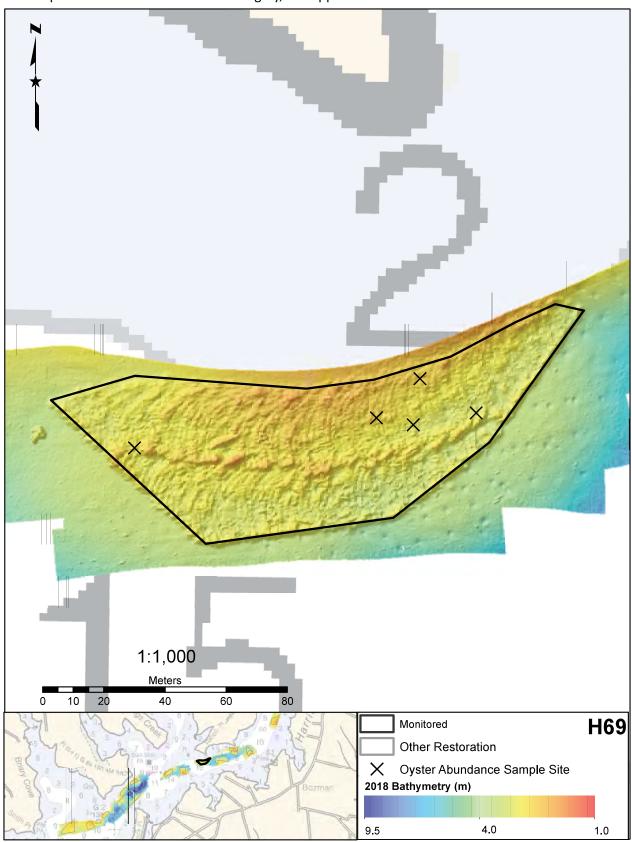
## Reef H69 AltSub\_37

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

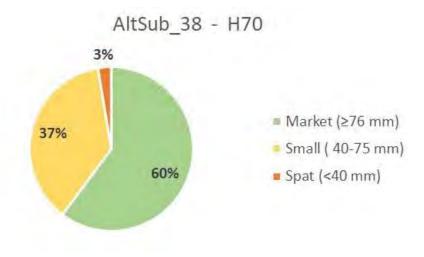


# Reef H70 AltSub\_38

	Report reef ID	H70
Reef Information	Geodatabase Site_ID	AltSub_38
	Tributary	Harris Creek
	Reef area (acres)	1.84
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	10/30/2018
toute of a state on the	# samples taken	4
onitoring Information	# live oysters measured	419
	# live oysters counted	907
	# dead oysters counted	134
	% of oysters that were dead	13%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	453.50
	Standard error of live density (#/m²)	17.13
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Maria Maria	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	223.50
	Standard error of live density on stone	42.58
	Average live density on shellall shell types (#/m²)	229.00
	Standard error of live density on shell-aall shell types	35.27
	Average live density on clam shell (#/m²)	0.00
1.0	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	2.30
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
Cyater Divinoss	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	438.35
	Standard error of live biomass	20.79
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	37.50
	Standard error of shell volume	2.72
Shell Volume	Average brown shell across all samples (%)	49%
San Islanic	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	-
lultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
weer Height	3 years post restoration (cm)	0.06
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H70 AltSub\_38

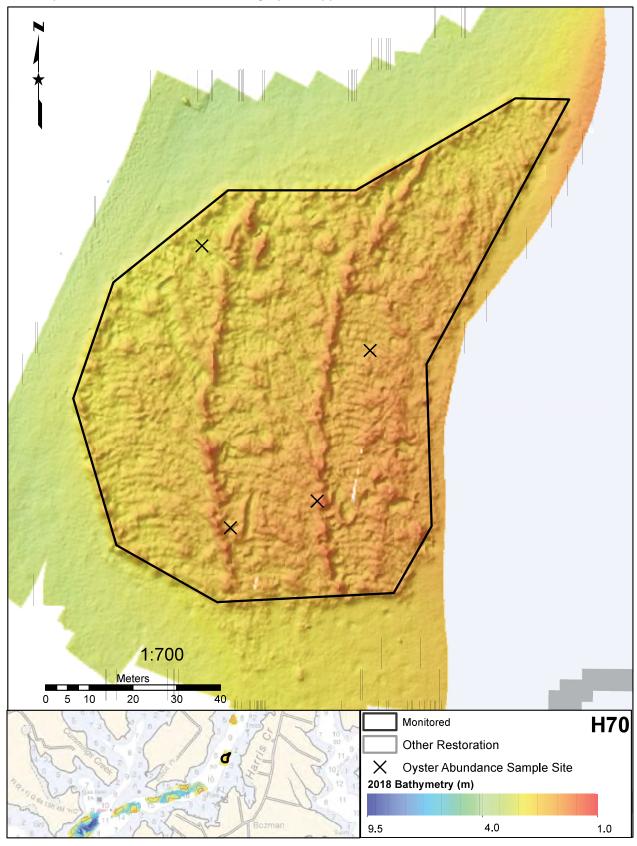
### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H70 AltSub\_38

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



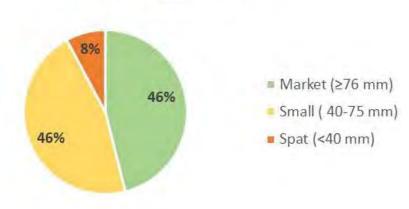
# Reef H71 AltSub\_40

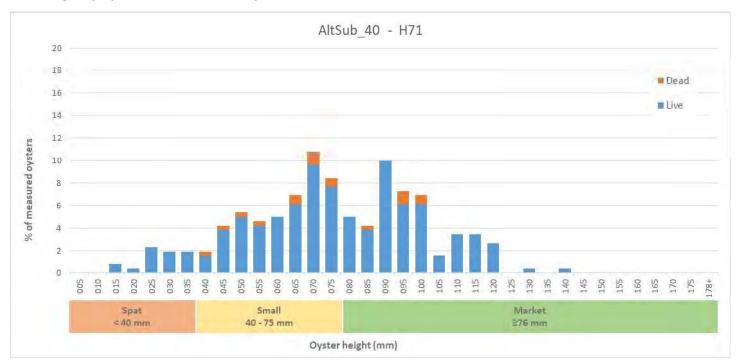
	Report reef ID	H71
Reef Information	Geodatabase Site_ID	AltSub_40
	Tributary.	Harris Creek
	Reef area (acres)	6.93
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
Restoration Treatment	Average planned reef height*	6
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/14/2018
Monitoring Information -	# samples taken	5
and the strain state	# live oysters measured	243
	# live oysters counted	409
	# dead oysters counted	24
	% of oysters that were dead	6%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	163.60
	Standard error of live density (#/m²)	46.65
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	80%
Cyster Delisity	Average live density on stone (#/m²)	116.80
	Standard error of live density on stone	32.56
	Average live density on shellall shell types (#/m²)	45.20
	Standard error of live density on shell-aall shell types	14.08
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	.5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
3,1,000	Reef area meeting target biomass (%)	80%
	Average live biomass across reef (g dry weight per m²)	142.37
	Standard error of live biomass	40.14
	Average live biomass across reef at 3 years post restoration	No.
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	2.60
	Standard error of shell volume	0.87
Shell Volume	Average brown shell across all samples (%)	92%
	Total volume change (liters per m²)	4
	% Change in total volume from 2015	4
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
ucei tieigitt	3 years post restoration (cm)	0.021
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H71 AltSub\_40

### Percent of Measured Oysters in the Market, Small, and Spat Categories

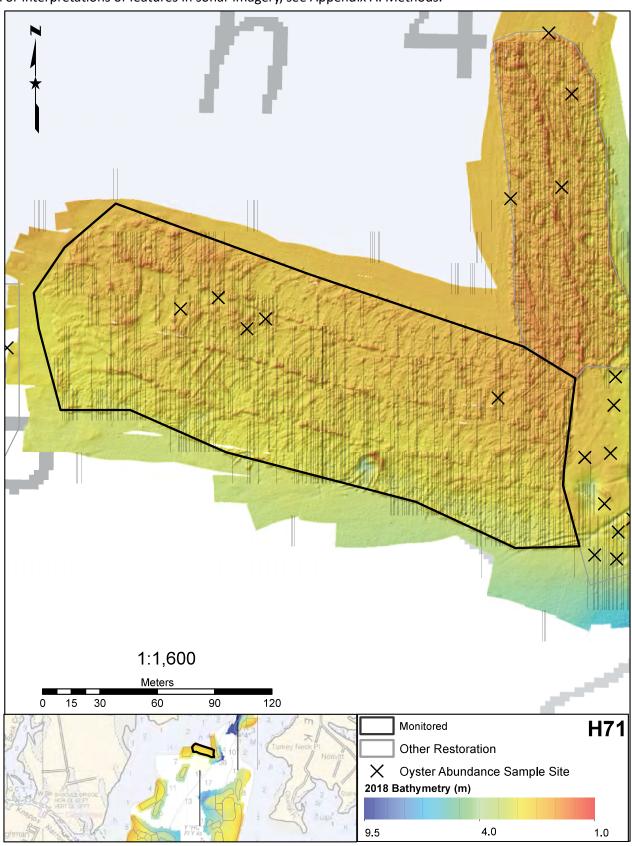






## Reef H71 AltSub\_40

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



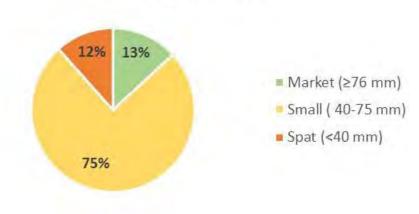
# Reef H72 AltSub\_43A

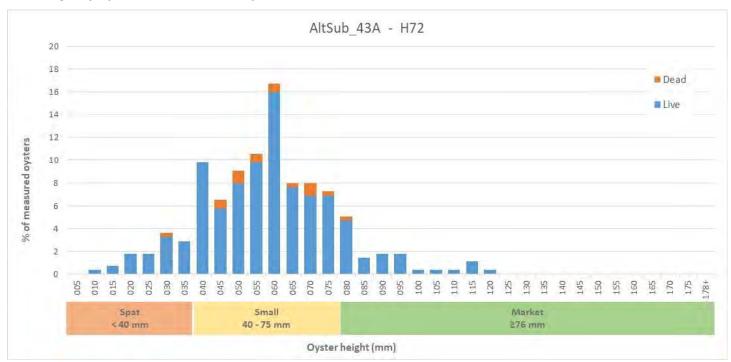
	Report reef ID	H72
Reef Information	Geodatabase Site_ID	AltSub_43A
	Tributary	Harris Creek
	Reef area (acres)	1.02
	Restoration treatment	Substrate & Seed
	Substrate type added	Mixed Shell
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Patent Tong
	Sample date	3/20/2019
onitoring Information	#samples taken	7
Antoning information	# live oysters measured	259
	# live oysters counted	838
	# dead oysters counted	31
	% of oysters that were dead	4%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	74.36
	Standard error of live density (#/m²)	12.22
	Number of samples meeting minimum threshold density (m²)	7
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	6
Oyster Density	Percent of samples meeting target density (%)	86%
System Delighty	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	6
	Reef area meeting minimum threshold biomass (%)	86%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	2
	Reef area meeting target biomass (%)	29%
	Average live biomass across reef (g dry weight per m²)	44.17
	Standard error of live biomass	7.64
	Average live biomass across reef at 3 years post restoration	2747
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	9.85
	Standard error of shell volume	1.13
Shell Volume	Average brown shell across all samples (%)	80%
	Total volume change (liters per m²)	4
	% Change in total volume from 2015	*
-	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
lultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
	3 years post restoration (cm)	0.003
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

### Reef H72 AltSub\_43A

### Percent of Measured Oysters in the Market, Small, and Spat Categories

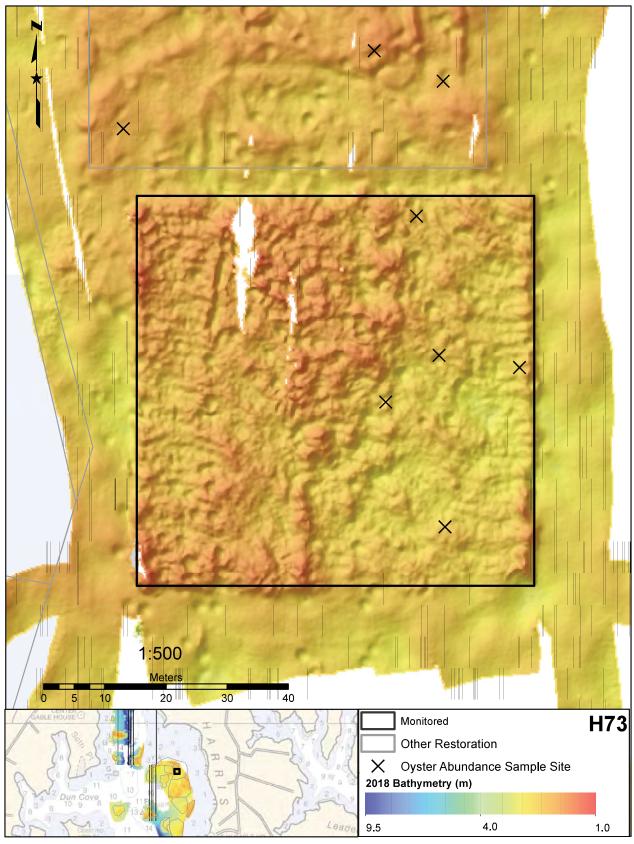






## Reef H72 AltSub\_43A

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



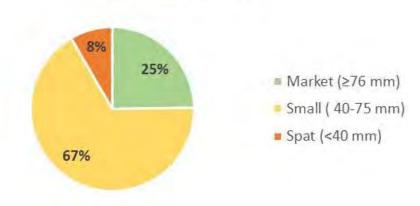
# Reef H73 AltSub\_43B

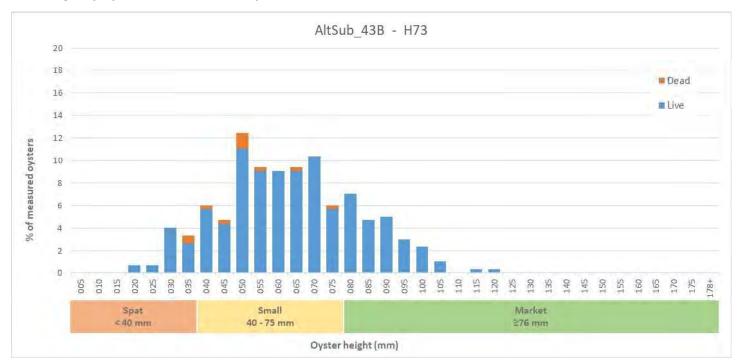
	Report reef ID	H73
Reef Information	Geodatabase Site_ID	AltSub_43B
	Tributary	Harris Creek
	Reef area (acres)	1.02
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
Restoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/30/2018
Monitoring Information	# samples taken	5
and the same of th	# live oysters measured	287
	# live oysters counted	545
	# dead oysters counted	50
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	218.00
	Standard error of live density (#/m²)	30.05
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Oyster Density	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	160.40
	Standard error of live density on stone	24.48
	Average live density on shellall shell types (#/m²)	57.60
	Standard error of live density on shell-aall shell types	12.29
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	.5
The same of the sa	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	137.48
	Standard error of live biomass	16.25
	Average live biomass across reef at 3 years post restoration	Ave
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	2.60
	Standard error of shell volume	0.51
Shell Volume	Average brown shell across all samples (%)	90%
The second second	Total volume change (fiters per m²)	4
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
neer neight	3 years post restoration (cm)	0.008
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H73 AltSub\_43B

### Percent of Measured Oysters in the Market, Small, and Spat Categories

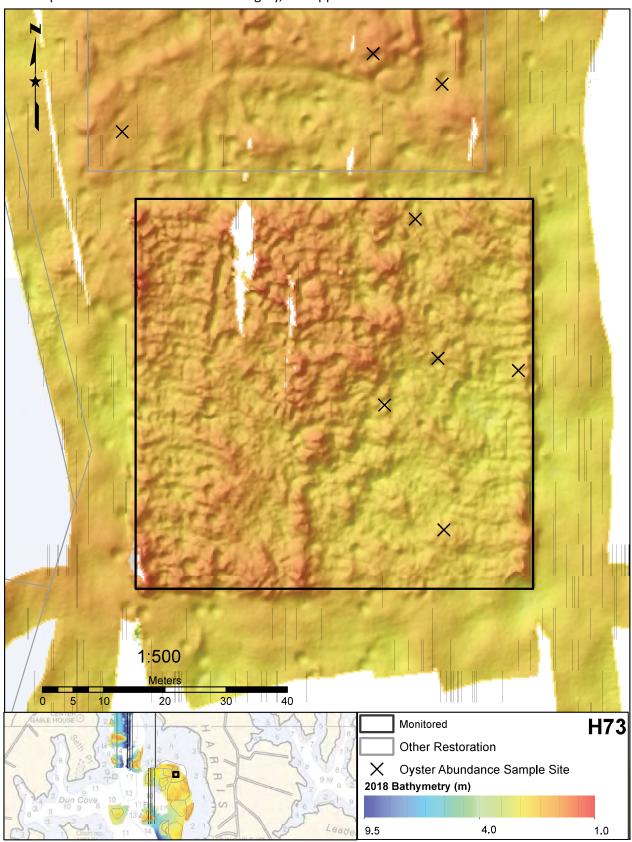






### Reef H73 AltSub\_43B

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

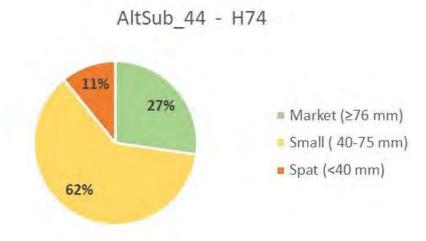


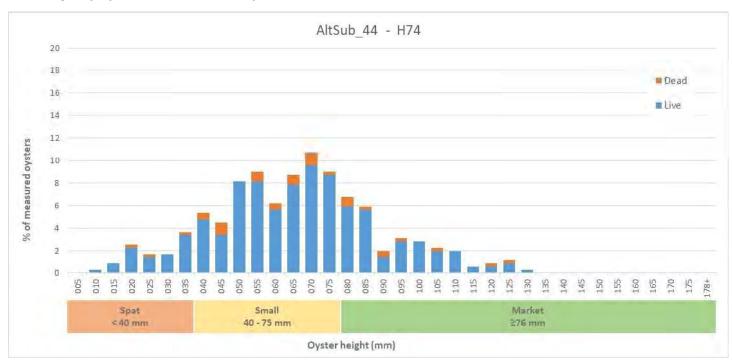
# Reef H74 AltSub\_44

	Report reef ID	H74
Reef Information	Geodatabase Site_ID	AltSub_44
	Tributary	Harris Creek
	Reef area (acres)	1.48
	Restoration treatment	Substrate & Seed
0.00	Substrate type added	Stone base with mixed shel
Restoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	10/4/2018
	#samples taken	4
Monitoring Information	# live oysters measured	323
	# live dysters counted	710
	# dead oysters counted	33
	% of oysters that were dead	4%
		Yes
1.0	Fall 2018: Did reef meet minimum threshold density?	March 1
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	355.00 65.29
	Standard error of live density (#/m²)	
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
	Average live density on stone (#/m²)	122.00
	Standard error of live density on stone	56.93
	Average live density on shellall shell types (#/m²)	180.50
	Standard error of live density on shell-aall shell types	49.20
- 1	Average live density on clam shell (#/m²)	50.50
13	Standard error of live density on clam shell	18.21
	Average live density across reef at 3 years post restoration	1797.
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
19	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	237.50
	Standard error of live biomass	49.84
	Average live biomass across reef at 3 years post restoration	7.47
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	73,50
1	Standard error of shell volume	16.27
Shell Volume	Average brown shell across all samples (%)	96%
	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
Treagne	3 years post restoration (cm)	0.015
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

### Reef H74 AltSub\_44

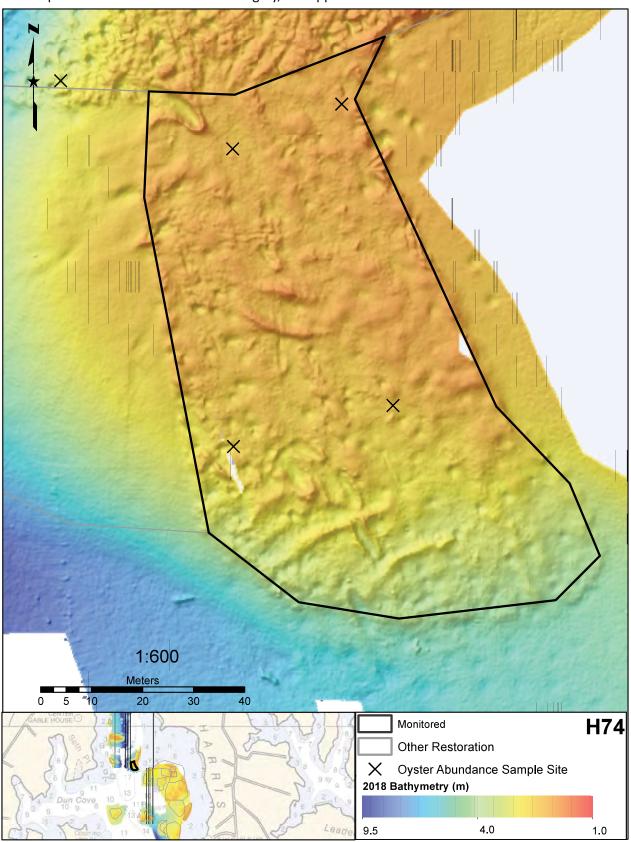
### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H74 AltSub\_44

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



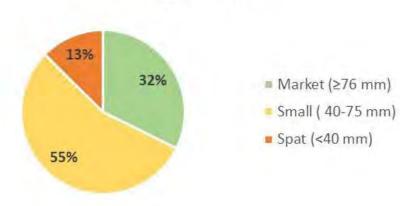
# Reef H75 AltSub\_45

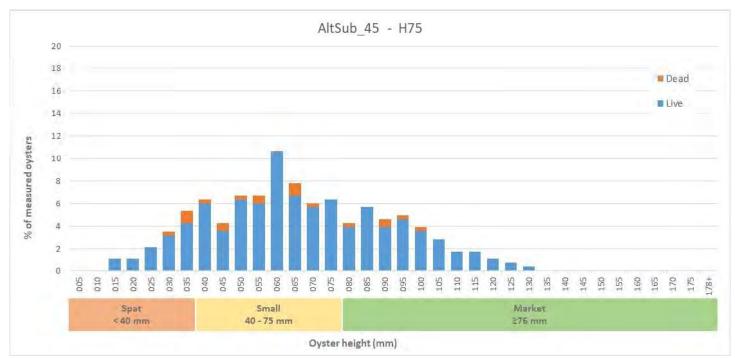
Geodatabase Site_ID  Tributary  Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters counted  # of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (m²)  Percent of samples meeting target density (m²)  Standard error of live density on stone  verage live density on stone (#/m²)  Standard error of live density on stone  verage live density on shell—all shell types (#/m²)	AltSub_45 Harris Creek 2.13 Substrate & Seed Stone 12 2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50 61.00
Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters counted  # dead oysters that were dead  If 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (m²)  Standard error of live density on stone (#/m²)  Standard error of live density on stone (#/m²)  Standard error of live density on stone (#/m²)	Harris Creek 2.13 Substrate & Seed Stone 12 2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters counted  % of oysters that were dead  If 2018: Did reef meet minimum threshold density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (m²)  Percent of samples meeting target density (m²)  Standard error of live density on stone (#/m²)  Standard error of live density on stone (#/m²)	Substrate & Seed Stone 12 2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	Stone 12 2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Average planned reef height*  Vear planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (m²)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	12 2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters counted  Wo fo oysters that were dead  If 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (m²)  Percent of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	2015 N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  If 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	N/A 3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters that were dead  # 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone (#/m²)  Standard error of live density on stone (#/m²)	3 Year Cohort Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters that were dead  If 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (m²)  Percent of samples meeting target density (m²)  Percent of samples meeting target density (m²)  Standard error of live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	Diver 10/4/2018 4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  Int of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	10/4/2018  4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
# samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	4 263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00
# live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	263 682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
# live oysters counted  # dead oysters counted  % of oysters that were dead  II 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	682 30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
# dead oysters counted % of oysters that were dead II 2018: Did reef meet minimum threshold density? Fall 2018: Did reef meet target density? Average live density across reef (#/m²) Standard error of live density (#/m²) er of samples meeting minimum threshold density (m²) nt of samples meeting minimum threshold density (%) Number of samples meeting target density (m²) Percent of samples meeting target density (%) Average live density on stone (#/m²) Standard error of live density on stone verage live density on shellall shell types (#/m²)	30 4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
% of oysters that were dead  If 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	4% Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	Yes Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	Yes 341.00 44.52 4 100% 4 100% 274.00 29.50
Average live density across reef (#/m²)  Standard error of live density (#/m²)  er of samples meeting minimum threshold density (m²)  nt of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	341.00 44.52 4 100% 4 100% 274.00 29.50
Standard error of live density (#/m²) er of samples meeting minimum threshold density (m²) nt of samples meeting minimum threshold density (%) Number of samples meeting target density (m²) Percent of samples meeting target density (%) Average live density on stone (#/m²) Standard error of live density on stone verage live density on shellall shell types (#/m²)	44.52 4 100% 4 100% 274.00 29.50
er of samples meeting minimum threshold density (m²) Int of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	4 100% 4 100% 274.00 29.50
Number of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	100% 4 100% 274.00 29.50
Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  verage live density on shellall shell types (#/m²)	4 100% 274.00 29.50
Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone verage live density on shellall shell types (#/m²)	100% 274.00 29.50
Average live density on stone (#/m²)  Standard error of live density on stone verage live density on shellall shell types (#/m²)	274.00 29.50
Standard error of live density on stone verage live density on shellall shell types (#/m²)	29.50
verage live density on shellall shell types (#/m²)	
	61.00
Adams and the design of the second se	
indard error of live density on shell-aall shell types	27.14
Average live density on clam shell (#/m²)	0.00
Standard error of live density on clam shell	0.00
age live density across reef at 3 years post restoration	
(for 6-year-old reefs only) (#/m²)	N/A
018: Did reef meet minimum threshold oyster biomass?	Yes
ber of samples meeting minimum threshold biomass	4
eef area meeting minimum threshold biomass (%)	100%
Fall 2018: Did reef meet target oyster biomass?	Yes
Number of samples meeting target biomass	4
Reef area meeting target biomass (%)	100%
erage live biomass across reef (g dry weight per m²)	245.71
Standard error of live biomass	35.06
ge live biomass across reef at 3 years post restoration	210
	N/A
	TBD in 2021
and the second s	3.25
	0.48
	94%
	4.
	*
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
% change in surface shell volume change	
A STATE OF THE STA	Yes
	Yes
	Yes
3 years post restoration (cm)	0.032
	(for 6-year-old reefs only) (g dry weight per m²)  Is the shell budget stable/ increasing?  erage shell volume across entire reef (liters per m²)  Standard error of shell volume  Average brown shell across all samples (%)  Total volume change (liters per m²)  % Change in total volume from 2015  Surface shell volume change (liters per m²)  % change in surface shell volume change  Are multiple year classes present?  Is reef footprint stable/increasing?  is reef height stable/increasing?  3 years post restoration (cm)  e planned reef height: The amount of reef-building placed into a reef was calculated by multiplying the

