CAP Section 107
Small Navigation Project
Ogdensburg Harbor, Ogdensburg, NY

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Chief, Operations - Buffalo

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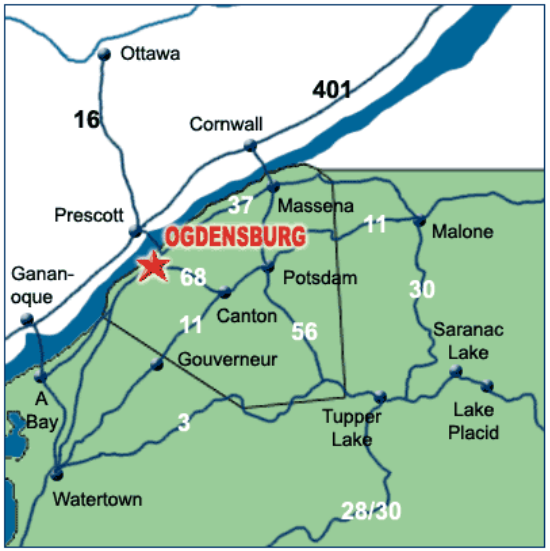
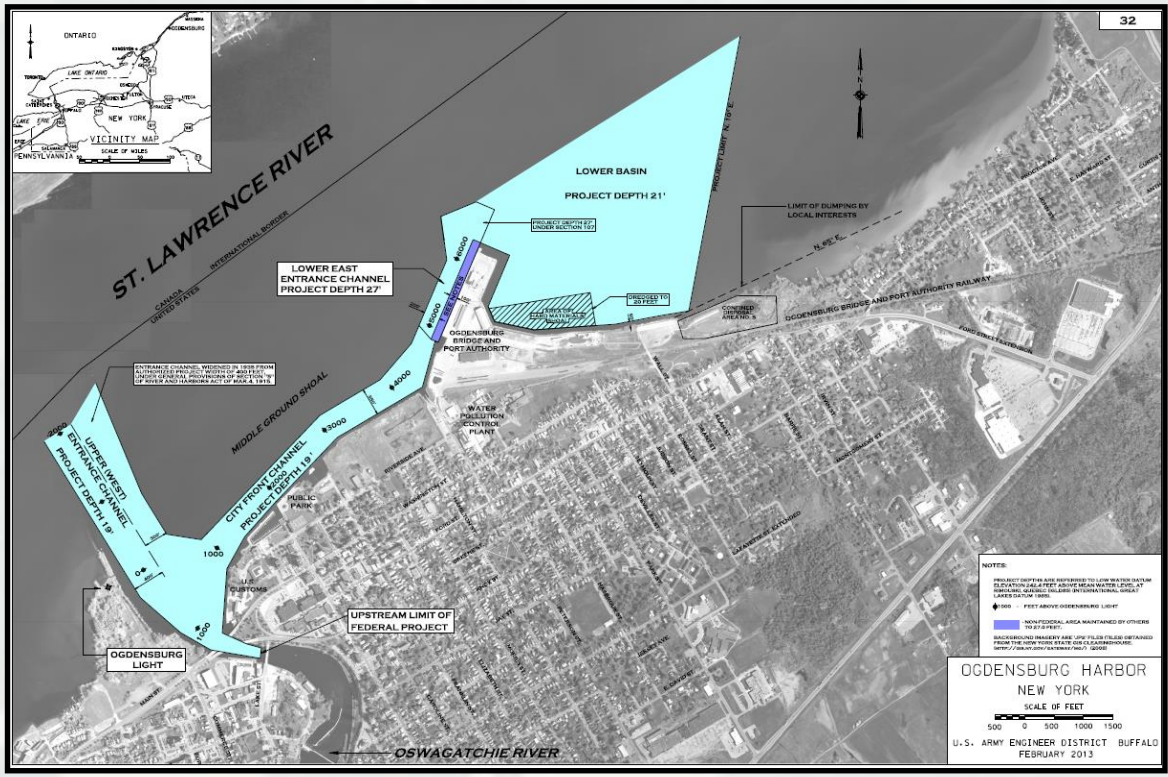
US Army Corps of Engineers
BUILDING STRONG®

