

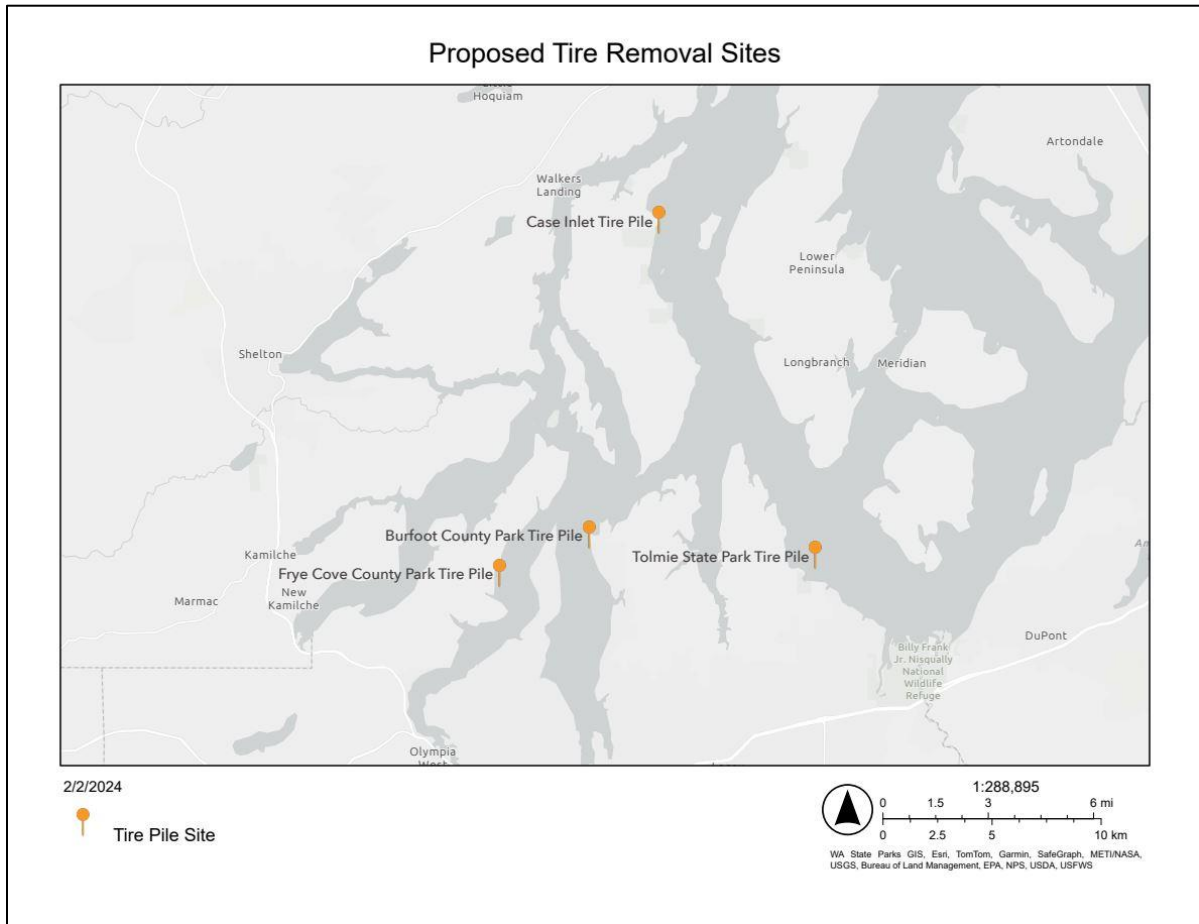
Tire Pile Removal Project – Supplemental Attachments

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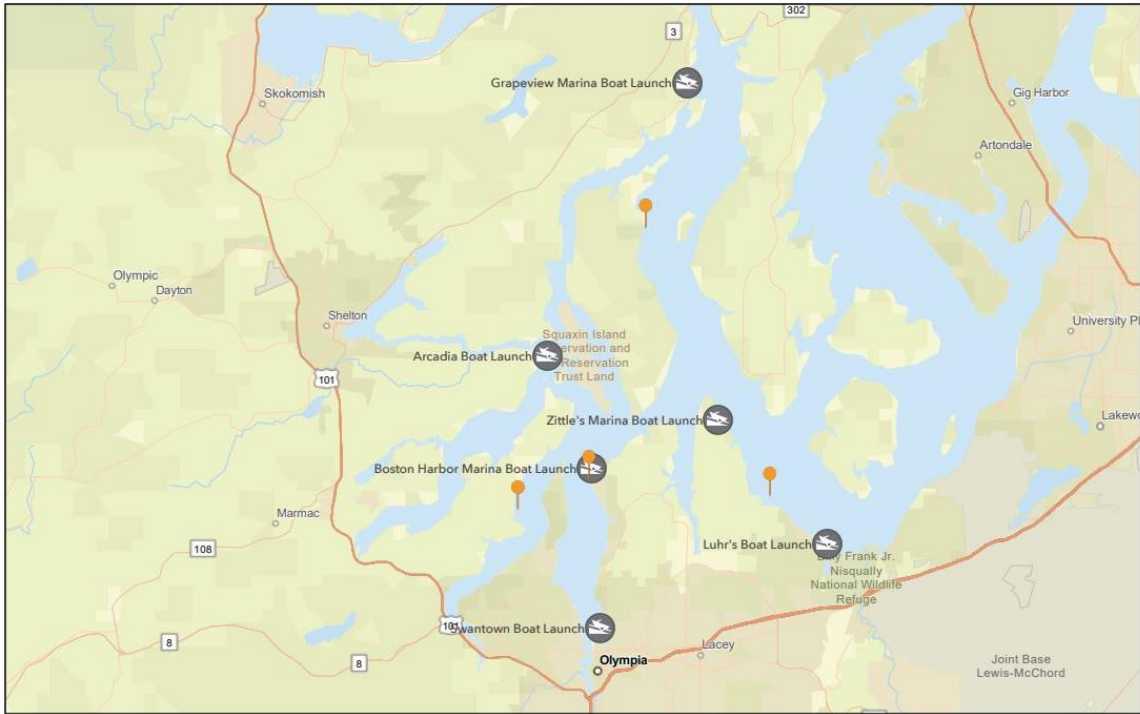
All Proposed Tire Sites

Site Maps



Map 1. Four proposed tire removal locations- Tolmie Park Tire Pile, Burfoot County Park Tire Pile, Frye Cove County Park Tire Pile and Case Inlet Tire Pile.