## Reef H75 AltSub\_45

### Percent of Measured Oysters in the Market, Small, and Spat Categories

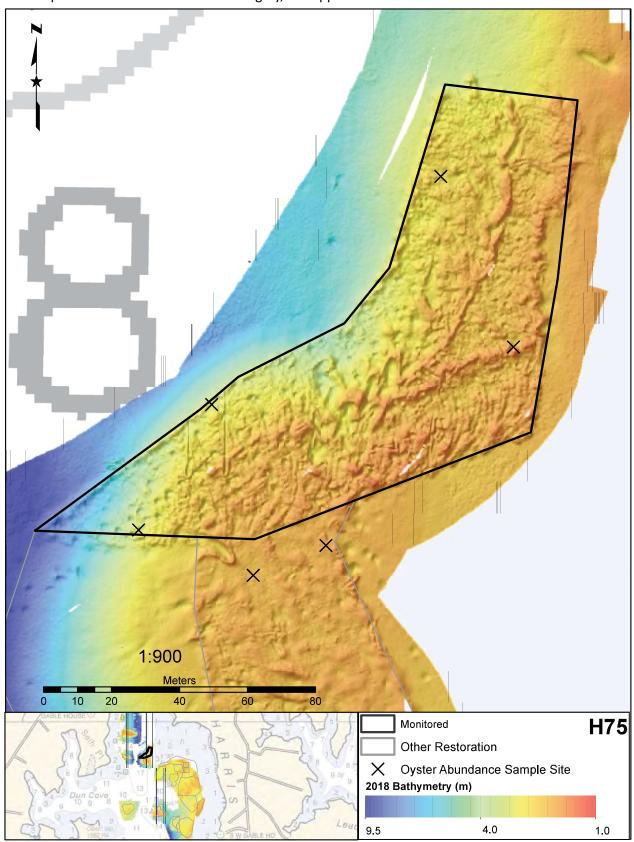






## Reef H75 AltSub\_45

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

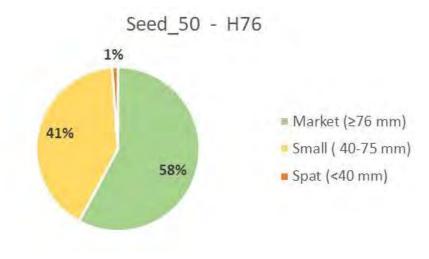


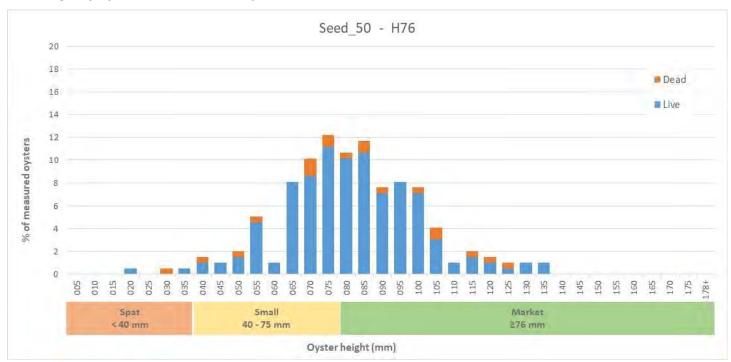
# Reef H76 Seed\_50

	Report reef ID	H76
Reef Information	Geodatabase Site_ID	Seed_50
	Tributary	Harris Creek
	Reef area (acres)	3.65
	Restoration treatment	Seed Only
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2015
	Second year class replanting	2016
	Monitoring type	3 Year Cohort
	Sample method	Patent Tong
	Sample date	3/13/2019
onitoring Information	# samples taken	11
•	# live oysters measured	178
	# live oysters counted	261
	# dead oysters counted	21
	% of oysters that were dead	7%
1	Fall 2018: Did reef meet minimum threshold density?	No
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	14.74
	Standard error of live density (#/m²)	5,13
	Number of samples meeting minimum threshold density (m²)	3
	Percent of samples meeting minimum threshold density (%)	27%
	Number of samples meeting target density (m²)	1
Oyster Density	Percent of samples meeting target density (%)	9%
System Delisity	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	No
	Number of samples meeting minimum threshold biomass	3
	Reef area meeting minimum threshold biomass (%)	27%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	1
and an analysis	Reef area meeting target biomass (%)	9%
	Average live biomass across reef (g dry weight per m²)	15.81
	Standard error of live biomass	5.51
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	6.68
	Standard error of shell volume	2.08
Shell Volume	Average brown shell across all samples (%)	58%
	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	- 4
	% change in surface shell volume change	-
ultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
The spirit	3 years post restoration (cm)	-0.018
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H76 Seed\_50

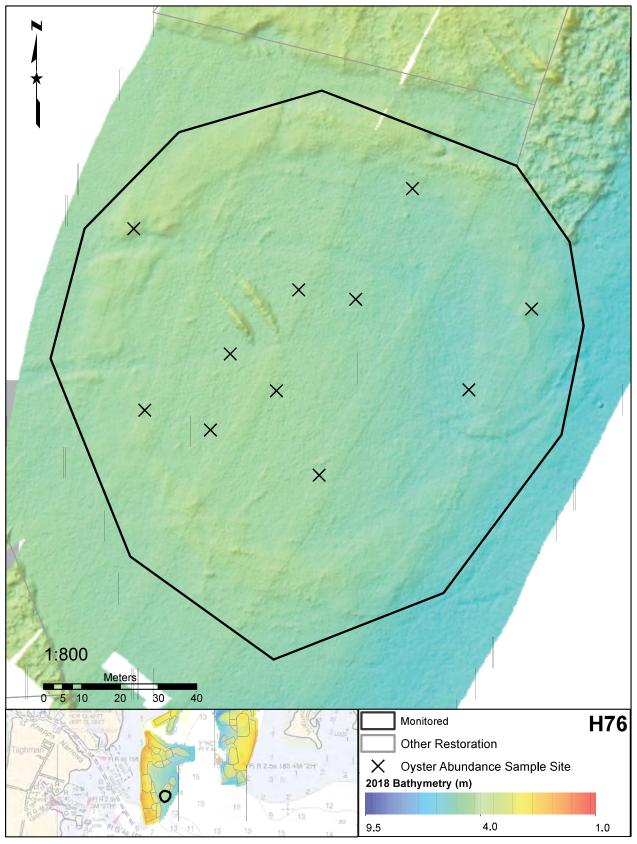
### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H76 Seed\_50

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

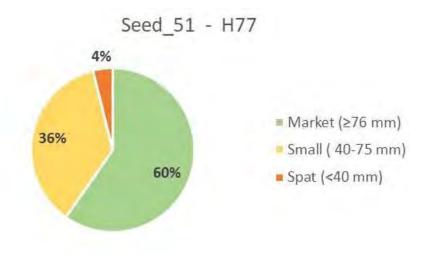


# Reef H77 Seed\_51

	Report reef ID	H77
Reef Information	Geodatabase Site_ID	Seed_51
	Tributary	Harris Creek
	Reef area (acres)	2.32
	Restoration treatment	Seed Only
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Patent Tong
	Sample date	3/11/2019
onitoring Information	# samples taken	9
and the same same	# live oysters measured	231
	# live oysters counted	400
	# dead oysters counted	48
	% of oysters that were dead	11%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	27.61
	Standard error of live density (#/m²)	5.60
	Number of samples meeting minimum threshold density (m²)	7
	Percent of samples meeting minimum threshold density (%)	78%
	Number of samples meeting target density (m²)	0
Oyster Density	Percent of samples meeting target density (%)	0%
Cyster Delisity	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	8
	Reef area meeting minimum threshold biomass (%)	89%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
- Jaser Maniaga	Reef area meeting target biomass (%)	33%
	Average (ive biomass across reef (g dry weight per m²)	32.33
	Standard error of live biomass	7.27
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	12.42
	Standard error of shell volume	1.93
Shell Volume	Average brown shell across all samples (%)	79%
	Total volume change (liters per m²)	4
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-4
ultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
ucei Height	3 years post restoration (cm)	-0.011
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H77 Seed\_51

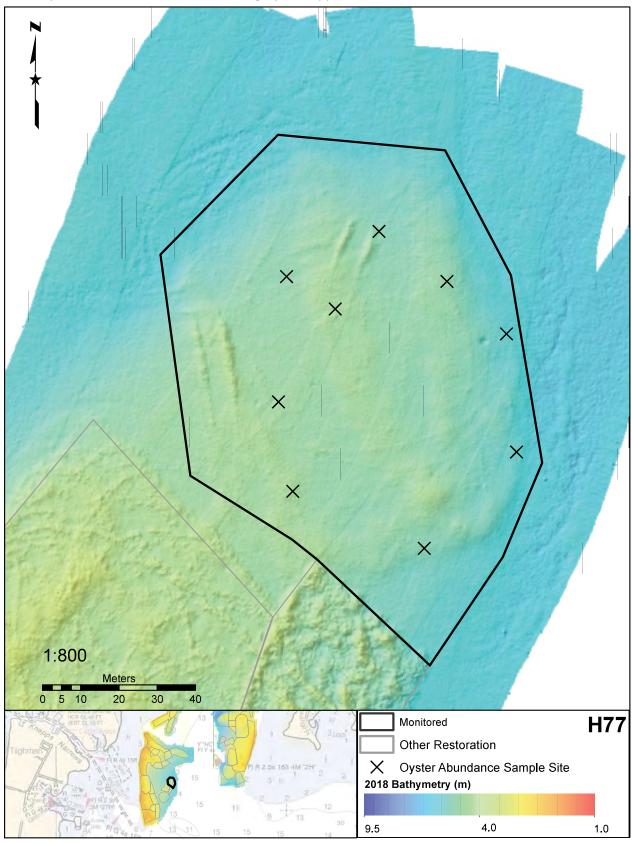
### Percent of Measured Oysters in the Market, Small, and Spat Categories





### Reef H77 Seed\_51

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



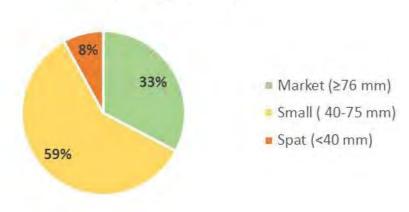
# Reef H78 AltSub\_53

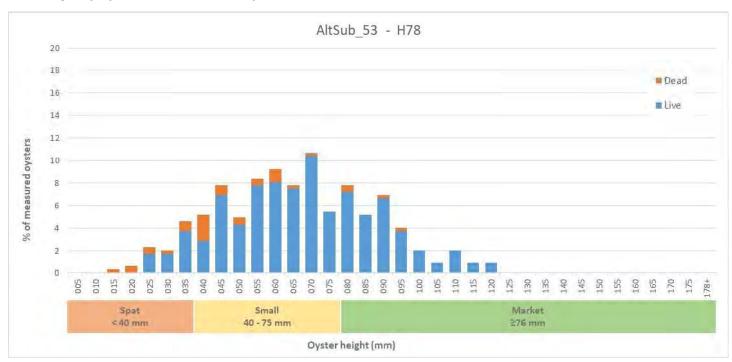
	Report reef ID	H78
Reef Information	Geodatabase Site_ID	AltSub_53
	Tributary	Harris Creek
	Reef area (acres)	0.96
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/17/2018
anitarina Information	# samples taken	5
onitoring Information	# live oysters measured	312
	# live oysters counted	1168
	# dead oysters counted	101
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	Yes
0	Fall 2018: Did reef meet target density?	Yes
1	Average live density across reef (#/m²)	467.20
	Standard error of live density (#/m²)	88.07
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
William .	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	399.60
	Standard error of live density on stone	63.42
	Average live density on shellall shell types (#/m²)	67.60
	Standard error of live density on shell-aall shell types	26.18
7	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	0.00
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
Oyster Divindss	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	324,33
	Standard error of live biomass	47.58
	Average live biomass across reef at 3 years post restoration	1.375.50
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	3.00
	Standard error of shell volume	0.71
Shell Volume	Average brown shell across all samples (%)	91%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
neci ficigiti	3 years post restoration (cm)	0.045
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H78 AltSub\_53

### Percent of Measured Oysters in the Market, Small, and Spat Categories

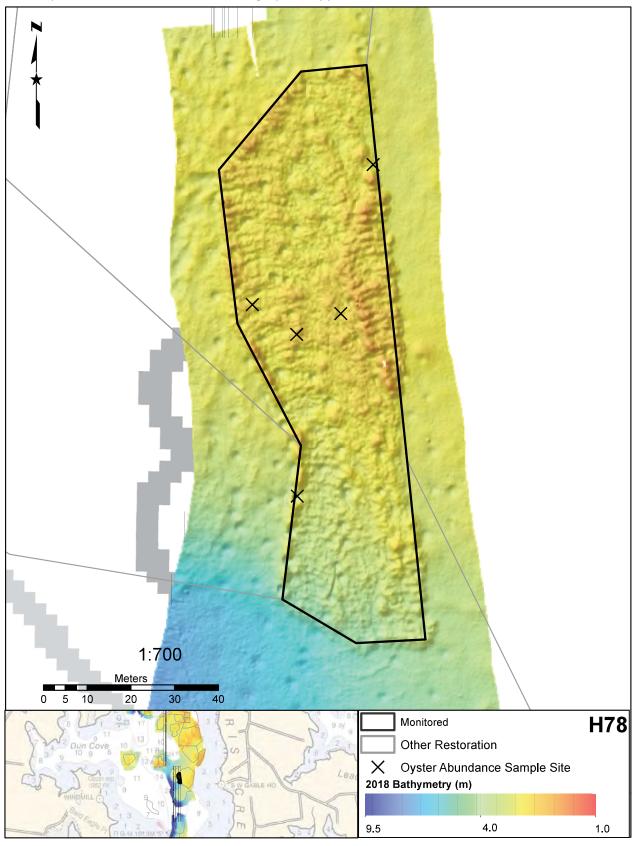






## Reef H78 AltSub\_53

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

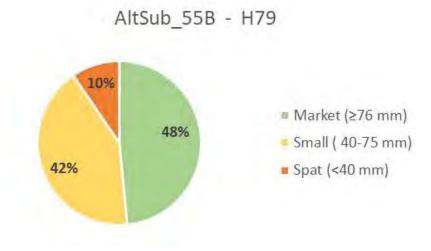


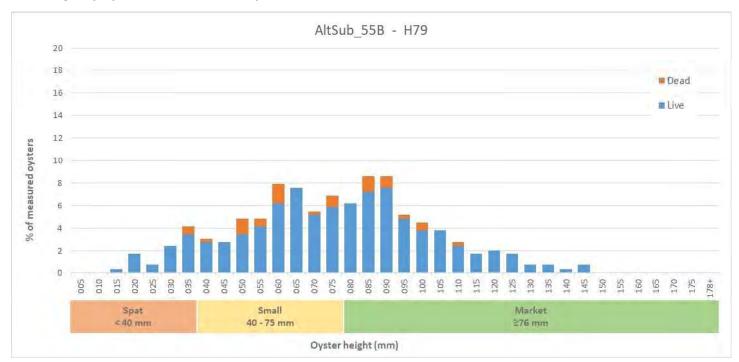
# Reef H79 AltSub\_55B

	Report reef ID	H79
Reef Information	Geodatabase Site_ID	AltSub_55B
	Tributary	Harris Creek
	Reef area (acres)	2.24
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/14/2018
lonitoring Information	# samples taken	4
ionitoring information	# live oysters measured	262
	# live oysters counted	621
	# dead oysters counted	47
	% of oysters that were dead	7%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	310.50
	Standard error of live density (#/m²)	105.37
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	170.00
	Standard error of live density on stone	78.77
	Average live density on shellall shell types (#/m²)	136.50
	Standard error of live density on shell-aall shell types	56.08
	Average live density on clam shell (#/m²)	0.50
	Standard error of live density on clam shell	0.50
1	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
- Carrier and Carr	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	258.69
	Standard error of live biomass	77.48
	Average live biomass across reef at 3 years post restoration	44.0
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	17.25
	Standard error of shell volume	9.89
Shell Volume	Average brown shell across all samples (%)	88%
-	Total volume change (liters per m²)	( <u>1</u> 0
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	12 m
	% change in surface shell volume change	4
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
	3 years post restoration (cm)	0.035
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H79 AltSub\_55B

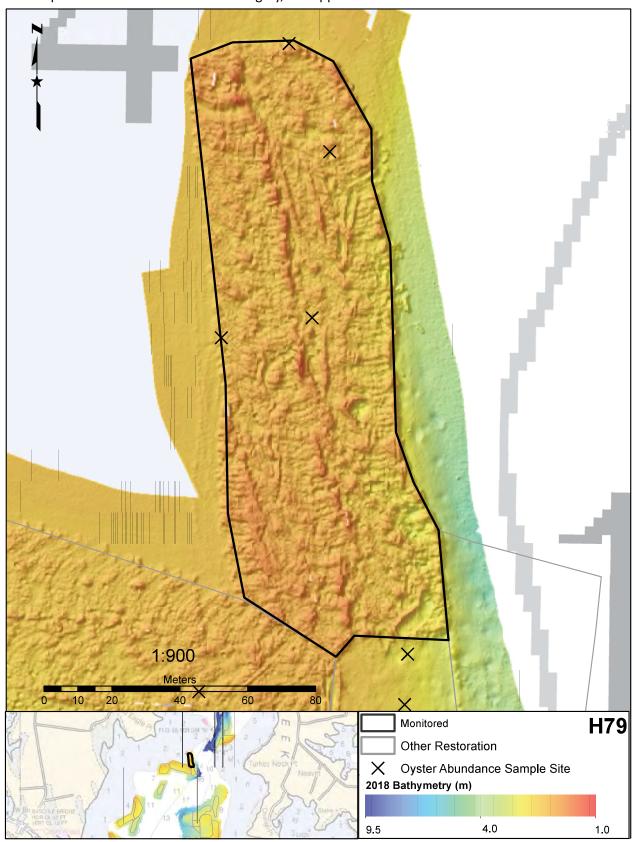
### Percent of Measured Oysters in the Market, Small, and Spat Categories





# Reef H79 AltSub\_55B

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



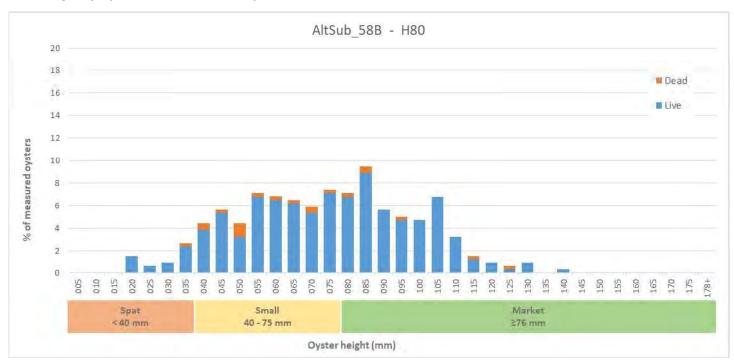
# Reef H80 AltSub\_58B

	Report reef ID	H80
Reef Information	Geodatabase Site_ID	AltSub_58B
	Tributary	Harris Creek
	Reef area (acres)	2.28
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/17/2018
onitoring Information	# samples taken	4
in terms in terms to the	# live oysters measured	318
	# live oysters counted	539
	# dead oysters counted	32
	% of oysters that were dead	6%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	269.50
	Standard error of live density (#/m²)	37.14
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Density	Average live density on stone (#/m²)	119.00
	Standard error of live density on stone	37.55
	Average live density on shellall shell types (#/m²)	150.50
	Standard error of live density on shell-aall shell types	68.30
1	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	19.792
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
The second second	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	226.61
	Standard error of live biomass	29.89
	Average live biomass across reef at 3 years post restoration	7.1
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	16.75
	Standard error of shell volume	11.95
Shell Volume	Average brown shell across all samples (%)	84%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
nee. neight	3 years post restoration (cm)	0.029
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

### Reef H80 AltSub\_58B

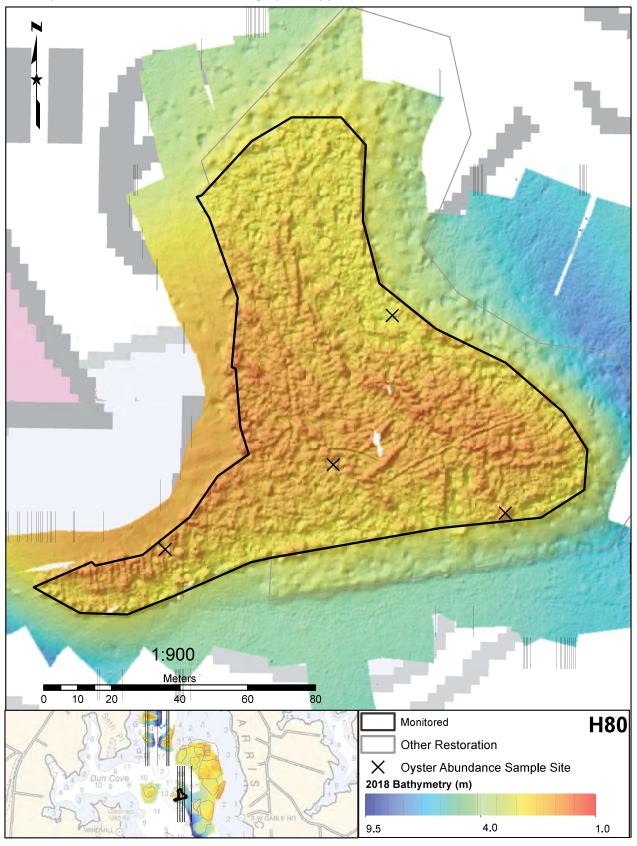
### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H80 AltSub\_58B

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

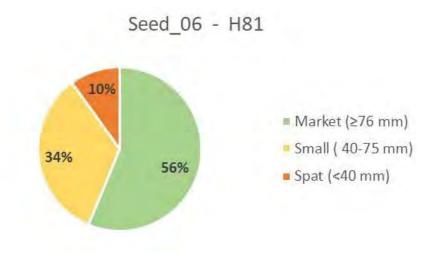


# Reef H81 Seed\_06

	Report reef ID	H81
Reef Information	Geodatabase Site_ID	Seed_06
Description of the second	Tributary	Harris Creek
	Reef area (acres)	1.27
	Restoration treatment	Seed Only
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2016
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Patent Tong
	Sample date	3/20/2019
onitoring Information	# samples taken	11
antoning internation	# live oysters measured	382
	# live oysters counted	705
	# dead oysters counted	58
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fail 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	39.81
	Standard error of live density (#/m²)	8.16
	Number of samples meeting minimum threshold density (m²)	10
	Percent of samples meeting minimum threshold density (%)	91%
	Number of samples meeting target density (m²)	2
Oyster Density	Percent of samples meeting target density (%)	18%
Syster Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	10
	Reef area meeting minimum threshold biomass (%)	91%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	3
31-12 01011033	Reef area meeting target biomass (%)	27%
	Average live biomass across reef (g dry weight per m²)	44.09
	Standard error of live biomass	8.08
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	12.82
	Standard error of shell volume	1.68
Shell Volume	Average brown shell across all samples (%)	76%
January 1 Statute	Total volume change (liters per m²)	Ψ
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	· ·
	% change in surface shell volume change	3.0
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
weer treight	3 years post restoration (cm)	0,02
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H81 Seed\_06

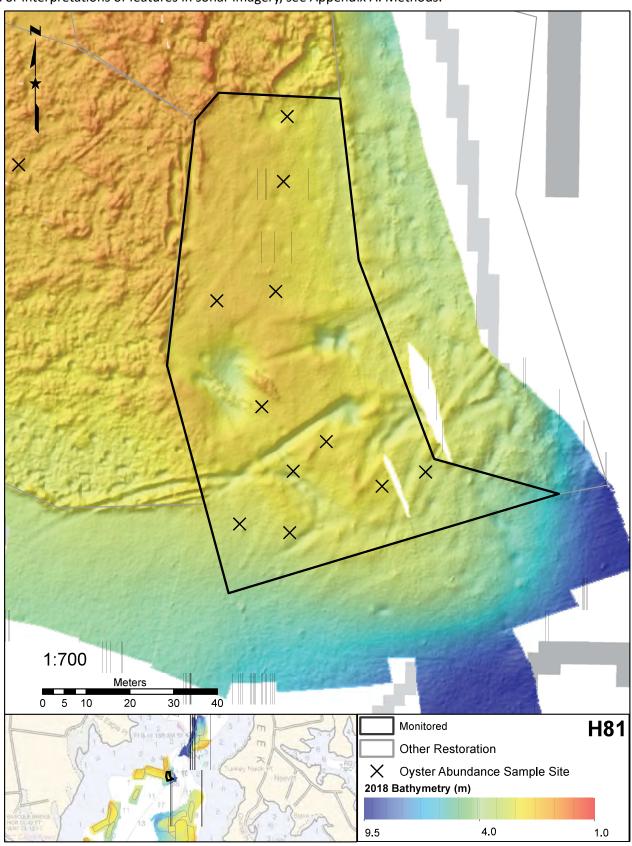
### Percent of Measured Oysters in the Market, Small, and Spat Categories





