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FRANKENSTORM AND CLIMATE CHANGE: Before the flood waters had receded from New York and New Jersey speculation began regarding the extent, if any, to which climate change had contributed to the massive flooding caused by the merger of hurricane Sandy with other weather systems to create the massive storm. New York's mayor Michael Bloomberg mused over the possible need to build an extensive levee system to protect the city from future floods. Three of the worst 10 storms in New York history have occurred in the last three years. The sea level has risen 1.5 feet (30.5 cm) since the mid-19th century and is predicted to rise a similar amount by 2050. This year's arctic sea-ice melt has been the most extensive in recent years. The cost of converting New York into a new, New Orleans would be horrendous. But so will be the cost of repairing the damage caused by Sandy.

Scientists refer to a "hotspot" running from Cape Hatteras N.C to north of Boston in which sea levels are rising 2-3 times faster than the global average (1, 2). The current consensus regarding the role of climate change seems to be that it is possible but as yet unproven.

FISH STOCKS AND AQUACULTURE: A recent report by Costello et al (3) paints a dismal picture of fish stocks around the world, finding that most have been depleted well below the level required to sustain populations. They are on a continued trajectory of decline. Their study focussed on less well-known fisheries that none the less constitute 80% of the world's catch.

In a related story (4) Justice Bruce Cohen released the report of his commission on the impact of the fish farming industry on the Fraser River salmon run in British Columbia. This run has been in decline for some time. The industry supports his recommendation that the Department of Fisheries and Oceans conduct more intensive research on the impact of fish farms especially around the Discovery Islands north of Campbell River. He also criticized the federal government for reducing funding to the Department which the report felt needed more, not less, resources. The commission was mainly concerned that farmed salmon kept in close quarters could (and have) become incubators for infectious organisms. These could spread to wild species and decimate them. Members of the Canadian Alliance for Aquaculture Reform feel that it would be more prudent to remove the 30-some fish farms along the sockeye migratory route. The industry acknowledges that the risk zone for transmission of parasites and other pathogens extends about 26 km from a fish farm.

As world wild fish stocks are depleted we will become more dependent on farmed fish and the need for careful planning to protect wild species will become critical. For more information on the problems of fish farming, refer to Philp (5).

THE RELENTLESS MARCH OF THE OIL DRILLERS: Iconic Canadian author Farley Mowat recently wrote an article in the Toronto Star in which he sounded a warning about seismic testing in the Gulf of Saint Lawrence in preparation for oil exploration (6). The Canadian-Newfoundland and Labrador Petroleum board is opening up more and more parcels in

the Gulf. In one, Corridor Resources Inc. Plans to drill a deep well comparable to BP's Deep Horizon well in the Gulf of Mexico that caused such human and environmental devastation when the line ruptured and the rig caught fire. No technological advances have made such wells any safer today. Mowat notes that the Gulf of St. Lawrence is even more confined than the Gulf of Mexico. It has counter-clockwise currents that would tend to dam up an oil spill, causing even greater ecological devastation.

The Gulf of St. Lawrence is an ecological treasure covering 250,000 km^2. It is rich in krill and capelin and a vital feeding ground for numerous whale species including the humpback, fin minke, northern right beluga and killer whales. Myriad species of birds inhabit its shores and feed on the open sea as do several species of seals (7). The devastation that an oil spill could cause these species, many of which are already threatened, should be obvious to anyone, even oil executives.

Meanwhile pipeline battles continue on many fronts- a subject for future issues of Environews.

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