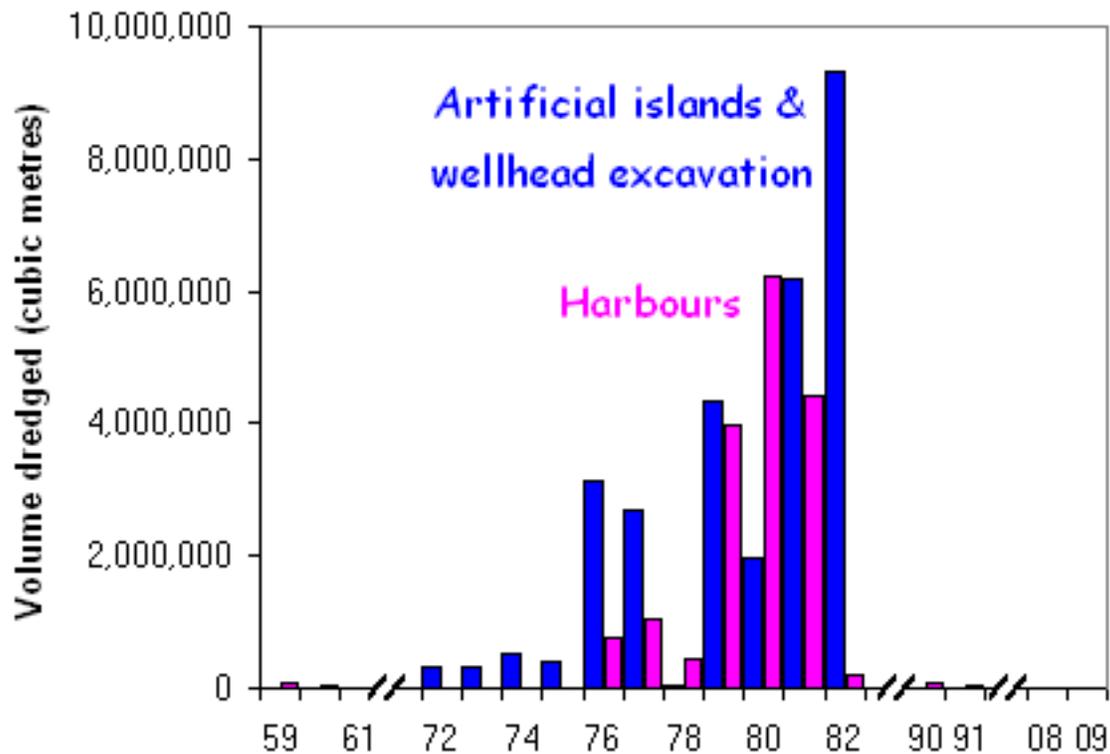


## Marine Dredging



**Data Source: Government of Canada**

### What is happening?

- This graph shows the amount of material (sand, clay and gravel) dredged from the sea bottom to assist oil and gas operations in the Beaufort Sea. Over 60% of the dredging material moved was used to build islands. Just over 17 million cubic metres of material was dredged to improve coastal harbours.
- Dredging activity peaked during the 1980s and there are no records of dredging in the Beaufort Sea area since the 1990s.

### Why is it happening?

- Dredging has been used to build artificial islands to support ocean drilling as well as excavating "glory holes" in the seabed below drill ships. These excavations house the wellhead and critical equipment such as the blow out preventer. Excavation is sometimes required to ensure the wellhead is far enough below the seabed to escape damage from ice scour.
- There are few natural harbours in the Beaufort region and dredging was carried out to

support the oil and gas marine fleet at Tuktoyaktuk, McKinley Bay and Tuft Point.

#### Why is it important?

- Dredging may have an impact on water quality by increasing the levels of turbidity and suspended sediment although these levels may quickly return to normal after dredging is completed. The baseline levels of turbidity and total suspended solids are naturally high during the open water season near the Mackenzie River delta.
- The physical disturbance from dredging may have more long lasting effects on sea floor habitats, spawning areas may be damaged by the build up of sediment and organisms which are not mobile may also be harmed by the dredging excavation or dumping of material.

#### Technical Notes

- The data from 1959 to 1982 were obtained from Table 1, page 3 of the report by Taylor, D.A, M.G. Reed, B.D. Smiley and G.S. Floyd 1985. Arctic Industrial Activities Compilation: Volume 1; Beaufort Sea: Marine Dredging Activities 1959 to 1982. Canadian Data Report of Hydrographic and Ocean Sciences 32: (Vol. 1) 192 p. The data from 1990 and 1991 were obtained from the Department of Public Works.

#### See also:

- Fuel Spills – NWT
- Seismic Lines and Roads

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