding citizen scientists to document this event.

Welcome to your field guide and reference manual. First start by reading through this packet to familiarize yourself with this information.

Quick View: Table of Contents

BACKGROUND INFORMATION



What is a King Tide? They are predicted extreme high tides that occur annually. King Tides form naturally from the alignment of the sun, moon and earth's gravitational forces.

Sea level rise (SLR) is the sea's surface rising up around the world. First this is caused by meltwater from melting ice sheets and glaciers. Secondly, warming temperatures cause water to expand, and results in rising sea levels.

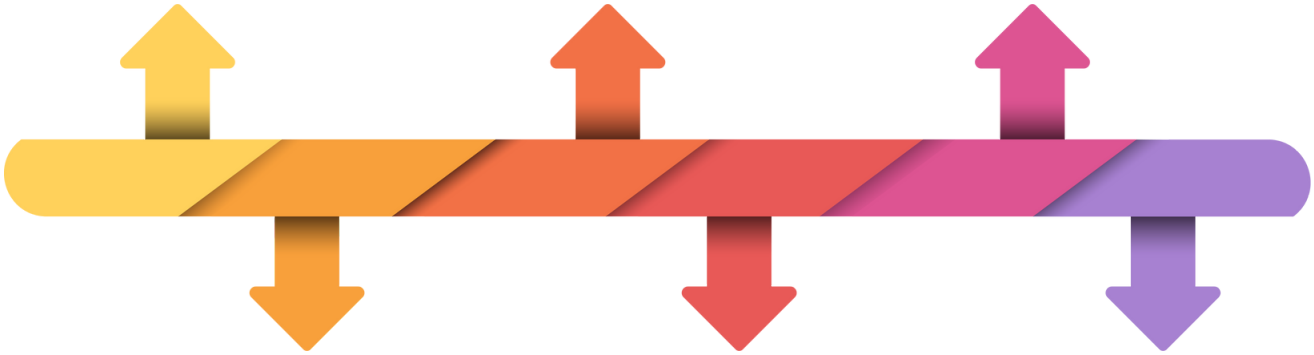
The King Tides Project is a visual representation of what SLR may look like for the Bay Area. It helps determine which areas may have the greatest risk from SLR and allows decision makers to be informed with planning and adaptation measures.

TIMELINE

Webinar Recording: bit.ly/kingtideswebinar

Photograph King Tides: December 23rd & 24th

Map of observations will be created



Review the project packet and plan your outing

Photograph King Tides: January 21st & 22nd

Final presentation of the map and its findings

Missed the Webinar?

No worries... Watch it when it is convenient for you.
https://bit.ly/kingtideswebinar
If you have additional questions please contact:
dani.zacky@sierraclub.org

PHOTOGRAPHING KING TIDES GUIDE

Photos countesy of the CA Coastal Commission King Tide Project (2019)

1. Go to your location of choice (you can use a location on the map or wherever you'd like).
2. Take a photo during the highest part of the tide (This is the hour span of time indicated on the map).
3. Include in the photo a landmark or object that can help show the scale (ie. sidewalk, bridge, road, etc.)
4. If possible, turn on GPS feature on cellphone cameras to record time and location data of the photos.
5. (OPTIONAL) If you can, return back to the same location during a normal tide and take the same photo. This will allow for a comparison between the King Tide and a regular tide.

Some things to keep in mind:

- These photos are telling a story
- The true King Tide will be visible in the hour period indicated on the map
- Landmarks that will help make the impacts more visible: floating docks, posts, trails, manholes, etc.
- Wildlife may act peculiar during King Tides, you may see species you would not normally!
- Submit what you have- don't worry if you were unable to get photos from a "regular" tide!