### Reef H81 Seed\_06

#### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



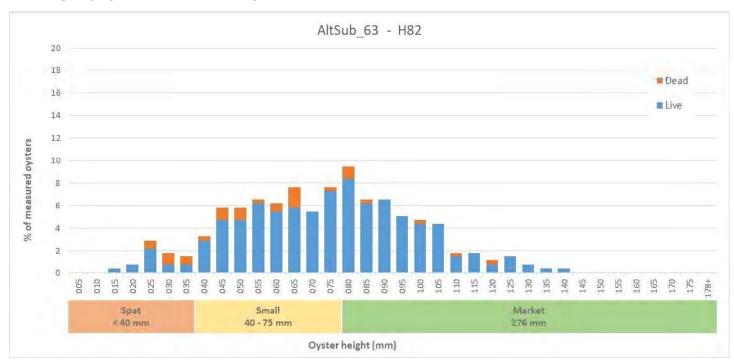
# Reef H82 AltSub\_63

	Report reef ID	H82
Reef Information	Geodatabase Site_ID	AltSub_63
	Tributary	Harris Creek
	Reef area (acres)	1.24
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	9/27/2018
colecutor total constitut	# samples taken	4
onitoring Information	# live oysters measured	245
	# live oysters counted	588
	# dead oysters counted	43
	% of oysters that were dead	7%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	294.00
	Standard error of live density (#/m²)	45.66
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
with the trade	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	222.50
	Standard error of live density on stone	29.35
	Average live density on shellall shell types (#/m²)	70.50
	Standard error of live density on shell-aall shell types	18.03
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
Cyater Diomoss	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	248.49
	Standard error of live biomass	32.96
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	1.75
	Standard error of shell volume	0.48
Shell Volume	Average brown shell across all samples (%)	76%
S. S. SSIMILE	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	- 4
	% change in surface shell volume change	-
lultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Roof Height	Is reef height stable/increasing?	Yes
Reef Height	3 years post restoration (cm)	0.071
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

### Reef H82 AltSub\_63

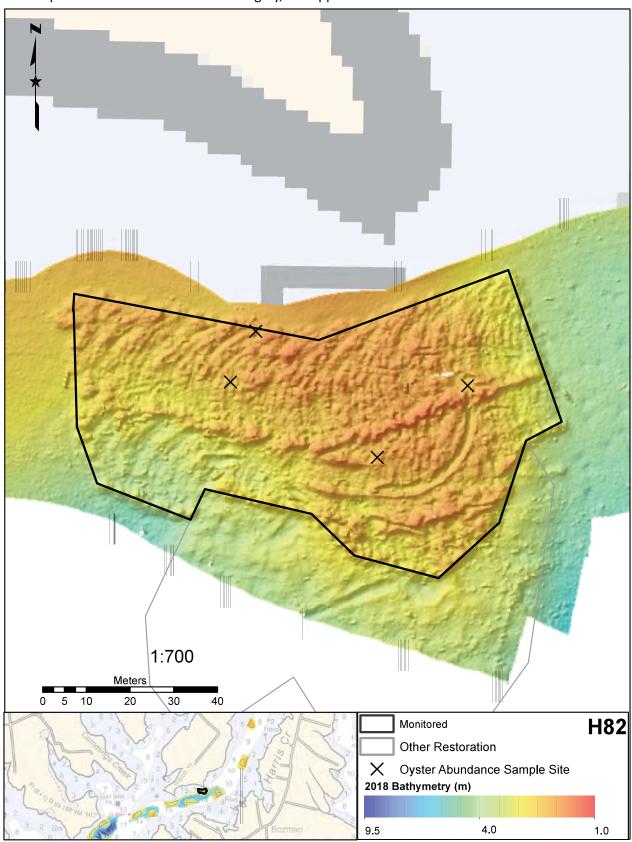
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H82 AltSub\_63

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



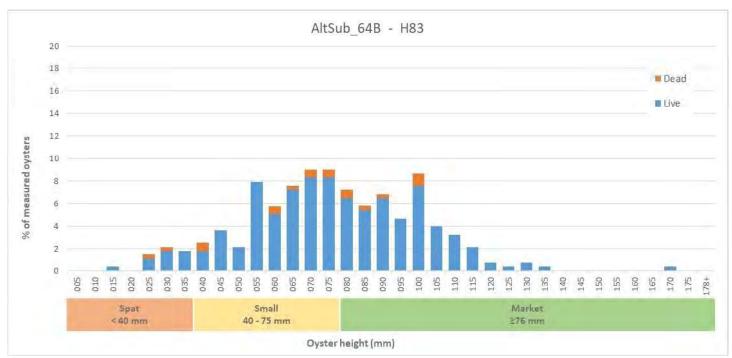
# Reef H83 AltSub\_64B

	Report reef ID	H83
Reef Information	Geodatabase Site_ID	AltSub_64B
	Tributary	Harris Creek
	Reef area (acres)	0.95
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
- V	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	12/6/2018
onitoring Information	# samples taken	4
omeoring information	# live oysters measured	259
	# live oysters counted	446
	# dead oysters counted	22
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	223.00
	Standard error of live density (#/m²)	19.54
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Density	Average live density on stone (#/m²)	136.50
	Standard error of live density on stone	30.06
	Average live density on shellall shell types (#/m²)	85.00
	Standard error of live density on shell-aall shell types	13.48
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	194.37
	Standard error of live biomass	15.39
	Average live biomass across reef at 3 years post restoration	1.1
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	4.25
	Standard error of shell volume	1.31
Shell Volume	Average brown shell across all samples (%)	93%
7-7-7-7	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	•
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
rice, Height	3 years post restoration (cm)	0.048
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H83 AltSub\_64B

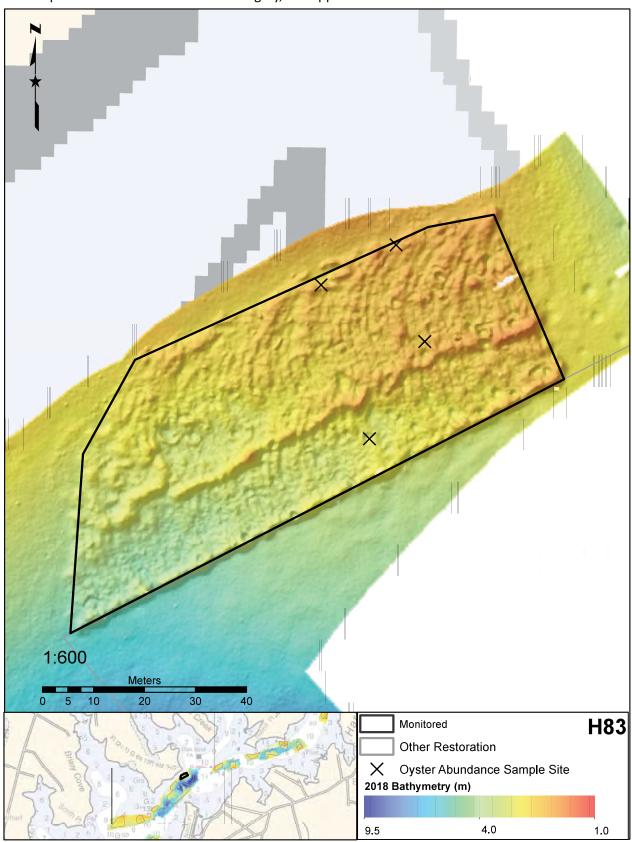
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H83 AltSub\_64B

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

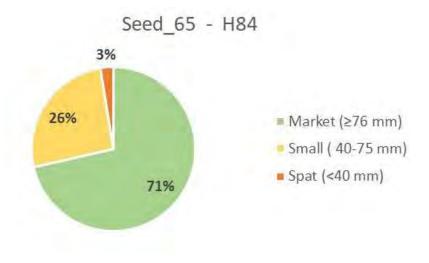


# Reef H84 Seed\_65

	Report reef ID	H84
Reef Information	Geodatabase Site_ID	Seed_65
	Tributary	Harris Creek
	Reef area (acres)	1.4
	Restoration treatment	Seed Only
	Substrate type added	None
storation Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2015
- V	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Patent Tong
	Sample date	3/13/2019
nitoring Information	# samples taken	11
intoring information	# live oysters measured	196
	# live oysters counted	305
	# dead oysters counted	33
	% of oysters that were dead	10%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	17.22
	Standard error of live density (#/m²)	5.66
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	45%
	Number of samples meeting target density (m²)	1
Oyster Density	Percent of samples meeting target density (%)	9%
Dister Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	45%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	1
	Reef area meeting target biomass (%)	9%
	Average live biomass across reef (g dry weight per m²)	21.99
	Standard error of live biomass	7.54
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	5.43
	Standard error of shell volume	1.81
Shell Volume	Average brown shell across all samples (%)	65%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Iltiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
	3 years post restoration (cm)	0.007
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef:	

### Reef H84 Seed\_65

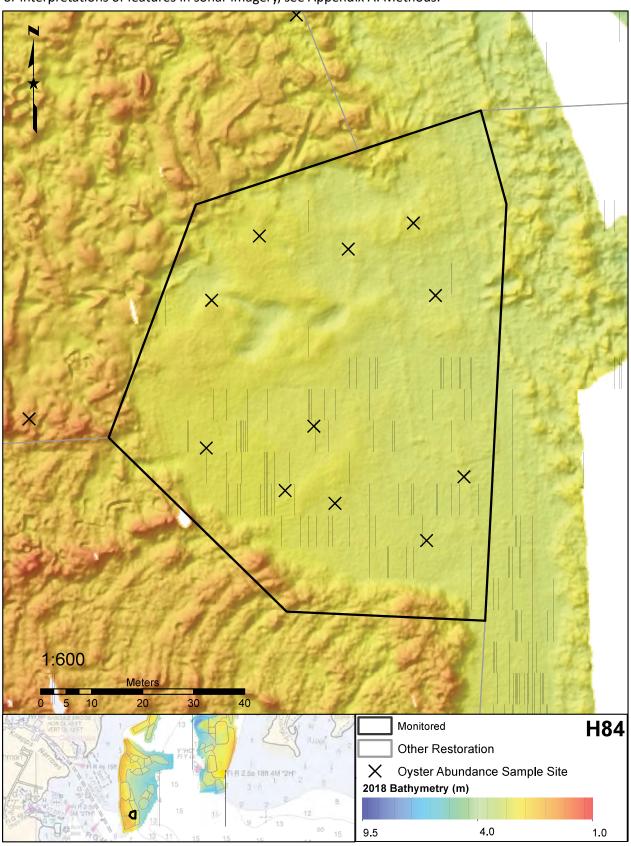
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H84 Seed\_65

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



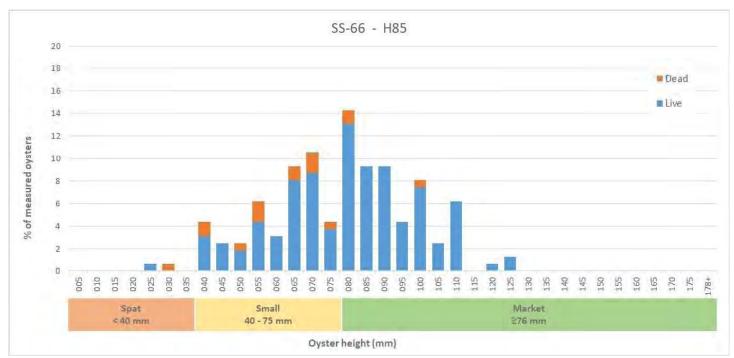
# Reef H85 SS\_66

	Report reef ID	H85
Reef Information	Geodatabase Site_ID	SS_66
	Tributary	Harris Creek
	Reef area (acres)	4.00
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
Restoration Treatment	Average planned reef height*	6
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	2/27/2019
Monitoring Information	# samples taken	5
tomeoring information	# live oysters measured	145
	# live oysters counted	187
	# dead oysters counted	16
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	74.80
	Standard error of live density (#/m²)	23.61
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	3
Ourter Density	Percent of samples meeting target density (%)	60%
Oyster Density	Average live density on stone (#/m²)	28.80
	Standard error of live density on stone	12.32
	Average live density on shellall shell types (#/m²)	46.00
	Standard error of live density on shell-aall shell types	17.89
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	2002
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	.5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
Oyater Diomass	Reef area meeting target biomass (%)	60%
	Average live biomass across reef (g dry weight per m²)	69.81
	Standard error of live biomass	23,55
	Average live biomass across reef at 3 years post restoration	43.600
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	7.84
	Standard error of shell volume	4.82
Shell Volume	Average brown shell across all samples (%)	86%
Julia voluitie	Total volume change (liters per m²)	4
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Paret Halada	Is reef height stable/increasing?	Yes
Reef Height	3 years post restoration (cm)	0.007
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H85 SS\_66

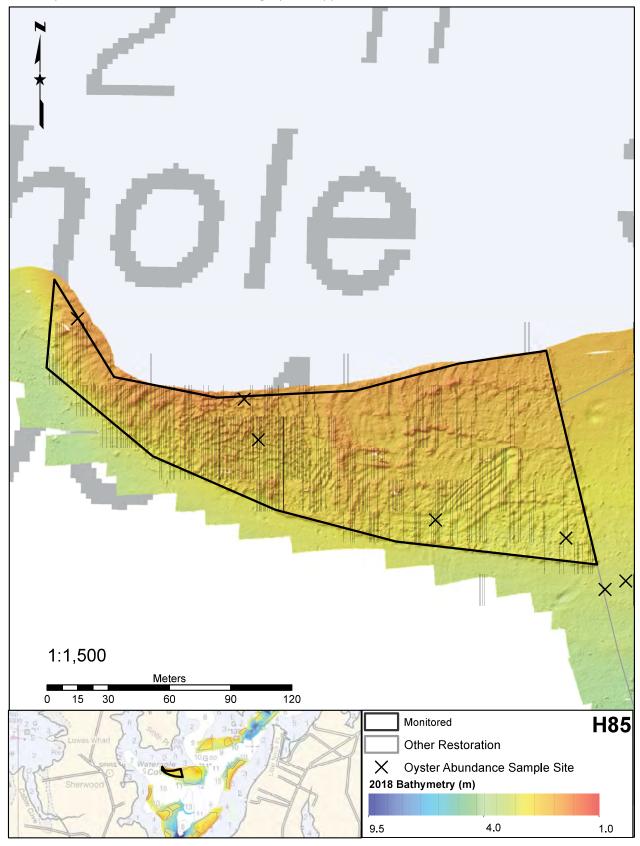
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H85 SS\_66

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



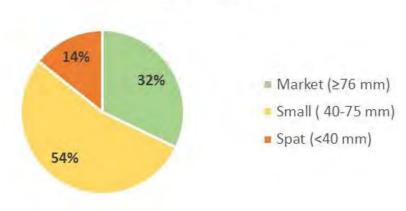
# Reef H86 AltSub\_67

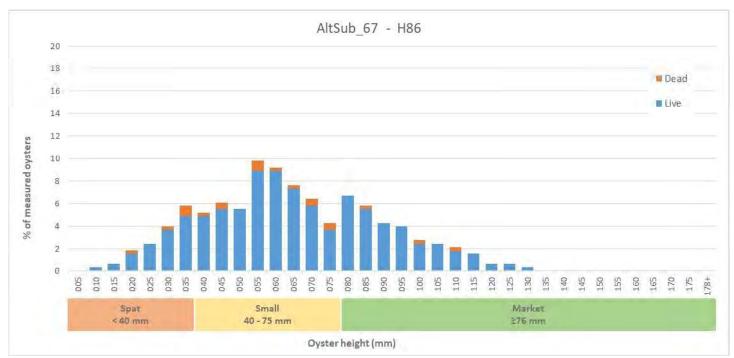
	Report reef ID	H86
Reef Information	Geodatabase Site_ID	AltSub_67
	Tributary	Harris Creek
	Reef area (acres)	1.15
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
- 1	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	12/13/2018
onitoring Information	# samples taken	5
antoning intormotion	# live oysters measured	307
	# live dysters counted	770
	# dead oysters counted	42
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	308.00
	Standard error of live density (#/m²)	25.35
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Delisity	Average live density on stone (#/m²)	246.40
1	Standard error of live density on stone	21.28
	Average live density on shellall shell types (#/m²)	60.40
	Standard error of live density on shell-aall shell types	4.87
	Average live density on clam shell (#/m²)	0.00
1.0	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	-2.50
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	205.84
	Standard error of live biomass	16.45
	Average live biomass across reef at 3 years post restoration	7.1
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	2.80
F	Standard error of shell volume	0.20
Shell Volume	Average brown shell across all samples (%)	92%
1	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
S. S	3 years post restoration (cm)	0.024
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

### Reef H86 AltSub\_67

#### Percent of Measured Oysters in the Market, Small, and Spat Categories

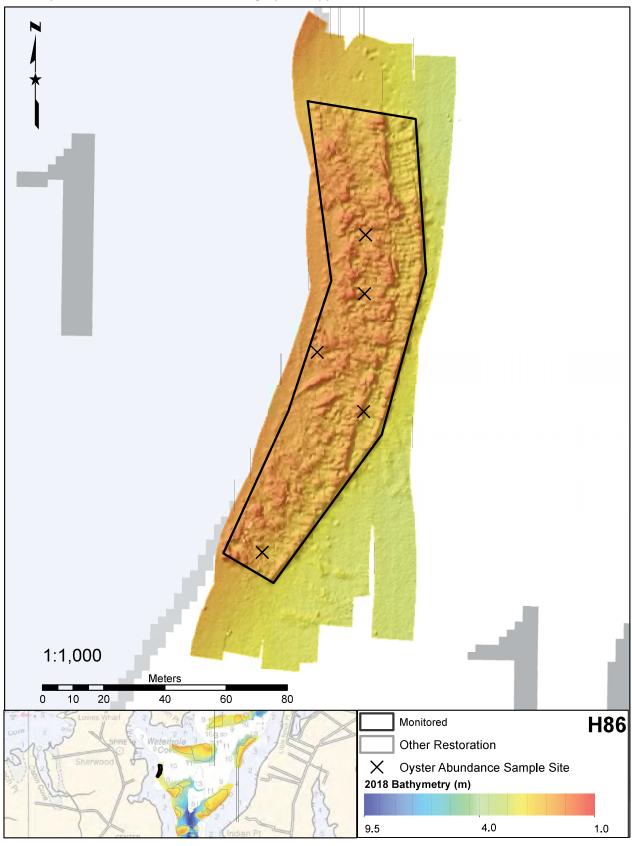






## Reef H86 AltSub\_67

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



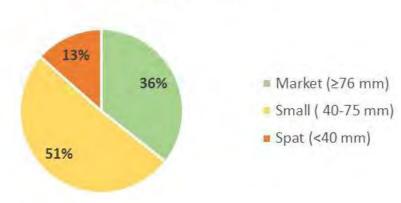
# Reef H87 AltSub\_68

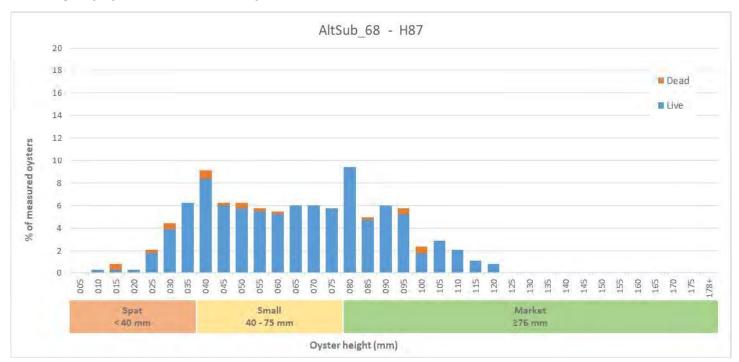
	Report reef ID	H87
Reef Information	Geodatabase Site_ID	AltSub_68
Reef Information	Tributary	Harris Creek
	Reef area (acres)	5.51
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	2016
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	10/3/2018
onitoring Information	# samples taken	4
omtoring information	# live oysters measured	365
	# live dysters counted	810
	# dead oysters counted	17
	% of oysters that were dead	2%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	405.00
	Standard error of live density (#/m²)	90.14
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Delisity	Average live density on stone (#/m²)	196.50
	Standard error of live density on stone	47.15
	Average live density on shellall shell types (#/m²)	207.00
	Standard error of live density on shell-aall shell types	78.05
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
A series distributed.	Reef area meeting target blomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	267.99
	Standard error of live biomass	44.19
	Average live biomass across reef at 3 years post restoration	1.1
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	23.75
	Standard error of shell volume	9.34
Shell Volume	Average brown shell across all samples (%)	100%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
•	3 years post restoration (cm)	0.031
	*Average planned reef height: The amount of reef-building	
	material placed into a reef was calculated by multiplying the	

## Reef H87 AltSub\_68

#### Percent of Measured Oysters in the Market, Small, and Spat Categories

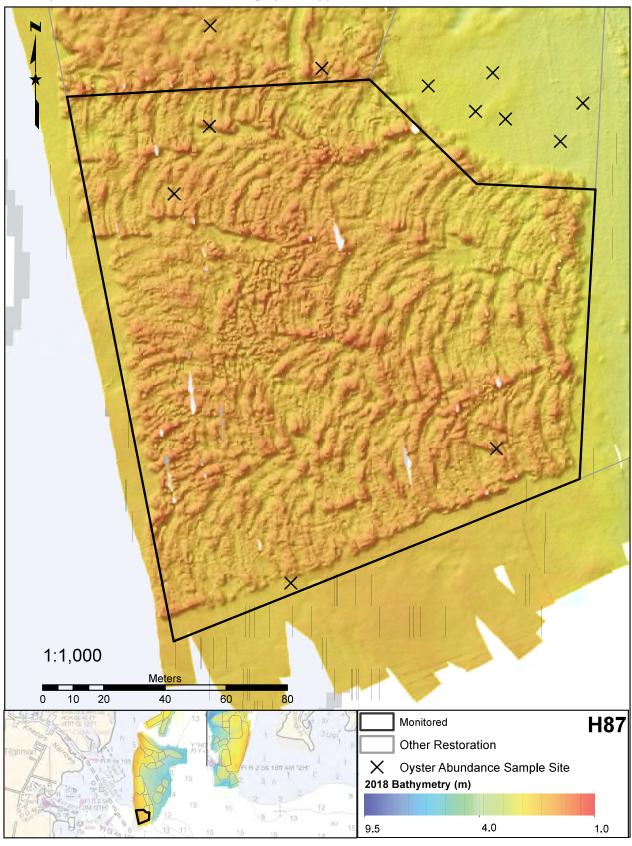






### Reef H87 AltSub\_68

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



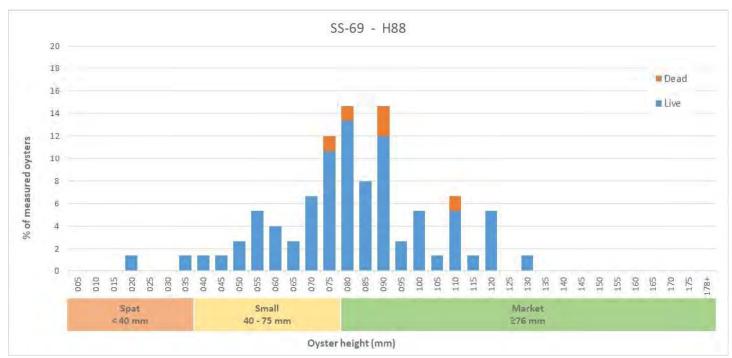
# Reef H88 SS\_69

	Report reef ID	H88
Reef Information	Geodatabase Site_ID	SS_69
	Tributary	Harris Creek
	Reef area (acres)	0.47
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
- V	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	2/27/2019
Ionitoring Information	# samples taken	4
***************************************	# live oysters measured	70
	# live oysters counted	135
	# dead oysters counted	20
	% of oysters that were dead	13%
1	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	67.50
	Standard error of live density (#/m²)	8.06
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
The second second	Average live density on stone (#/m²)	50.00
	Standard error of live density on stone	13.37
	Average live density on shellall shell types (#/m²)	17.50
	Standard error of live density on shell-aall shell types	8.06
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	XVEP.
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
	Reef area meeting target biomass (%)	75%
	Average live biomass across reef (g dry weight per m²)	69.81
	Standard error of live biomass	15.00
	Average live biomass across reef at 3 years post restoration	202
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	1.43
	Standard error of shell volume	0.87
Shell Volume	Average brown shell across all samples (%)	98%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
)	Surface shell volume change (liters per m²)	÷
Auto-1-14	% change in surface shell volume change	*
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	TBD in 2021
Reef Height	Is reef height stable/increasing?	TBD in 2022
	3 years post restoration (cm)  *Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