Section 107: Small Navigation Projects

- Section 107 of the River and Harbor Act of 1960, as amended, provides authority for USACE to plan and construct small navigation projects not otherwise authorized
- First $100k of study is at full Federal expense; remaining Feasibility study costs split 50/50 between Federal/non-Federal
- For harbors between 20 and 45 feet; construction cost share is 75/25 Federal/non-Federal plus 10% over 30 years
- Federal Cost Limit - $10,000,000

Ogdensburg, NY





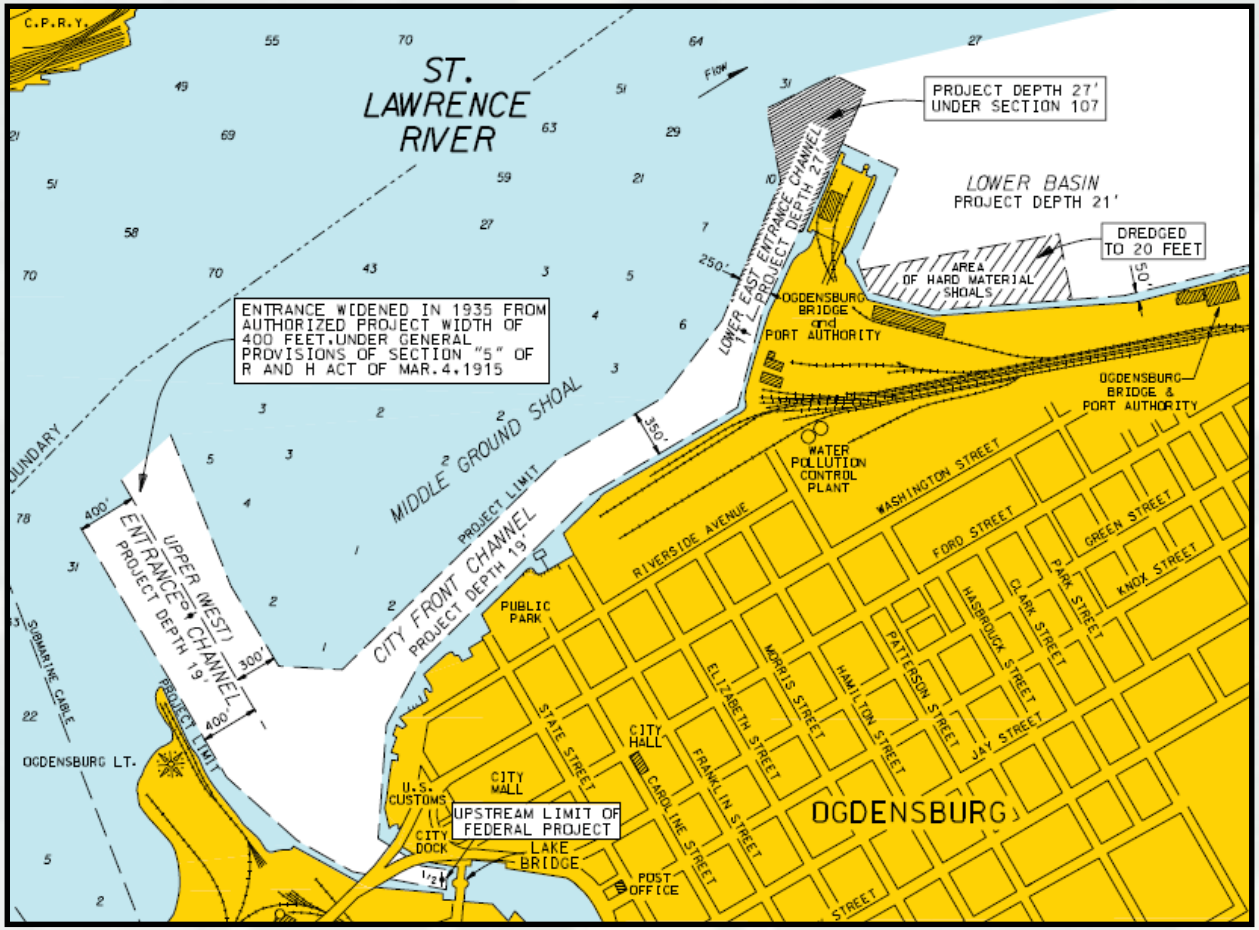
Only US port on St. Lawrence Seaway

Ogdensburg Context

Serves North Country of NY

Most of harbor is 19-21 feet deep

