Pier B Mitigation

Military Construction Project P356
CVN Maintenance Wharf
for PSNS & IMF, Bremerton Site
Background

- Existing Pier B does not meet Navy facility requirements to berth the NIMITZ Class/ CVN-21 Class Nuclear Aircraft Carriers (CVN)
  - Constructed 1946 for Storing Moth-Balled ESSEX-Class CV
  - Mooring Points do not Meet Heavy Weather Criteria
  - No Portal Crane Service – Must Use Mobile and Floating Cranes, limiting material lifting capacity
  - Single lane vehicle access, further impacted by location of mobile cranes
  - No Permanent HP Compressed Air, Pure Water, or Oily Waste Disposal
  - Relies on temporary, re-locatable 20mw/4160V transformer. Will not support CVN21
- Structural issues
  - Creosote-impregnated fender piles toxic to marine life
  - Concrete structural pile deterioration with spalls, delaminations, and cracks at the top of the piles
- Construction is sequenced to occur during a rare absence of CVNs. Construction would start Qtr II Fiscal Year 2008; in-water construction would occur during the late summer and fall of 2008.
Project Scope

- Demolish existing Pier B
  - 60 feet (18.3 m) x 1,197 feet (364.8 m)
  - removal of 832 concrete piles, 672 creosote treated wood piles, and 10 steel piles
- Demolish Quaywall 729
- Strengthen Dry Dock 6 west wall
- Reconstruct Quaywall 729
- Construct new Wharf
  - 125 feet (38 m) x 1,325 feet (404 m)
  - Approximately 1100 new pilings, including both steel and concrete
  - Wharf surface elevation +18 feet (+5.4 m) MLLW
  - Updated utilities
  - Portal crane
Existing Situation
Post Construction

New Wharf
P356 & 356A
Avoidance Mitigation

• In-water construction
  – Scheduling in-water work to *avoid* migratory juvenile salmon

• Suspension of sediments during piling removal
  – Extraction and disposal of piles following best management practices to *avoid* water quality impacts
  – Turbidity monitoring to *avoid* excessive sediment resuspension during pile extraction, pile driving
General habitat degradation from creosote-treated pilings and over-water structural coverage

- Removal of creosote treated wooden pilings to reduce existing effects of this toxic material
- Inclusion of on-site, in-kind actions to compensate for increased overwater coverage
  - Demolition of Pier 8
  - (Proposed) Restoration of bottom under Pier 8 contiguous with and similar to recently-placed “fish mix” sand and gravel
  - (Final) Restoration of free tidal access to the Keyport Lagoon
Keyport Lagoon
Keyport Lagoon

- NO OBSTRUCTIONS
- NO BRIDGE
Keyport Lagoon
Keyport Lagoon
Keyport Lagoon

EXISTING KEYPORT BRIDGE — TO BE REMOVED

Not To Scale — Dimensions are Approximate
Keyport Lagoon

HIGHEST EST. TIDE = 15.3' V
MHHW = 11.75' V

COVER VARIES

17.00' 16.16'

TOP OF SPANDREL WALL (HEADWALL)

APPROXIMATE FUTURE CHANNEL BOTTOM ELEVATION

ELEV. = 5.0' UPSTREAM
ELEV. = 4.5' DOWNSTREAM

FOOTING DIMENSIONS TBD

40' +/- EFFECTIVE SPAN
42.0 FULL SPAN

RIPRAP
FILTER FABRIC

* BEBOTECH PRECAST CONCRETE ARCH, TYPE E36/4. MINIMUM EFFECTIVE SPAN = 40'. MUST PASS MHHW = 11.75'. MUST MAINTAIN TOP OF FOOTING @ ELEV = -3.0'

NOT TO SCALE

Vertical Datum = MLLW