### Reef H88 SS\_69

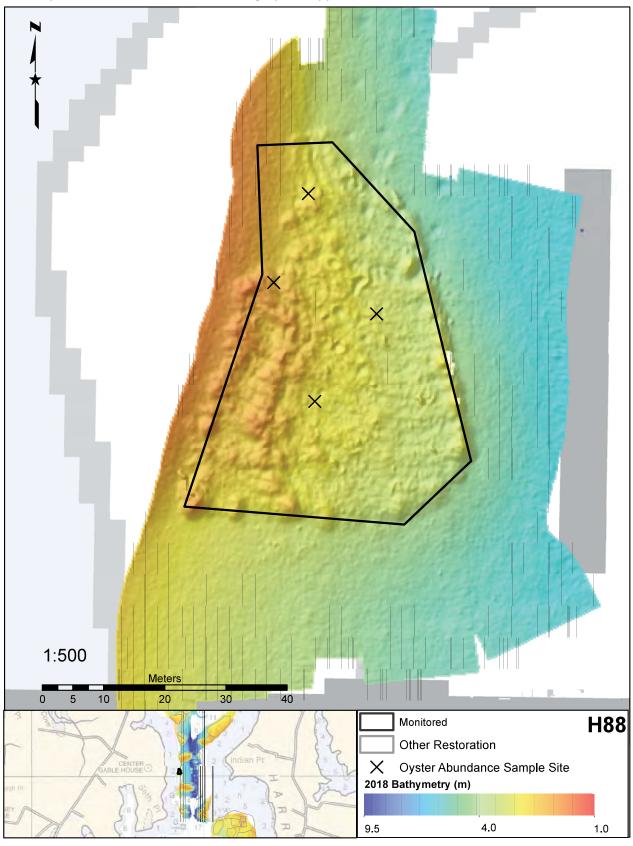
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H88 SS\_69

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



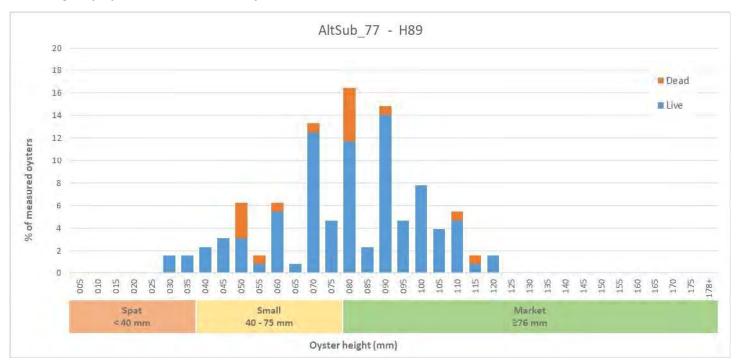
# Reef H89 AltSub\_77

-	Report reef ID	H89
Reef Information	Geodatabase Site_ID	AltSub_77
***************************************	Tributary	Harris Creek
	Reef area (acres)	6.62
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone base with fossil shel
lestoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	2/27/2019
Ionitoring Information	# samples taken	3
ionitoring information	# live oysters measured	112
	# live oysters counted	259
	# dead oysters counted	37
	% of oysters that were dead	13%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	172.67
	Standard error of live density (#/m²)	28.50
	Number of samples meeting minimum threshold density (m²)	3
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	3
Common Committee	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	109.33
	Standard error of live density on stone	22.93
	Average live density on shellall shell types (#/m²)	50.67
	Standard error of live density on shell-aall shell types	8.67
	Average live density on clam shell (#/m²)	0.00
1	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	275
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	3
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
Cystel Diolilass	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	168.19
	Standard error of live biomass	37.81
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	13.00
	Standard error of shell volume	4.80
Shell Volume	Average brown shell across all samples (%)	88%
Jucii Actuatic	Total volume change (liters per m²)	4
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Poof Malaka	Is reef height stable/increasing?	Yes
Reef Height	3 years post restoration (cm)	0.005
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H89 AltSub\_77

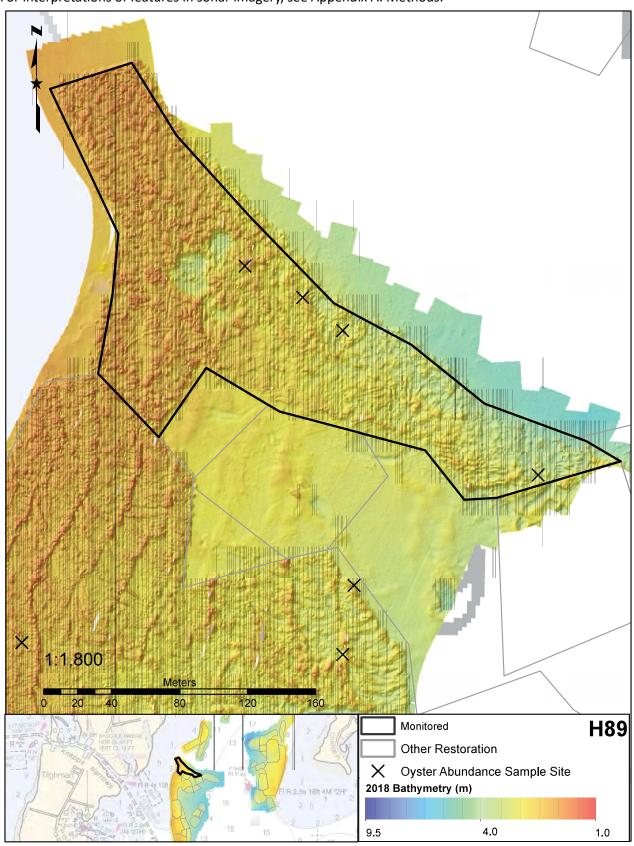
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H89 AltSub\_77

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



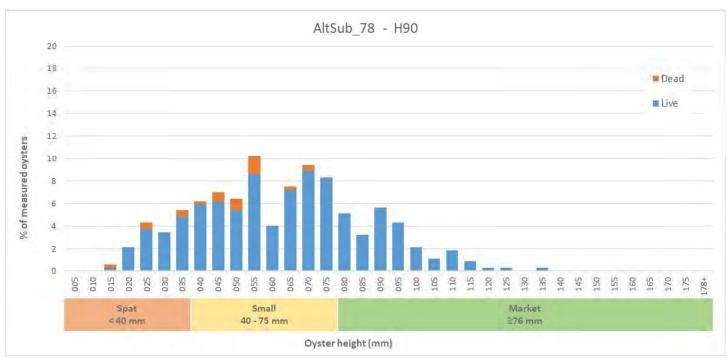
# Reef H90 AltSub\_78

	Report reef ID	H90
Reef Information	Geodatabase Site_ID	AltSub_78
	Tributary	Harris Creek
	Reef area (acres)	12.27
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	2016
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	10/23/2018
onitoring Information	# samples taken	4
amorning information	# live oysters measured	350
	# live oysters counted	674
	# dead oysters counted	37
	% of oysters that were dead	5%
The state of the s	Fall 2018: Did reef meet minimum threshold density?	Yes
1	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	337.00
	Standard error of live density (#/m²)	62.24
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
System Demonty	Average live density on stone (#/m²)	102.00
	Standard error of live density on stone	29.68
	Average live density on shellall shell types (#/m²)	234.50
	Standard error of live density on shell-aall shell types	62.59
- 1	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
A STATE OF THE PARTY OF THE PAR	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	220.91
	Standard error of live biomass	39.86
	Average live biomass across reef at 3 years post restoration	¥.5
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	26.00
	Standard error of shell volume	7.02
Shell Volume	Average brown shell across all samples (%)	94%
7	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
inco Tragit	3 years post restoration (cm)	0.012
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H90 AltSub\_78

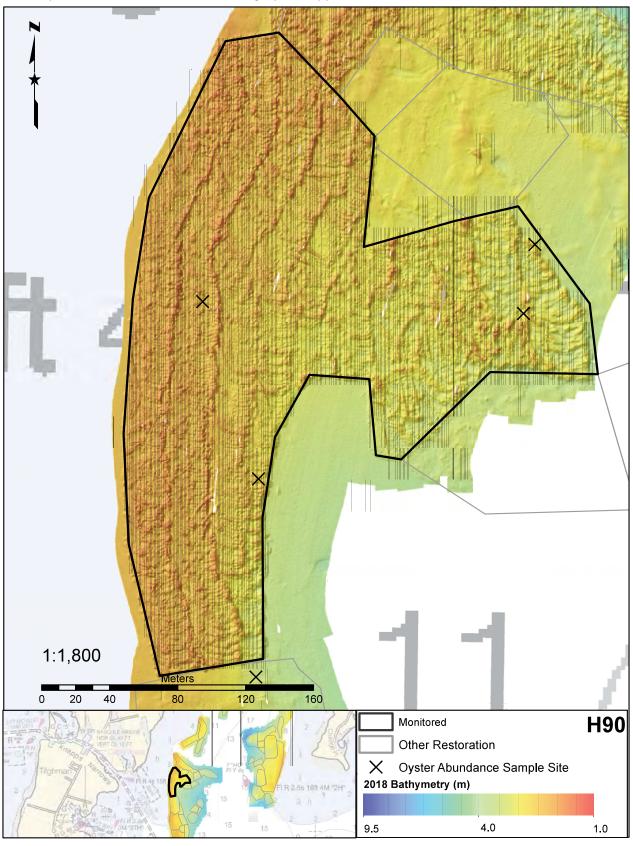
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





## Reef H90 AltSub\_78

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



# Reef H91 AltSub\_80

	Report reef ID	H91
Reef Information	Geodatabase Site_ID	AltSub_80
	Tributary	Harris Creek
	Reef area (acres)	2.45
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone base with fossil shel
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	1/8/2019
onitoring Information	# samples taken	5
omtoring information	# live oysters measured	265
	# live öysters counted	308
	# dead oysters counted	. 8
	% of oysters that were dead	3%
	Fall 2018: Did reef meet minimum threshold density?	Yes
1	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	123.20
	Standard error of live density (#/m²)	14.65
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Out of the	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	12.40
	Standard error of live density on stone	6.91
	Average live density on shellall shell types (#/m²)	22.00
	Standard error of live density on shell-aall shell types	5.87
	Average live density on clam shell (#/m²)	24.80
	Standard error of live density on clam shell	20.88
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
Cyster biolitiss	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	97.65
	Standard error of live biomass	8.26
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	82.80
	Standard error of shell volume	17.70
Shell Volume	Average brown shell across all samples (%)	82%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
nee, neight	3 years post restoration (cm)	0.032
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

## Reef H91 AltSub\_80

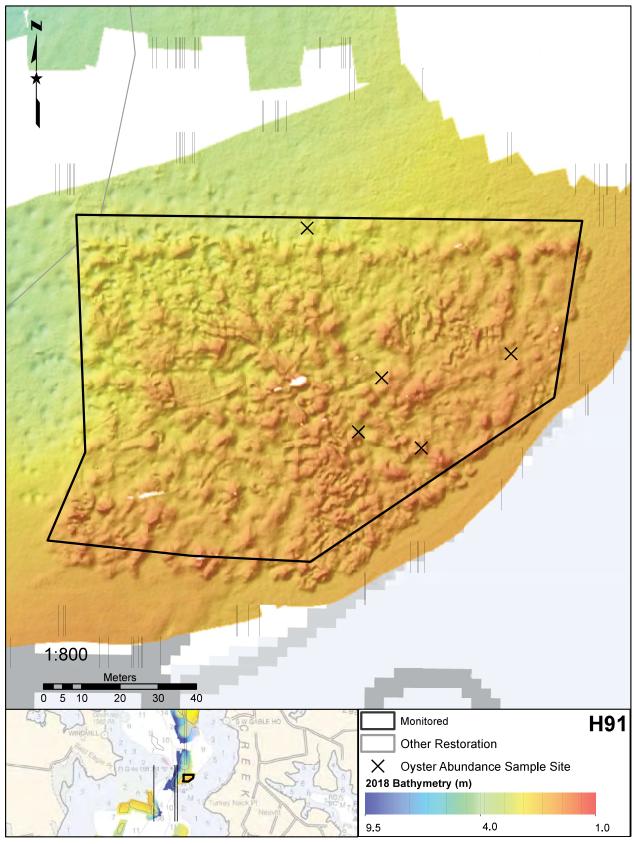
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





# Reef H91 AltSub\_80

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

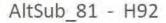


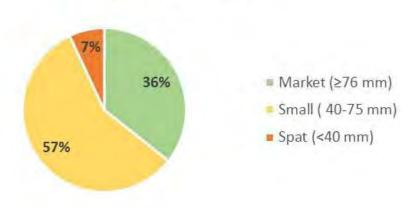
# Reef H92 AltSub\_81

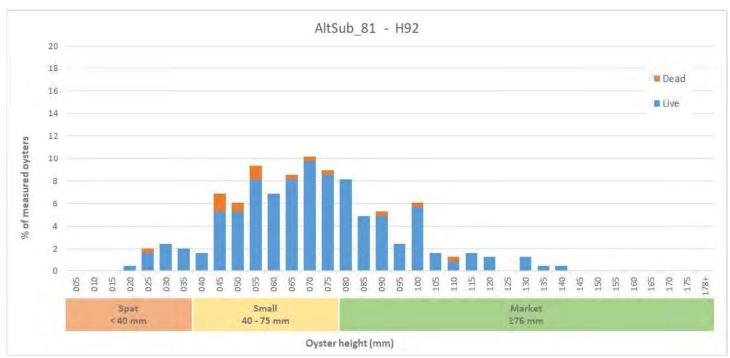
	Report reef ID	H92
Reef Information	Geodatabase Site_ID	AltSub_81
neer morniadon	Tributary	Harris Creek
	Reef area (acres)	2.77
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	11/19/2018
onitoring Information	#samples taken	4
omeoning information	# live oysters measured	230
	# live oysters counted	665
	# dead oysters counted	37
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	332.50
	Standard error of live density (#/m²)	32.88
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
Oyster Delisity	Average live density on stone (#/m²)	271.50
	Standard error of live density on stone	16.96
	Average live density on shellall shell types (#/m²)	61.00
	Standard error of live density on shell-aall shell types	21.49
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
A TOTAL BUTTON	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	259.76
	Standard error of live biomass	31.23
	Average live biomass across reef at 3 years post restoration	6.9
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	2.75
	Standard error of shell volume	0.48
Shell Volume	Average brown shell across all samples (%)	90%
	Total volume change (liters per m²)	2
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	12
	% change in surface shell volume change	
Iultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	TBD in 2021
Reef Height	Is reef height stable/increasing?	TBD in 2022
neer freight	3 years post restoration (cm)	
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The	

### Reef H92 AltSub\_81

#### Percent of Measured Oysters in the Market, Small, and Spat Categories

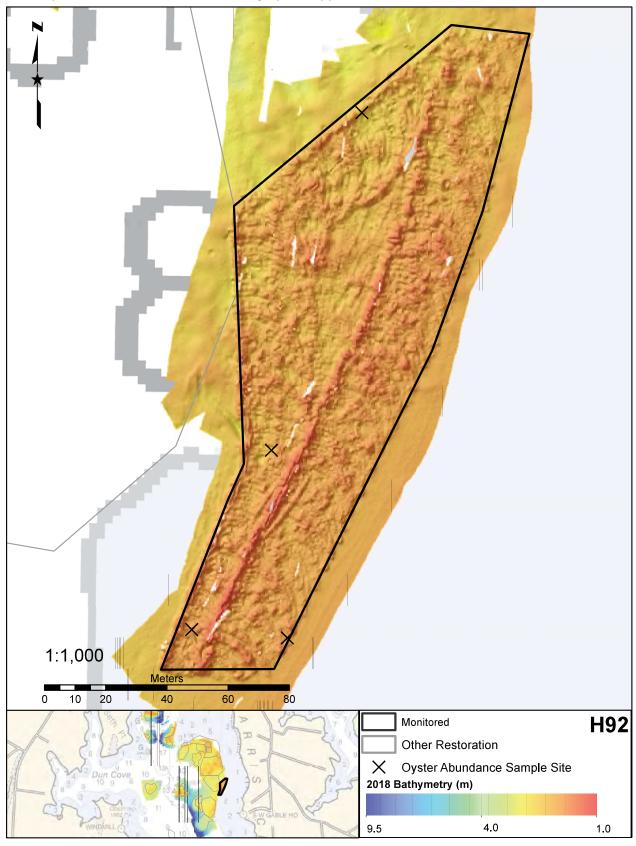






## Reef H92 AltSub\_81

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



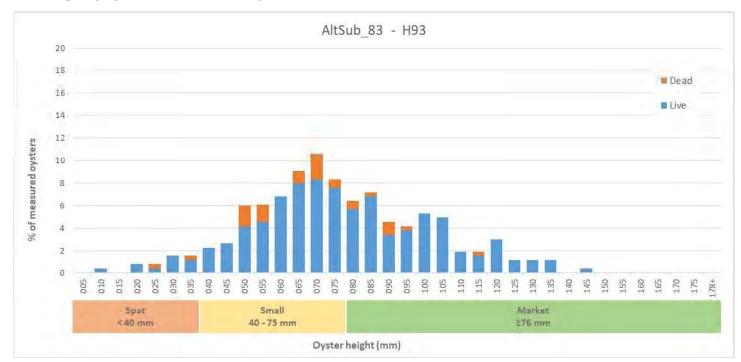
# Reef H93 AltSub\_83

Reef Information	Report reef ID	H93
	Geodatabase Site_ID	AltSub_83
	Tributary	Harris Creek
	Reef area (acres)	1.69
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
storation Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	12/19/2018
onitoring Information	# samples taken	4
and the state of the state of	# live oysters measured	234
	# live oysters counted	331
	# dead oysters counted	36
	% of oysters that were dead	10%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	165.50
	Standard error of live density (#/m²)	36.43
	Number of samples meeting minimum threshold density (m²)	4
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	100%
a paras a constraint	Average live density on stone (#/m*)	93.50
	Standard error of live density on stone	19.00
	Average live density on shellall shell types (#/m²)	71.00
	Standard error of live density on shell-aall shell types	20.68
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	4
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	149.13
	Standard error of live biomass	31.99
	Average live biomass across reef at 3 years post restoration	No.
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	12.50
	Standard error of shell volume	4.70
Shell Volume	Average brown shell across all samples (%)	84%
-	Total volume change (liters per m²)	4
	% Change in total volume from 2015	
	Surface shell volume change (liters per m²)	<u>@</u>
	% change in surface shell volume change	
Iultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
	3 years post restoration (cm)	0.031
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

## Reef H93 AltSub\_83

#### Percent of Measured Oysters in the Market, Small, and Spat Categories

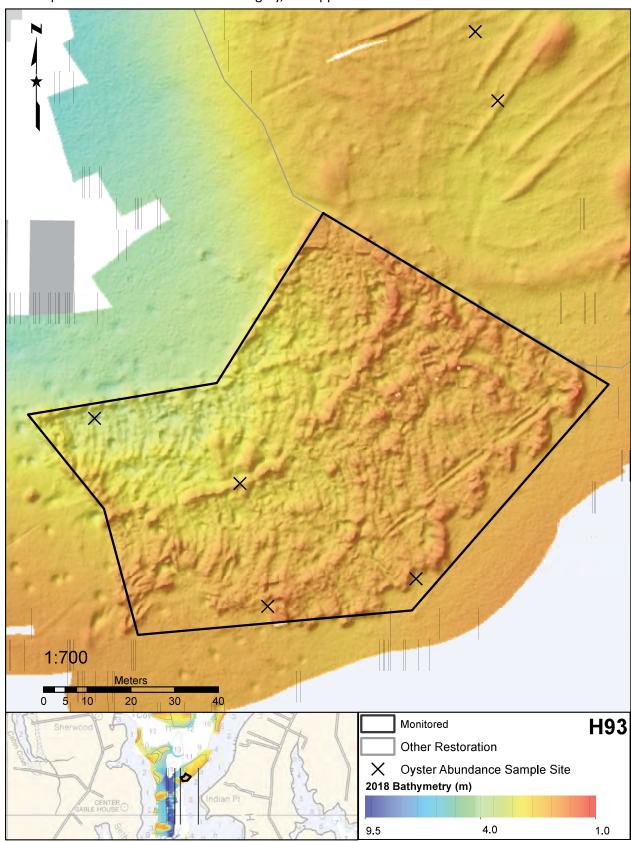




# Reef H93 AltSub\_83

#### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods.

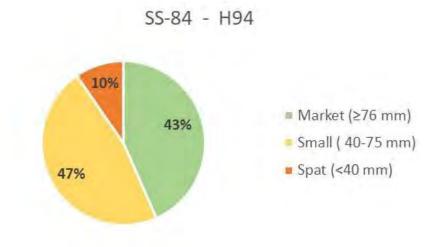


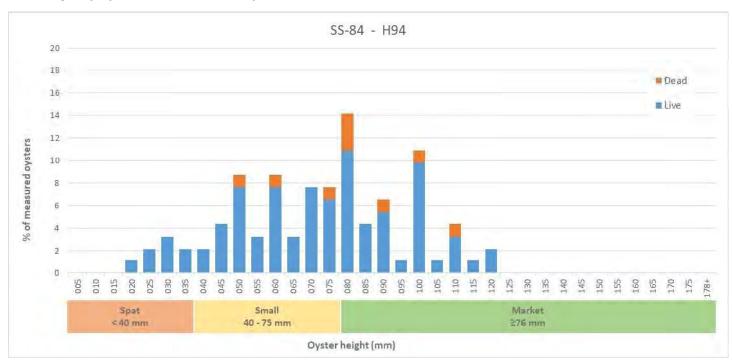
# Reef H94 SS\_84

	Report reef ID	H94
Reef Information	Geodatabase Site_ID	SS_84
	Tributary	Harris Creek
	Reef area (acres)	1.13
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	2/28/2019
onitoring Information	# samples taken	5
	# live oysters measured	83
	# live oysters counted	197
	# dead oysters counted	9
	% of oysters that were dead	4%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	78.80
	Standard error of live density (#/m²)	14.88
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	80%
System Demonty	Average live density on stone (#/m²)	51.60
	Standard error of live density on stone	15.12
	Average live density on shellall shell types (#/m²)	27.20
	Standard error of live density on shell-aall shell types	3.01
- 3	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	10.000
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	4
1 200 0000000	Reef area meeting target biomass (%)	80%
	Average live biomass across reef (g dry weight per m²)	61.61
	Standard error of live biomass	11.07
	Average live biomass across reef at 3 years post restoration	W.7
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	1,20
	Standard error of shell volume	0.25
Shell Volume	Average brown shell across all samples (%)	98%
	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
inco Tragit	3 years post restoration (cm)	0.083
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

### Reef H94 SS\_84

#### Percent of Measured Oysters in the Market, Small, and Spat Categories

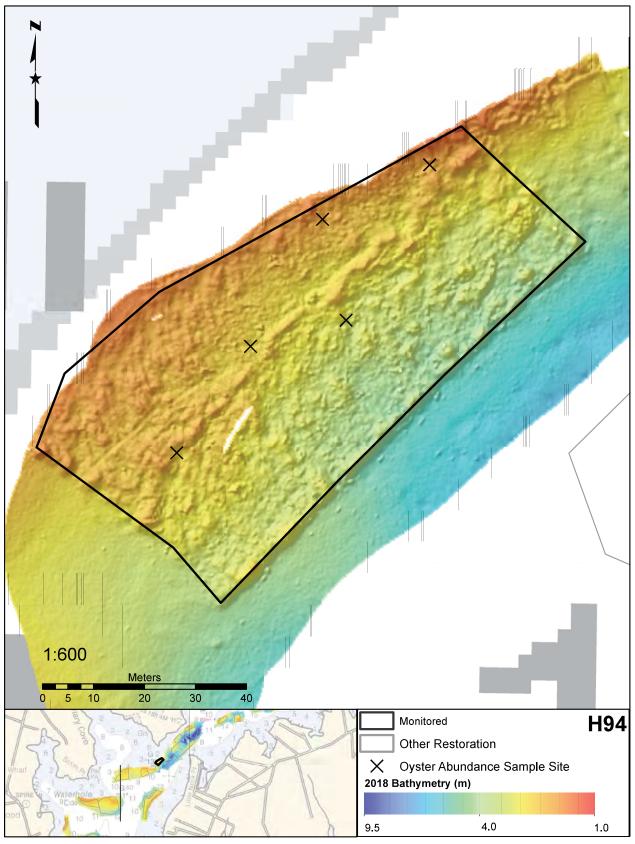




# Reef H94 SS\_84

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods.