St. Lawrence authorized to 27 feet depth



Ogdensburg Harbor - Stakeholders

- Ogdensburg Bridge & Port Authority (OB&PA)**
- St. Lawrence County, NY
- City of Ogdensburg, NY
- New York State
- St. Lawrence Seaway Development Corporation
- Congressional interest: Kristen Gillibrand (NY)

** Sponsor

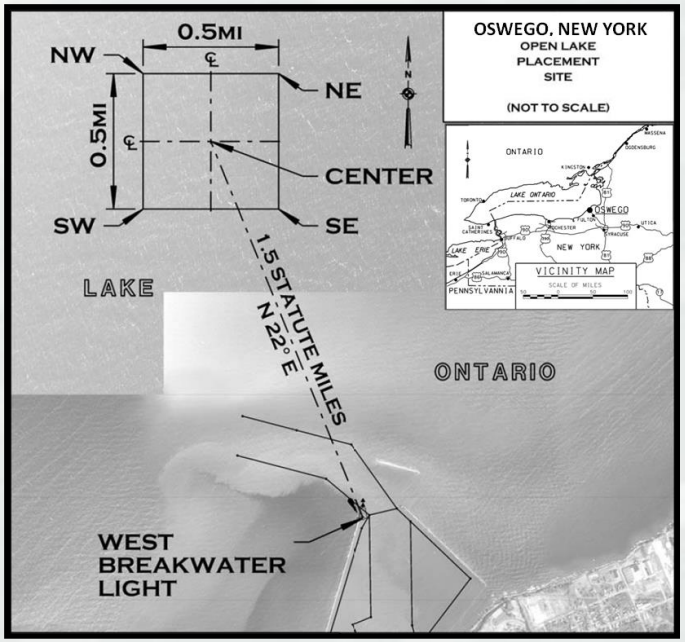
Ogdensburg Context

- OB&PA wants to widen and deepen harbor
  - ▶ Current loading inefficient – vessel, port costs
  - ▶ Reduce congestion at port

  - ▶ In conjunction with dock extension
    - Funded by New York State (not part of this study)
    - Allows two vessels to dock simultaneously