Boat Launches



2/2/2024

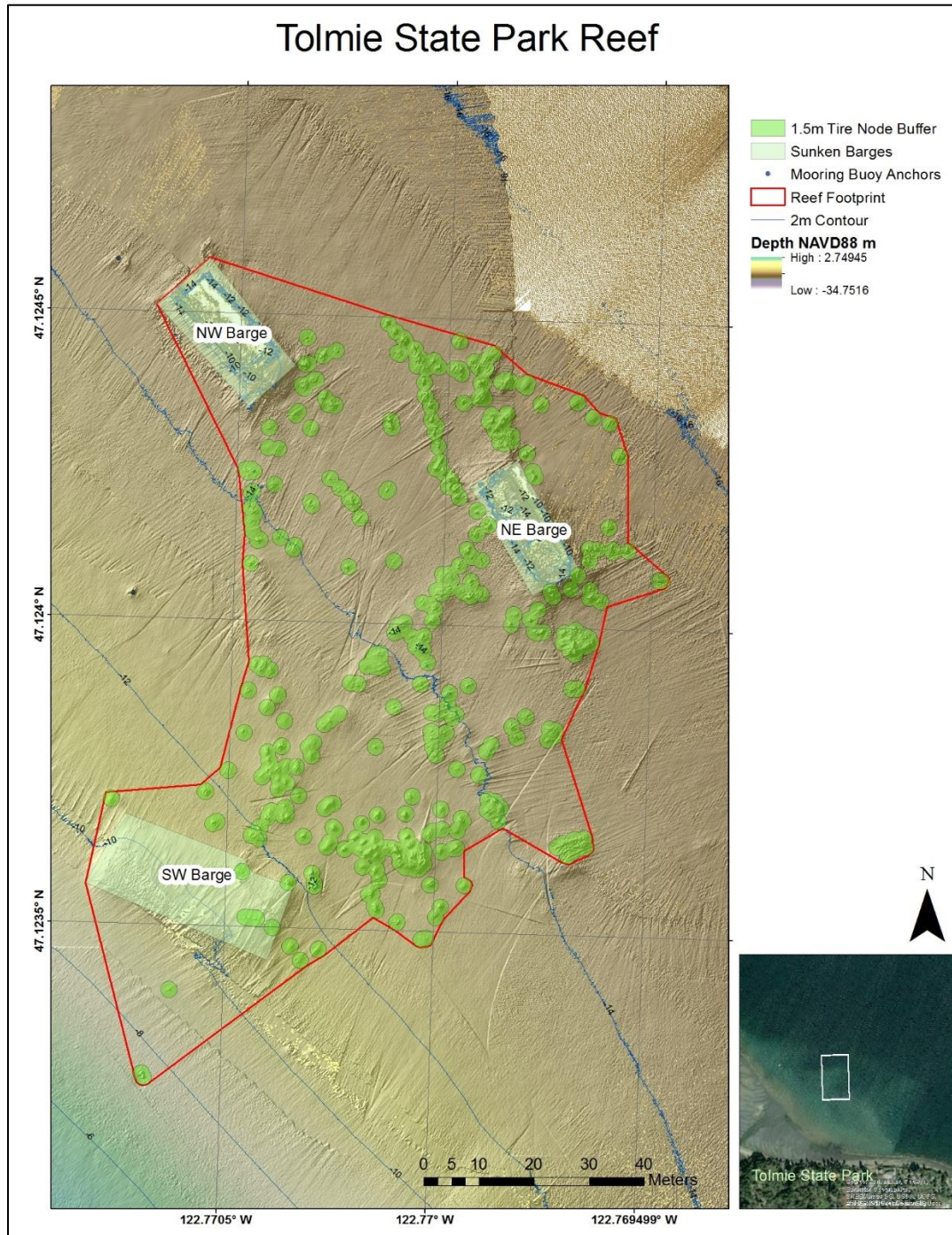
-  Tire Pile Site
-  Boat Ramps

1:377,009
0 2.25 4.5 9 mi
0 3.5 7 14 km
WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METINASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

Map 2. Boat launches adjacent to project sites that could be utilized to access subtidal areas via vessel.