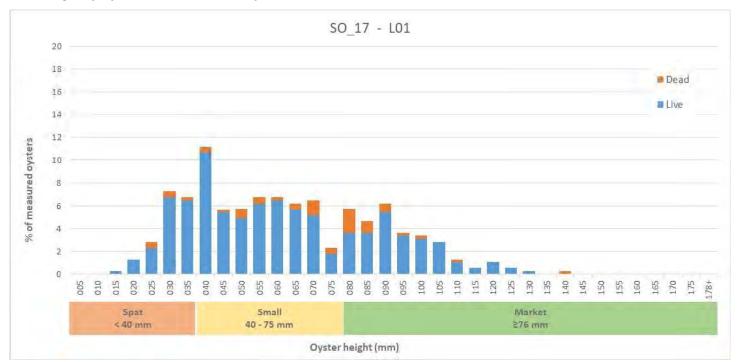
# Reef L01 SO\_17

	Report reef ID	L01
Reef Information	Geodatabase Site_ID	SO_17
NCCI IIIO/IIIdUOII	Tributary	Little Choptank
	Reef area (acres)	1.51
	Restoration treatment	Seed Only
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2018
	Second year class replanting	N/A
	Monitoring type	Sentinel
	Sample method	Patent Tong
	Sample date	4/4/2019
onitoring Information	# samples taken	12
Autoring information	# five oysters measured	343
	# live oysters counted	1102
	# dead oysters counted	72
	% of cysters that were dead	6%
	Fail 2018: Did reef meet minimum threshold density?	Yes
	Fail 2018: Did reef meet target density?	Yes
	Average five density across reef (#/m²)	57.04
	Standard error of live density (#/m²)	11.09
	Number of samples meeting minimum threshold density (m²)	10
7	Percent of samples meeting minimum threshold density (%)	83%
	Number of samples meeting target density (m²)	6
Oveter Daneits	Percent of samples meeting target density (%)	50%
Oyster Density	Average live density on stone (#/m²)	N/A
7	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
7	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	3.45
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	9
	Reef area meeting minimum threshold biomass (%)	75%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
O Jater Diomass	Reef area meeting target biomass (%)	42%
	Average live biomass across reef (g dry weight per m²)	43.33
	Standard error of live biomass	10.57
	Average live biomass across reef at 3 years post restoration	200
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2019
1	Average shell volume across entire reef (liters per m²)	13.92
	Standard error of shell volume	2.92
Shell Volume	Average brown shell across all samples (%)	85%
	Total volume change (liters per m²)	
	% Change in total volume from 2015	3.5
	Surface shell volume change (liters per m²)	2/4 (2)
	% change in surface shell volume change	9.5
lultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2018
neer freight	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The	

# Reef L01 SO\_17

#### Percent of Measured Oysters in the Market, Small, and Spat Categories



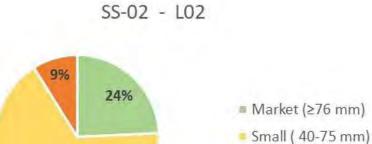


# Reef L02 SS\_02

Geodatabase Site_ID  Tributary  Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type	SS_02 Little Choptank 2.81 Substrate & Seed Fossil Shell 6 2015
Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting	2.81 Substrate & Seed Fossil Shell 6 2015
Restoration treatment Substrate type added Average planned reef height* Year planted with spat (initial planting) Second year class replanting	Substrate & Seed Fossil Shell 6 2015
Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting	Fossil Shell 6 2015
Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting	6 2015
Year planted with spat (initial planting) Second year class replanting	2015
Second year class replanting	
	5176
Monitoring type	N/A
	3 Year Cohort
Sample method	Diver
Sample date	3/8/2019
# samples taken	5
# live oysters measured	247
# live oysters counted	529
# dead oysters counted	62
% of oysters that were dead	10%
Fall 2018: Did reef meet minimum threshold density?	Yes
Fall 2018: Did reef meet target density?	Yes
Average live density across reef (#/m²)	211.60
Standard error of live density (#/m²)	38.20
Number of samples meeting minimum threshold density (m²)	5
Percent of samples meeting minimum threshold density (%)	100%
Number of samples meeting target density (m²)	5
Percent of samples meeting target density (%)	100%
Average live density on stone (#/m²)	0.00
Standard error of live density on stone	0.00
Average live density on shellall shell types (#/m²)	145.60
Standard error of live density on shell-aall shell types	57.43
Average live density on clam shell (#/m²)	0.00
Standard error of live density on clam shell	0.00
Average live density across reef at 3 years post restoration	
(for 6-year-old reefs only) (#/m²)	N/A
Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
Number of samples meeting minimum threshold biomass	5
Reef area meeting minimum threshold biomass (%)	100%
Fall 2018: Did reef meet target oyster biomass?	Yes
Number of samples meeting target biomass	5
Reef area meeting target biomass (%)	100%
Average live biomass across reef (g dry weight per m²)	145.16
Standard error of live biomass	37.07
Average live biomass across reef at 3 years post restoration	Stat
(for 6-year-old reefs only) (g dry weight per m²)	N/A
	TBD in 2019
Average shell volume across entire reef (liters per m²)	42.00
	9.86
Average brown shell across all samples (%)	79%
Total volume change (liters per m²)	4
% Change in total volume from 2015	*
Surface shell volume change (liters per m²)	2
% change in surface shell volume change	*
Are multiple year classes present?	Yes
Is reef footprint stable/increasing?	Yes
Is reef height stable/increasing?	Yes
3 years post restoration (cm)	0
이 있어 하게 되는 것이 되었다. 그는 이 사고를 생겨워지고 있다고 있다고 있었다. 그렇게 하는 것이 하는 것이 내려면 되었다. 그는 그를 보고 있다.	
0	# live oysters counted  # dead oysters counted  # dead oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  Number of samples meeting minimum threshold density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  Average live density on shell-all shell types (#/m²)  Standard error of live density on clam shell types  Average live density on clam shell (#/m²)  Standard error of live density on clam shell  Average live density across reef at 3 years post restoration  (for 6-year-old reefs only) (#/m²)  Fall 2018: Did reef meet minimum threshold oyster biomass?  Number of samples meeting minimum threshold biomass  Reef area meeting minimum threshold biomass  Reef area meeting target biomass  Average live biomass across reef (g dry weight per m²)  Standard error of live biomass  Average live biomass across reef at 3 years post restoration  (for 6-year-old reefs only) (g dry weight per m²)  Is the shell budget stable/ increasing?  Average shell volume across entire reef (liters per m²)  % Change in total volume from 2015  Surface shell volume change (liters per m²)  % Change in total volume from 2015  Surface shell volume change (liters per m²)  % change in surface shell volume change  Are multiple year classes present?  Is reef footprint stable/increasing?  Is reef height stable/increasing?

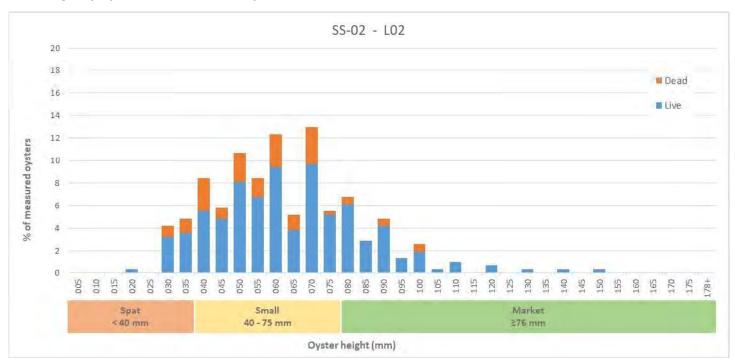
# Reef L02 SS\_02

#### Percent of Measured Oysters in the Market, Small, and Spat Categories



#### Shell Height of Oysters Measured on Reef

67%



Spat (<40 mm)</p>

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods. Ν L05 Monitored Other Restoration Oyster Abundance Sample Site 2018 Bathymetry (m) 5.5 2.0 4.0

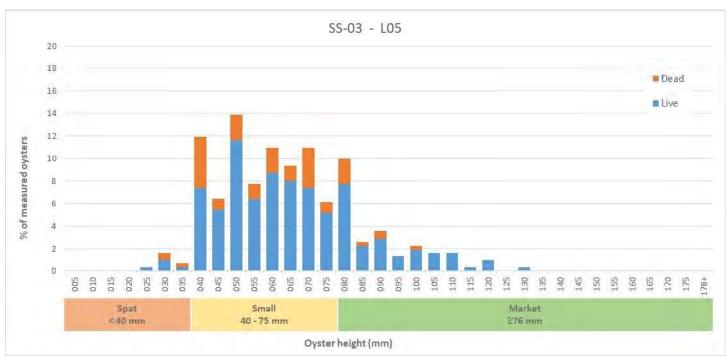
# Reef L05 SS\_03

	Report reef ID	L05
Reef Information	Geodatabase Site_ID	SS_03
neer internation	Tributary	Little Choptank
	Reef area (acres)	1.93
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone base with fossil shel
lestoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	3/8/2019
Ionitoring Information	# samples taken	5
ionitoring information	# live oysters measured	250
	# live dysters counted	436
	# dead oysters counted	63
	% of oysters that were dead	13%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	174.40
	Standard error of live density (#/m²)	30.73
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Out of the	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	0.40
	Standard error of live density on stone	0.40
	Average live density on shellall shell types (#/m²)	105.60
	Standard error of live density on shell-aall shell types	30.36
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	7.05
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
Oyatel blomass	Reef area meeting target biomass (%)	100%
	Average live biomass across reef (g dry weight per m²)	120,31
	Standard error of live biomass	24.35
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	42.80
	Standard error of shell volume	8.62
Shell Volume	Average brown shell across all samples (%)	82%
7-1-1-1	Total volume change (liters per m²)	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
neer Height	3 years post restoration (cm)	0
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

# Reef L05 SS\_03

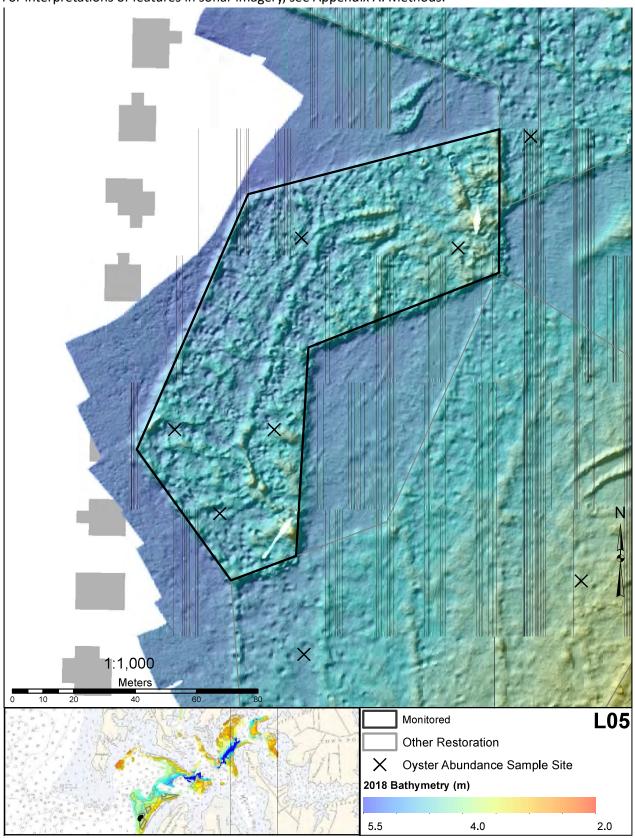
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods.



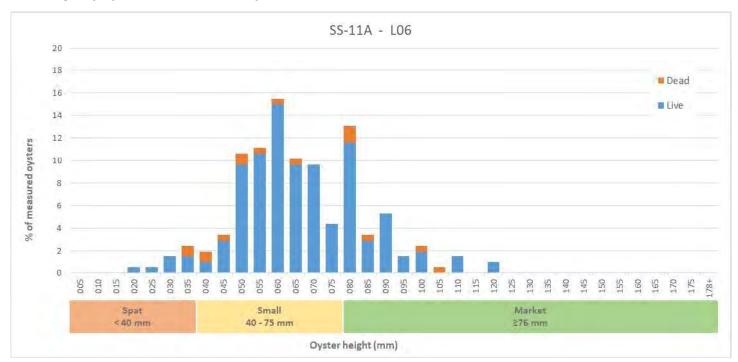
# Reef L06 SS\_IIA

atabase Site_ID  Tributary  f area (acres) ation treatment rate type added lanned reef height* ith spat (initial planting) ear class replanting initoring type inple method ample date amples taken systers measured oysters counted oysters counted ear that were dead eet minimum threshold density? eef meet target density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) is meeting target density (m²) is meeting target density (m²) of live density on stone on shell-all shell types insity on clam shell live density on clam shell	SS_11A  Little Choptank 5.01  Substrate & Seed Stone 9 2015 N/A 3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A Yes
farea (acres) ation treatment rate type added lanned reef height* lith spat (initial planting) ear class replanting intoring type inple method ample date amples taken systers measured oysters counted oysters counted ers that were dead et minimum threshold density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone on shell-all shell types insity on clam shell (#/m²) live density on clam shell live density on clam shell	5.01 Substrate & Seed Stone 9 2015 N/A 3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
ation treatment  rate type added  lanned reef height*  lith spat (initial planting)  ear class replanting  nitoring type  inple method  ample date  amples taken  systers measured  oysters counted  oysters counted  ears that were dead  et minimum threshold density?  ensity across reef (#/m²)  or of live density (#/m²)  ing minimum threshold density (m²)  ing minimum threshold density (m²)  is meeting target density (m²)  s meeting target density (m²)  of live density on stone  on shell-all shell types  density on shell-all shell types  insity on clam shell (#/m²)  Tive density on clam shell	Substrate & Seed  Stone 9 2015 N/A 3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
rate type added  lanned reef height*  ith spat (initial planting)  ar class replanting  nitoring type  mple method  ample date  amples taken  ysters measured  oysters counted  oysters counted  ers that were dead  et minimum threshold density?  eef meet target density?  ensity across reef (#/m²)  or of live density (#/m²)  ing minimum threshold density (%)  as meeting target density (m²)  s meeting target density (m²)  of live density on stone  on shell-all shell types  misty on clam shell  live density on clam shell	Stone 9 2015 N/A 3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
inth spat (initial planting) ith spat (initial planting) ith spat (initial planting) ith spat (initial planting) ith spat (initial planting) initoring type inple method imple method imple date imples taken ith system measured ith oysters counted oysters counted oysters counted ers that were dead et minimum threshold density? eef meet target density? ensity across reef (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (m²) of live density on stone on shellall shell types insity on clam shell (#/m²) ithic density on clam shell ithic density on clam shell ithic density on clam shell	9 2015 N/A 3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
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nitoring type  inple method  ample date  amples taken  ysters measured  oysters counted  oysters counted  ers that were dead et minimum threshold density?  ensity across reef (#/m²)  or of live density (#/m²)  ing minimum threshold density (m²)  ing minimum threshold density (m²)  or of live density (#/m²)  of meeting target density (m²)  s meeting target density (m²)  of live density on stone  on shellall shell types (#/m²)  density on shell-all shell types  insity on clam shell (#/m²)	3 Year Cohort Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
mple method  ample date  amples taken systers measured oysters counted oysters counted ers that were dead et minimum threshold density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (m²) of live density on stone on shellall shell types (#/m²) density on shell-aall shell types insity on clam shell (#/m²)	Diver 3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
ample date  simples taken ysters measured oysters counted oysters counted ers that were dead et minimum threshold density? eef meet target density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone on shellall shell types (#/m²) density on shell-aall shell types insity on clam shell (#/m²)	3/3/2019 5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
amples taken  ysters measured  oysters counted  oysters counted  ers that were dead  et minimum threshold density?  eef meet target density?  ensity across reef (#/m²)  or of live density (#/m²)  ing minimum threshold density (m²)  ing minimum threshold density (%)  is meeting target density (m²)  is meeting target density (%)  density on stone (#/m²)  of live density on stone  on shellall shell types  insity on clam shell (#/m²)	5 191 287 24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
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oysters counted ers that were dead et minimum threshold density? eef meet target density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on clam shell (#/m²)	24 8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
ers that were dead et minimum threshold density? eef meet target density? ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (m²) is meeting target density (m²) is meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on clam shell (#/m²)	8% Yes Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00 N/A
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eef meet target density?  ensity across reef (#/m²) or of live density (#/m²) ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on shell-aall shell types insity on clam shell (#/m²)	Yes 114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
ensity across reef (#/m²)  or of live density (#/m²)  ing minimum threshold density (m²)  ing minimum threshold density (%)  is meeting target density (m²)  is meeting target density (%)  density on stone (#/m²)  of live density on stone  on shellall shell types (#/m²)  density on shell-aall shell types  insity on clam shell (#/m²)	114.80 17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
or of live density (#/m²)  Ing minimum threshold density (m²)  Ing minimum threshold density (%)  Ing minimum threshold density (m²)  Ing meeting target density (%)  Ing meeting target density (m²)  Ing menimum threshold density (m²)  Ing minimum threshold density (m²)  Ing	17.58 5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
ing minimum threshold density (m²) ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on shell-aall shell types insity on clam shell (#/m²)	5 100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
ing minimum threshold density (%) is meeting target density (m²) is meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on shell-aall shell types insity on clam shell (#/m²)	100% 4 80% 53.60 21.98 61.20 15.00 0.00 0.00
s meeting target density (m²) s meeting target density (%) density on stone (#/m²) of live density on stone on shellall shell types (#/m²) density on shell-aall shell types nsity on clam shell (#/m²)	4 80% 53.60 21.98 61.20 15.00 0.00 0.00
s meeting target density (%) density on stone (#/m²) of live density on stone on shell-sall shell types (#/m²) density on shell-aall shell types nsity on clam shell (#/m²)	80% 53.60 21.98 61.20 15.00 0.00 0.00
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of live density on stone on shellall shell types (#/m²) density on shell-aall shell types nsity on clam shell (#/m²) live density on clam shell	21.98 61.20 15.00 0.00 0.00 N/A
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density on shell-aall shell types nsity on clam shell (#/m²) Tive density on clam shell	15.00 0.00 0.00 N/A
nsity on clam shell (#/m²) live density on clam shell	0.00 0.00 N/A
live density on clam shell	0.00 N/A
	N/A
ss reef at 3 years post restoration	
old reefs only) (#/m²)	Var
inimum threshold oyster biomass?	163
ting minimum threshold biomass	5
inimum threshold biomass (%)	100%
meet target oyster biomass?	Yes
es meeting target biomass	4
eting target biomass (%)	80%
across reef (g dry weight per m²)	79,12
error of live biomass	13.05
oss reef at 3 years post restoration	Stat
fs only) (g dry weight per m²)	N/A
dget stable/ increasing?	TBD in 2021
across entire reef (liters per m²)	6.40
error of shell volume	2.93
	93%
	± .
	*
	4
	- 1
year classes present?	Yes
and the second s	Yes
	Yes
nt stable/increasing?	
nt stable/increasing? ost restoration (cm)	0.03
nt stable/increasing?	0.03
e i	hell across all samples (%) e change (liters per m²) total volume from 2015 lume change (liters per m²) rface shell volume change e year classes present? rint stable/increasing?

# Reef L06 SS\_IIA

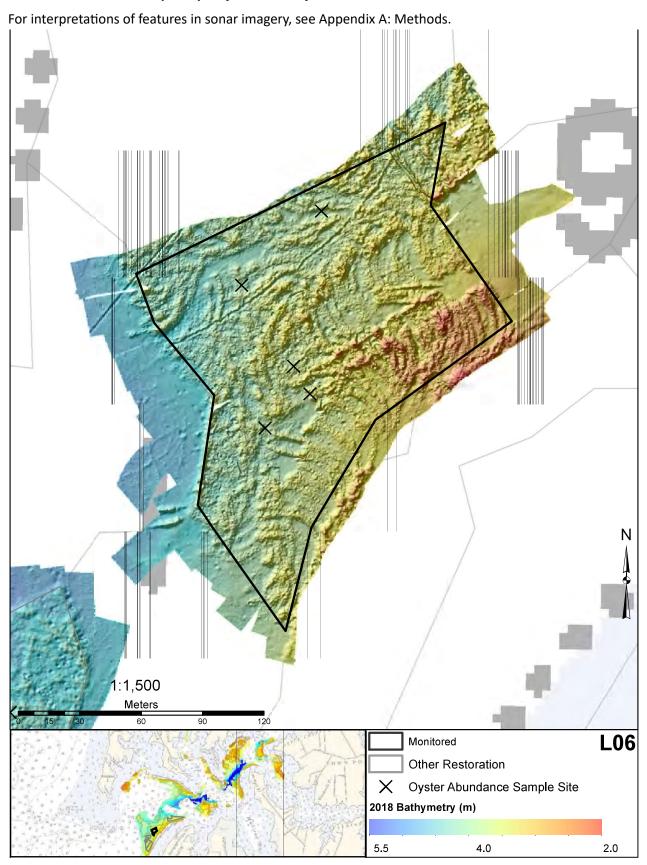
#### Percent of Measured Oysters in the Market, Small, and Spat Categories





# Reef L06 SS\_IIA

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar



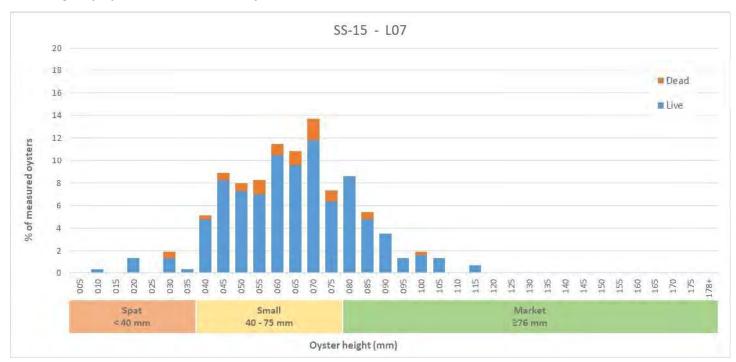
# Reef L07 SS\_15

	Report reef ID	L07
Reef Information	Geodatabase Site_ID	S\$_15
	Tributary	Little Choptank
	Reef area (acres)	10.93
	Restoration treatment	Substrate & Seed
	Substrate type added	Fossil Shell
estoration Treatment	Average planned reef height*	6
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	3/5/2019
lonitoring Information	# samples taken	6
in terms in terms to the	# live oysters measured	284
	# live oysters counted	438
	# dead oysters counted	30
	% of oysters that were dead	6%
1	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	146.00
	Standard error of live density (#/m²)	19.30
	Number of samples meeting minimum threshold density (m²)	6
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	6
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Density	Average live density on stone (#/m²)	0.33
	Standard error of live density on stone	0.33
	Average live density on shellall shell types (#/m²)	71.67
	Standard error of live density on shell-aall shell types	17.70
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	6
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	5
	Reef area meeting target biomass (%)	83%
	Average live biomass across reef (g dry weight per m²)	95.48
	Standard error of live biomass	14.13
	Average live biomass across reef at 3 years post restoration	7.1
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	34.00
	Standard error of shell volume	4.73
Shell Volume	Average brown shell across all samples (%)	78%
1	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	is reef height stable/increasing?	Yes
nee. negat	3 years post restoration (cm)	0
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

# Reef L07 SS\_15

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





# Reef L07 SS\_15

### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods. 1:3,000 Meters 180 L07 Monitored Other Restoration Oyster Abundance Sample Site 2018 Bathymetry (m) 5.5 2.0 4.0

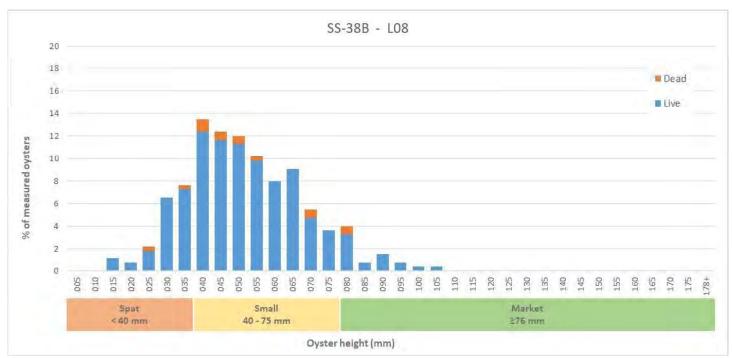
# Reef L08 SS\_38B

	Report reef ID	L08
Reef Information	Geodatabase Site_ID	SS_38B
Keel Illiormation	Tributary	Little Choptank
	Reef area (acres)	7.36
	Restoration treatment	Substrate & Seed
	Substrate type added	Fossil Shell
estoration Treatment	Average planned reef height*	6
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	3/1/2019
Ionitoring Information	# samples taken	5
ionitoring information	# live oysters measured	261
	# live oysters counted	453
	# dead oysters counted	14
	% of oysters that were dead	3%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	181.20
	Standard error of live density (#/m²)	45.78
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	80%
Dyster Density	Average live density on stone (#/m²)	0.80
	Standard error of live density on stone	0.49
	Average live density on shellall shell types (#/m²)	74.40
	Standard error of live density on shell-aall shell types	15.64
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
	Reef area meeting target blomass (%)	60%
	Average live biomass across reef (g dry weight per m²)	82.03
	Standard error of live biomass	21.47
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	19.00
	Standard error of shell volume	4,92
Shell Volume	Average brown shell across all samples (%)	96%
	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
2002	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
	3 years post restoration (cm)	0.05
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef:	

# Reef L08 SS\_38B

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar For interpretations of features in sonar imagery, see Appendix A: Methods. Ν 1:2,000 Meters **L08** Monitored Other Restoration Oyster Abundance Sample Site 2018 Bathymetry (m)

5.5

4.0

2.0

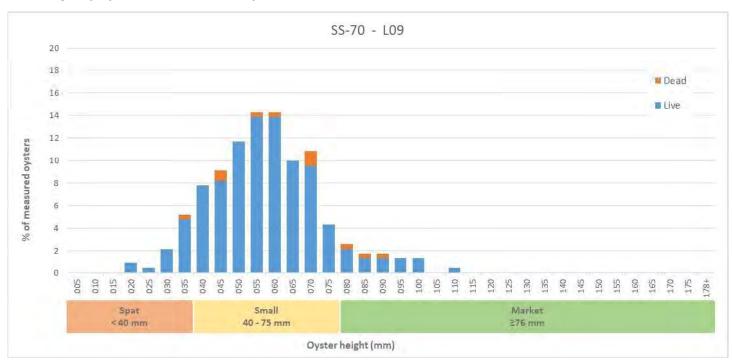
# Reef L09 SS\_70

	Report reef ID	L09
Reef Information	Geodatabase Site_ID	SS_70
	Tributary	Little Choptank
	Reef area (acres)	6.08
	Restoration treatment	Substrate & Seed
	Substrate type added	Fossil Shell
estoration Treatment	Average planned reef height*	6
	Year planted with spat (initial planting)	2015
	Second year class replanting	N/A
	Monitoring type	3 Year Cohort
	Sample method	Diver
	Sample date	3/1/2019
onitoring Information	# samples taken	5
	# live oysters measured	220
	# live oysters counted	268
	# dead oysters counted	11
	% of oysters that were dead	4%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	107.20
	Standard error of live density (#/m²)	28.72
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	4
Oyster Density	Percent of samples meeting target density (%)	80%
Dyster Density	Average live density on stone (#/m²)	0.00
	Standard error of live density on stone	0.00
	Average live density on shellall shell types (#/m²)	63.60
	Standard error of live density on shell-aall shell types	17.12
- 1	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	3
A STATE OF THE PARTY OF THE PAR	Reef area meeting target biomass (%)	60%
	Average live biomass across reef (g dry weight per m²)	55.25
	Standard error of live biomass	12.23
	Average live biomass across reef at 3 years post restoration	7.3
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	22.40
	Standard error of shell volume	3.87
Shell Volume	Average brown shell across all samples (%)	83%
1-11-11-11-1	Total volume change (liters per m²)	•
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	•
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
Reef Height	Is reef height stable/increasing?	Yes
1000	3 years post restoration (cm)	-0.03
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef:	