Alternatives studied

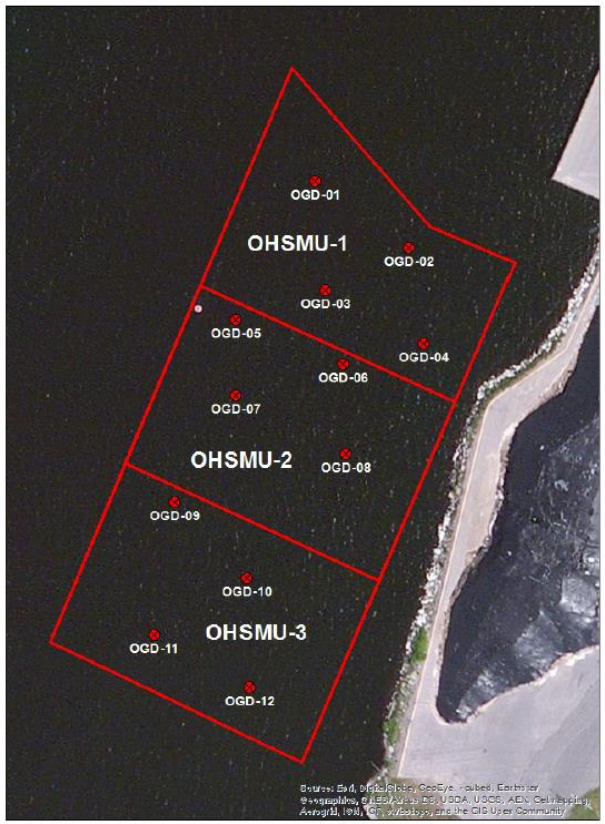
- No action
- Dredging depths
  - 23 feet
  - 25 feet
  - 27 feet
- Dredging widths
  - 255 feet
  - 305 feet
- Storage of dredge material
  - Open-lake (Oswego)
  - Nearshore CDF
  - Upland (airport)

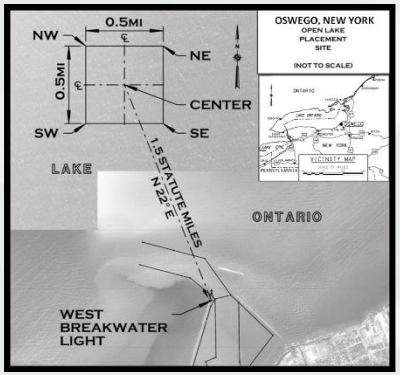


Economics

- Key commodities
  - Present: Salt, grain, aggregates, project cargo
  - Future: Petroleum
- Reducing costs
  - Vessel delays or repositioning
  - Commodity degradation, relocation, inventory

Environmental: Sediments





Concentrations of metals, PAHs, PCBs, and pesticides would meet New York State unrestricted use standard or residential standard – suitable for unconfined upland placement

Engineering

- 38,800 yd^3 to be dredged
  - ► 6,300 yd^3 rock
  - ► 22,200 yd^3 glacial till - excavator
  - ► 10,300 yd^3 sediment – clamshell dredging
- Blasting or hydraulic breaking likely required for rock

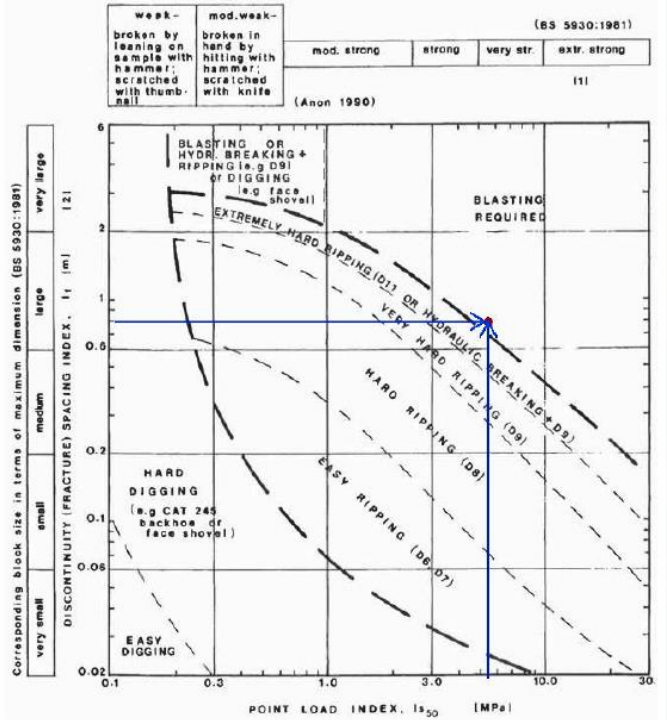
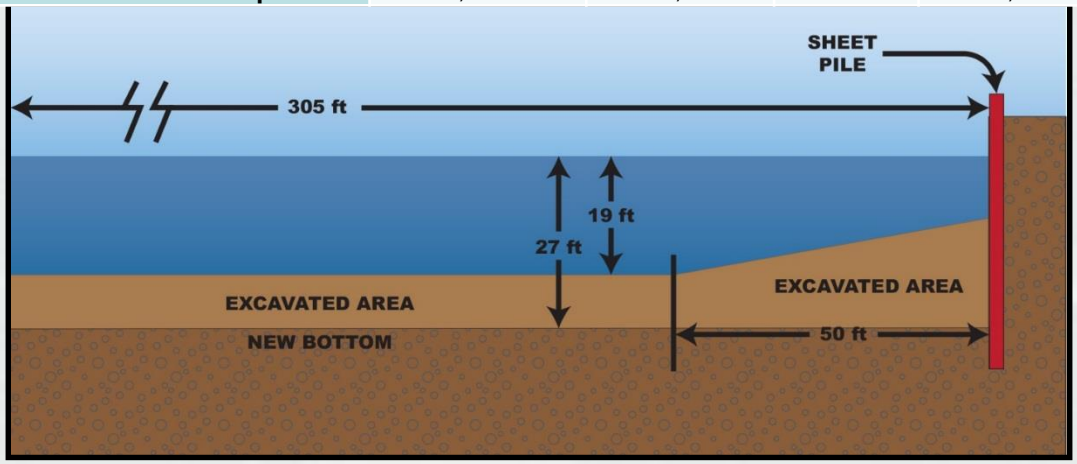


