Strategies to Support Bull Kelp Recovery on the Northern California Coastline

Rietta Hohman Greater Farallones Association 5th Ocean Climate Summit April 18, 2019







Kelp Recovery Working Group

Convened in April 2018

Working group members:

- Reviewed the state of the science regarding kelp loss in the region and identified data and knowledge gaps
- Learned what restoration and recovery methods are used in other regions along the West Coast.
- Learned about various efforts used to survey kelp canopy including aerial mapping, remote sensing and satellite imagery.
- Evaluated criteria to be used in restoration site selection process.



Kelp Recovery Working Group













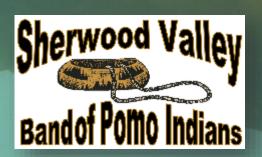
















Mission Statement

Our mission is to promote healthy bull kelp ecosystems along the northern California coast, foster collaborative kelp recovery and conservation efforts, and bring the best information and data to bear on adaptive management of this vitally important resource.



S. Lonhart NOAA

Strategies for Bull Kelp Recovery

Active Kelp Recovery

2 recommendations

Restoration Site Selection

5 recommendations

Monitoring and Research
7 recommendations

Community Engagement 9 recommendations

Active Kelp Recovery

Priority Strategies -

Reduce Grazing Pressure

Enhance Kelp





A. Maguire CDFW

Restoration Site Selection

Priority Strategy - Compile all criterion datasets in spatially explicit way for application to site-selection decision tree.

Analysis

Criteria grouped into categories
-Ecological significance

- -Further Assessment Needed
- -Additional Positive Aspects

Criteria

Historical persistence of kelp canopy

Current persistence of kelp canopy

Ecosystem surveys

Freshwater output

Areas of cultural significance

Historically isolated beds

Sites of value to red abalone fishery

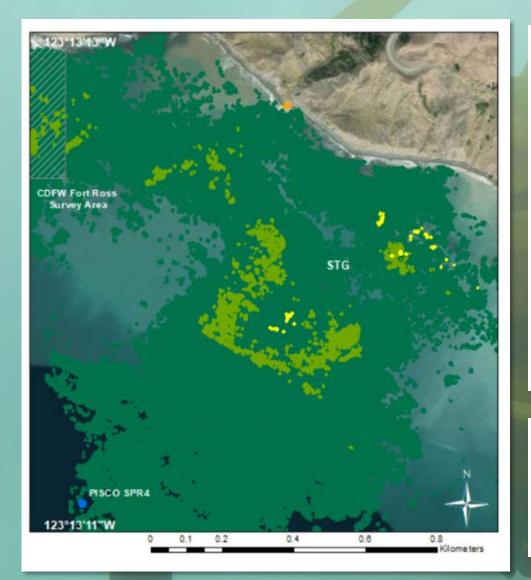
Sites of value to red urchin fishery

State-Designated MPAs

Protection from wave exposure

Accessibility

Restoration Site Selection



Sonoma Timber Gulch (STG)	
Kelp Patch Area ID	STG
Historical Persistence (m²)	15636
Current Persistence (m²)	372
Proximity to Ecosystem Surveys/Areas	Near CDFW Fort Ross Survey Area, near PISCO SPR4
Historical Data from ecosystem surveys	Yes
Current Data from ecosystem surveys	Yes
Near Freshwater Output	Yes
Inside state-designated MPA?	No
Near state-designated MPA?	No



Monitoring and Research

Priority Strategy - Development of a long-term kelp canopy monitoring program to characterize broad-scale and fine-scale kelp forest dynamics and restoration efficacy, making use of new technologies such as satellites and Unmanned Aerial Vehicles (UAVs)



Community Engagement

Priority Strategy - Develop consistent messaging and a comprehensive outreach plan to increase participation and awareness





Next Steps

Review and adopt strategies

Establish the Kelp Recovery Project and Network to implement the strategies

Establish a consistent funding stream

Determine final restoration sites

Build upon connections and efforts taken in 2018 to inform, grow and implement recovery actions

Thank you!

Questions?

Rietta Hohman rhohman@farallones.org

Please visit <u>www.farallones.org/kelp</u>!