# Reef L09 SS\_70

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





### Fall 2018 Hillshaded Bathymetry Surface Derived from Multibeam Sonar

For interpretations of features in sonar imagery, see Appendix A: Methods. 1:2,000 Meters L09 Monitored Other Restoration Oyster Abundance Sample Site 2018 Bathymetry (m) 5.5 2.0 4.0

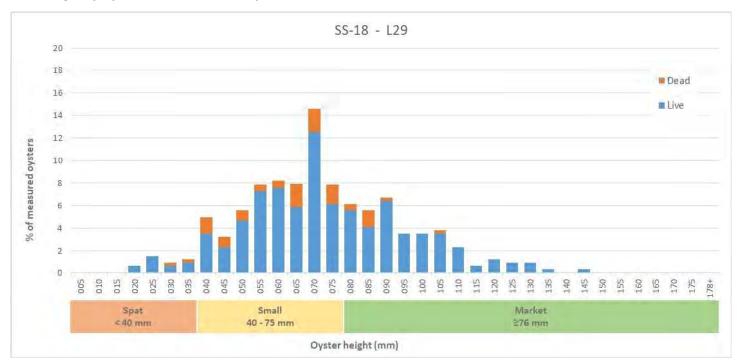
# Reef L29 SS\_18

	Report reef ID	L29
Reef Information	Geodatabase Site_ID	SS_18
	Tributary	Little Choptank
	Reef area (acres)	2.72
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone base with fossil shell
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2016
	Second year class replanting	N/A
	Monitoring type	Sentinel
	Sample method	Diver
	Sample date	3/5/2019
tanile and the tarkening and an	#samples taken	5
Monitoring Information	# live oysters measured	296
	# live oysters counted	669
	# dead oysters counted	46
	% of oysters that were dead	6%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	267.60
	Standard error of live density (#/m²)	40.11
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Same	Percent of samples meeting target density (%)	100%
Oyster Density	Average live density on stone (#/m²)	35.20
	Standard error of live density on stone	19.52
	Average live density on shellall shell types (#/m²)	62.80
	Standard error of live density on shell-aall shell types	17.14
		0.00
	Average live density on clam shell (#/m²)	
	Standard error of live density on clam shell  Average live density across reef at 3 years post restoration	0.00
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
	Number of samples meeting target biomass	5
Oyster Biomass	Reef area meeting target biomass (%)	100%
		221.13
	Average live biomass across reef (g dry weight per m*) Standard error of live biomass	35.90
	Average live biomass across reef at 3 years post restoration	33.30
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2020
	Average shell volume across entire reef (liters per m²)	39.10
	Standard error of shell volume	9.59
20.000	Average brown shell across all samples (%)	70%
Shell Volume	Total volume change (liters per m²)	-
	% Change in total volume from 2015	4
	Surface shell volume change (liters per m²)	4.
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
	Is reef height stable/increasing?	No data in 2018
Reef Height	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building	100
	material placed into a reef was calculated by multiplying the	
	desired average reef height (ex: 6"; 12") by the reef area. The	

# Reef L29 SS\_18

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





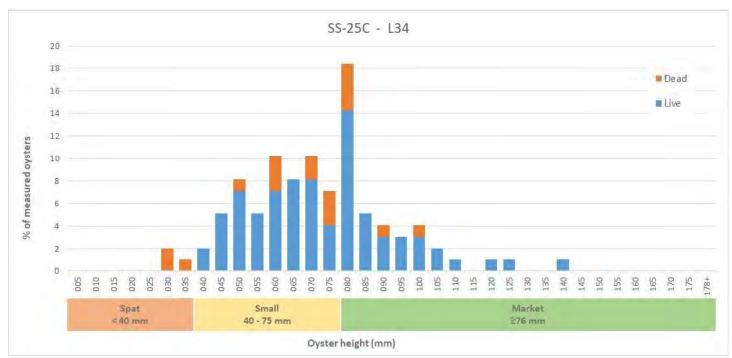
# Reef L34 SS\_25C

	Report reef ID	L34
Reef Information	Geodatabase Site_ID	SS_25C
neer mornadon	Tributary	Little Choptank
	Reef area (acres)	4.19
	Restoration treatment	Substrate & Seed
	Substrate type added	Stone
estoration Treatment	Average planned reef height*	12
	Year planted with spat (initial planting)	2016
X	Second year class replanting	N/A
	Monitoring type	Sentinel
	Sample method	Diver
	Sample date	3/3/2019
Ionitoring Information	# samples taken	5
and the state of	# live oysters measured	80
	# live bysters counted	257
	# dead oysters counted	29
	% of oysters that were dead	10%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	102.80
	Standard error of live density (#/m²)	16.78
	Number of samples meeting minimum threshold density (m²)	5
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	5
Oyster Density	Percent of samples meeting target density (%)	100%
Dyster Delisity	Average live density on stone (#/m²)	78.00
	Standard error of live density on stone	11.75
	Average live density on shellall shell types (#/m²)	24.80
	Standard error of live density on shell-aall shell types	6.15
	Average live density on clam shell (#/m²)	0.00
	Standard error of live density on clam shell	0.00
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	5
	Reef area meeting minimum threshold biomass (%)	100%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Ovster Biomass	Number of samples meeting target biomass	3
- Later Statisticals	Reef area meeting target biomass (%)	60%
	Average live biomass across reef (g dry weight per m²)	85,36
	Standard error of live biomass	16.90
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	3.40
	Standard error of shell volume	1.28
Shell Volume	Average brown shell across all samples (%)	97%
1	Total volume change (liters per m²)	4.
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	•
	% change in surface shell volume change	-
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2018
neer neight	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building	
	material placed into a reef was calculated by multiplying the	
	desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef:	

# Reef L34 SS\_25C

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





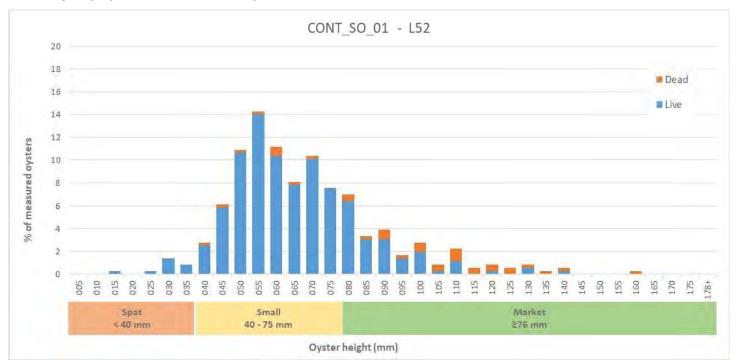
# Reef L52 CONT\_SO\_01

	Report reef ID	L52
Reef Information	Geodatabase Site_ID	CONT_SO_01
	Tributary	Little Choptank
	Reef area (acres)	2.93
	Restoration treatment	None (control site)
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
	Second year class replanting	N/A
	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	4/4/2019
Ionitoring Information	# samples taken	12
ionitoring information	# live oysters measured	322
	# live oysters counted	643
	# dead oysters counted	35
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	33.28
	Standard error of live density (#/m²)	5.85
	Number of samples meeting minimum threshold density (m²)	10
	Percent of samples meeting minimum threshold density (%)	83%
	Number of samples meeting target density (m²)	3
Oyster Density	Percent of samples meeting target density (%)	25%
27240 20004	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	9
	Reef area meeting minimum threshold biomass (%)	75%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	1
	Reef area meeting target biomass (%)	8%
	Average live biomass across reef (g dry weight per m²)	26.42
	Standard error of live biomass	5.1
	Average live biomass across reef at 3 years post restoration	2.47
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2020
	Average shell volume across entire reef (liters per m²)	12.60
	Standard error of shell volume	1.57
Shell Volume	Average brown shell across all samples (%)	73%
	Total volume change (liters per m²)	_ :
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	•
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2018
100000	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

# Reef L52 CONT\_SO\_01

#### Percent of Measured Oysters in the Market, Small, and Spat Categories



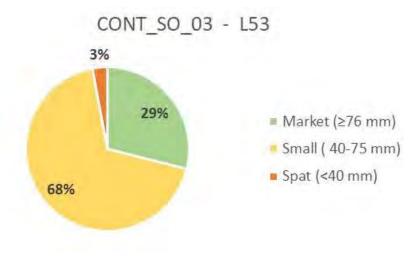


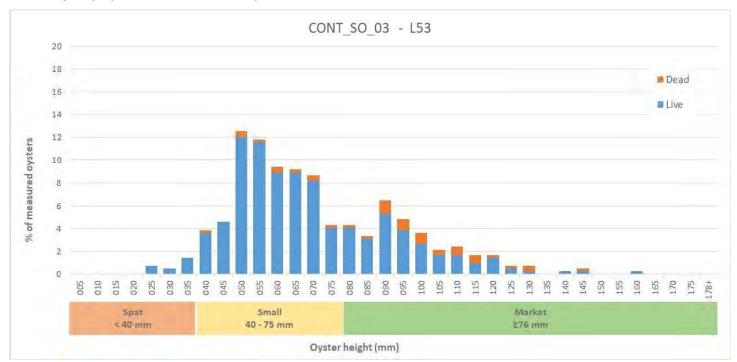
# Reef L53 CONT\_SO\_03

	Report reef ID	L53
Reef Information	Geodatabase Site_ID	CONT_SO_03
	Tributary	Little Choptank
	Reef area (acres)	2.32
	Restoration treatment	None (control site)
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
	Second year class replanting	N/A
	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	4/4/2019
lonitoring Information	# samples taken	12
ontoring information	# live oysters measured	377
	# live oysters counted	1173
	# dead oysters counted	56
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	60.71
	Standard error of live density (#/m²)	6.82
	Number of samples meeting minimum threshold density (m²)	12
	Percent of samples meeting minimum threshold density (%)	100%
	Number of samples meeting target density (m²)	8
Oyster Density	Percent of samples meeting target density (%)	67%
	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	11
	Reef area meeting minimum threshold biomass (%)	92%
	Fall 2018: Did reef meet target oyster biomass?	Yes
Oyster Biomass	Number of samples meeting target biomass	7
	Reef area meeting target biomass (%)	58%
	Average live biomass across reef (g dry weight per m²)	52.02
	Standard error of live biomass	6.4
	Average live biomass across reef at 3 years post restoration	21.64
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/ increasing?	TBD in 2020
	Average shell volume across entire reef (liters per m <sup>4</sup> )  Standard error of shell volume	14.75 1.21
		85%
Shell Volume	Average brown shell across all samples (%)	0376
	Total volume change (liters per m²)  % Change in total volume from 2015	
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	
Multiple Year Classes	% change in surface shell volume change  Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Var Marine	Is reef height stable/increasing?	No data in 2018
Reef Height	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building	100
	material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

# Reef L53 CONT\_SO\_03

#### Percent of Measured Oysters in the Market, Small, and Spat Categories



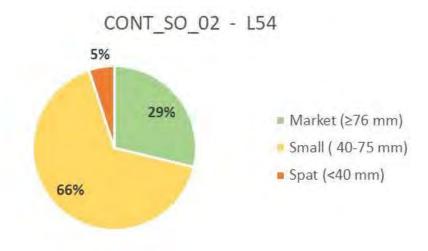


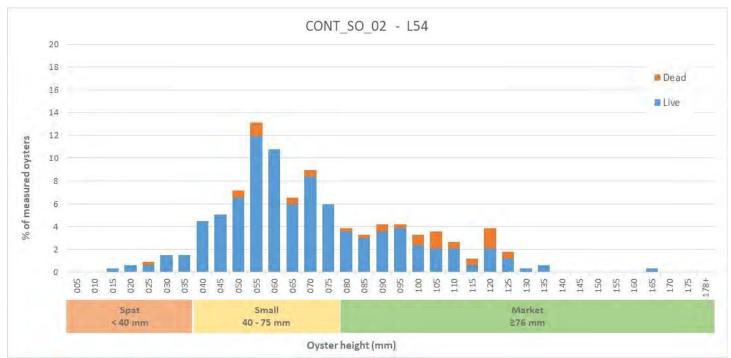
# Reef L54 CONT\_SO\_02

	Report reef ID	L54
Reef Information	Geodatabase Site_ID	CONT_SO_02
	Tributary	Little Choptank
	Reef area (acres)	2.5
Restoration Treatment	Restoration treatment	None (control site)
	Substrate type added	None
	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
	Second year class replanting	N/A
Monitoring Information	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	4/4/2019
	# samples taken	12
	# live oysters measured	299
	# live oysters counted	999
	# dead oysters counted	55
	% of oysters that were dead	5%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	Yes
	Average live density across reef (#/m²)	51.71
	Standard error of live density (#/m²)	10.55
	Number of samples meeting minimum threshold density (m²)	9
	Percent of samples meeting minimum threshold density (%)	75%
	Number of samples meeting target density (m²)	6
Oyster Density	Percent of samples meeting target density (%)	50%
Cyster Density	Average live density on stone (#/m*)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
Oyster Biomass	Number of samples meeting minimum threshold biomass	9
	Reef area meeting minimum threshold biomass (%)	75%
	Fall 2018: Did reef meet target oyster biomass?	Yes
	Number of samples meeting target biomass	5
	Reef area meeting target biomass (%)	42%
	Average live biomass across reef (g dry weight per m²)	43,66
	Standard error of live biomass	8.64
	Average live biomass across reef at 3 years post restoration	- Aug
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/ increasing?	TBD in 2020
	Average shell volume across entire reef (liters per m²)	14.13
	Standard error of shell volume	1.92
Shell Volume	Average brown shell across all samples (%)	77%
	Total volume change (liters per m²)	40
	% Change in total volume from 2015	-
	Surface shell volume change (liters per m²)	- 2
	% change in surface shell volume change	
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2018
100	3 years post restoration (cm)	TBD
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The	

# Reef L54 CONT\_SO\_02

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





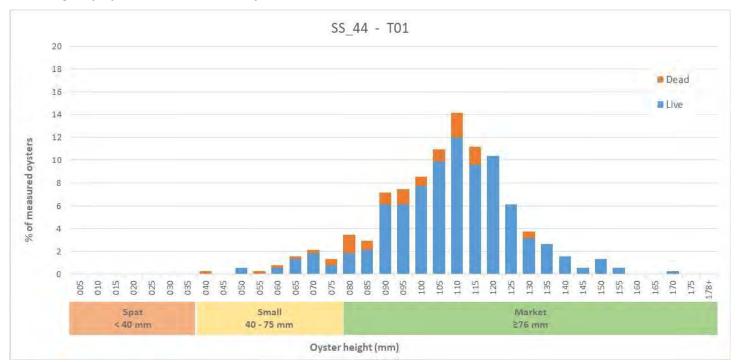
# ReefT01 SS\_44

Geodatabase Site_ID  Tributary  Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)  Number of samples meeting minimum threshold density (m²)	SS_44 Tred Avon 1,78 Substrate & Seed Mixed Shell 12 2015 N/A Sentinel Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85 6.86
Tributary  Reef area (acres)  Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  # dead oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	1.78 Substrate & Seed Mixed Shell  12 2015 N/A Sentinel Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Restoration treatment  Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	Substrate & Seed  Mixed Shell  12  2015  N/A  Sentinel  Patent Tong  3/28/2019  12  327  654  73  10%  Yes  No  33.85
Substrate type added  Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	Mixed Shell  12 2015  N/A  Sentinel  Patent Tong  3/28/2019  12  327  654  73  10%  Yes  No 33.85
Average planned reef height*  Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	12 2015 N/A Sentinel Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Year planted with spat (initial planting)  Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	2015 N/A Sentinel Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Second year class replanting  Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	N/A Sentine1 Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Monitoring type  Sample method  Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	Sentinel Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Sample method Sample date # samples taken # live oysters measured # live oysters counted # dead oysters counted % of oysters that were dead Fall 2018: Did reef meet minimum threshold density? Fall 2018: Did reef meet target density? Average live density across reef (#/m²) Standard error of live density (#/m²)	Patent Tong 3/28/2019 12 327 654 73 10% Yes No 33.85
Sample date  # samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	3/28/2019 12 327 654 73 10% Yes No 33.85
# samples taken  # live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	12 327 654 73 10% Yes No 33.85
# live oysters measured  # live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	327 654 73 10% Yes No 33.85
# live oysters counted  # dead oysters counted  % of oysters that were dead  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	654 73 10% Yes No 33.85
# dead oysters counted % of oysters that were dead Fall 2018: Did reef meet minimum threshold density? Fall 2018: Did reef meet target density? Average live density across reef (#/m³) Standard error of live density (#/m³)	73 10% Yes No 33.85
% of oysters that were dead.  Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	10% Yes No 33.85
Fall 2018: Did reef meet minimum threshold density?  Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	Yes No 33.85
Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	No 33.85
Fall 2018: Did reef meet target density?  Average live density across reef (#/m²)  Standard error of live density (#/m²)	33.85
Average live density across reef (#/m²)  Standard error of live density (#/m²)	
Standard error of live density (#/m²)	c oc
	0.00
	10
Percent of samples meeting minimum threshold density (%)	83%
	2
	17%
	N/A
A CONTRACTOR OF THE PROPERTY O	N/A
	N/A
	N/A
	N/A
	N/A
Average live density across reef at 3 years post restoration	- 10
(for 6-year-old reefs only) (#/m²)	N/A
Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
Number of samples meeting minimum threshold biomass	10
Reef area meeting minimum threshold biomass (%)	83%
Fall 2018: Did reef meet target oyster biomass?	Yes
Number of samples meeting target biomass	6
Reef area meeting target biomass (%)	50%
Average live biomass across reef (g dry weight per m <sup>2</sup> )	58.45
Standard error of live biomass	11.6
Average live biomass across reef at 3 years post restoration	0.9
(for 6-year-old reefs only) (g dry weight per m²)	N/A
is the shell budget stable/increasing?	TBD in 2019
Average shell volume across entire reef (liters per m²)	15.53
Standard error of shell volume	1,60
Average brown shell across all samples (%)	54%
Total volume change (liters per m²)	4
% Change in total volume from 2015	12
Surface shell volume change (liters per m²)	4
% change in surface shell volume change	
Are multiple year classes present?	Yes
Is reef footprint stable/increasing?	Yes
Is reef height stable/increasing?	Yes
3 years post restoration (cm)	0.02
Average planned reef height: The amount of reef-building	
material placed into a reef was calculated by multiplying the	
1	Percent of samples meeting minimum threshold density (%)  Number of samples meeting target density (m²)  Percent of samples meeting target density (%)  Average live density on stone (#/m²)  Standard error of live density on stone  Average live density on shell-sall shell types (#/m²)  Standard error of live density on clam shell (#/m²)  Standard error of live density on clam shell (#/m²)  Standard error of live density on clam shell  Average live density across reef at 3 years post restoration (for 6-year-old reefs only) (#/m²)  Fall 2018: Did reef meet minimum threshold oyster biomass?  Number of samples meeting minimum threshold biomass  Reef area meeting minimum threshold biomass?  Number of samples meeting target biomass?  Number of samples meeting target biomass  Reef area meeting target biomass  Reef area meeting target biomass  Average live biomass across reef (g dry weight per m²)  Standard error of live biomass  Average live biomass across reef (g dry weight per m²)  Is the shell budget stable/ increasing?  Average shell volume across entire reef (liters per m²)  Standard error of shell volume  Average brown shell across all samples (%)  Total volume change (liters per m²)  % Change in total volume from 2015  Surface shell volume change (liters per m²)  % change in surface shell volume change  Are multiple year classes present?  Is reef height stable/increasing?  Is reef height stable/increasing?  Is reef height stable/increasing?  Is reef height: The amount of reef-building

# ReefT01 SS\_44

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





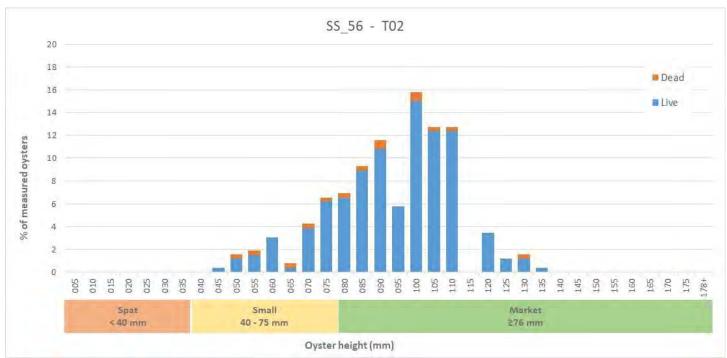
# ReefT02 SS\_56

	Report reef ID	T02		
Reef Information	Geodatabase Site_ID	SS_56		
cr mornation	Tributary	Tred Avon		
	Reef area (acres)	0.8		
	Restoration treatment	Substrate & Seed		
	Substrate type added	Mixed Shell		
estoration Treatment	Average planned reef height*	12		
	Year planted with spat (initial planting)	2015		
- V	Second year class replanting	N/A		
	Monitoring type	Sentinel		
	Sample method	Patent Tong		
	Sample date	3/19/2019		
Ionitoring Information	# samples taken	12		
omtoring information	# live oysters measured	245		
	# live oysters counted	267		
	# dead oysters counted	14		
	% of oysters that were dead	5%		
	Fall 2018: Did reef meet minimum threshold density?	Yes		
10	Fall 2018: Did reef meet target density?	No		
	Average live density across reef (#/m²)	13.82		
	Standard error of live density (#/m²)	2.36		
	Number of samples meeting minimum threshold density (m²)	5		
	Percent of samples meeting minimum threshold density (%)	42%		
	Number of samples meeting target density (m²)	0		
Out of Death	Percent of samples meeting target density (%)	0%		
Oyster Density	Average live density on stone (#/m²)	N/A		
	Standard error of live density on stone	N/A		
	Average live density on shellall shell types (#/m²)	N/A		
	Standard error of live density on shell-aall shell types	N/A		
1	Average live density on clam shell (#/m²)	N/A		
	Standard error of live density on clam shell	N/A		
	Average live density across reef at 3 years post restoration	176-2		
	(for 6-year-old reefs only) (#/m²)	N/A		
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes		
	Number of samples meeting minimum threshold biomass	6		
	Reef area meeting minimum threshold biomass (%)	50%		
	Fall 2018: Did reef meet target oyster biomass?	No		
Oyster Biomass	Number of samples meeting target biomass	0		
o face pionipa	Reef area meeting target biomass (%)	0%		
	Average live biomass across reef (g dry weight per m²)	17.49		
	Standard error of live biomass	2.92		
	Average live biomass across reef at 3 years post restoration			
	(for 6-year-old reefs only) (g dry weight per m²)	N/A		
	is the shell budget stable/increasing?	TBD in 2019		
	Average shell volume across entire reef (liters per m²)	8.64		
	Standard error of shell volume	0.89		
Shell Volume	Average brown shell across all samples (%)	58%		
7-17-7	Total volume change (liters per m²)			
	% Change in total volume from 2015	-		
	Surface shell volume change (liters per m²)	- 14		
	% change in surface shell volume change			
Multiple Year Classes	Are multiple year classes present?	Yes		
Reef Footprint	is reef footprint stable/increasing?	Yes		
Roof Height	Is reef height stable/increasing?	Yes		
Reef Height	3 years post restoration (cm)	0		
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.			