Figure 3. Excavatability Assessment Chart (Pettifer and Fookes, 1994)

NED: 27 foot depth, 305 foot width

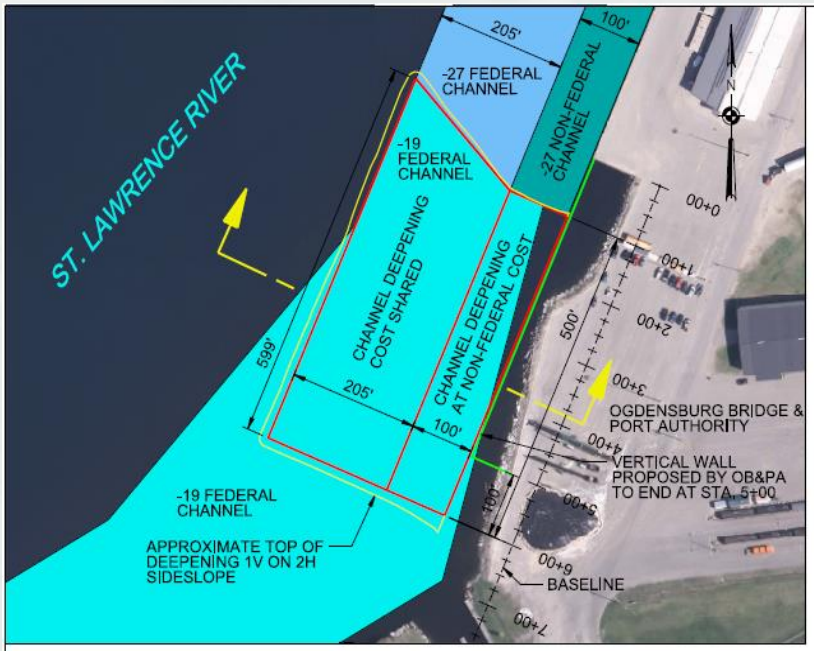
Economic Efficiency	Average	Average	Benefit		Net
	Annual	Annual	To Cost	Net	Benefits
Alternatives	Benefits	Costs	Ratio	Benefits	Rank
Alternative 1- 255 feet wide-23 feet deep	$ 14,100	$ 74,800	0.19	$ (60,700)	4
Alternative 2- 255 feet wide-25 feet deep	$ 53,900	$ 138,400	0.39	$ (84,500)	5
Alternative 3- 255 feet wide-27 feet deep	$ 112,500	$ 228,000	0.49	$ (115,500)	6
Alternative 4- 305 feet wide-23 feet deep	$ 59,900	$ 98,100	0.61	$ (38,200)	3
Alternative 5- 305 feet wide-25 feet deep	$ 175,400	$ 179,800	0.98	$ (4,400)	2
Alternative 6- 305 feet wide-27 feet deep	$ 628,400	$ 365,000	1.72	$ 263,400	1



