

City of Homer FY2013 CIP Request – Nick Dudiak Fishing Lagoon Department of Fish and Game Talking Points

Issue: Obtain funds to dredge the Nick Dudiak Fishing Lagoon which will improve salmon returns, and angler participation and satisfaction, to the City of Homer.

Points:

- Department of Fish and Game desires working cooperatively with the City of Homer to improve salmon returns, and angler participation and satisfaction, at the Dudiak Lagoon.
- Dudiak Lagoon salmon enhancement program is popular with city residents, attracts visitors to Homer throughout the summer, and provides outdoor recreational activity that helps stimulate and diversify local businesses and the economy.
- Periodic excavation and/or dredging needed to maintain suitable depth for both rearing of juvenile salmon and provide angling opportunities for returning salmon.
- Lagoon design had a 12' depth throughout the lagoon during low tide to maintain adequate flushing for rearing smolt and returning adults (Figure 1).
- Currently approximately 60% of the lagoon is 4' or less in depth (Figure 2). This depth profile creates a poor rearing environment for salmon smolt which lowers smolt survival.
- Believe a primary cause of lowered survival is high density of an algae (Chaetoceros) having spines that can lacerate fish gills and increase stress to smolt.
- Shallow water, build-up of nutrients and increased sedimentation results in conditions in the lagoon favorable to high densities of this harmful algae compared to nearby areas (Figure 3).
- Fish and Game is taking steps to improve smolt condition – delay smolt stocking when algae less abundant, release smolt immediately if die-off begins to occur, transition to new William “Jack” Hernandez Sport Fish Hatchery to improve hatchery production and increase smolt size.
- Encourage City of Homer to make dredging Dudiak Lagoon a priority of FY2013 CIP request. Dredging will increase water depth and flushing, decrease Chaetoceros, and increase salmon smolt survival and imprinting.
- These efforts by the department and city will improve salmon returns and anglers fishing on the Homer Spit.

Summary: Dredging the Dudiak Lagoon is needed to restore the original depth profile, stabilize the inner basin slope, improve water flow, and mitigate future sediment filling. Dredging, in concert with ongoing efforts by Fish and Game, will help improve salmon returns and angler participation in Homer, important to maintaining a thriving and diverse local economy.



Figure 2. Depth profile of the Nick Dudiak Fishing Lagoon, 2011.

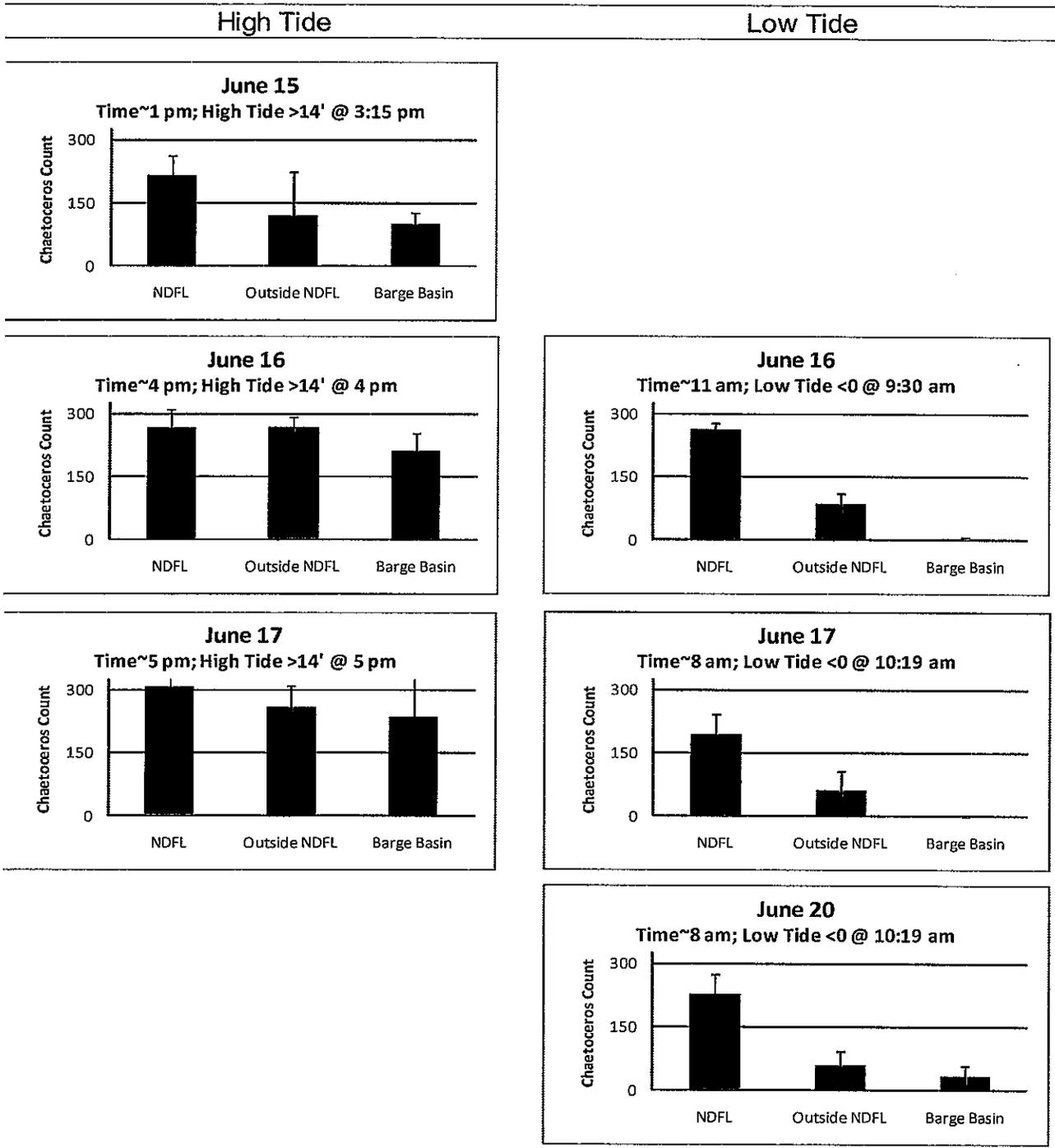


Figure 3. Estimated number of Chaetoceros within the Nick Dudiak Fishing Lagoon (NDFL), an open water area adjacent to the Lagoon, and the Barge Basin, 2011.