
DISTRIBUTION OF MAJOR PERMITS

SUPPORTING RESEARCH: ENVIRONMENTAL JUSTICE AMENDMENT TO BCDC'S BAY PLAN

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INTRODUCTION

- Process of exploring ways to incorporate social equity concerns into BCDC policy
- Gathering information on the distribution of major permits
 - Historic land use

PRIMARY QUESTION

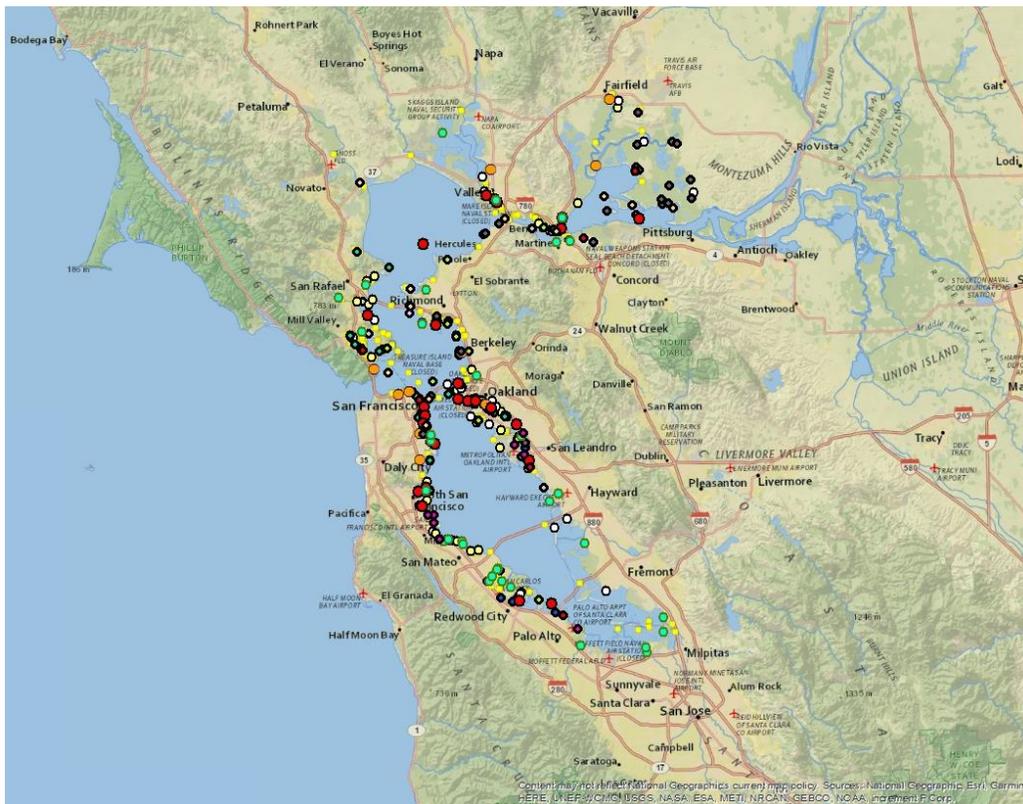
How have different types of major permits been distributed around the San Francisco Bay?

- Testing the hypothesis that ART identified most vulnerable communities bear a disproportionate burden of environmental costs



Image Source: <https://vhabot.com/vhabot-news/bot-development-resumed/>

DATA INPUTS



- 602 Major Permits from BayRAT
- Focus: 293 total
 - Airport
 - Ecological Enhancement
 - Flood Control
 - Fuel Pipelines
 - Industrial
 - Oil and Gas
 - Outfalls and Waste Water
 - Parks
 - Ports
 - Remediation
 - Restoration
 - Shoreline Protection
 - Trails
 - Wharfs