### ReefT02 SS\_56

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





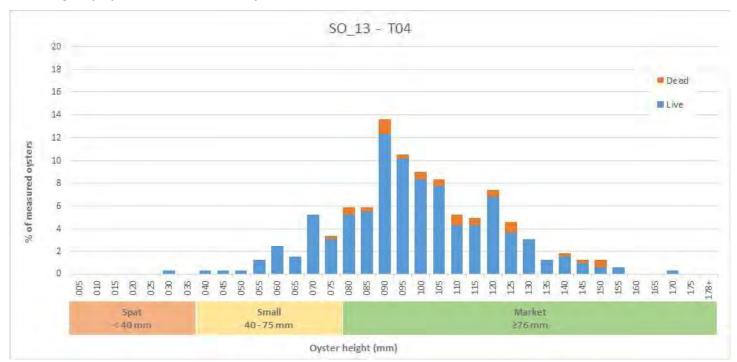
# ReefT04 SO\_13

	Report reef ID	T04
Pant Information	Geodatabase Site_ID	SO_13
Reef Information	Tributary	Tred Avon
	Reef area (acres)	5.94
	Restoration treatment	Seed Only
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	2016
	Second year class replanting	N/A
	Monitoring type	Sentinel
	Sample method	Patent Tong
	Sample date	3/28/2019
to the second	# samples taken	12
onitoring Information	# live oysters measured	297
	# live oysters counted	445
	# dead oysters counted	39
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	Yes
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	23.03
	Standard error of live density (#/m²)	3.71
	Number of samples meeting minimum threshold density (m²)	7
	Percent of samples meeting minimum threshold density (%)	58%
	Number of samples meeting target density (m²)	0
Shares and	Percent of samples meeting target density (%)	0%
Oyster Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	IN/A
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes
	Number of samples meeting minimum threshold biomass	11
	Reef area meeting minimum threshold biomass (%)	92%
	Fall 2018: Did reef meet target oyster biomass?	No
Ourter Diseases	Number of samples meeting target biomass	3
Oyster Biomass	Reef area meeting target biomass (%)	25%
	Average live biomass across reef (g dry weight per m <sup>2</sup> )	32.89
	Standard error of live biomass	4.62
	Average live biomass across reef at 3 years post restoration	
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2020
	Average shell volume across entire reef (liters per m²)	16.67
	Standard error of shell volume	1.34
Shell Volume	Average brown shell across all samples (%)	95%
Juen volume	Total volume change (liters per m²)	4
	% Change in total volume from 2015	2
	Surface shell volume change (liters per m²)	4
	% change in surface shell volume change	
Iultiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	Yes
m	Is reef height stable/increasing?	Yes
Reef Height	3 years post restoration (cm)	0.02
	*Average planned reef height: The amount of reef-building	
	material placed into a reef was calculated by multiplying the	
	desired average reef height (ex: 6"; 12") by the reef area. The	

## ReefT04 SO\_13

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





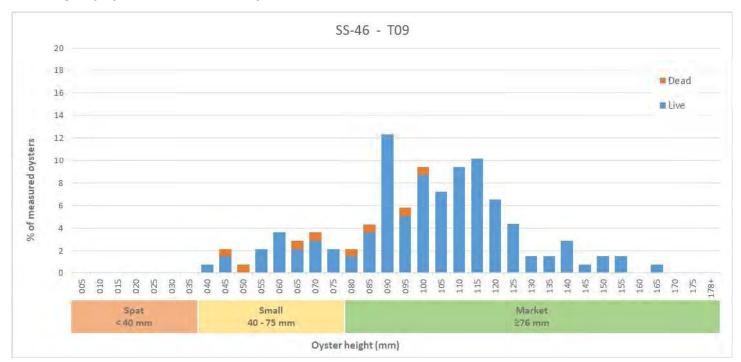
# ReefT09 SS\_46

	Report reef ID	T09			
Reef Information	Geodatabase Site_ID	SS_46			
morniumon	Tributary	Tred Avon			
	Reef area (acres)	3.30			
	Restoration treatment	Substrate & Seed			
	Substrate type added	Stone			
Restoration Treatment	Average planned reef height*	12			
	Year planted with spat (initial planting)	2016			
	Second year class replanting	N/A			
	Monitoring type	Sentinel			
	Sample method	Diver			
	Sample date	3/19/2019			
Monitoring Information	# samples taken	6			
and the state of	# live oysters measured	130			
	# live oysters counted	327			
	# dead oysters counted	8			
	% of oysters that were dead	2%			
	Fall 2018: Did reef meet minimum threshold density?	Yes			
	Fall 2018: Did reef meet target density?	Yes			
	Average live density across reef (#/m²)	109.00			
	Standard error of live density (#/m²)	70.49			
	Number of samples meeting minimum threshold density (m²)	6			
	Percent of samples meeting minimum threshold density (%)	100%			
	Number of samples meeting target density (m²)	2			
Oyster Density	Percent of samples meeting target density (%)	33%			
Cyster Delisity	Average live density on stone (#/m²)	48,67			
	Standard error of live density on stone	39.03			
	Average live density on shellall shell types (#/m²)	60.33			
	Standard error of live density on shell-aall shell types	32.14			
	Average live density on clam shell (#/m²)	0.00			
	Standard error of live density on clam shell	0.00			
	Average live density across reef at 3 years post restoration				
	(for 6-year-old reefs only) (#/m²)	N/A			
	Fall 2018: Did reef meet minimum threshold oyster biomass?	Yes			
	Number of samples meeting minimum threshold biomass	6			
	Reef area meeting minimum threshold biomass (%)	100%			
	Fall 2018: Did reef meet target oyster biomass?	Yes			
Oyster Biomass	Number of samples meeting target biomass	4			
- I many management	Reef area meeting target biomass (%)	67%			
	Average live biomass across reef (g dry weight per m²)	153.37			
	Standard error of live biomass	99.23			
	Average live biomass across reef at 3 years post restoration	0.00			
	(for 6-year-old reefs only) (g dry weight per m²)	N/A			
	is the shell budget stable/ increasing?	TBD in 2021			
	Average shell volume across entire reef (liters per m²)	13.37			
	Standard error of shell volume	7.95			
Shell Volume	Average brown shell across all samples (%)	95%			
and a series	Total volume change (liters per m²)	2			
	% Change in total volume from 2015	4			
	Surface shell volume change (liters per m²)	4.0			
	% change in surface shell volume change				
Multiple Year Classes	Are multiple year classes present?	Yes			
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018			
Reaf Haight	Is reef height stable/increasing?	No data in 2018			
neer treight	3 years post restoration (cm)	TBD			
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The				
Multiple Year Classes	actual height of the reef varied across the reef.				

## ReefT09 SS\_46

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





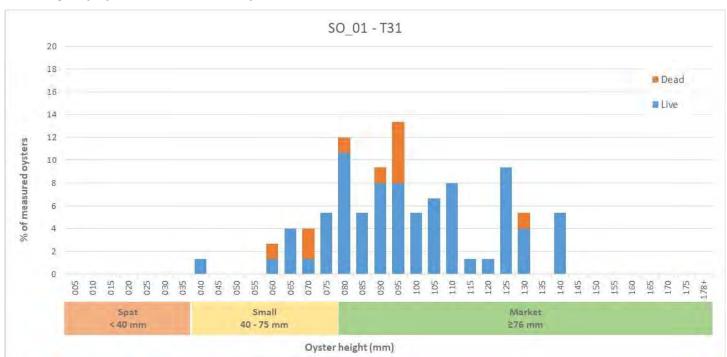
# ReefT31 SO\_01

	Report reef ID	T31
Reef Information	Geodatabase Site_ID	SO_01
NCCI III OTTIOGOT	Tributary	Tred Avon
	Reef area (acres)	2.1
	Restoration treatment	None
	Substrate type added	None
Restoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
	Second year class replanting	N/A
	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	3/28/2019
lanitaring Information	#samples taken	12
lonitoring Information	# live oysters measured	65
	# live oysters counted	124
	# dead oysters counted	11
	% of oysters that were dead	8%
	Fall 2018: Did reef meet minimum threshold density?	No
	Fail 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	6.42
	Standard error of live density (#/m²)	4.73
	Number of samples meeting minimum threshold density (m²)	1
	Percent of samples meeting minimum threshold density (%)	8%
	Number of samples meeting target density (m²)	1
(a) more accounts	Percent of samples meeting target density (%)	8%
Oyster Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	19/8
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	No
	Number of samples meeting minimum threshold biomass	2
	Reef area meeting minimum threshold biomass (%)	17%
	Fall 2018: Did reef meet target oyster biomass?	No
A	Number of samples meeting target biomass	1
Oyster Biomass	Reef area meeting target biomass (%)	8%
	Average live biomass across reef (g dry weight per m²)	8.14
	Standard error of live biomass	5.05
	Average live biomass across reef at 3 years post restoration	2.02
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	is the shell budget stable/ increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	5.30
	Standard error of shell volume	1.87
Chall Maha	Average brown shell across all samples (%)	56.82
Shell Volume	Total volume change (liters per m²)	N/A
	% Change in total volume from 2015	N/A
	Surface shell volume change (liters per m²)	N/A
	% change in surface shell volume change	N/A
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	is reef footprint stable/increasing?	No data in 2018
	Is reef height stable/increasing?	No data in 2019
Reef Height	3 years post restoration (cm)	TBD in 2021
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef.	200 3000

### ReefT31 SO\_01

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





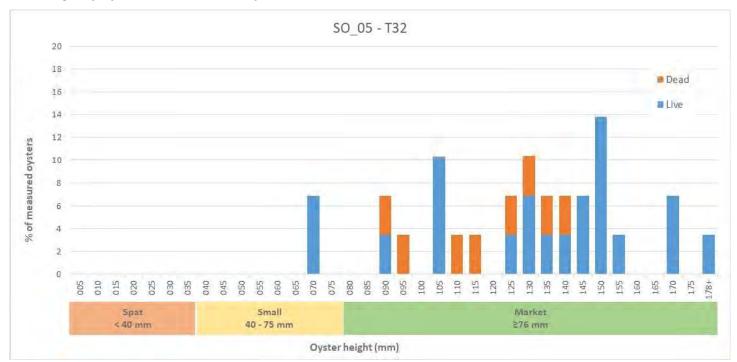
# ReefT32 SO\_05

	Report reef ID	T32
Poof Information	Geodatabase Site_ID	SO_05
Reef Information	Tributary	Tred Avon
	Reef area (acres)	1.85
	Restoration treatment	None
	Substrate type added	None
estoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
	Second year class replanting	N/A
	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	3/28/2019
Ionitoring Information	# samples taken	12
tolittoring information	# live oysters measured	21
	# live oysters counted	21
	# dead oysters counted	8
-	% of oysters that were dead	28%
	Fall 2018: Did reef meet minimum threshold density?	No
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	1.09
	Standard error of live density (#/m²)	0.45
	Number of samples meeting minimum threshold density (m²)	0
	Percent of samples meeting minimum threshold density (%)	0%
	Number of samples meeting target density (m²)	0
Oyster Density	Percent of samples meeting target density (%)	0%
Dyster Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	No
	Number of samples meeting minimum threshold biomass	0
	Reef area meeting minimum threshold biomass (%)	0%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	0
	Reef area meeting target biomass (%)	0%
	Average live biomass across reef (g dry weight per m²)	2.82
	Standard error of live biomass	0.96
	Average live biomass across reef at 3 years post restoration	2.47
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	6.74
	Standard error of shell volume	0.79
Shell Volume	Average brown shell across all samples (%)	13.55
	Total volume change (liters per m*)	N/A
	% Change in total volume from 2015	N/A
	Surface shell volume change (liters per m²)	N/A
Manufacture of the Control of the Co	% change in surface shell volume change	N/A
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	Is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2019
	3 years post restoration (cm)	TBD in 2022
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex: 6"; 12") by the reef area. The actual height of the reef varied across the reef:	

### ReefT32 SO\_05

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





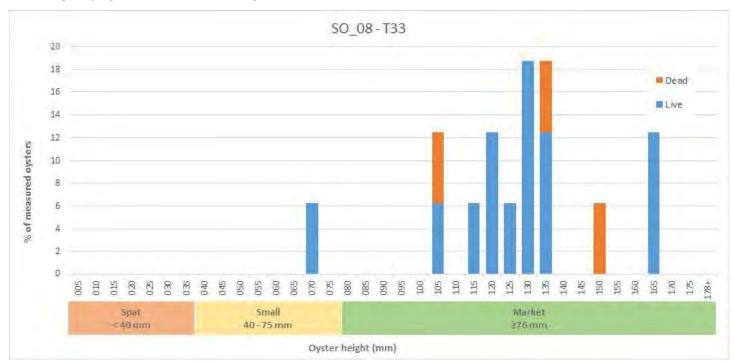
# ReefT33 SO\_08

	Report reef ID	T33
Reef Information	Geodatabase Site_ID	SO_08
Section Series	Tributary	Tred Avon
	Reef area (acres)	2.03
	Restoration treatment	None
	Substrate type added	None
Restoration Treatment	Average planned reef height*	N/A
	Year planted with spat (initial planting)	N/A
-	Second year class replanting	N/A
	Monitoring type	Reference
	Sample method	Patent Tong
	Sample date	3/28/2019
Ionitoring Information	# samples taken	12
The state of the s	# live oysters measured	13
	# live oysters counted	13
	# dead oysters counted	3
	% of oysters that were dead	19%
- X	Fall 2018: Did reef meet minimum threshold density?	No
	Fall 2018: Did reef meet target density?	No
	Average live density across reef (#/m²)	0.67
	Standard error of live density (#/m²)	0.36
	Number of samples meeting minimum threshold density (m²)	0
	Percent of samples meeting minimum threshold density (%)	0%
	Number of samples meeting target density (m²)	0
Oyster Density	Percent of samples meeting target density (%)	0%
Dyster Density	Average live density on stone (#/m²)	N/A
	Standard error of live density on stone	N/A
	Average live density on shellall shell types (#/m²)	N/A
	Standard error of live density on shell-aall shell types	N/A
	Average live density on clam shell (#/m²)	N/A
	Standard error of live density on clam shell	N/A
	Average live density across reef at 3 years post restoration	
	(for 6-year-old reefs only) (#/m²)	N/A
	Fall 2018: Did reef meet minimum threshold oyster biomass?	No
	Number of samples meeting minimum threshold biomass	0
	Reef area meeting minimum threshold biomass (%)	0%
	Fall 2018: Did reef meet target oyster biomass?	No
Oyster Biomass	Number of samples meeting target biomass	0
The second second	Reef area meeting target biomass (%)	0%
	Average live biomass across reef (g dry weight per m²)	1.68
	Standard error of live biomass	1.05
	Average live biomass across reef at 3 years post restoration	8.3
	(for 6-year-old reefs only) (g dry weight per m²)	N/A
	Is the shell budget stable/increasing?	TBD in 2021
	Average shell volume across entire reef (liters per m²)	5.01
	Standard error of shell volume	0.80
Shell Volume	Average brown shell across all samples (%)	20.40
	Total volume change (liters per m²)	N/A
	% Change in total volume from 2015	N/A
	Surface shell volume change (liters per m²)	N/A
	% change in surface shell volume change	N/A
Multiple Year Classes	Are multiple year classes present?	Yes
Reef Footprint	is reef footprint stable/increasing?	No data in 2018
Reef Height	Is reef height stable/increasing?	No data in 2019
neer rieight	3 years post restoration (cm)	TBD in 2023
	*Average planned reef height: The amount of reef-building material placed into a reef was calculated by multiplying the desired average reef height (ex. 6"; 12") by the reef area. The actual height of the reef varied across the reef.	

### ReefT33 SO\_08

#### Percent of Measured Oysters in the Market, Small, and Spat Categories





# Appendix C: Tables of 2018 Monitoring Information For 3-year-old reefs, 6-year-old reefs, and reference reefs (Tables 10-17)

Tables 10 and 11 below show the restoration treatment and sampling information for each reef.

Detailed monitoring results, by tributary and by Oyster Metrics criteria, are in Tables 12-17 below. All information for each reef, by reef, including sonar images and graphics of oyster shell height distributions, is in Appendix B: Reef Pages. Information on sentinel reefs (monitored annually) is in Appendix D.

Table 10: Restoration treatment, sampling information, and oyster count data for Harris Creek reefs.

Report Reef ID	Sample Method	Is the shell budget stable/ increasing?	Average shell volume across entire reef (liters per m²)	Standard error of shell volume	Average brown shell across all samples (%)	Total volume change (liters per m²)	% change in total volume from 2015	Surface shell volume change (liters per m2)	% change in surface shell volume change	Are multiple year classes present?	Is reef footprint stable/ increasing?	Is reef height stable/ increasing?	Difference between postconstruction reef height and reefs height 3 years post restoration (cm)
L02	Diver	TBD in 2019	42.00	9.86	79%		-		i t	Yes	Yes	Yes	0
L05	Diver	TBD in 2021	42.80	8.62	82%	1 2		- 1	-	Yes	Yes	Yes	0
L06	Diver	TBD in 2021	6.40	2.93	93%	1.0			1 t	Yes	Yes	Yes	0.03
L07	Diver	TBD in 2021	34.00	4.73	78%			-		Yes	Yes	Yes	0
L08	Diver	TBD in 2021	19.00	4.92	96%	100	- : -			Yes	Yes	Yes	0.05
L09	Diver	TBD in 2021	22.40	3.87	83%	1.00		-		Yes	Yes	Yes	-0.03
L52	Patent Tong	TBD in 2020	12.60	1.57	73%	100				Yes	No data in 2018	No data in 2018	TBD
L53	Patent Tong	TBD in 2020	14.75	1.21	85%	-			2	Yes	No data in 2018	No data in 2018	TBD
L54	Patent Tong	TBD in 2020	14.13	1.92	77%	P	1	=	÷	Yes	No data in 2018	No data in 2018	TBD

Table 11: Restoration treatment and sampling information for Little Choptank River reefs.

Report reef ID	Reef area (acres)	Restoration treatment	Substrate type added	Average planned reef height*	Year planted with spat (initial planting)	Second year class replanting	Monitoring type	Sample method	Sample date	# samples taken	# live oysters measured	# live oysters counted	# dead oysters counted	% of oysters that were dead
L02	2.81	Substrate & Seed	Fossil Shell	6	2015	N/A	3 Year Cohort	Diver	3/8/2019	5	247	529	62	10%
L05	1.93	Substrate & Seed	Stone base with fossil shell	12	2015	N/A	3 Year Cohort	Diver	3/8/2019	5	250	436	63	13%
L06	5.01	Substrate & Seed	Stone	9	2015	N/A	3 Year Cohort	Diver	3/3/2019	5	191	287	24	8%
107	10.93	Substrate & Seed	- 75533E - 1	6	2015	N/A	3 Year Cohort	Diver	3/5/2019	6	284	438	30	5%
108	7.36	Substrate & Seed	Fossil	6	2015	N/A	3 Year Cohort	Diver	3/1/2019	5	261	453	14	3%
L09	6.08	Substrate & Seed	Fossil Shell	6	2015	N/A	3 Year Cohort	Diver	3/1/2019	5	220	268	11	4%
L52	2.93	None (control site)	None	N/A	N/A	N/A	Reference	Patent Tong	4/4/2019	12	322	643	35	5%
L53	2.32	None (control site)	None	N/A	N/A	N/A	, I I I	Patent Tong		12	377	1173	56	5%
L54	2,5	None (control site)	None	N/A	N/A	N/A		Patent Tong		12	299	999	55	5%

Table 12: Oyster density monitoring results for Harris Creek in 2018.

Report reef ID	Sample method	Fall 2018: Did reef meet minimum threshold density?	Fall 2018: Did reef meet target density?	Average live density across reef (#/m²)	Standard error of live density (#/m²)	Number of samples meeting minimum threshold density (m²)	Percent of samples meeting minimum threshold density (%)	Number of samples meeting target density (m²)	Percent of samples meeting target density (%)	Average live density on stone (#/m²)	Standard error of live density on stone	Average live density on shell-all shell types (#/m²)	Standard error of live density on shell—all shell types	Average live density on clam shell (#/m²)	Standard error of live density on clam shell	Average live density across reef at 3 years post restoration (for 6-year-old reefs only) (#/m²)
H01	Patent Tong	Yes	No	30.62	3.47	10	100%	1	10%	N/A	N/A	N/A	N/A	N/A	N/A	55.81
H02	Patent Tong	Yes	No	36.73	9.04	6	86%	2	29%	N/A	N/A	N/A	N/A	N/A	N/A	47.76
H03	Patent Tong	Yes	No	13.04	3.58	6	38%	0	0%	N/A	N/A	N/A	N/A	N/A	N/A	32.86
H04	Patent Tong	Yes	No	25.07	4.99	8	73%	1	9%	N/A	N/A	N/A	N/A	N/A	N/A	38.96
H05	Patent Tong	Yes	No	43.57	7.16	12	86%	4	29%	N/A	N/A	N/A	N/A	N/A	N/A	47,15
H06	Patent Tong	Yes	No	39.89	7.57	8	89%	2	22%	N/A	N/A	N/A	N/A	N/A	N/A	47.11
H07	Patent Tong	Yes	Yes	42.95	6.74	10	77%	6	46%	N/A	N/A	N/A	N/A	N/A	N/A	29.95
H08	Patent Tong	Yes	Yes	40.73	10.21	11	79%	5	36%	N/A	N/A	N/A	N/A	N/A	N/A.	24.11
H09	Patent Tong	Yes	No	31.17	6.01	12	75%	4	25%	N/A	N/A.	N/A	N/A	N/A.	N/A	32.18
H10	Patent Tong	Yes	Yes	96.69	10.78	14	93%	13	87%	N/A	N/A	N/A	N/A	N/A	N/A	58.1
H11	Patent Tong	Yes	Yes	57.10	11.15	10	77%	7	54%	N/A	N/A	N/A	N/A	N/A	N/A	20.39
H12	Patent Tong	Yes	No	34.29	5.28	11	79%	3	21%	N/A	N/A	N/A	N/A	N/A	N/A	16.53
H13	Patent Tong	Yes	Yes	44.78	7.03	10	100%	4	40%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H14	Patent Tong	Yes	No	25.53	6.09	6	67%	1	11%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H15	Patent Tong	Yes	No	18.94	5.08	5	63%	0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H16	Patent Tong	Yes	No	12.87	3.41	4	57%	0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H17	Patent Tong	No	No	9.88	3.76	2	20%	0	0%	N/A	N/A	N/A	- N/A	N/A	N/A	N/A
H18	Diver	Yes	Yes	208.50	37.28	4	100%	4	100%	60.50	23.26	147.00	59.13	0.00	0.00	N/A
H61	Diver	Yes	Yes	136,40	34.01	5	100%	5	100%	23.20	8,69	76,40	38.65	36,80	13.06	N/A
H63	Diver	Yes	Yes	239.50	43.66	4	100%	4	100%	19.50	16.88	145.50	67.60	74.50	21.19	N/A
	Diver	Yes	Yes	319.20	14.68	5	100%	5	100%	38.40	20.32	117.60	30.73	162.80	35.10	N/A
H64		Yes	Yes	290.00	47.38	5		5		0.40	0.40	174.00	50.77	114.80	28.75	
H65	Diver	Yes	Yes	210.50	47.30	4	100%	4	100%	55.50	33.77	105.50	35.60		0.00	N/A
H66	Diver			212.00		4	100%	4	100%	193.50			4.32	0.00		N/A
H67	Diver	Yes	Yes	95.20	37.32 14.68	5	100%	5	100%	58.00	37.61 8.58	18.00 37.20	11.06	0.00	0.00	N/A
H68	Diver	Yes	Yes	10000			100%	-	100%			222		0.00	0.00	N/A
H69	Diver	Yes	Yes	347.20	20.88	5	100%	5	100%	282.00	13.46	60.80	12.63	0.00	0.00	N/A
H70	Diver	Yes	Yes	453,50	17.13	4	100%	4	100%	223.50	42.58	229.00	35.27	0.00	0.00	N/A
H71	Diver	Yes	Yes	163.60	46.65	5	100%	4	100%	116.80	32.56	45.20	14.08	0.00	0.00	N/A
H72	Patent Tong	Yes	Yes	74.36	12.22	7	100%	6	86%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H73	Diver	Yes	Yes	218.00	30.05	5	100%	5	100%	160.40	24.48	57.60	12.29	0.00	0.00	N/A
H74	Diver	Yes	Yes	355.00	65.29	4	100%	4	100%	122.00	56.93	180.50	49.20	50.50	18.21	N/A
H75	Diver	Yes	Yes	341,00	44.52	Δ	100%	Δ	100%	274.00	29,50	61,00	27,14	0.00	0.00	N/A
H76	Patent Tong	No	No	14.74	5,13	3	27%	1	9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H77	Patent Tong	Yes	No	27.61	5.60	7	78%	.0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H78	Diver	Yes	Yes	467.20	88.07	5	100%	5	100%	399.60	63.42	67,60	26.18	0.00	0.00	N/A
H/9	Diver	Yes	Yes	310.50	105.37	4	100%	4	100%	170.00	78.77	136.50	56.08	0.50	0.50	N/A
H80	Diver	Yes	Yes	269.50	37.14	4	100%	4	100%	119.00	37.55	150.50	68.30	0.00	0.00	N/A
H81	Patent Tong	Yes	No	39.81	8.16	10	91%	2	18%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H82	Diver	Yes	Yes	294.00	45.66	4	100%	4	100%	222.50	29.35	70.50	18.03	0.00	0.00	N/A
H83	Diver	Yes	Yes	223.00	19.54	4	100%	4	100%	136.50	30.06	85.00	13,48	0.00	0.00	N/A
H84	Patent Tong	Yes	No	17.22	5.66	5	45%	1	9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H85	Diver	Yes	Yes	74.80	23.61	5	100%	3	100%	28,80	12.32	46.00	17.89	0.00	0.00	N/A
H86	Diver	Yes	Yes	308.00	25.35	5	100%	5	100%	246.40	21.28	50.40	4.87	0.00	0.00	N/A
H87	Diver	Yes	Yes	405.00	90.14	4	100%	4	100%	196.50	47.15	207.00	78.05	0.00	0.00	N/A
H88	Diver	Yes	Yes	67.50	8.06	4	100%	4	100%	50.00	13.37	17.50	8.06	0.00	0.00	N/A
H89	Diver	Yes	Yes	172.67	28.50	3	100%	3	100%	109.33	22.93	50.67	8.67	0.00	0.00	N/A
H90	Diver	Yes	Yes	337.00	62.24	Δ	100%	Δ	100%	102.00	29,68	234.50	62.59	0.00	0.00	N/A
H91	Diver	Yes	Yes	123.20	14.65	5	100%	5	100%	12.40	6.91	22,00	5.87	24,80	20.88	N/A
H92	Diver	Yes	Yes	332.50	32.88	4	100%	4	100%	271.50	16.96	61.00	21.49	0.00	0.00	N/A
H93	Diver	Yes	Yes	165.50	36.43	4	100%	4	100%	93.50	19.00	71.00	20.68	0.00	0.00	N/A
H94	Diver	Yes	Yes	78.80	14.88	5	100%	- 4	100%	51.60	15.12	27,20	3.01	0.00	0.00	N/A

Table 13: Oyster biomass results for Harris Creek reefs in 2018.