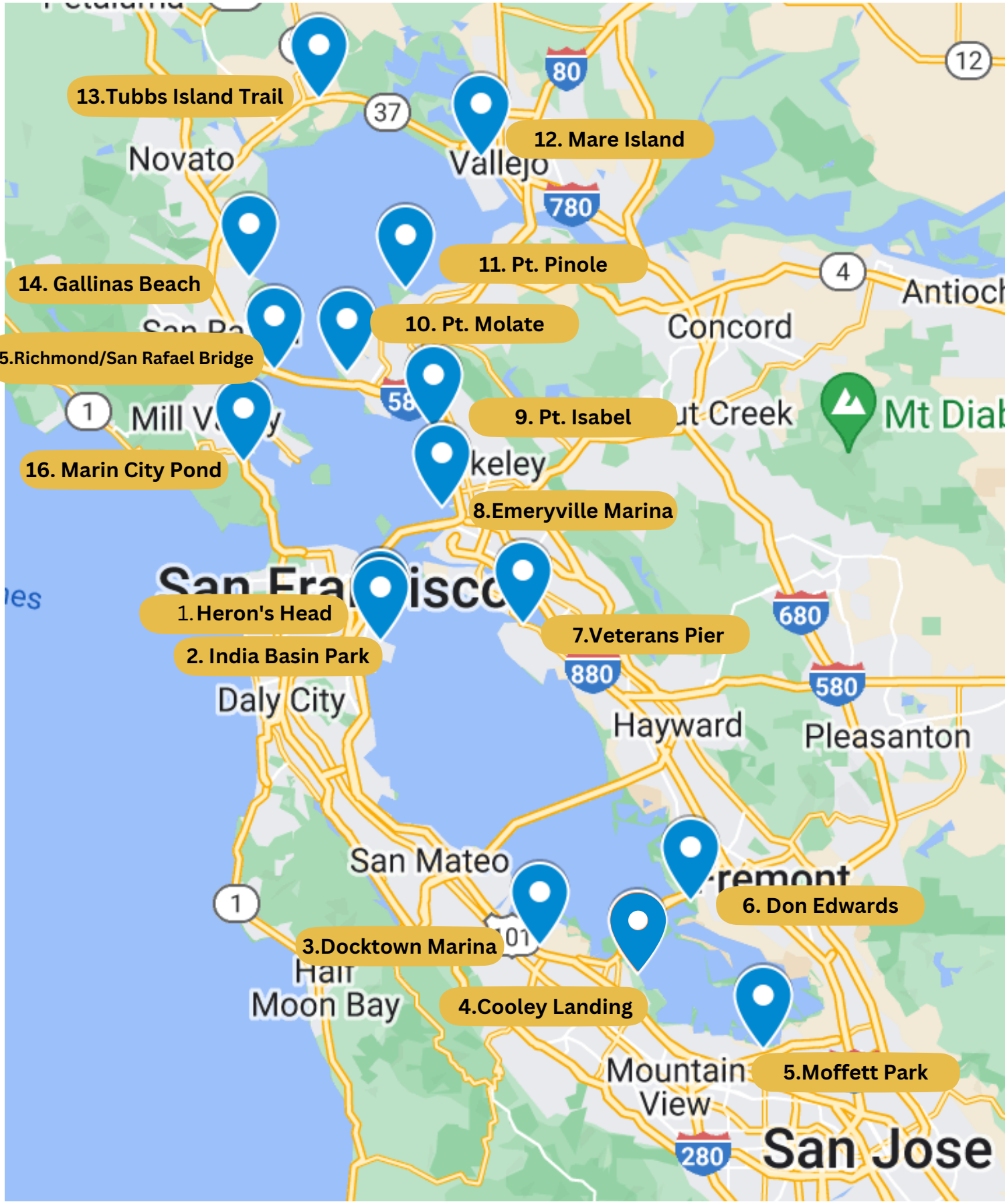
HOW TO SUBMIT YOUR PHOTOS:

Please note, you will be submitting photos to the Sierra Club Bay Area project & the Coastal Commissions Statewide project*

1. Open your email and gather your best photos
2. Include this information in the text of your email
    - **Date and time photos were taken**
    - **Location of photos (be specific)**
    - **Any observations or reflections you had while out photographing**
3. Attach your best photos to the email (please label them with location/date)
4. Send email to Dani Zacky - **dani.zacky@sierraclub.org**

5. Go to this link to submit to Coastal Commission: bit.ly/CCCsubmission

MAP & SUGGESTED LOCATIONS



While high tide schedules are pretty accurate, king tide impacts can often be observed and photographed within an hour before and after the scheduled time.

1.Herons Head Park
32 Jennings St, San Francisco
Dec. 23, 2022
high tide time: 10:57 AM
Dec. 24, 2022
high tide time: 11:48 AM
Jan. 21, 2023
high tide time: 10:49 AM
Jan. 22, 2023
high tide time: 11:42 AM

2.India Basin Park
950 Galvez Ave, San Francisco
Dec. 23, 2022
high tide time: 10:57 AM
Dec. 24, 2022
high tide time: 11:48 AM
Jan. 21, 2023
high tide time: 10:49 AM
Jan. 22, 2023
high tide time: 11:42 AM

3. Docktown Marina
1548 Maple St, Redwood City
Dec. 23, 2022
high tide time: 11:06 AM
Dec. 24, 2022
high tide time: 11:56 AM
Jan. 21, 2023
high tide time: 10:57 AM
Jan. 22, 2023
high tide time: 11:50 AM

4. Cooley Landing
2100 Bay Rd. East Palo Alto
Dec. 23, 2022
high tide time: 11:23 AM
Dec. 24, 2022
high tide time: 12:13 PM
Jan. 21, 2023
high tide time: 11:14 AM
Jan. 22, 2023
high tide time: 12:07 PM

5. Moffett Park
969 E Caribbean Dr, Sunnyvale
Dec. 23, 2022
high tide time: 11:27 AM
Dec. 24, 2022
high tide time: 12:17 PM
Jan. 21, 2023
high tide time: 11:18 AM
Jan. 22, 2023
high tide time: 12:11 PM

6. Don Edwards
2 Marshlands Rd, Fremont
Dec. 23, 2022
high tide time: 11:16 AM
Dec. 24, 2022
high tide time: 12:06 PM
Jan. 21, 2023
high tide time: 11:07 AM
Jan. 22, 2023
high tide time: 12:00 PM.