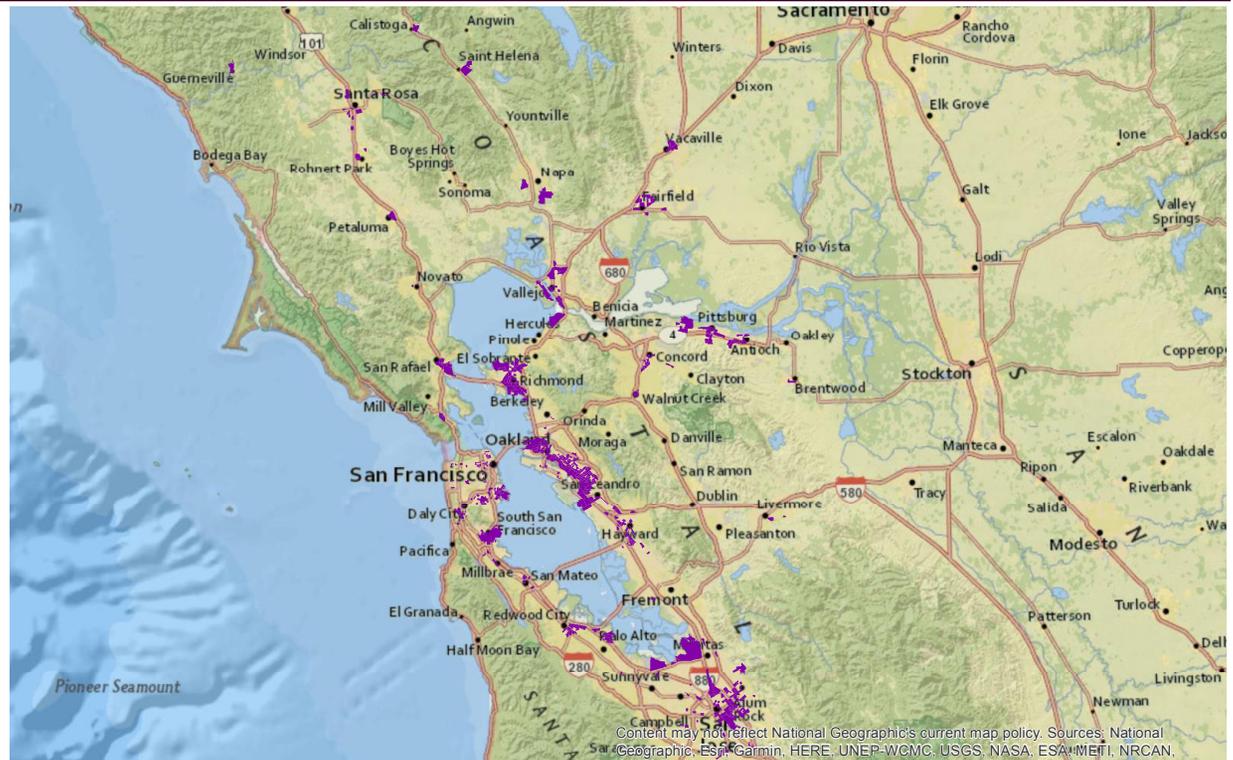
ART IDENTIFIED GEOGRAPHIC REGIONS WITH HIGHEST SOCIAL VULNERABILITY

- Indicators:

- Renters
- Under 5
- 75 and over
- Very low income
- Without a vehicle
- People with disability
- Single parent families
- Communities of Color
- Limited English proficiency
- Without a high school degree
- Severely housing cost burdened

- Spatial and Population Context:

- Clipped BCDC jurisdiction to shoreline band and PUA
- Area: 6% of 50 square miles
- Population: 11.5% of 904,000 people



METHODOLOGY USED TO MEASURE EQUITY FACTOR OF DISTRIBUTION

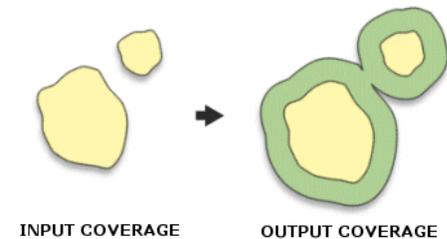
