

18 PCL Deep Reef

Construction date: October 2006
 Monitoring date: September 27, 2007
 Location: Sirotkin permitted reef site
 GPS coordinates: N27° 12.924 / W80° 01.774

18.1 History of the PCL Deep Artificial Reef

In October 2006 seven barge loads of concrete and steel materials were deployed on the PCL Deep Reef in 120 feet of water within the Sirotkin permitted artificial reef site. Each barge load contained from 500 to 600 tons of materials that came from the decommissioned Lyons draw bridge that was being replaced with a new high-rise bridge. The new reef was named in honor of the construction company PCL that did the bridge demolition, new bridge construction, and this new reef deployment.

18.2 PCL Deep Artificial Reef Orientation

Figure 45 shows a chart with the location of the PCL Deep Reef. Maximum depth at bottom in sand = 122 feet; minimum depth at top of peaks = 104 feet. The footprint of the site is generally from ESE to WNW and approximately 300 feet x 380 feet which is approximately 2.5 acres of seafloor area. The maximum profile above the seafloor is 16 feet with an average of about 12 feet.

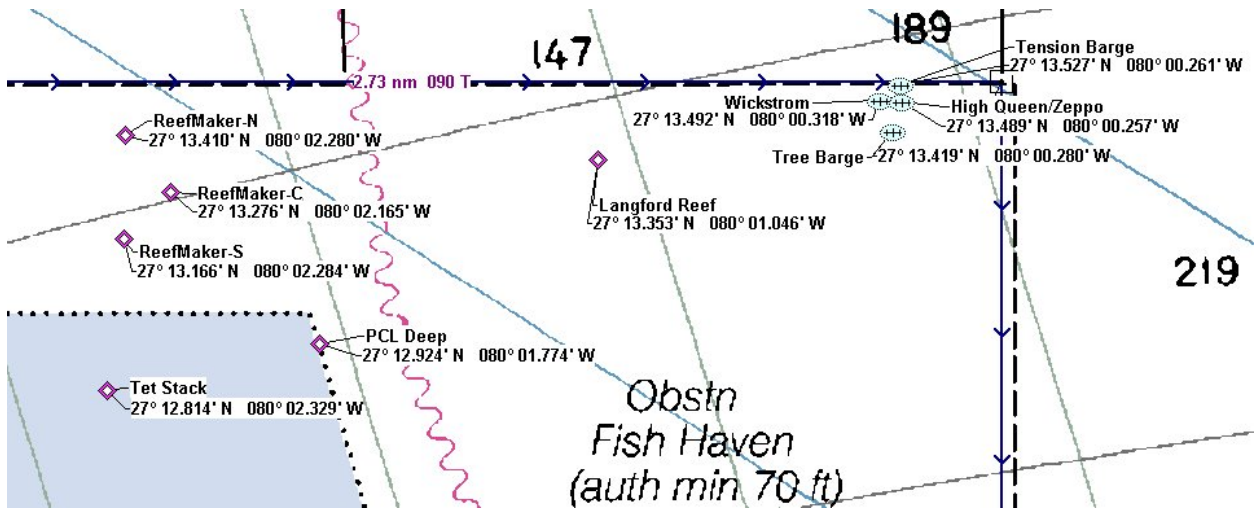


Figure 45. Chart showing Locations of PCL Deep Reef and nearby reefs

18.3 Reef Components Stability

Much stacking of materials was achieved during the deployments as the barge was moored on a two-point moor each day of deployment. Many components are interlaced with each other making for a stable reef structure. Some scouring and settling has been seen around the larger pieces but is not severe. The seafloor at this site is comprised of a shell/course sand mixture and serves as a good base for the heavy concrete and steel pieces.

18.4 Fish Species and Abundance Findings:

Table 29 presents the fish species observed and documented during monitoring on September 27, 2007.

Table 29. PCL Deep Reef Artificial Reef Fish Census

Common Name	Scientific Name	Adult or Juvenile	2007
Bandtail Puffer	<i>Sphoeroides spengleri</i>	A	F
Bank Seabass	<i>Centropristis ocyurus</i>	A	F
Bar Jacks	<i>Carangoides ruber</i>	A	M
Belted Sandfish	<i>Serranus subligarius</i>	A	F
Bicolor Damselfish	<i>Stegastes partitus</i>	A	F
Black Seabass	<i>Centropristis striata</i>	A&J	M
Blue Runner	<i>Caranx crysos</i>	A	A
Cubby	<i>Pareques umbrosus</i>	A	S
Goliath Grouper	<i>Epinephelus itajara</i>	A	M
Gray Snapper	<i>Lutjanus griseus</i>	A	F
Red Snapper	<i>Lutjanus campechanus</i>	A	F
Reef Butterflyfish	<i>Chaetodon sedentarius</i>	A	F
Scamp	<i>Mycteroperca phenax</i>	J	F
Sheepshead	<i>Archosargus probatocephalus</i>	A	F
Sheepshead Porgy	<i>Calamus penna</i>	A	F
Snowy Grouper	<i>Epinephelus niveatus</i>	J	S
Tomtate	<i>Haemulon aurolineatum</i>	A	A
Unidentified Baitfish		2-13"	A
Vermilion Snapper	<i>Rhomboplites aurorubens</i>	A	F
	Total Number of Species:		19

On the September 27th monitoring dives, a large aggregate (approximately 30) Goliath Groupers were seen in a close school up above the materials. This may indicate a new possible mating aggregate in this area.