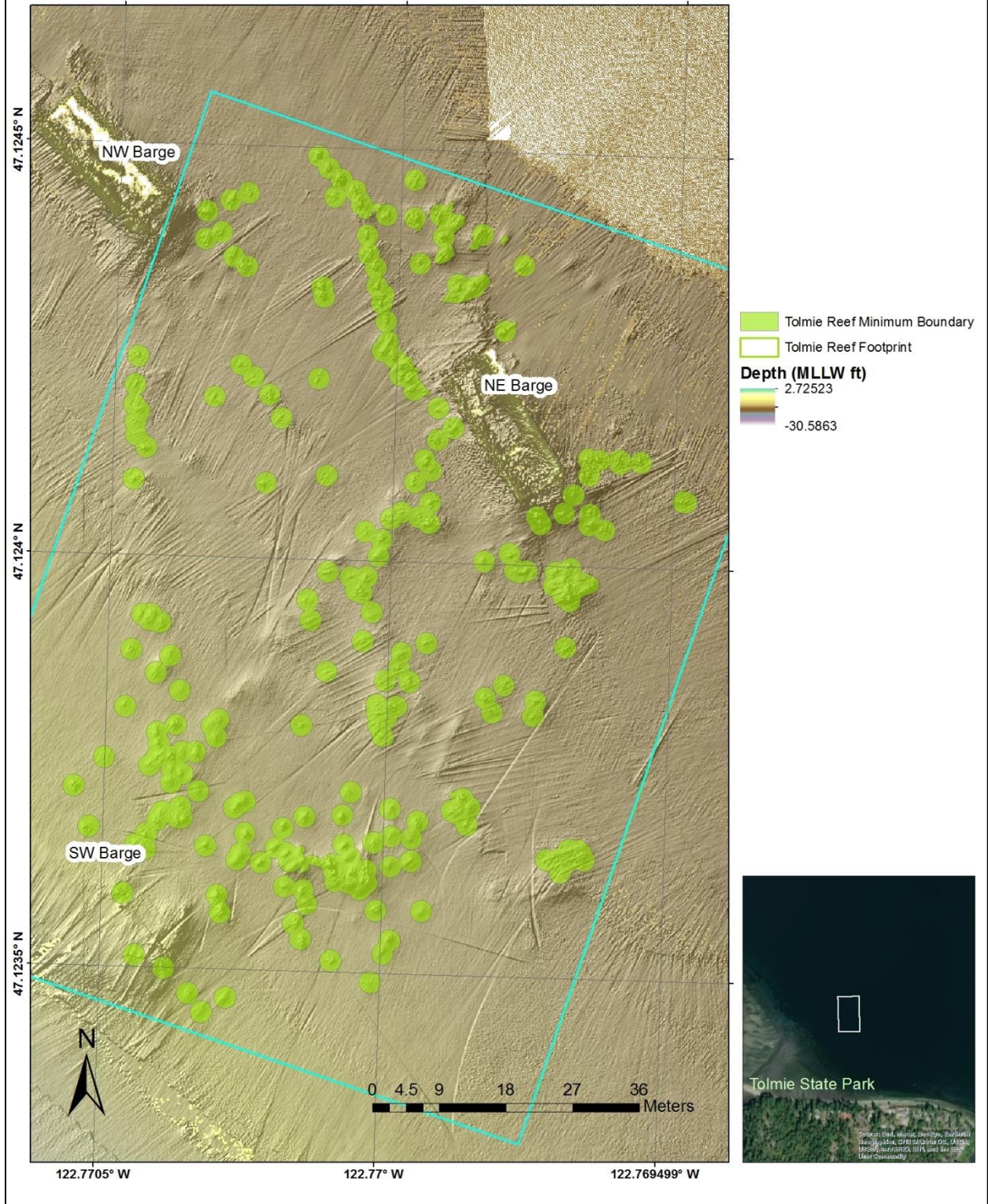
Tolmie Park Tire Pile Site

Maps



Map 3. Tolmie Park Tire Pile site- multibeam sonar data with delineated tires nodes and tire pile footprint from 2020.

Tolmie State Park Underwater Reef



Map 4. Tolmie Park Tire Pile site- multibeam sonar data with delineated tires nodes from 2020.



Figure 1. Tolmie Park Tire Pile footprint, including habitat and encumbrance data.

Tire Pile Attributes

Reef Attribute	Minimum	Maximum
Depth NAVD88 (ft.)	-35.18 ± 5.94	-49.53 ± 0.49
Distance from Shore (ft.)	1,240	1,604
1.5m Node Buffer (acres)	0.37	
Reef Footprint (acres)	2.10	
Number of Tires	NA	2,188 ± 543
Tire Weight (lbs.)	NA	43,778

Table 1. Tolmie Park Tire Pile attributes from WDNR spatial data and multibeam sonar data analysis.

	Latitude	Longitude
Center of Reef	47.123946 N	-122.770139 W
NW Corner	47.124589 N	-122.770637 W
NE Corner	47.124083 N	-122.769454 W
SW Corner	47.123572 N	-122.770880 W
SE Corner	47.123475 N	-122.770004 W

Table. 2 Approximate coordinates of the Tolmie Tire Pile site.

Site Photos



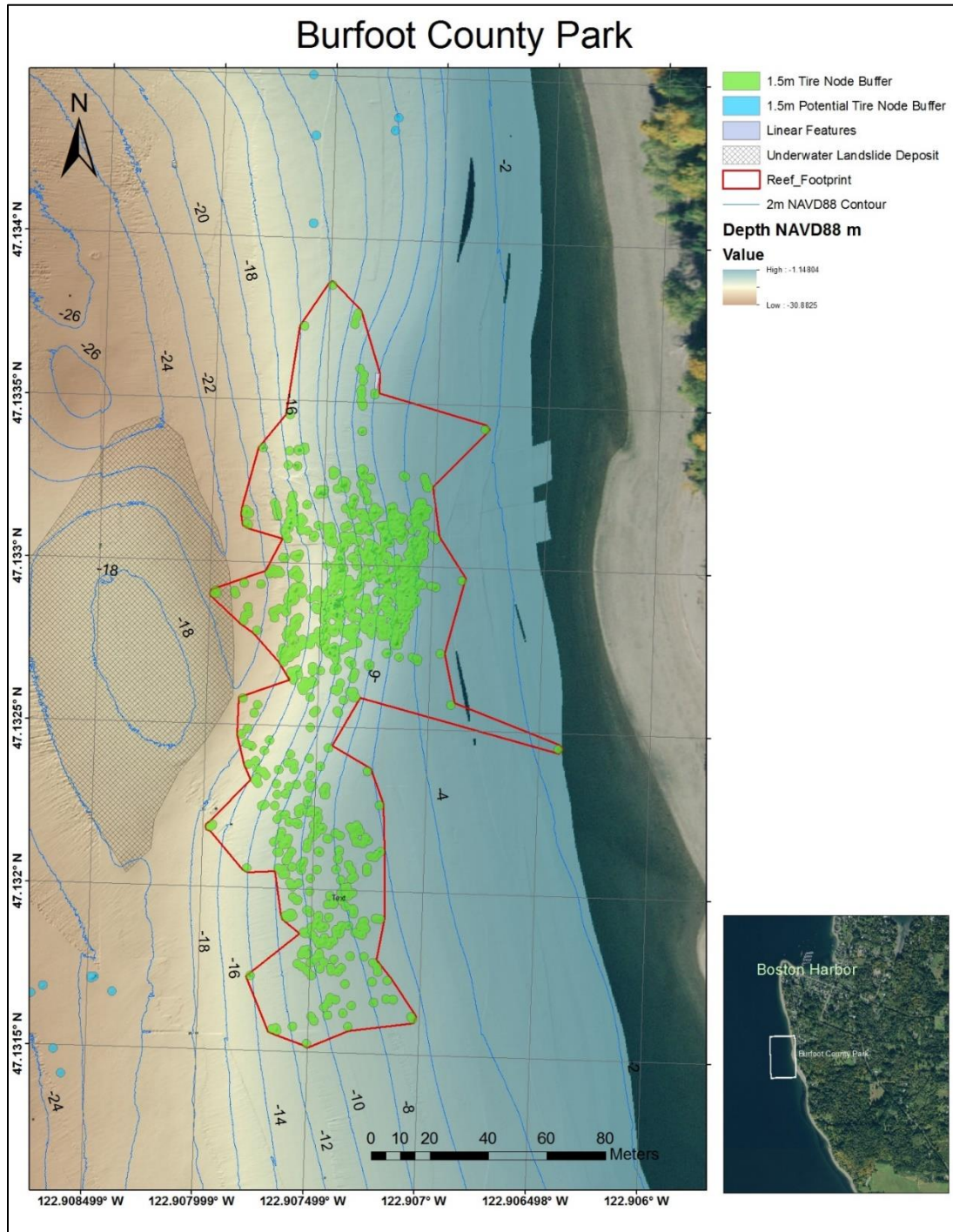
Photo 1. Horizontal bundle of eight tires. Tires appear to have been intentionally slashed. Photo taken by DNR divers.