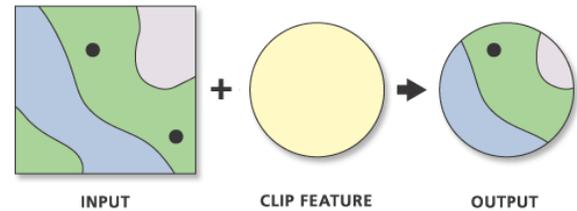
Step 1: Classify permits by type and add to map with AIMVC layer



Step 2: Clip permit layers to identify permits in or near AIMVC (1 mile buffer for those associated with negative community health impacts)



Step 3: Count identified permits as percentages of totals; select case studies



OBSTACLES AND LIMITATIONS:

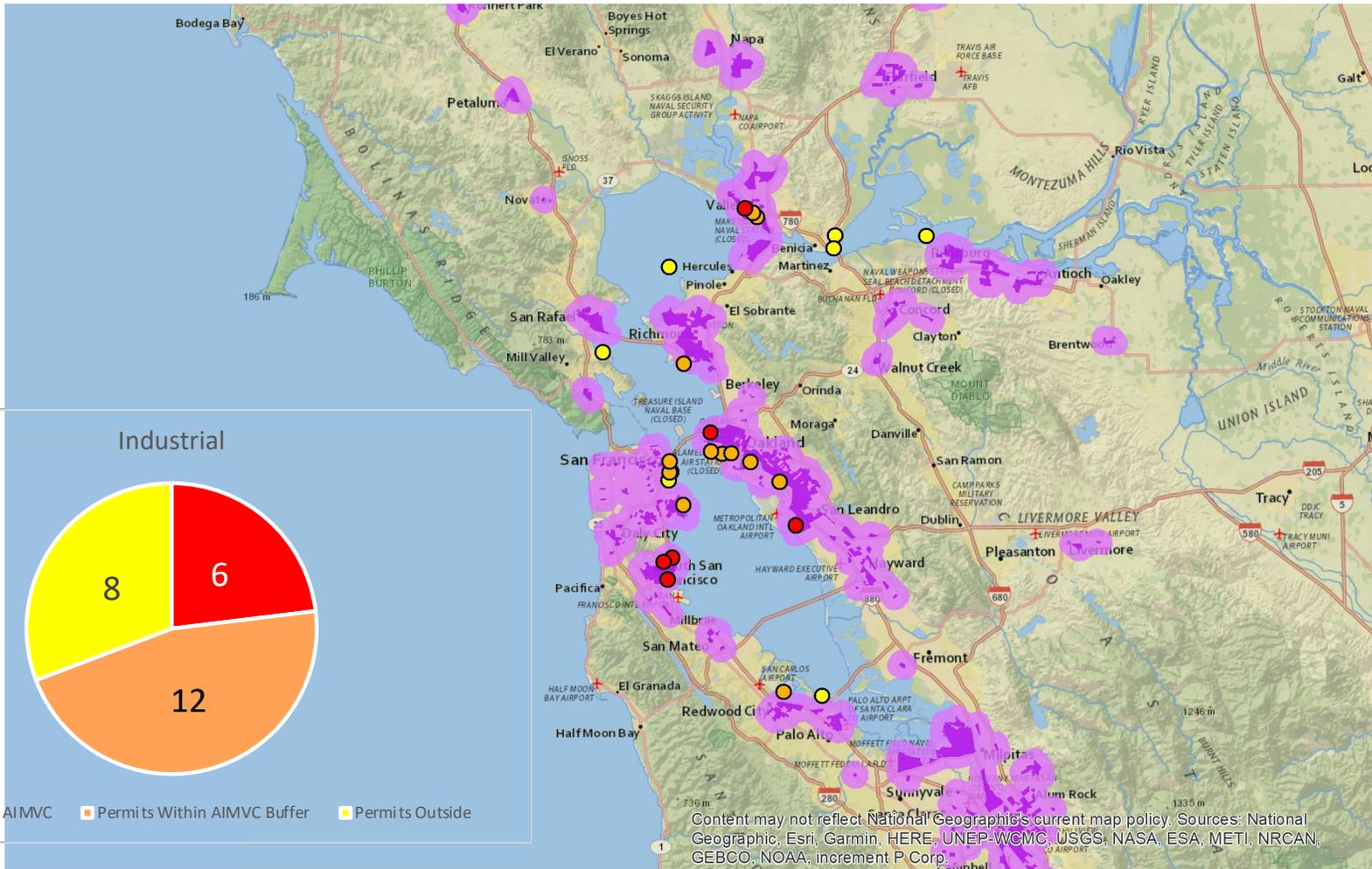
- ART identified vulnerability layer is current, most permits are significantly older (some date back to 1965)
- Public Access is generally required for permits
- Labeling based on descriptions in BayRAT spreadsheet
- Point-based system
- Major permits only