7. Veterans Bridge
Veterans Ct, Alameda
Dec. 23, 2022
high tide time: 10:55 AM
Dec. 24, 2022
high tide time: 11:44 AM
Jan. 21, 2023
high tide time 10:46 AM
Jan. 22, 2023
high tide time: 11:40 AM

8. Emeryville Marina
3310 Powell St, Emeryville
Dec. 23, 2022
high tide time: 10:37 AM
Dec. 24, 2022
high tide time: 11:26 AM
Jan. 21, 2023
high tide time: 10:29 AM
Jan. 22, 2023
high tide time: 11:23 AM.

9.Pt. Isabel
2701 Isabel St, Richmond
Dec. 23, 2022
high tide time: 10:40 AM
Dec. 24, 2022
high tide time: 11:30 AM
Jan. 21, 2023
high tide time: 10:31 AM
Jan. 22, 2023
high tide time: 11:24 AM.

10. Point Molate
527 Western Dr, Richmond
Dec. 23, 2022
high tide time: 11:14 AM
Dec. 24, 2022
high tide time: 12:04 PM
Jan. 21, 2023
high tide time: 11:05 AM
Jan. 22, 2023
high tide time: 11:58 AM

11. Pt. Pinole Park
5551 Giant Hwy, Richmond
Dec. 23, 2022
high tide time: 11:39 AM
Dec. 24, 2022
high tide time: 12:29 PM
Jan. 21, 2023
high tide time: 11:30 AM
Jan. 22, 2023
high tide time: 12:23 PM

12. Mare Island Park
375 G St, Vallejo
Dec. 23, 2022
high tide time: 12:11 PM
Dec. 24, 2022
high tide time: 1:01 PM
Jan. 21, 2023
high tide time: 12:02 PM
Jan. 22, 2023
high tide time: 12:55 PM

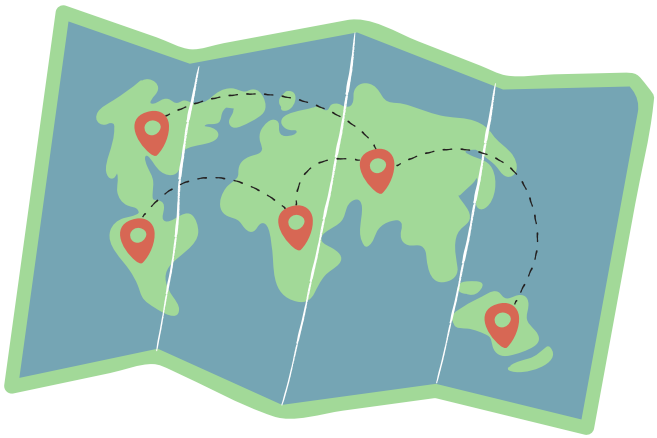
13. Tubbs Trail Sears Pt
Sears Pt Rd & Noble Rd
Dec. 23, 2022
high tide time: 11:47 AM
Dec. 24, 2022
high tide time : 12:37 PM
Jan. 21, 2023
high tide time: 11:38 AM
Jan. 22, 2023
high tide time: 12:31 PM.

14.Gallinas Beach
665 N San Pedro Rd, San Rafael
Dec. 23, 2022
high tide time: 11:14 AM
Dec. 24, 2022
high tide time: 12:04 PM
Jan. 21, 2023
high tide time: 11:05 AM
Jan. 22, 2023
high tide time: 11:58 AM

15. Richmond SR Bridge
2675 Francisco Blvd, San Rafael
Dec. 23, 2022
high tide time: 11:00 AM
Dec. 24, 2022
high tide time: 11:50 AM
Jan. 21, 2023
high tide time: 10:47 AM
Jan. 22, 2023
high tide time: 11:41 AM

16. Marin City Pond
180 Donahue St, Sausalito
Dec. 23, 2022
high tide time: 10:34 AM
Dec. 24, 2022
high tide time: 11:24 AM
Jan. 21, 2023
high tide time: 10:25 AM
Jan. 22, 2023
high tide time: 11:18 AM

WHAT TO EXPECT AFTER SUBMITTING YOUR PHOTOS



After submitting your photos to the CA Coastal Commission and Sierra Club, you photos will be incorporated into the California King Tides Project and into Sierra Club's Story Map.

We will share the story map with you showing all the photos collected around the Bay during this year's King Tides.

We will also be hosting a follow-up webinar to discuss key findings from the King Tides and share the story map!