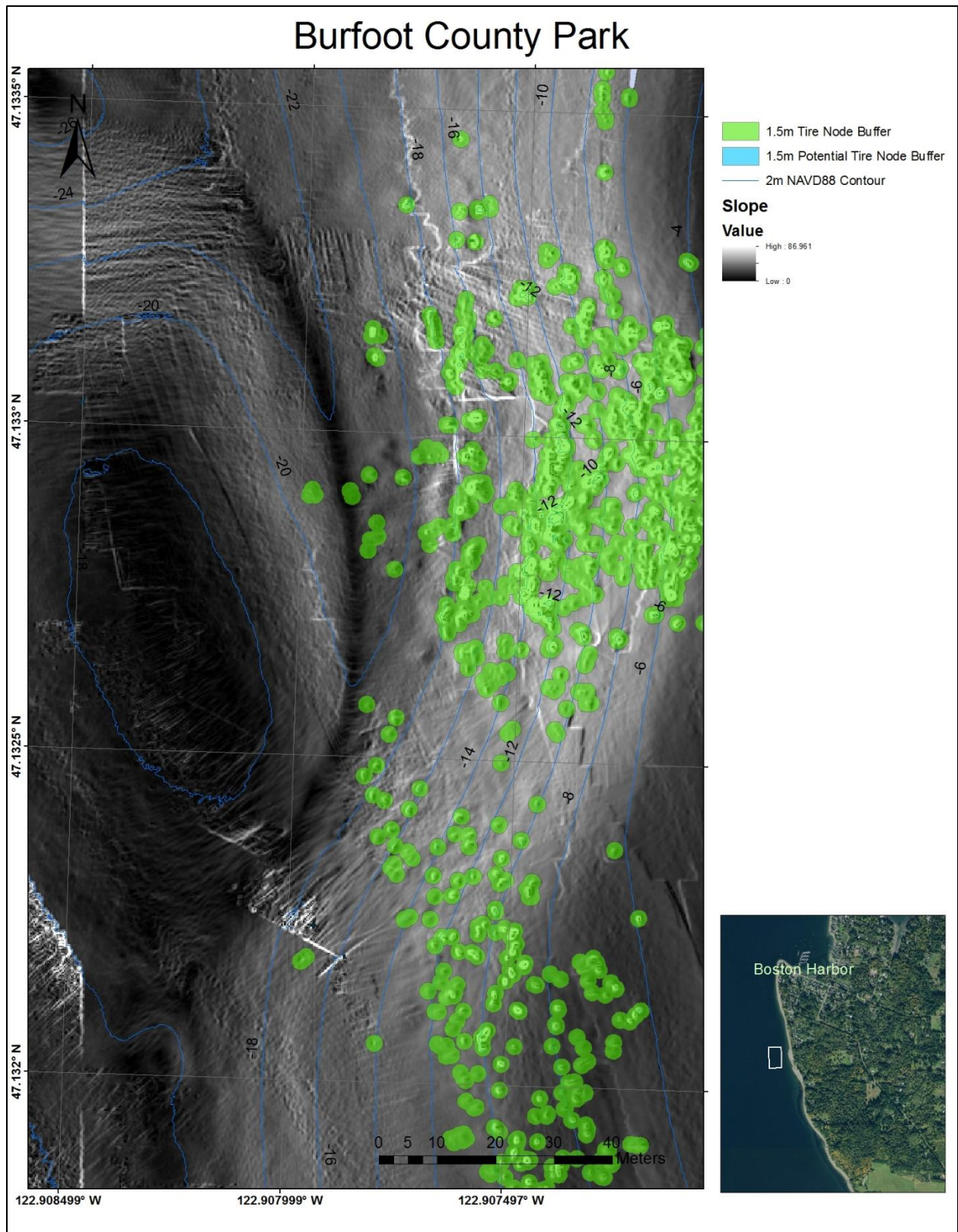
Photo 2. Tolmie Park Tire Pile bundles. Bundle in photo is banded with three strand polypropylene rope. Photo taken by DNR divers.

Burfoot County Park Tire Pile Site

Maps



Map 5. Burfoot County Park Tire Pile site (northern Section)- multibeam sonar data with delineated tires nodes and tire pile footprint from 2020.



Map 6. Burfoot County Park Tire Pile site (northern section)- multibeam sonar data with delineated tires nodes and slope displayed highlighting potential subtidal slide.



Figure 2. Burfoot County Park Tire pile (northern section) footprint, including habitat and encumbrance data.



Figure 3. Burfoot County Park Tire Pile site footprints (northern and Southern section). Data provided by Coastal Sensing and Survey group.



Figure 4. Burfoot County Park Tire Pile site (southern section) footprint. Data provided by Coastal Sensing and Survey group.

Tire Pile Attributes – Northern Section

Reef Attribute	Minimum	Maximum
Depth NAVD88 (ft.)	-11.78 ± 4.56	-57.05 ± 5.97
Distance from Shore (ft.)	278	554
1.5m Node Buffer (acres)	.94	
Reef Footprint (acres)	3.21	
Number of Tires	858 ± 142	6,175 ± 1,929
Tire Weight (lbs.)	17,160	123,500

Table 3. Burfoot County Park Tire Pile (northern section) attributes from WDNR spatial data and multibeam sonar data analysis.

	Latitude	Longitude
Center of Reef	47.1325 N	-122.9073 W
NW Corner	47.1335 N	-122.9079 W
NE Corner	47.1335 N	-122.9068 W
SW Corner	47.1315 N	-122.9080 W
SE Corner	47.1315 N	-122.9069 W

Table 4. Approximate location of Burfoot County Park Tire Pile (northern section).

Tire Pile Attributes – Southern Section

Reef Attribute	Minimum	Maximum
Depth NAVD88 (ft.)	-10	-70
Distance from Shore (ft.)	270	550
1.5m Node Buffer (acres)	NA	
Reef Footprint (acres)	2.83	
Number of Tires	NA	1,900
Tire Weight (lbs.)	NA	NA

Table 5. Burfoot County Park Tire Pile (southern section) attributes from WDNR spatial data and multibeam sonar data analysis.

	Latitude	Longitude
Center of Reef	47.1273174 N	-122.9049730 W
NW Corner	47.1289452 N	-122.9060077 W
NE Corner	47.1288802 N	-122.9057026 W
SW Corner	47.1257228 N	-122.9043733 W
SE Corner	47.1258626 N	-122.9037627 W

Table 6. Approximate location of Burfoot County Park Tire Pile (southern section).