PERMITS WITH POTENTIALLY NEGATIVE IMPACTS ON SURROUNDING COMMUNITIES

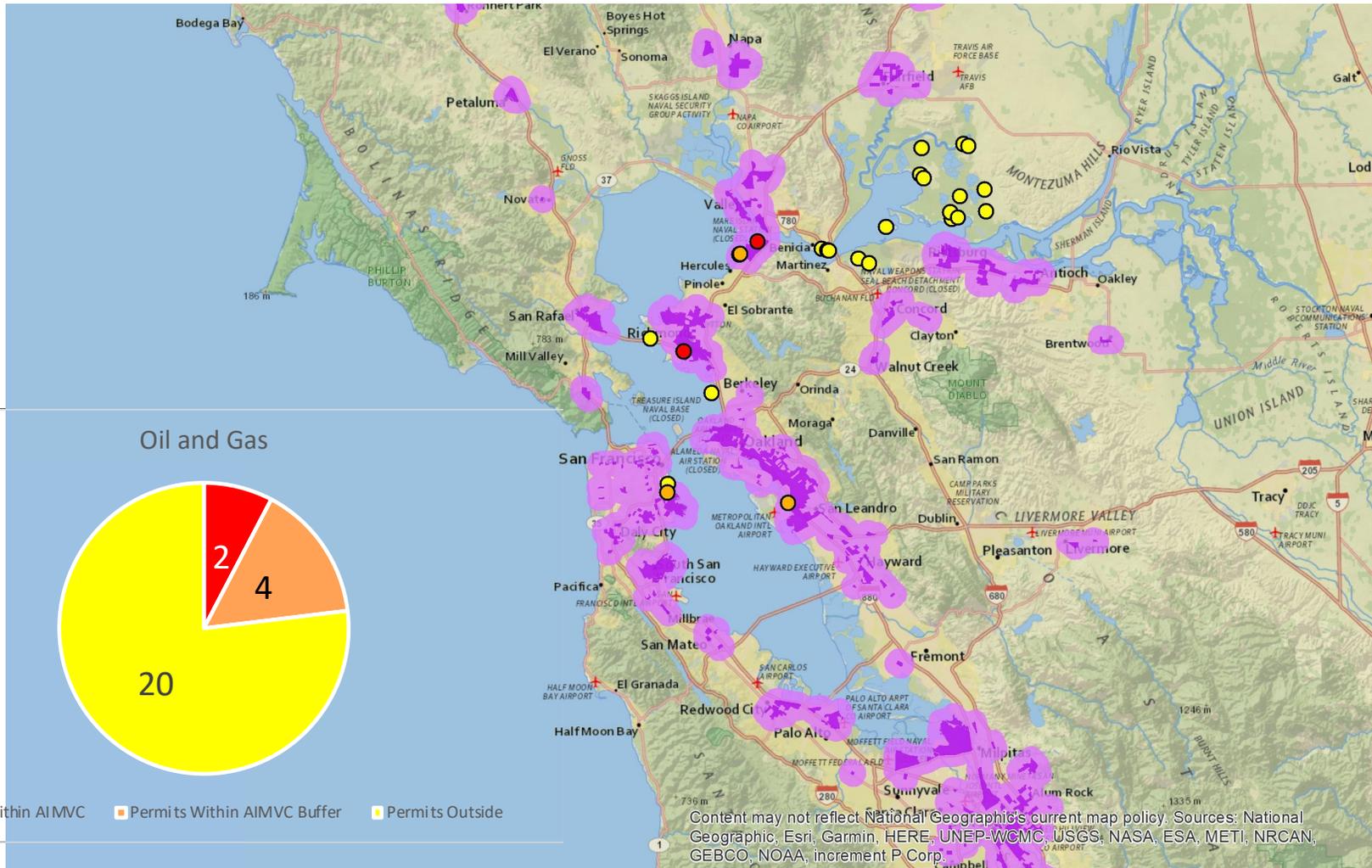
Total # Permits: 136

- Airports
- Fuel Pipelines
- Industrial
- Oil and Gas
- Outfalls
- Ports
- Remediation
- Waste Water
- Wharfs

