

# Grays Harbor O&M and Deepening Dredging

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Seattle District

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US Army Corps of Engineers  
**BUILDING STRONG**



# Grays Harbor Navigation Channel



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# Inner Harbor Maintenance Dredging

## Winter 2015:

- Contract award to American Construction Co.
- Dredging from 26 Oct 2013 thru 24 March 2015
- 950,000 CY dredged from Crossover, Cow Point and Turning Basin, and Hoquiam Reaches
- Ended the season at Cow Point and Turning Basin for adv maintenance and final clean out
- Disposed at PCDS/SJDS

## Summer 2015:

- American returning mid July to finish second half of bi-nodal maintenance dredge action
- Focused on any remaining shoaled areas in Crossover, North Reach, and Hoquiam and return for a clean out of Cow Point and Turning Basin



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# Inner Harbor Combined Dredging

- New Multi-year (3 seasons) Contract under development
- Mid-August 2015 award
- First dredging under this contract will start 1 Oct 2015
- Contract structure will allow:
  - both O&M and construction (deepening)
    - ❖ 1.5M CY first season O&M
    - ❖ 1M CY O&M after deepening
    - ❖ 2M-3M CY one-time construction
  - Bi-nodal dredging (16 Jul – mid Sep and late Nov – 14 Feb) to accommodate Tribal gillnet fishing (work window remains as 16 Jul – 14 Feb)
- Material disposed at PCDS/SJDS (shifted PCDS during first year)



# Outer Harbor Maintenance Dredging

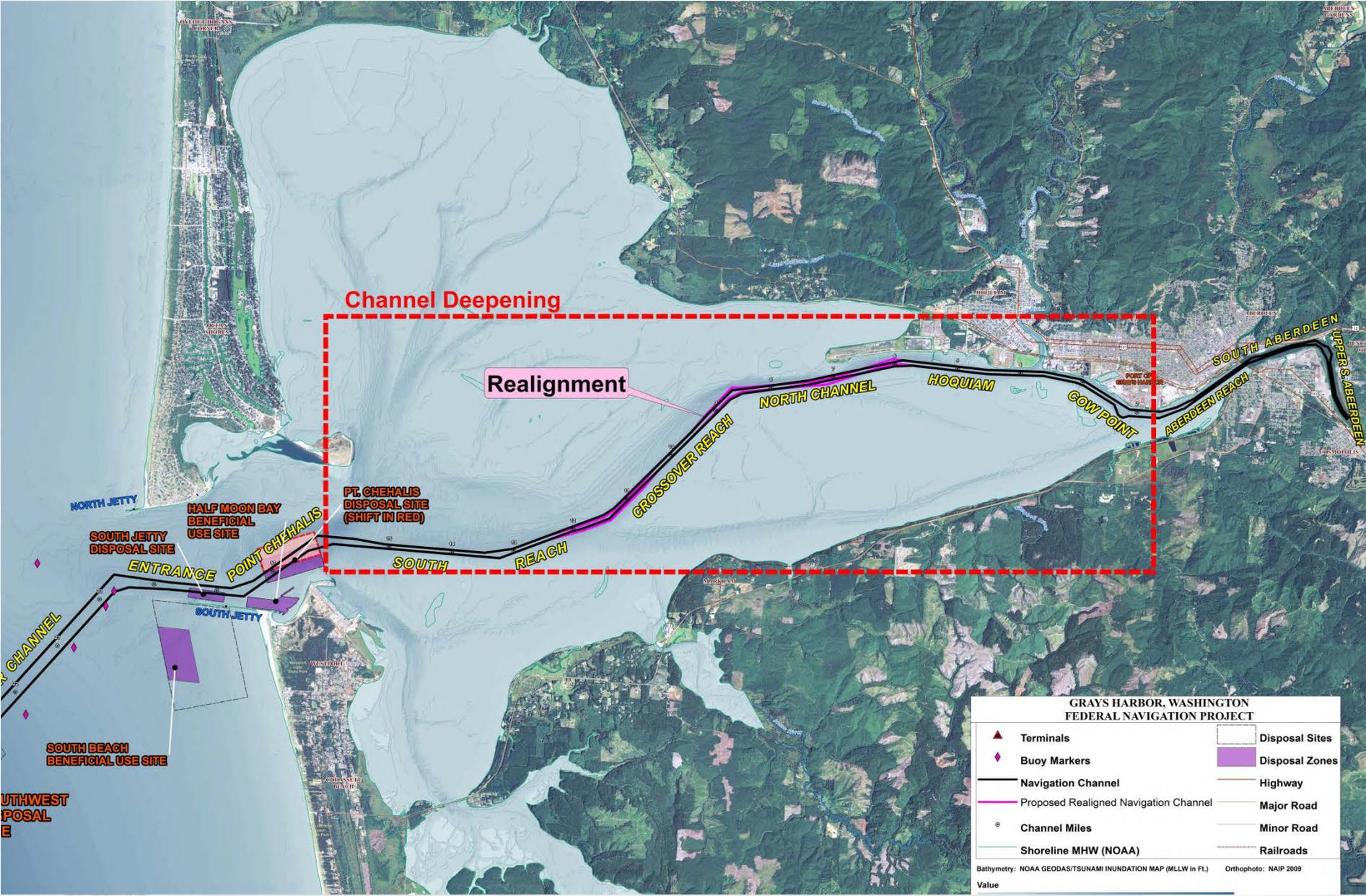
- Regional Hopper (Industry) Dredge
  - Manson - BAYPORT
  - Dredged 19 April thru 21 May 2015
  - Contract awarded by NWP in mid Feb 2015
  - Bar, Entrance, Pt. Chehalis and South Reaches
- Dredged 830,000 CY
- Dredged material disposed at SBDS/PCDS