Site Photos – Northern Section



Photos 3-8. Burfoot County Park Tire Pile (northern section) bundles. Photos by WDNR.

Site Photos – Southern Section



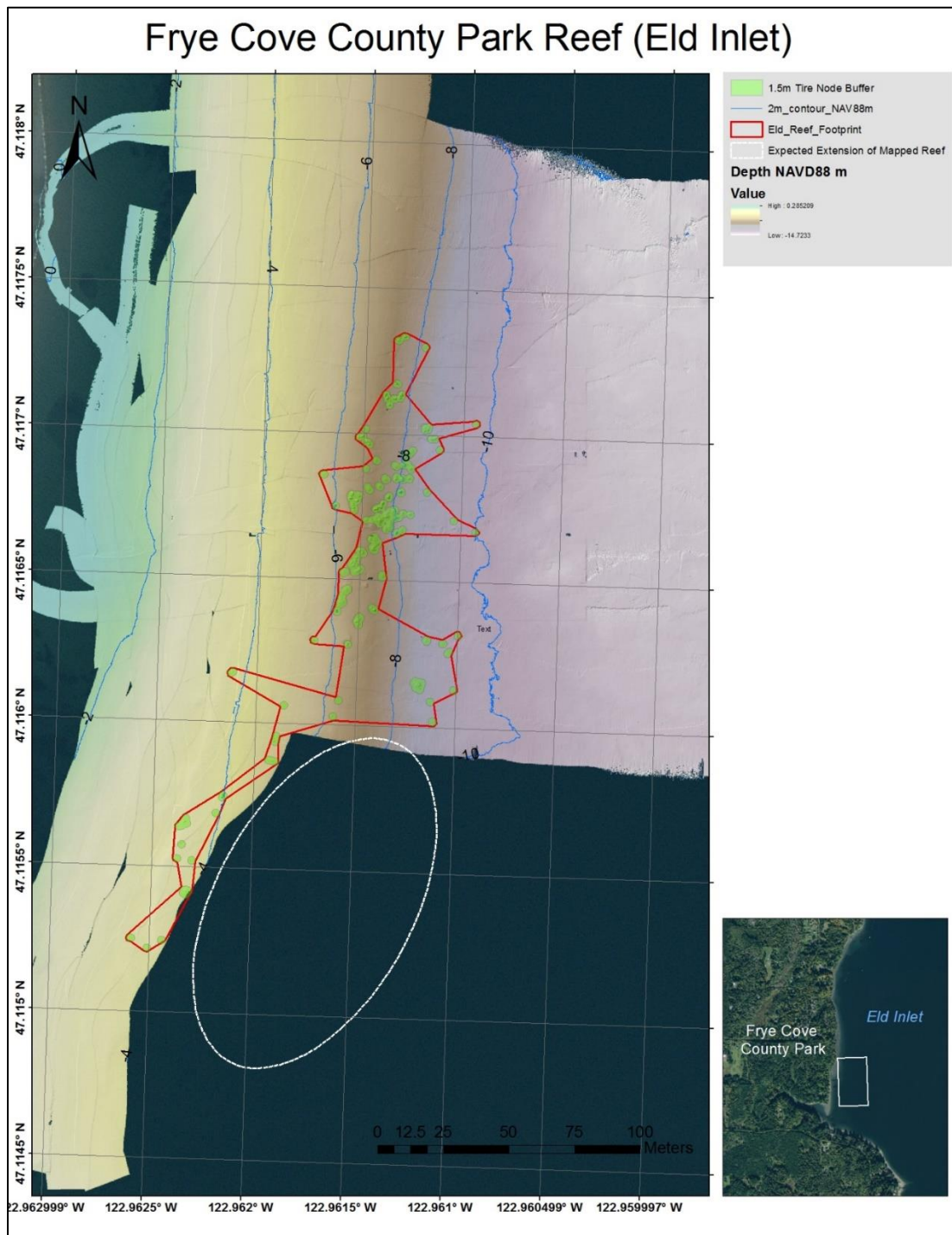
Photos 9-11. Burfoot County Park Tire Pile (southern section) bundles. Photos by Coastal Sensing and Survey/Washington Scuba Alliance.



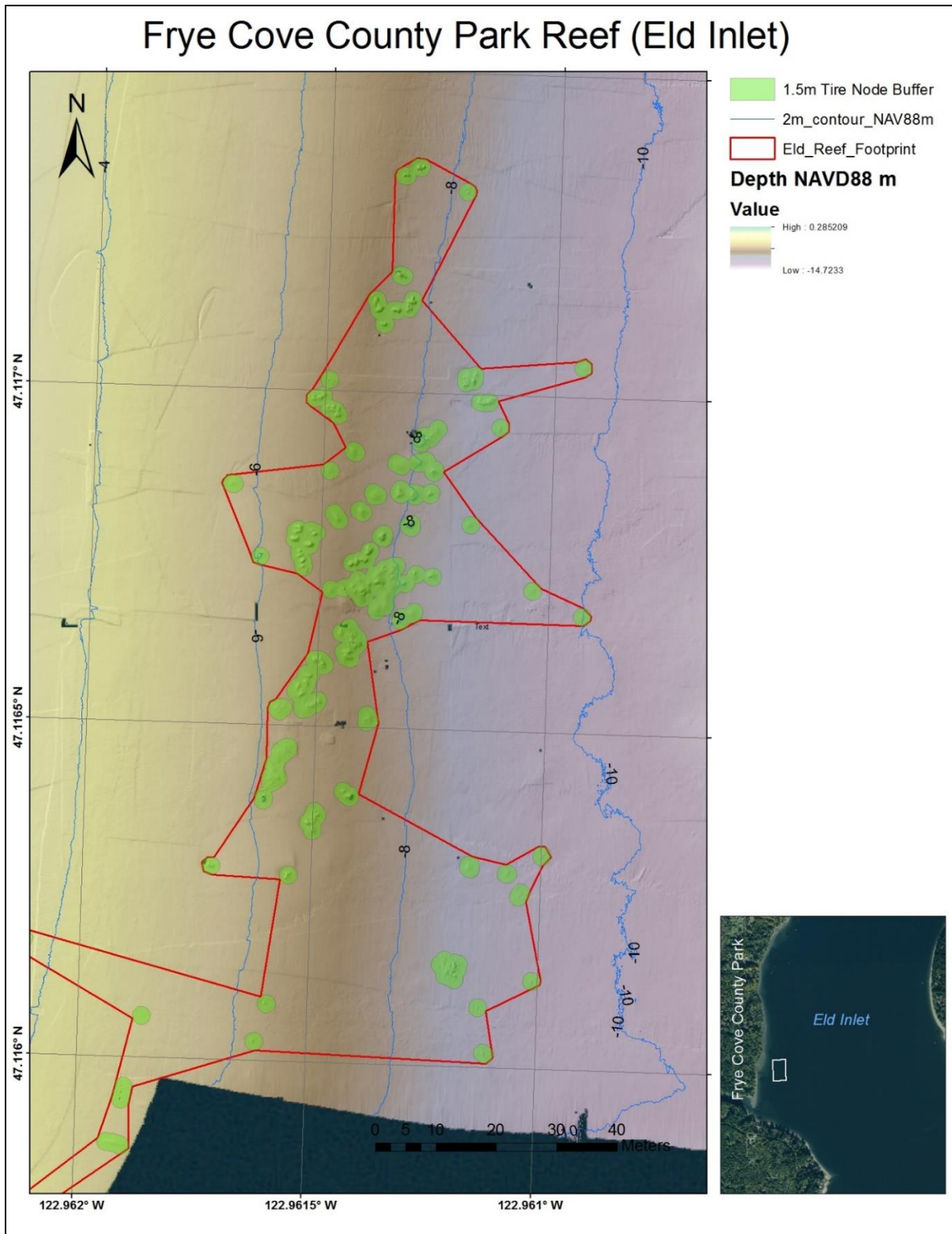
Photo 12. Tires washed up on Burfoot County Park shoreline. Photo by WDNR.