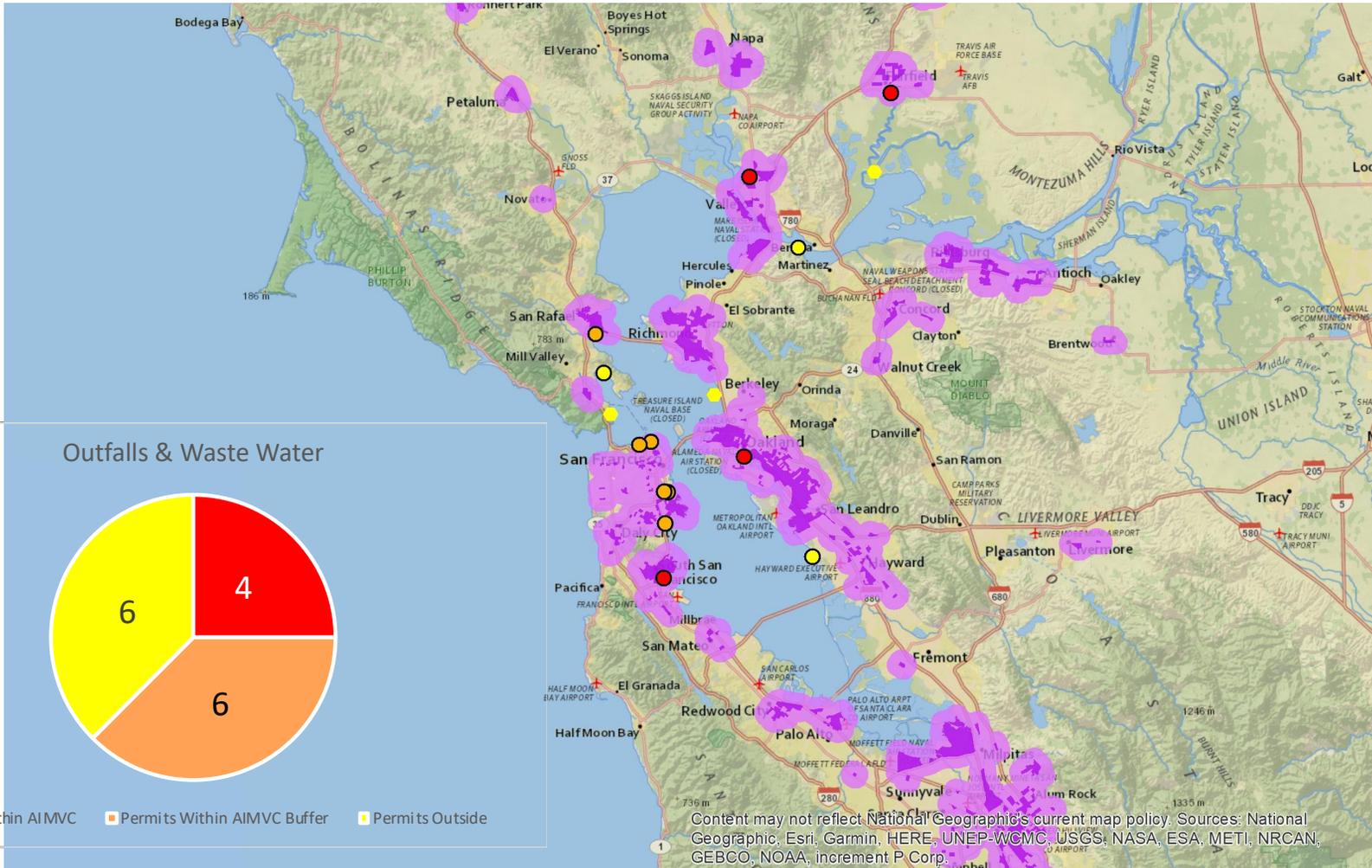
Industrial



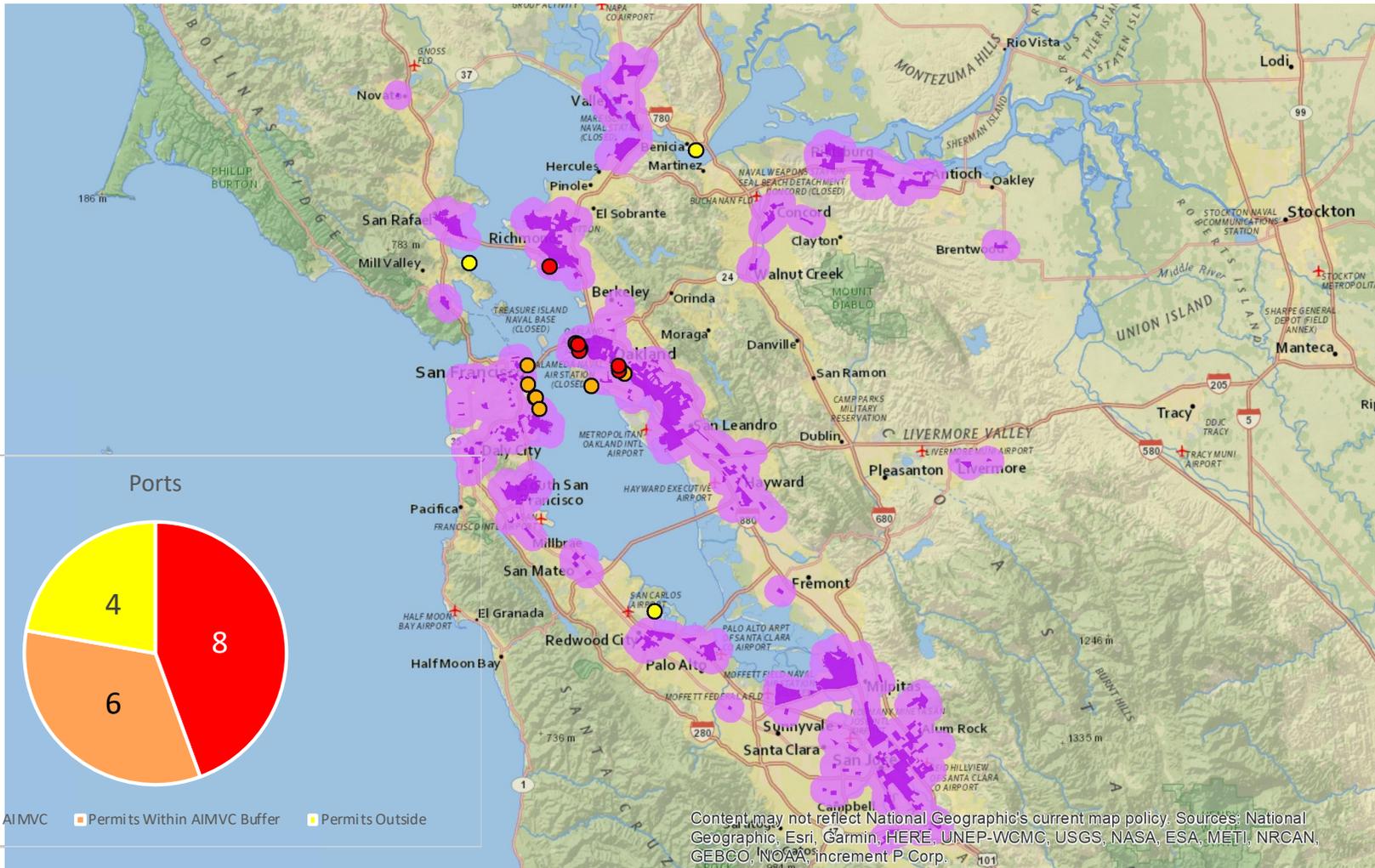