NED Plan

- Dredge to 305 foot width, 27 foot depth
- Dredge material to be placed at airport
  - Land owned by OB&PA
  - Easements provided by OB&PA
  - Avoid identified state and federal wetlands
  - Sediments suitable for unconfined placement

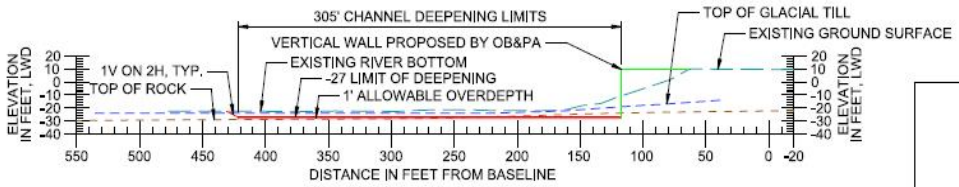
NED Plan



PROPOSED CHANNEL DEEPENING PLAN

200' 100' 0 200'

SCALE IN FEET



PROPOSED CHANNEL DEEPENING CROSS SECTION

NOTES:

1. LIMITS OF CHANNEL DEEPENING SHOWN ON THE PLAN ARE THE SAME FOR THE -23, -25 AND -27 LWD ALTERNATIVES.
2. EXCEPT FOR THE DEEPENING ELEVATION, THE GEOMETRY OF THE CHANNEL DEEPENING SHOWN ON THE CROSS SECTION IS THE SAME FOR THE -23, -25 AND -27 LWD ALTERNATIVES.
3. DREDGING VOLUMES WERE CALCULATED USING SURVEYS FROM SEPTEMBER 2012 AND AUGUST 2013. BENTLEY INROADS SOFTWARE AND A DIGITAL TERRAIN MODEL CREATED FROM THE SURVEYS WERE USED FOR THE VOLUME CALCULATIONS. ALL CALCULATED DREDGING VOLUMES INCLUDE ONE FOOT OF OVERDEPTH BEYOND THE SPECIFIED CHANNEL DEPTH.
4. TOP OF ROCK AND TOP OF GLACIAL TILL SHOWN ON THE CROSS SECTION ARE APPROXIMATE AND ARE BASED ON AN INTERPRETATION BY BUFFALO DISTRICT GEOTECHNICAL ENGINEERS OF DECEMBER 2013 BORINGS.
5. THE OGDENSBURG BRIDGE & PORT AUTHORITY IS RESPONSIBLE FOR CUTTING BACK THE EXISTING SHORELINE SOUTH OF THE PROPOSED VERTICAL WALL (APPROXIMATELY STATION 5+00 TO 6+50) TO A STABLE SIDESLOPE WITH A TOE OF SLOPE ELEVATION AT OR BELOW -27 LWD ALONG THE PROJECTED FACE OF THE PROPOSED VERTICAL WALL.

OGDENSBURG HARBOR, NY
SECTION 107

PROPOSED CHANNEL DEEPENING
305' WIDE CHANNEL

US ARMY CORPS OF ENGINEERS, BUFFALO
MARCH 2016

Implementation Schedule

Task	Date
AFB Meeting	June 2016
DPR/EA Public Review	July 2016
Final submission of DPR to LRD	August 2016
Execute PPA	November 2016
Initiate Construction	January 2018
Complete Construction	October 2018

Questions?