Frye Cove County Park Tire Pile Site

Maps

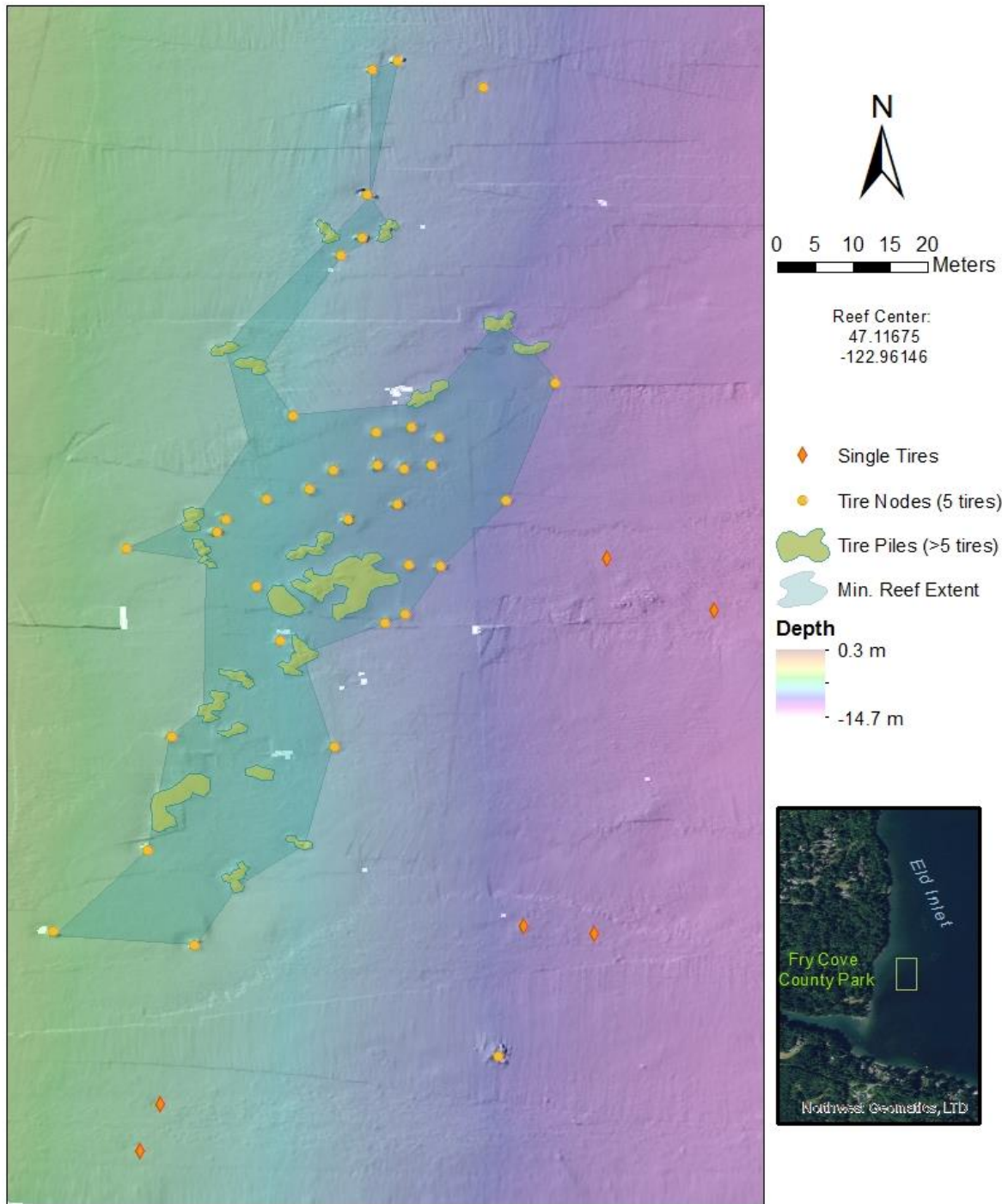


Map 7. Frye Cove County Park Tire Pile site- multibeam sonar data with delineated tires nodes and tire pile footprint from 2020. White circle indicates where additional tires may lie outside of initial survey area.



Map 8. Frye Cove County Park Tire Pile site multibeam sonar data with delineated tires nodes and tire pile footprint from 2020.

Eld Inlet Tire Reef



Map 9. Frye Cove County Park Tire Pile site multibeam sonar data with delineated tires nodes and tire pile footprint from 2020.