Oil and Gas



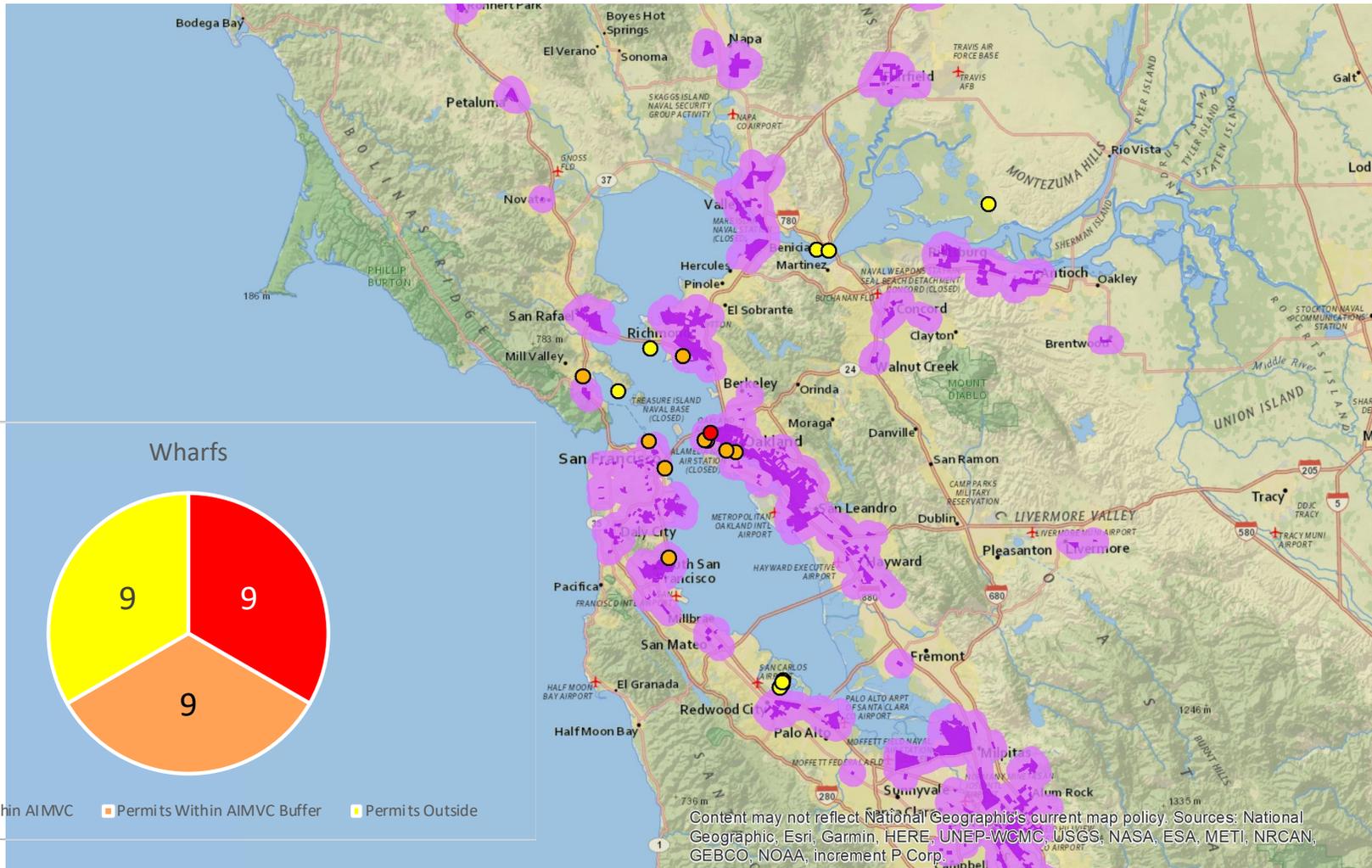
Outfalls + Waste Water Treatment Facilities