Report reef ID	Sample method	Fall 2018: Did reef meet minimum threshold oyster biomass?	Number of samples meeting minimum threshold biomass	Reef area meeting minimum threshold biomass (%)	Fall 2018: Did reef meet target oyster biomass?	Number of samples meeting target biomass	Reef area meeting target biomass (%)	Average live biomass across reef (g dry weight/m²)	Standard error of live biomass	Average live biomass across reef at 3 years post restoration (tor 6-year- old reefs only) (g dry
H01	Patent Tong	Yes	10	100%	No	1	10%	33.07	4.64	weight/m²) 66.09
H02	Patent Tong	Yes	6	86%	No	2	29%	37.74	9.29	41.82
H03	Patent Tong	Yes	8	50%	No	1	6%	16.76	3.95	33.42
H04	Patent Tong	Yes	8	73%	No	1	9%	28.26	5.39	37.97
H05	Patent Tong	Yes	12	86%	Yes	6	43%	42.32	6.63	45.75
H06	Patent Tong	Yes	8	89%	No	2	22%	38.01	8.05	41.72
H07	Patent Tong	Yes	11	85%	Yes	8	62%	44.12	6.47	31.72
H08	Patent Tong	Yes	10	71%	Yes	5	36%	36.47	8.38	26.6
H09	Patent Tong	Yes	12	75%	No	2	13%	30.06	5.42	30.01
H10	Patent Tong	Yes	14	93%	Yes	13	87%	86.21	9.57	62.72
H11	Tarana and an analysis	Yes	10	77%	Yes	7	54%	53.62	9.56	22.96
H12	Patent Tong Patent Tong	Yes	11	79%	No	2	14%	35.43	5.14	20.53
H13	The same of the same of the	Yes	9		No	1		36.14	4.53	
	Patent Tong		-	90%			10%			N/A
H14	Patent Tong	Yes	5	67%	No	1	11%	30.25	7.97	N/A
H15	Patent Tong	Yes		63%	No		13%	22.67	5.81	N/A
H16	Patent Tong	Yes	3	43%	No	0	0%	14.71	3.76	N/A
H17	Patent Tong	No	2	20%	No	.0	0%:	10.06	4.14	N/A
H18	Diver	Yes	4	100%	Yes	4	100%	181.14	35.55	N/A
H61	Diver	Yes	5	100%	Yes	5	100%	118.01	33.34	N/A
H63	Diver	Yes	4	100%	Yes	4	100%	188.63	29.75	N/A
H64	Diver	Yes	5	100%	Yes	5	100%	260.01	14.71	N/A
H65	Diver	Yes	5	100%	Yes	5	100%	209.96	35,75	N/A
H66	Diver	Yes	4	100%	Yes	4	100%	213.33	54.51	N/A
H67	Diver	Yes	4	100%	Yes	4	100%	295.57	59.10	N/A
H68	Diver	Yes	5	100%	Yes	4	100%	83.36	13.31	N/A
H69	Diver	Yes	5	100%	Yes	5	100%	326.25	21.83	N/A
H70	Diver	Yes	4	100%	Yes	4	100%	438,35	20.79	N/A
H71	Diver	Yes	5	100%	Yes	4	100%	142.37	40.14	N/A
H72	Patent Tong	Yes	6	86%	No	2	29%	44.17	7,64	N/A
H73	Diver	Yes	5	100%	Yes	5	100%	137,48	16.25	N/A
H74	Diver	Yes	4	100%	Yes	4	100%	237.50	49.84	N/A
H75	Diver	Yes	4	100%	Yes	4	100%	245.71	35.06	N/A
H76	Patent Tong	No	3	27%	No	1	9%	15.81	5.51	N/A
H77	Patent Tong	Yes	8	89%	Yes	3	33%	32,33	7.27	N/A
H78	Diver	Yes	5	100%	Yes	5	100%	324.33	47.58	N/A
H79	Diver	Yes	4	100%	Yes	4	100%	258.69	77.48	N/A
H80	Diver	Yes	4	100%	Yes	4	100%	226.61	29.89	N/A
H81	Patent Tong	Yes	10	91%	No	3	27%	44.09	8.08	N/A
H82	Diver	Yes	4	100%	Yes	4	100%	248.49	32.96	N/A
H83	Diver	Yes	4	100%	Yes	4	100%	194,37	15.39	N/A
H84	Patent Tong	Yes	5	45%	No	1	9%	21.99	7.54	N/A
H85	Diver	Yes	5	100%	Yes	3	100%	69.81	23.55	N/A
H86	Diver	Yes	5	100%	Yes	5	100%	205.84	16.45	N/A
H87	Diver	Yes	4	100%	Yes	4	100%	267.99	44.19	N/A
H88	Diver	Yes	4	100%	Yes	3	100%	69.81	15.00	N/A
H89	Diver	Yes	3	100%	Yes	3	100%	168.19	37.81	N/A
H90	Diver	Yes	4	100%	Yes	4	100%	220.91	39.86	N/A
H91	Diver	Yes	5	100%	Yes	5	100%	97.65	8.26	N/A
H92	Diver	Yes	4	100%	Yes	4	100%	259.76	31.23	N/A
H93	Diver	Yes	Δ	100%	Yes	4	100%	149,13	31.99	N/A
H94	Diver	Yes	5	100%	Yes	4	100%	61.61	11.07	N/A

Table 14: Multiple year classes, shell volume, reef height, and reef footprint results for Harris Creek reefs in 2018.

Report reef ID	Sample method	Is the shell budget stable/ increasing?	Average shell volume across entire reef (liters per m²)	Standard error of shell volume	Average brown shell across all samples (%)	Total volume change (liters per m²)	% change in total volume from 2015	Surface shell volume change (liters per m²)	% change in surface shell volume change	Are multiple year classes present?	Is reef footprint stable/ increasing?	Is reef height stable/ increasing?	Difference between postconstruction reef height and reefs height 3 years post restoration (cm)
H01	Patent Tong	No	9.69	1.22	80%	-4.07	-35%	-3.09	-29%	Yes	Yes	Yes	-0.02
H02	Patent Tong	Yes	10.57	1.47	98%	0.51	5%	3.05	42%	Yes	Yes	Yes	0.048
H03	Patent Tong	No	5.41	1.46	73%	-3.08	-36%	-1.56	-25%	Yes	Yes	Yes	-0.012
H04	Patent Tong	Yes	10.42	1.94	86%	1.04	8%	2.86	42%	Yes	Yes	Yes	0.008
H05	Patent Tong	Yes	13.58	1.67	83%	0.77	2%	3.55	45%	Yes	Yes	Yes	0.004
H06	Patent Tong	No	11.18	1.84	72%	-3.79	-25%	-2.74	-26%	Yes	Yes	Yes	0.013
H07	Patent Tong	Yes	12.31	1.68	51%	2.84	20%	2.41	52%	Yes	Yes	Yes	0.01
H08	Patent Tong	Yes	8.93	1.72	84%	1.04	-20%	1.46	26%	Yes	Yes	Yes	-0.031
H09	Patent Tong	Yes	10.10	1.59	75%	2.28	5%	3.12	81%	Yes	Yes	Yes	0.005
H10	Patent Tong	No	14.16	1.48	78%	-4.26	-23%	0.73	7%	Yes	Yes	Yes	-0.024
H11	Patent Tong	Yes	12.89	1.61	69%	5.17	52%	5.24	125%	Yes	Yes	Yes	0.007
H12	Patent Tong	Yes	10.29	1.36	78%	4.25	70%	4.57	150%	Yes	Yes	Yes	0.036
H13	Patent Tong	Yes	12,67	1.39	76%	1.22	11%	2.46	36%	Yes	No data in 2018	2019	
H14	Patent Tong	Yes	8.64	1.49	77%	2.97	42%	5.25	267%	Yes	No data in 2018	2019	
H15	Patent Tong	Yes	6.06	0.90	44%	1.88	14%	1.78	135%	Yes	No data in 2018 No data in	No data in 2019 No data in	
H16	Patent Tong	Yes	6.12	1.22	36%	2.48	44%	0.87	127%	Yes	2018	2019	
H17	Patent Tong	Yes	4.73	1.20	35%	1,11	8%	1.69	481%	Yes	No data in 2018	No data in 2019	
H18	Diver	TBD	18.50	13.23	74%	-29.50	-76%	-26.79	-85%	Yes	Yes	Yes	0.06
H61	Diver	TBD in 2021	87.60	9.36	83%	- 5	- 5			Yes	Yes	Yes	0.023
H63	Diver	TBD in 2021	114.00	6.92	84%					Yes	Yes	Yes	-0.001
	1000	522 322		244	200	100	100		100	-	TBD in	TBD in	
H64	Diver	TBD in 2021	56.80	5.81	68%		+			Yes	2021	2022	2 222
H65 H66	Diver Diver	TBD in 2021	98.80 117.00	15.21 8.74	87% 89%					Yes	Yes	Yes	0.032
H67	Diver	TBD in 2021	1.75	0.25	55%	-3-	- 1			Yes	TBD in	TBD in	0.032
H68	Diver	TBD in 2021	3.80	1.83	95%					Yes	Yes	Yes	0.048
H69	Diver	TBD in 2021	1.20	0.20	90%	2 4	2	1	2	Yes	Yes	Yes	0.067
H70	Diver	TBD in 2021	37.50	2.72	49%		-		1	Yes	Yes	Yes	0.06
H71	Diver	TBD in 2021	2.60	0.87	92%					Yes	Yes	Yes	0.021
H72	Patent Tong	TBD in 2021	9.85	1.13	80%			-		Yes	Yes	Yes	0.003
H73	Diver	TBD in 2021	2.60	0.51	90%					Yes	Yes	Yes	0.008
H74	Diver	TBD in 2021	73,50	16.27	96%			-		Yes	Yes	Yes	0.015
H75	Diver	TBD in 2021	3.25	0.48	94%	-	-		-	Yes	Yes	Yes	0.032
H76	Patent Tong	TBD in 2021	6.68	2.08	58%	-:-	- : -	- : -	-:-	Yes	Yes	Yes	-0.018
H77	Patent Tong	TBD in 2021	12.42	1.93	79%					Yes	Yes	Yes	-0.011
H78	Diver	TBD in 2021	3.00	0.71	91%					Yes	Yes	Yes	0.045
H79	Diver	TBD in 2021	17.25	9.89	88%					Yes	Yes	Yes	0.035
H80	Diver	TBD in 2021	16.75	11.95	84%		- 2	-23-	-13-	Yes	Yes	Yes	0.029
H81	Patent Tong	TBD in 2021	12.82	1.68	76%		-			Yes	Yes	Yes	0.02
H82	Diver	TBD in 2021	1.75	0.48	76%		- 2-			Yes	Yes	Yes	0.071
H83	Diver	TBD in 2021	4.25	1.31	93%		127			Yes	Yes	Yes	0,048
H84	Patent Tong	TBD in 2021	5.43	1.81	65%	TICA II	1000		L2 11	Yes	Yes	Yes	0.007
H85	Diver	TBD in 2021	7.84	4.82	86%	-	-	-	-	Yes	Yes	Yes	0,007
H86	Diver	TBD in 2021	2.80	0.20	92%	102 1	.2	2 =		Yes	Yes	Yes	0,024
H87	Diver	TBD in 2021	23.75	9.34	100%		-	-	-	Yes	Yes TBD in	Yes TBD in	0,031
H88	Diver	TBD in 2021	1.43	0.87	98%			-		Yes	2021	2022	8.655
H89	Diver	TBD in 2021	13.00	4.80	88%					Yes	Yes	Yes	0.005
H90	Diver	TBD in 2021	26.00	7.02	94%					Yes	Yes	Yes	0.012
H91	Diver Diver	TBD in 2021	82,80 2.75	0.48	90%	-	-			Yes	TBD in 2021	Yes TBD in 2022	0.032
H92 H93	Diver	TBD in 2021	12.50	4.70	84%	10.2	2.1	11.2	11.2	Yes	Yes	Yes	0.031
H94	Diver	TBD in 2021	1.20	0.25	98%	-	-			Yes	Yes	Yes	0.083

Table 15: Oyster density monitoring results for Little Choptank reefs in 2018.

Report reef ID	Sample method	Fall 2018: Did reef meet minimum threshold density?	Fall 2018: Did reef meet target density?	Average live density across reef (#/m²)	Standard error of live density (#/m²)	Number of samples meeting minimum threshold density (m²)	Percent of samples meeting minimum threshold density (%)	Number of samples meeting target density (m²)	Percent of samples meeting target density (%)	Average live density on stone (#/m²)	Standard error of live density on stone	Average live density on shell—all shell types (#/m²)	thell all	Average live density on clam shell (#/m²)	density on	Average live density across reef at 3 years post restoration (for 6-year-old reefs only) (#/m²)
L02	Diver	Yes	Yes	211.60	38.20	5	100%	5	100%	0.00	0.00	145.60	57.43	0.00	0,00	N/A
L05	Diver	Yes	Yes	174.40	30.73	5	100%	5	100%	0.40	0.40	105.60	30.36	0.00	0.00	N/A
L06	Diver	Yes	Yes	114.80	17.58	5	100%	4	80%	53.60	21.98	61.20	15.00	0.00	0.00	N/A
L07	Diver	Yes	Yes	146.00	19.30	6	100%	6	100%	0.33	0.33	71.67	17.70	0.00	0.00	N/A
L08	Diver	Yes	Yes	181.20	45.78	5	100%	4	80%	0.80	0.49	74.40	15.64	0.00	0.00	N/A
L09	Diver	Yes	Yes	107.20	28.72	5	100%	4	80%	0.00	0.00	63.60	17.12	0.00	0.00	N/A
L52	Patent Tong	Yes	No	33.28	5.85	10	83%	3	25%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L53	Patent Tong	Yes	Yes	60.71	6.82	12	100%	.8	67%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L54	Patent Tong	Yes	Yes	51.71	10.55	9	75%	6	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 16: Oyster biomass monitoring results for Little Choptank reefs in 2018.

Report reef ID	Sample method	Fall 2018; Did reef meet minimum threshold density?	Fall 2018: Did reef meet target density?	The second second	Standard error of live density (#/m²)	Number of samples meeting minimum threshold density (m²)	Percent of samples meeting minimum threshold density (%)	Number of samples meeting target density (m²)	Percent of samples meeting target density (%)	on stone	Standard error of live density on stone	Average live density on shell-all shell types (#/m²)	shell all	Average live density on clam shell (#/m²)	Standard error of live density on clam shell	Average live density across reef at 3 years post restoration (for 6-year-old reefs only) (#/m²)
L02	Diver	Yes	Yes	211.60	38.20	5	100%	5	100%	0,00	0.00	145.60	57.43	0.00	0,00	N/A
L05	Diver	Yes	Yes	174.40	30.73	5	100%	5	100%	0.40	0.40	105.60	30.36	0.00	0.00	N/A
L06	Diver	Yes	Yes	114.80	17.58	5	100%	4	80%	53.60	21.98	61.20	15.00	0.00	0.00	N/A
L07	Diver	Yes	Yes	146.00	19.30	6	100%	6	100%	0.33	0.33	71.67	17.70	0.00	0.00	N/A
L08	Diver	Yes	Yes	181.20	45.78	5	100%	4	80%	0.80	0.49	74.40	15.64	0.00	0.00	N/A
L09	Diver	Yes	Yes	107.20	28.72	5	100%	4	80%	0.00	0.00	63.60	17.12	0.00	0.00	N/A
L52	Patent Tong	Yes	No	33.28	5.85	10	83%	3	25%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L53	Patent Tong	Yes	Yes	60.71	6.82	12	100%	.8	67%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L54	Patent Tong	Yes	Yes	51.71	10.55	9	75%	6	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 17: Multiple year classes, shell volume, reef height, and reef footprint results for Little Choptank reefs in 2018.

Report reef ID	Sample method	Is the shell budget stable/ increasing?	Average shell volume across entire reef (liters per m²)	Standard error of shell volume	Average brown shell across all samples (%)	Total volume change (liters per m²)	% change in total volume from 2015	Surface shell volume change (liters per m2)	% change in surface shell volume change	Are multiple year classes present?	Is reef footprint stable/ increasing?	Is reef height stable/ increasing?	Difference between postconstruction reef height and reefs height 3 years post restoration (cm)
L02	Diver	TBD in 2019	42.00	9.86	79%	17			1	Yes	Yes	Yes	0
L05	Diver	TBD in 2021	42.80	8.62	82%	1 1	-	-	1-3-1	Yes	Yes	Yes	0
L06	Diver	TBD in 2021	6.40	2.93	93%	13	7	-	9	Yes	Yes	Yes	0.03
L07	Diver	TBD in 2021	34.00	4.73	78%	7.6	Table 1	10	15	Yes	Yes	Yes	0
L08	Diver	TBD in 2021	19.00	4.92	96%	1 - 2 -	-	-	11-2	Yes	Yes	Yes	0.05
L09	Diver	TBD in 2021	22.40	3.87	83%	-				Yes	Yes	Yes	-0.03
L52	Patent Tong	TBD in 2020	12.60	1.57	73%	4		- 1	141	Yes	No data in 2018	No data in 2018	TBD
L53	Patent Tong	TBD in 2020	14.75	1.21	85%	14.0				Yes	No data in 2018	No data in 2018	TBD
L54	Patent Tong	TBD in 2020	14.13	1.92	77%	-			102	Yes	No data in 2018	No data in 2018	TBD

### **Appendix D: Sentinel Reef Information and Monitoring Results**

A subset of restored reefs in each tributary have been designated as sentinel reefs. These are monitored annually. These reefs are not part of the 2012 or 2015 cohorts. This section contains 2018 monitoring information on these reefs.

Table 18: Restoration treatment and monitoring information for sentinel reefs monitored in 2018.

Report reef	Reef area (acres)	Restoration treatment	Substrate type added	Average planned reef height*	Year planted with spat (initial planting)	Second year class replanting	Monitoring type	Sample method	Sample date	# samples taken	# live oysters measured	# live oysters counted	# dead oysters counted	% of oysters that were dead
H13	3.4	Seed Only	None	N/A	2011	2017	Sentinel	Patent Tong	3/27/2019	10	349	721	51	7%
H18	2.35	Substrate & Seed	Stone	12	2013	N/A	Sentinel	Diver	12/12/2018	4	344	417	54	11%
L01	1.61	Seed Only	None	N/A	2018	N/A	Sentinel	Patent Tong	4/4/2019	12	343	1102	72	6%
L29	2.72	Substrate & Seed	Stone base with fossil shell	12	2016	N/A	Sentinel	Diver	3/5/2019	5	296	669	46	6%
L34	4.19	Substrate & Seed	Stone	12	2016	N/A	Sentinel	Diver	3/3/2019	5	80	257	29	10%
T01	1.78	Substrate & Seed	Mixed Shell	12	2015	N/A	Sentinel	Patent Tong	3/28/2019	12	327	654	73	10%
T02	0.8	Substrate & Seed	Mixed Shell	12	2015	N/A	Sentinel	Patent Tong	3/19/2019	12	245	267	14	5%
T04	5.94	Seed Only	None	N/A	2016	N/A	Sentinel	Patent Tong	3/28/2019	12	297	445	39	8%
T09	3.30	Substrate & Seed	Stone	12	2016	N/A	Sentinel	Diver	3/19/2019	6	130	327	8	2%

Table 19: Results by Oyster Metrics criterion for sentinel reefs monitored in 2018.

Report reef ID	Restoration treatment	Substrate type added	Average planned reef height*	Year planted with spat (initial planting)	Second year class replanting	Sample method	Fall 2018: Did reef meet minimum threshold density?	Fall 2018: Did reef meet target density?	Fall 2018: Did reef meet minimum threshold oyster biomass?	Fall 2018: Did reef meet target oyster biomass?	Is the shell budget stable/ increasing?	Are multiple year classes present?	Is reef footprint stable/ increasing?	Is reef height stable/ increasing?
H13	Seed Only	None	N/A	2011	2017	Patent Tong	Yes	Yes	Yes	No	Yes	Yes	No data in 2018	No data in 2018
1113	77-2-1-12-1	None	N/H	2011	2017	Tong	165	105	162	IVO	162	165	111/2010	111.2010
H18	Substrate & Seed	Stone	12	2013	N/A	Diver	Yes	Yes	Yes	Yes	TBD	Yes	Yes	Yes
L01	Seed Only	None	N/A	2018	N/A	Patent Tong	Yes	Yes	Yes	Yes	TBD in 2019	Yes	No data in 2018	No data in 2018
129	Substrate & Seed	Stone base with fossil shell	12	2016	N/A	Diver	Yes	Yes	Yes	Yes	TBD in 2020	Ves	No data	No data
	Substrate			3,000		774.675					TBD in		No data	No data
L34	& Seed	Stone	12	2016	N/A	Diver	Yes	Yes	Yes	Yes	2021	Yes	in 2018	in 2018
T01	Substrate & Seed	Mixed Shell	12	2015	N/A	Patent Tong	Yes	No	Yes	Yes	TBD in 2019	Yes	Yes	Yes
	Substrate	Mixed				Patent					TBD in			
T02	& Seed	Shell	12	2015	N/A	Tong	Yes	No	Yes	No	2019	Yes	Yes	Yes
T04	Seed Only	None	N/A	2016	N/A	Patent Tong	Yes	No	Yes	No	TBD in 2020	Yes	Yes	Yes
T09	Substrate & Seed	Stone	12	2015	N/A	Diver	Yes	Yes	Yes	Yes	TBD in 2021	Yes	No data in 2018	No data in 2018

Table 20: Oyster density results for sentinel reefs monitored in 2018.

Report reef	Restoration treatment	Year planted with spat (initial planting)	Second year class replanting	Sample method	Fall 2018: Did reef meet minimum threshold density?	Fall 2018: Did reef meet target density?	Average live density across reef (#/m²)	Standard error of live density (#/m²)	Number of samples meeting minimum threshold density (m²)	Percent of samples meeting minimum threshold density (%)	Number of samples meeting target density (m²)	Percent of samples meeting target density (%)	Average live density on stone (#/m²)	Standard error of live density on stone	Avrage live density on shellall shell types (#/m²)	live density on	(#/m²)	Standard error of live density on clam shell	Average live density across reef at 3 years post restoration (for 6-year-old reefs only) (#/m²)
H13	Seed Only	2011	2017	Patent Tong	Yes	Yes	44,78	7.03	10	100%	Δ.	40%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H18	Substrate & Seed	2013	N/A	Diver	Yes	Yes	208.50	37.28	4	100%	4	100%	60.50	23.26	147.00	59.13	0.00	0.00	N/A
L01	Seed Only	2018	N/A	Patent Tong	Yes	Yes	57.04	11.09	10	83%	6	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L29	Substrate & Seed	2016	N/A	Diver	Yes	Yes	267.60	40.11	5	100%	5	100%	35,20	19.52	62.80	17.14	0.00	0.00	N/A
L34	Substrate & Seed	2016	N/A	Diver	Yes	Yes	102,80	16.78	.5	100%	5	100%	78,00	11.75	24.80	6.15	0.00	0.00	N/A
T01	Substrate & Seed	2015	N/A	Patent Tong	Yes	No	33.85	6.86	10	83%	2	17%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T02	Substrate & Seed	2015	N/A	Patent Tong	Yes	No	13.82	2.36	.5	42%	0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T04	Seed Only	2016	N/A	Patent Tong	Yes	No	23.03	3.71	7	58%	0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T09	Substrate & Seed	2016	N/A	Diver	Yes	Yes	109.00	70.49	6	100%	2	33%	48,67	39.03	60,33	32.14	0.00	0.00	N/A

Table 21: Oyster biomass results for sentinel reefs monitored in 2018.

Report reef ID	Restoration treatment	Year planted with spat (initial planting)	Second year class replanting	Sample Method	Fall 2018: Did reef meet minimum threshold oyster biomass?	Number of samples meeting minimum threshold biomass	Reef area meeting minimum threshold biomass (%)	Fall 2018: Did reef meet target oyster biomass?	Number of samples meeting target blomass	Reef area meeting target biomass (%)	Average live biomass across reef (g dry weight per m²)	Standard error of live biomass	Average live biomass across reef at 3 years post restoration (for 6-year-old reefs only) (g dry weight per m <sup>2</sup> )
H13	Seed Only	2011	2017	Patent Tong	Yes	9	90%	No	1	10%	36.14	4.53	N/A
H18	Substrate & Seed	2013	N/A	Diver	Yes	4	100%	Yes	4	100%	181.14	35.55	N/A
L01	Seed Only	2018	N/A	Patent Tong	Yes	9	75%	Yes	5	42%	43.33	10.57	N/A
L29	Substrate & Seed	2016	N/A	Diver	Yes	5	100%	Yes	5	100%	221.13	35.90	N/A
L34	Substrate & Seed	2016	N/A	Diver	Yes	5	100%	Yes	3	60%	85.36	16.90	N/A
T01	Substrate & Seed	2015	N/A	Patent Tong	Yes	10	83%	Yes	6	50%	58.45	11.6	N/A
T02	Substrate & Seed	2015	N/A	Patent Tong	Yes	6	50%	No	0	0%	17.49	2.92	N/A
T04	Seed Only	2016	N/A	Patent Tong	Yes	11	92%	No	3	25%	32.89	4.62	N/A
T09	Substrate & Seed	2016	N/A	Diver	Yes	6	100%	Yes	4	67%	153.37	99.23	N/A

Table 22: Multiple year class and structural (shell budget, reef height, reef footprint) results for sentinel reefs monitored in 2018.

Report reef	Restoration treatment	Year planted with spat (initial planting)	Second year class replanting	Sample method	Is the shell budget stable/ increasing?	across entire reef	Standard error of shell volume	Average brown shell across all samples (%)	Total volume change (liters per m²)	% change in total volume from 2015	Surface shell volume change (liters per m²)	% change in surface shell volume change	Are multiple year classes present?	Is reef footprint stable/ increasing?	Is reef height stable/ increasing?	Difference between postconstruction reef height and reefs height 3 years post restoration (cm)
J. C.	B.J. 9521	12.53		Patent	10.00		Today a			2.7				No data	No data	
H13	Seed Only	2011	2017	Tong	Yes	12.67	1.39	76%	1.22	11%	2.46	36%	Yes	in 2018	in 2019	
H18	Substrate & Seed	2013	N/A	Diver	TBD	18.50	13.23	74%	-29.50	-76%	-26.79	-85%	Yes	Yes	Yes	0.06
L01	Seed Only	2018	N/A	Patent Tong	TBD in 2019	13.92	2.92	85%	- 19				Yes	No data in 2018	No data in 2018	TBD
L29	Substrate & Seed	2016	N/A	Diver	TBD in 2020	39.10	9.59	70%					Yes	No data in 2018	No data in 2018	TBD
L34	Substrate & Seed	2016	N/A	Diver	TBD in 2021	3.40	1.28	97%				2.1	Yes	No data in 2018	No data in 2018	TBD
T01	Substrate & Seed	2015	N/A	Patent Tong	TBD in 2019	15.53	1.60	54%				5-1	Yes	Yes	Yes	0.02
T02	Substrate & Seed	2015	N/A	Patent Tong	TBD in 2019	8.64	0.89	58%	12.				Yes	Yes	Yes	0
T04	Seed Only	2016	N/A	Patent Tong	TBD in 2020	16.67	1.34	95%	4			-21	Yes	Yes	Yes	0.02
T09	Substrate & Seed	2016	N/A	Diver	TBD in 2021	13.37	7.95	95%			Tall.		Ves	No data in 2018	No data in 2018	TBD