Tire Pile Attributes

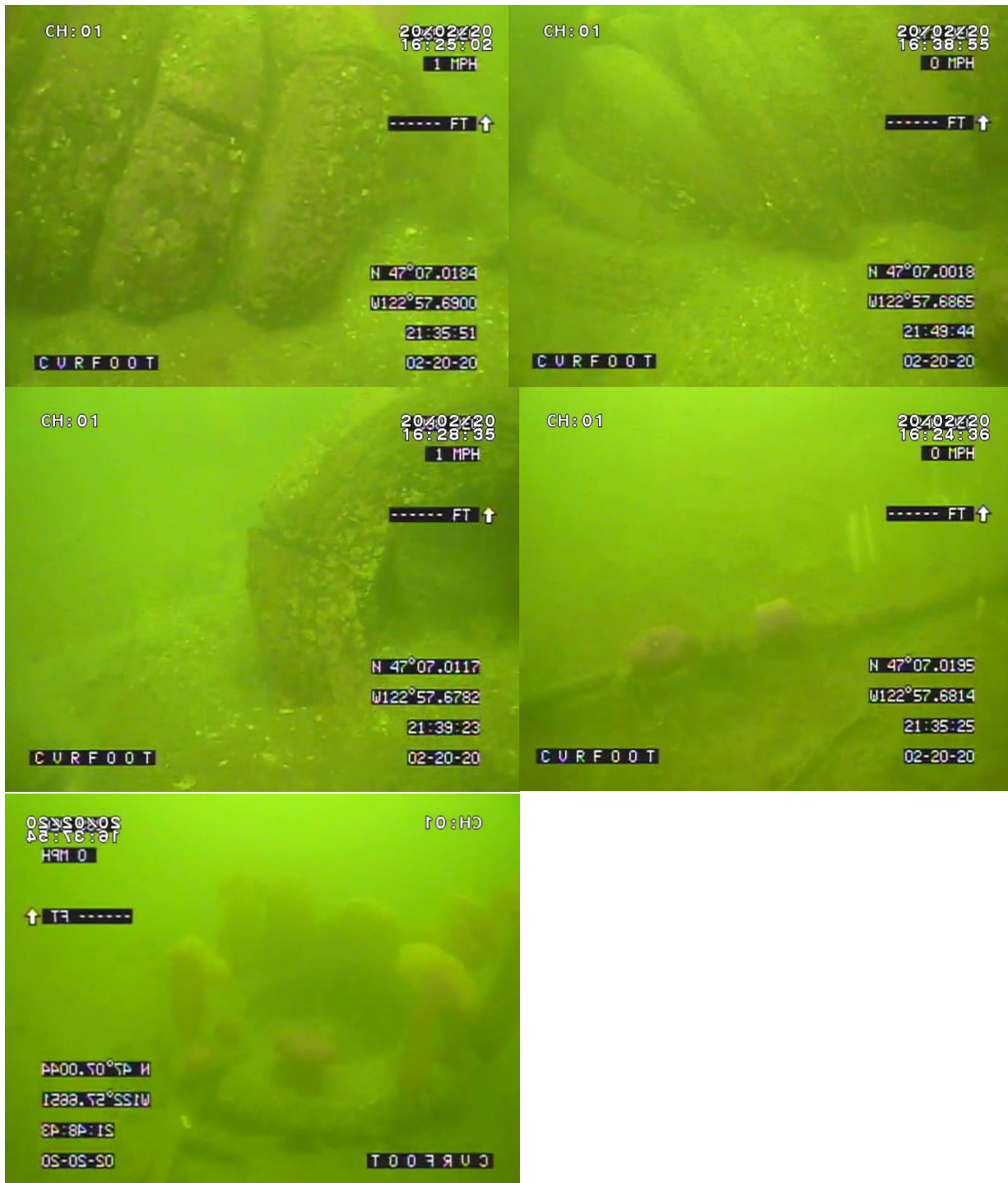
Reef Attribute	Minimum	Maximum
Depth NAVD88 (ft.)	-18.24 ± 2.92	-30.11 ± 0.96
Distance from Shore (ft.)	590	688
1.5m Node Buffer (acres)	.23	
Reef Footprint (acres)	1.31	
Number of Tires	153 ± 17	1,310 ± 312
Tire Weight (lbs.)	3,067	26,212

Table 7. Frye Cove County Park Tire Pile attributes from WDNR spatial data and multibeam sonar data analysis.

	Latitude	Longitude
Center of Reef	47.11675 N	-122.9614 W
NW Corner	47.11722 N	-122.96179 W
NE Corner	47.11722 N	-122.96114 W
SW Corner	47.11624 N	-122.96179 W
SE Corner	47.11624 N	-122.96114 W

Table 8. Approximate location of Frye Cove County Park Tire pile.