Ports



Wharfs

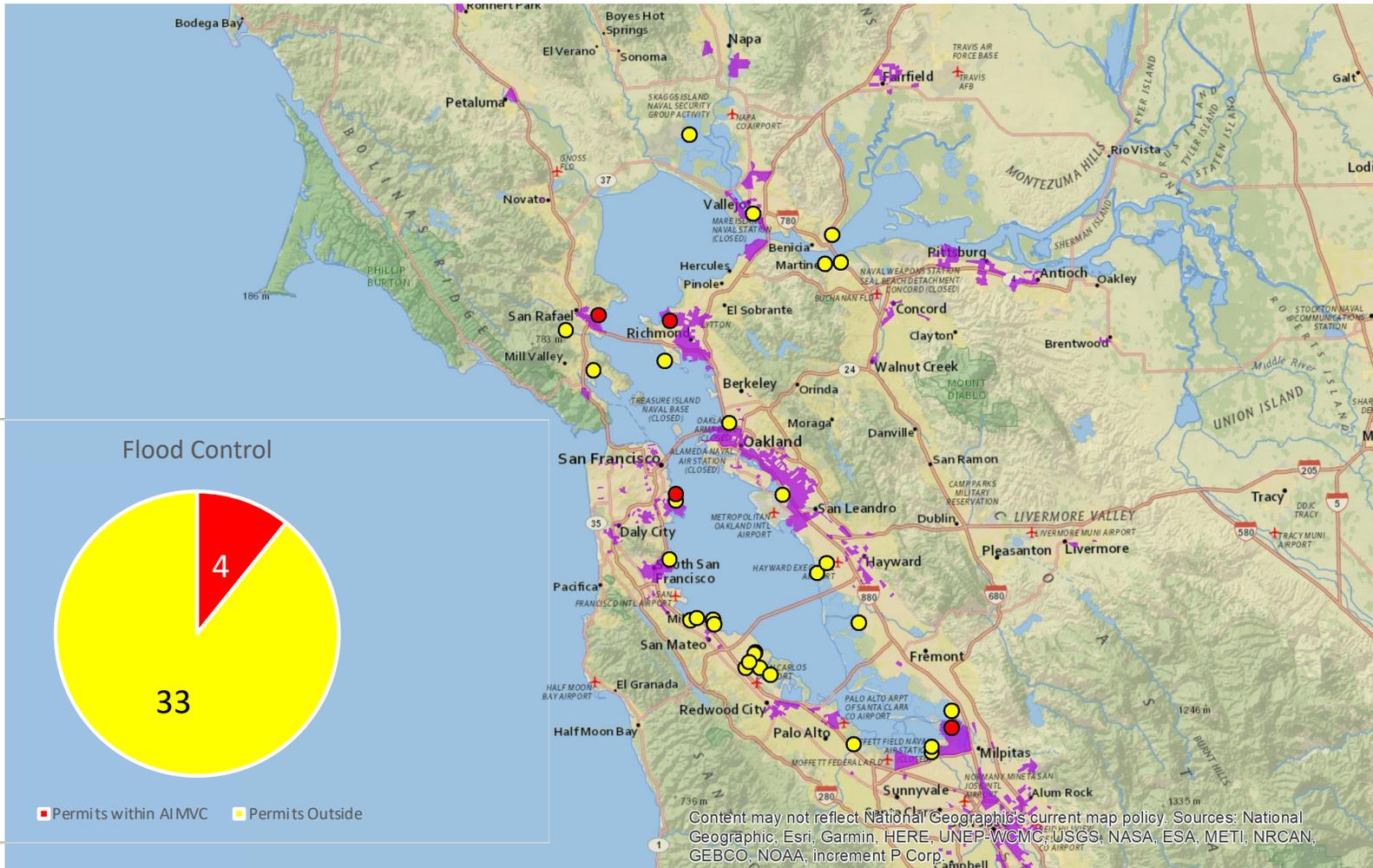


PERMIT TYPES WITH POTENTIALLY POSITIVE IMPACTS ON SURROUNDING COMMUNITIES

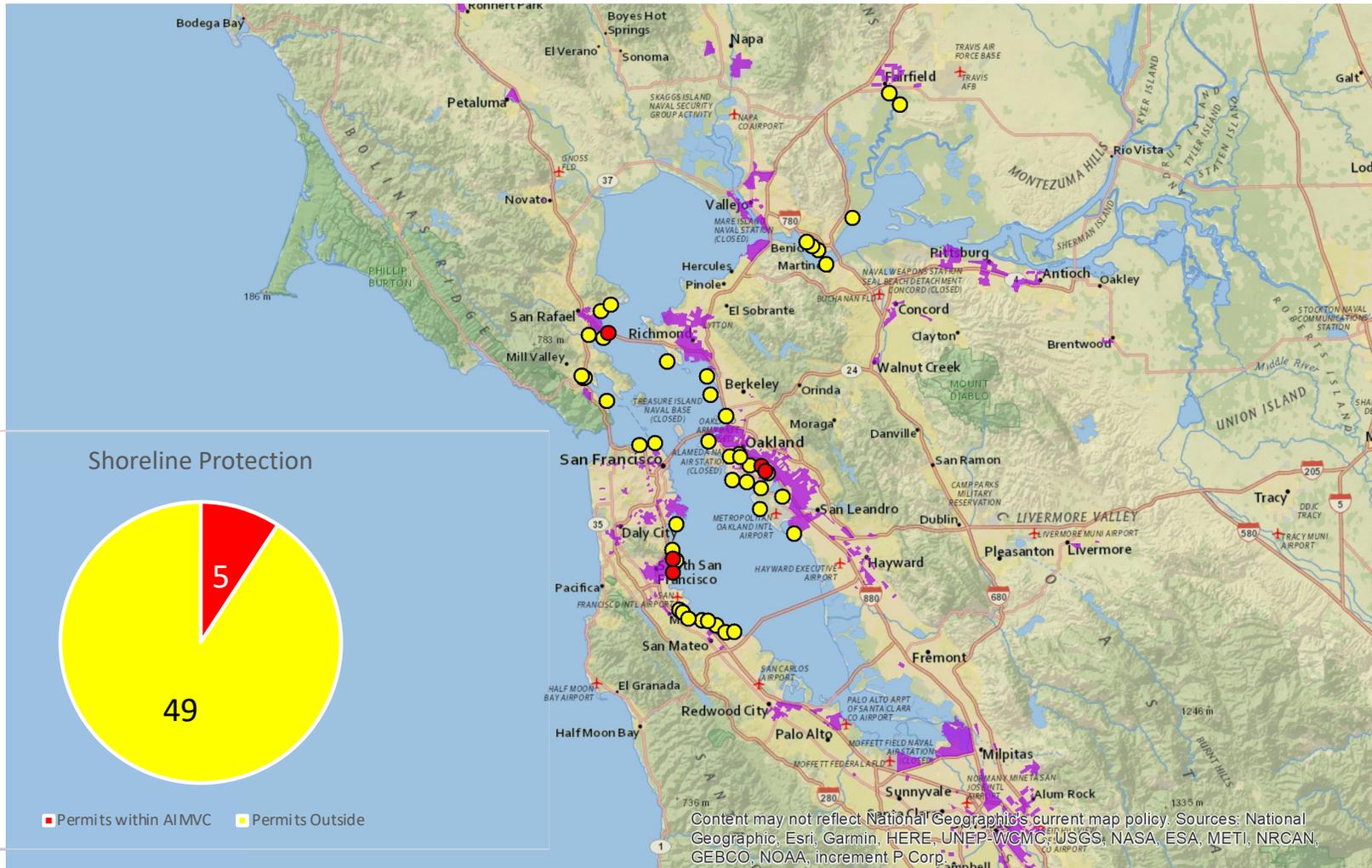
Total # Permits: 157

- Parks
- Flood Control
- Ecological Enhancement
- Ecological Restoration
- Shoreline Protection
- Trails