## Outer Harbor Combined Dredging 2016

- Regional Hopper (Industry) Dredge in April/May 2016
- Deepening South Reach, combined with maintenance dredging
- Maintenance dredging of Bar, Entrance and Pt. Chehalis Reaches
- Estimate 1.3M CY to 1.5M CY material to be removed
- Dredged material disposed at SBDS/PCDS





**GRAYS HARBOR, WASHINGTON  
FEDERAL NAVIGATION PROJECT**

Terminals	Disposal Sites
Buoy Markers	Disposal Zones
Navigation Channel	Highway
Proposed Realigned Navigation Channel	Major Road
Channel Miles	Minor Road
Shoreline MHW (NOAA)	Railroads

Bathymetry: NOAA GEODAS/Tsunami INUNDATION MAP (MLLW in Ft.)    Orthophoto: NAIP 2009  
Value



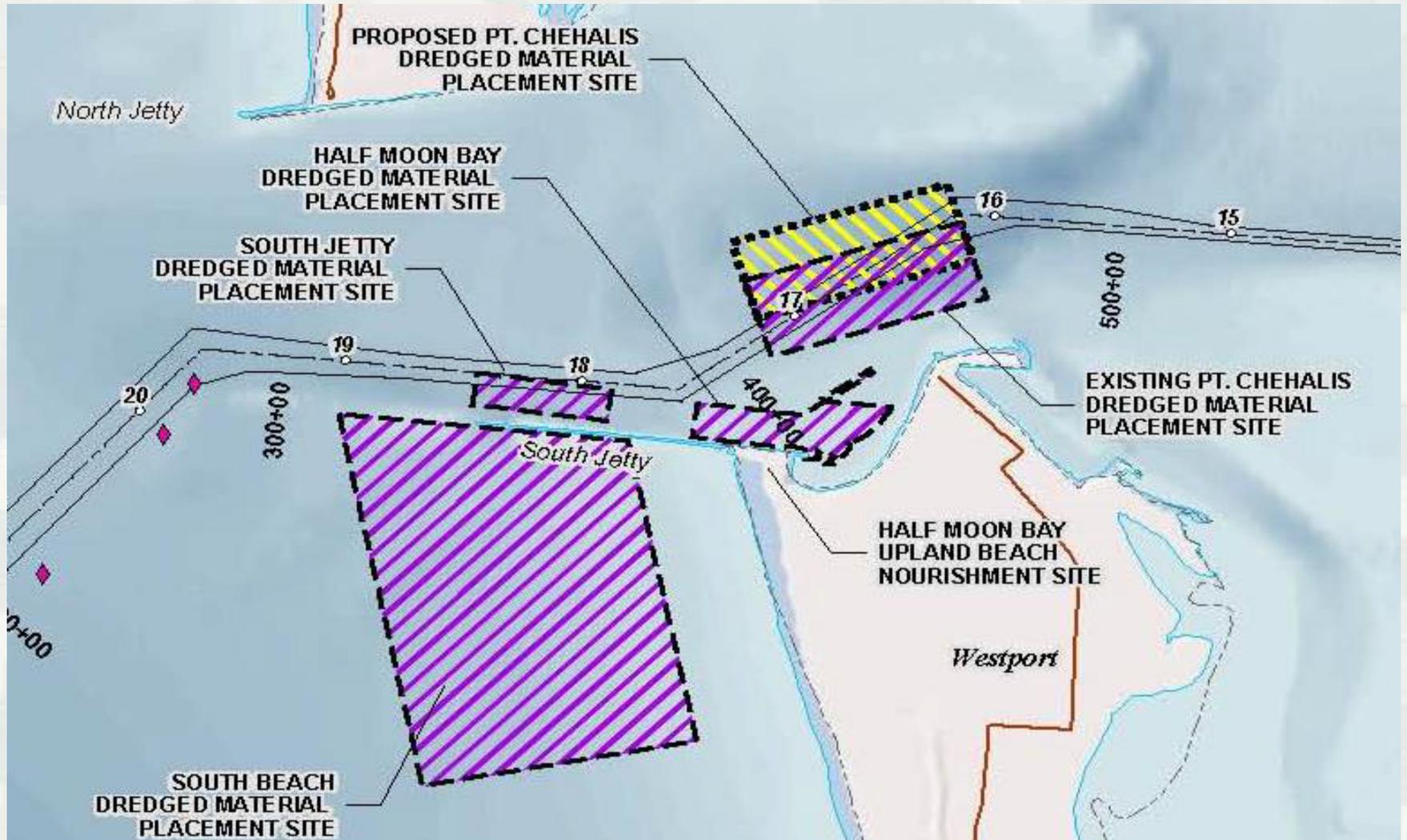
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# Construction Dredging