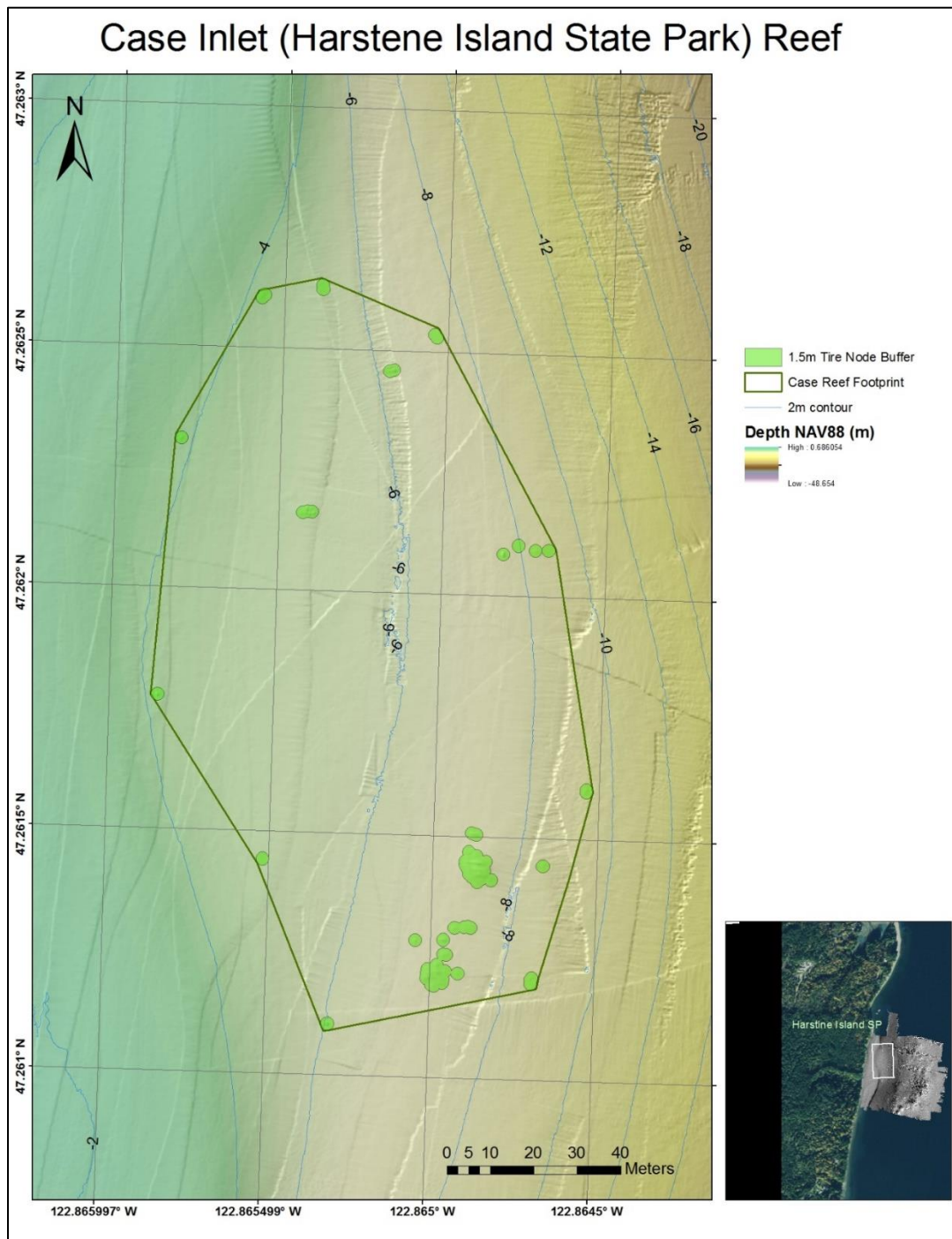
Site Photos



Photos 13-17. Frye Cove County Park Tire Pile bundles. Photos by WDNR.

Case Inlet Tire Pile Site

Maps



Map 10. Case Inlet Tire Pile site multibeam sonar data with delineated tires nodes and tire pile footprint from 2020.

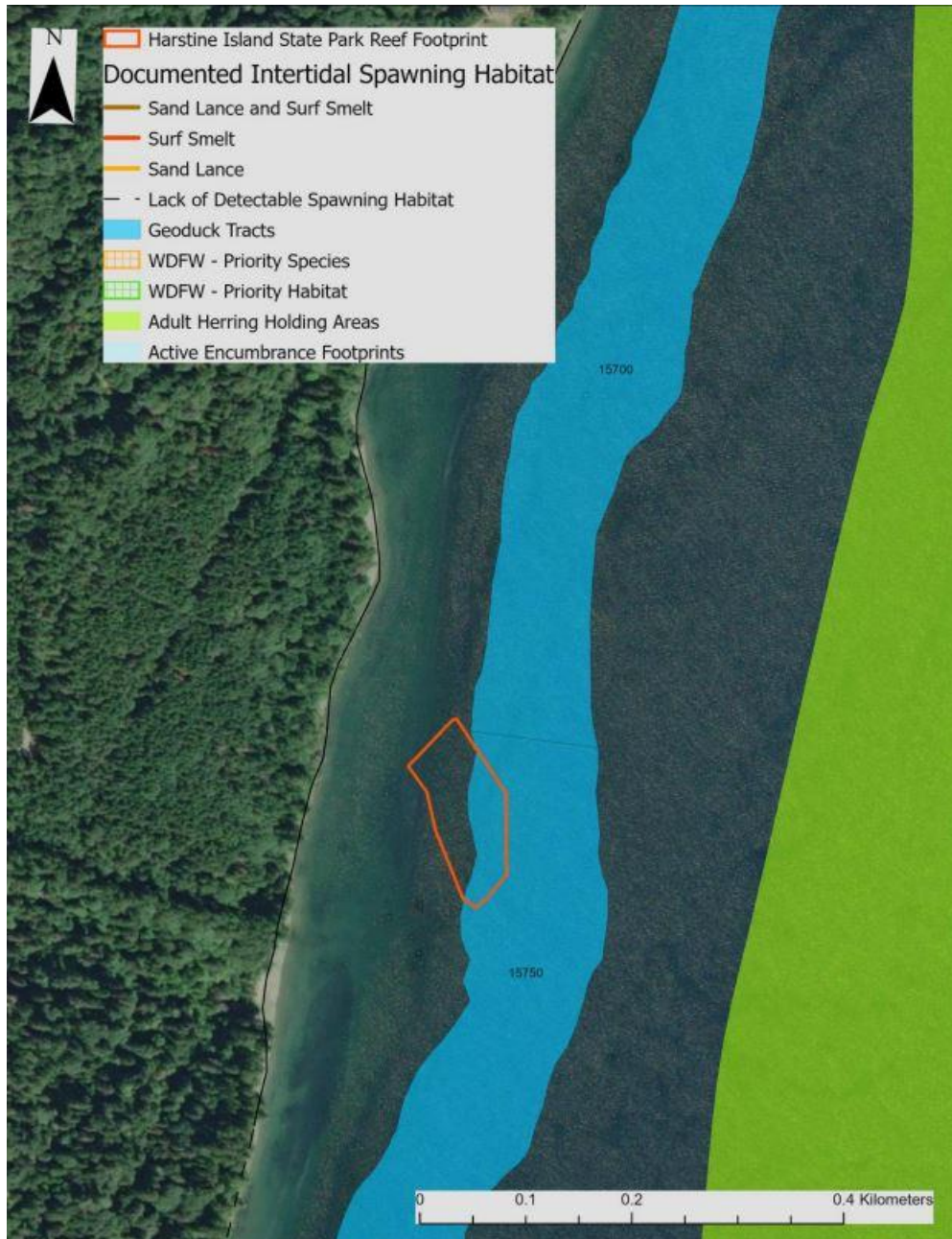


Figure 5. Case Inlet Tire pile footprint, including habitat and encumbrance data.

Tire Pile Attributes

Reef Attributes	Minimum	Maximum
Depth at NAVD88 (ft.)	-14.03 ± 1.19	-28.01 ± 0.77
Distance from Shore (ft.)	272	541
Reef Node 1.5m Buffer Area (acres)	0.072	
Reef Footprint Area (acres)	3.00	
Number of Tires	139 ± 44	481 ± 131
Tire Weight (lbs.)	2,783	9,625

Table 9. Case Inlet Tire Pile attributes from WDNR spatial data and multibeam sonar data analysis.

	Latitude	Longitude
Center of Reef	47.261668 N	-122.864879 W
NW Corner	47.262311 N	-122.865803 W
NE Corner	47.262115 N	-122.864171 W
SW Corner	47.261162 N	-122.865143
SE Corner	47.261143 N	-122.864681

Table 10. Approximate location of Case Inlet Tire Pile.

Site Photos



Photos 18-19. Case Inlet Tire Pile. Photos by WDNR.