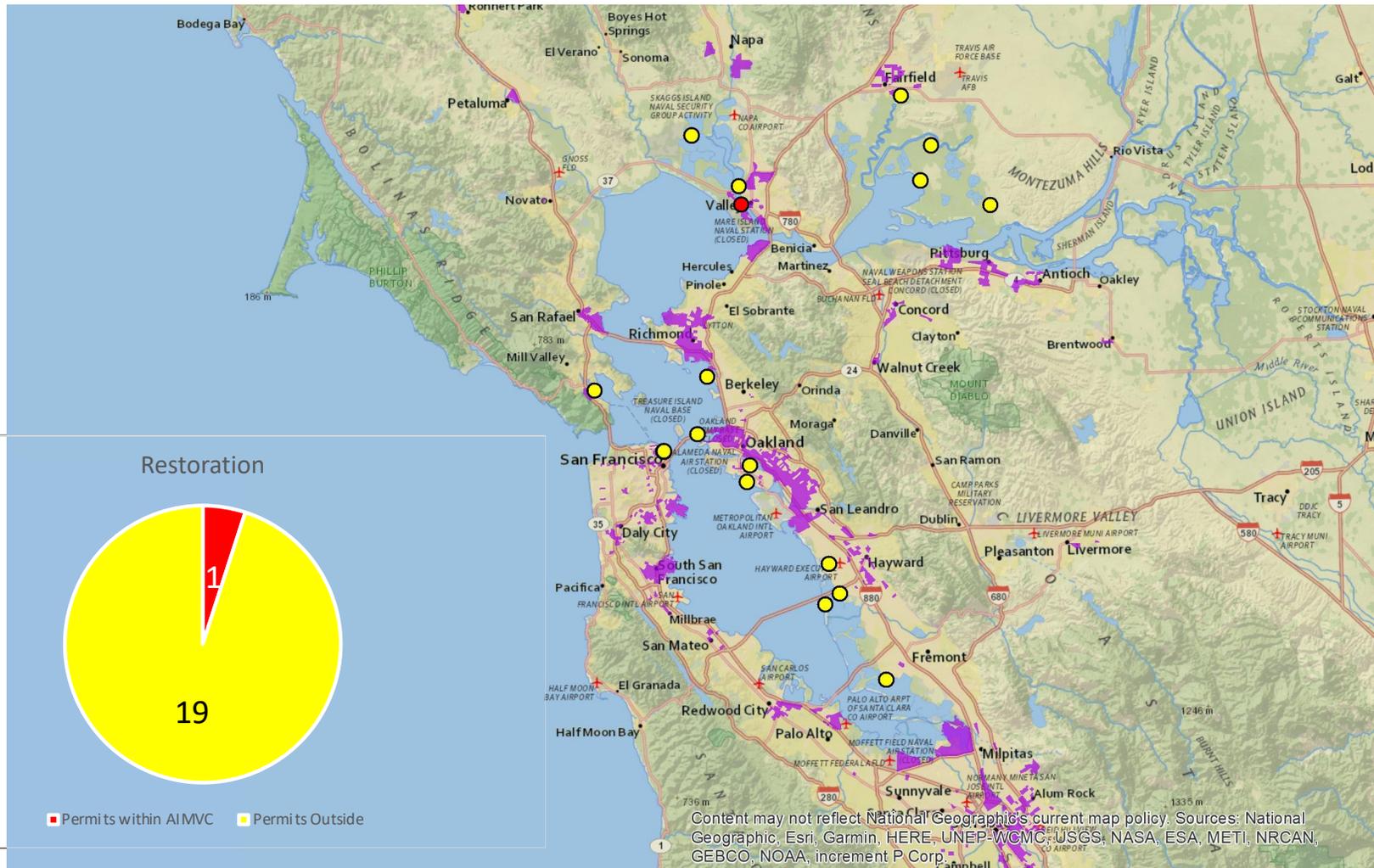
Flood Control



Shoreline Protection



Restoration

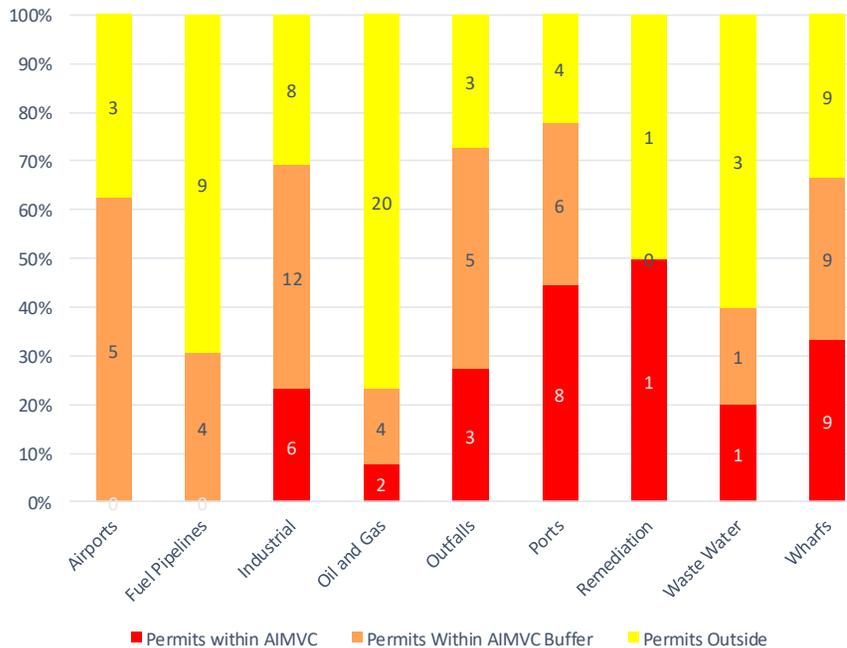


PROPORTION OF MAJOR PERMITS LOCATED WITHIN ART-IDENTIFIED COMMUNITIES EXPERIENCING HIGH SOCIAL VULNERABILITY

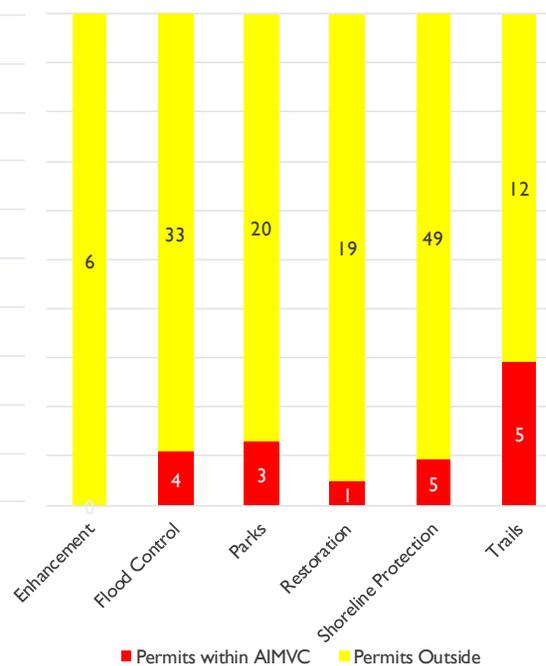
AIMVC % by Area: 6

AIMVC % by Population: 11.5

Permits Associated with Negative Community Health Impacts



Permits Associated with Positive Community Health Impacts



Averages within AIMVC:

- Negative: 23%, 55%
- Positive: 11%

Importance of Distribution:

- Health
- Safety
- Quality of Life

CASE STUDIES

San Francisquito Creek:

- 2016 East Palo Alto, Palo Alto, Menlo Park
- Frequent flooding on both sides of the creek
 - Alluvial fan created by watershed
- San Francisquito Creek Joint Powers Authority (SFCJPA)
 - Public meetings
- Waterboard and BCDC voiced concerns about levee disparities

Brooklyn Basin Redevelopment Project:

- 2011 Between Oakland Estuary and Embarcadero Roadway
- Public Access, Housing, Commercial
- Public Input:
 - Historic Building
 - Park Design

PUBLIC ENGAGEMENT

- Limited public comments in meeting minutes
- Notices
- Signage

DISCUSSION

Possible Future Directions:

- Tailor Buffer to Impact
- Add longitudinal data
- Expand upon case studies
- Population-based analysis
- Future Population Projections

Questions:

- Other relevant case studies?
- General questions?
- What further research should be done in this area?
- How do you see this knowledge of historic permit distribution being used to inform EJ policy?

SOURCES

- BayRAT
- ART Bay Area
- American Community Survey Census Data
- ESRI ArcGIS



Image Source: <http://www.thesfnews.com/kayaker-found-dead-san-francisco-bay-idd/28758>