- Deepening construction will be conducted starting 1 Oct 2015
  - One time increase in volumes dredged and disposed compared to regular O&M dredging by approximately 2-3M CY
  - Inner Harbor Reaches to be deepened (in conjunction O&M dredging) are Crossover, North Reach, Hoquiam, Cow Point, and Turning Basin
  - Outer Harbor Reach to be deepened is South Reach (will be in conjunction with the O&M dredging)
  - To -38 MLLW (plus 2 ft of advanced maintenance and 2 ft overdepth)
  - Upland placement of approximately 23K CY
- Suitable dredge material will be disposed at a shifted PCDS



# Construction Dredging



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# Construction Dredging



REACH	VOLUME (CUBIC YARDS)	SEDIMENT TYPE	DREDGE TYPE	CHANNEL DIMENSIONS <sup>1</sup>	DISPOSAL AREA(S)	WORK CLOSURES	WORK SCHEDULED
Cow Point	~750,000 annually	sandy silt	clamshell	-36' MLLW 350-550' wide	South Jetty or Point Chehalis <sup>2</sup>	15 Feb to 15 July	16 July to 14 Feb
Cow Point Turning Basin	~215,000 annually	sandy silt	clamshell	-36' MLLW 350-950' wide	South Jetty or Point Chehalis <sup>2</sup>	15 Feb to 15 July	16 July to 14 Feb
Hoquiam	~150,000 annually	sandy silt	clamshell	-36' MLLW 350' wide	South Jetty or Point Chehalis <sup>2</sup>	15 Feb to 15 July	16 July to 14 Feb
North Channel	~175,000 annually	silty sand	clamshell	-36' MLLW 350' wide	Point Chehalis	15 Feb to 31 July	1 August to 14 Feb
Inner Crossover	~375,000 annually	silty sand	clamshell	-36' MLLW 350-450' wide	Point Chehalis	15 Feb to 31 July	1 August to 14 Feb
Outer Crossover	~235,000 annually	silty sand	clamshell hopper <sup>3</sup>	-36' MLLW 350' wide	Point Chehalis	No clamshell 15 Feb to 31 July No hopper after 31 May	Clamshell 1 August to 14 Feb Hopper April and May
South Reach	~190,000 annually	sand	hopper <sup>3</sup>	-36' MLLW 350-450' wide	Point Chehalis or Half Moon Bay	No hopper after 31 May	April to May
Entrance/ Point Chehalis	~685,000 annually	sand	hopper	-40' to -46' MLLW 600-900' wide	South Jetty, or Half Moon Bay or Point Chehalis	No hopper after 31 May	April and May
Bar Channel	~260,000 as needed	sand	hopper	-46' MLLW 900' wide	South Beach or South Jetty or 3.9 mile ocean site	No hopper after 31 May	April and May

