Let The Rivers Run Free

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A STEALTH GREENHOUSE GAS Manufactured Water Vapor in the Arctic Stephen M. Kasprzak

Smoke from a coal fired electric power plant is easily recognized as CO2 greenhouse gas emission and a pollutant. However, summer water vapor from an Arctic hydroelectric reservoir "is invisible. One cannot generally 'see' a lake evaporating (An exception being the condensed water vapor of lake-effect clouds that sometimes hover above a lake's surface in autumn and early winter)." (Lenters, 2011)

According to NASA, "Water vapor is known to be Earth's most abundant greenhouse gas, and increasing water vapor leads to warmer temperatures, which causes more water vapor to be absorbed into the air. Warming and water absorption increase in a spiraling cycle."

Throughout the winter, sections of the downstream unfrozen rivers warmed by the hypolimnial deep dam releases, continually contaminate the atmosphere with great volumes of water vapor. Never before in geologic history have rivers flowed through the frigid Arctic winter exposing vast surfaces areas of now unfrozen regulated water to such strong evaporative forces. For example, "The Krasnoyarsk Dam significantly influences the local climate; normally the river would freeze over in the bitterly-cold Siberian winter, but because the dam releases unfrozen water year round, the river never freezes in the 200 kilometer (120 Mi) to 300 kilometer (190) stretch of river downstream from the dam. In winter, the frigid air interacts with warm river water to produce fog, which shrouds Krasnoyarsk and other downstream area." (Pacific Environment 2013 and Gotlib 1996)

In order to maximize a river's potential hydropower, multiple hydropower plants (HPPs) have been built downstream of the AMPS. Evaporation from each of these run of the river HPPs creates additional summer and winter DOMEs. Sometimes river flows are increased by diverting nearby rivers thru the AMPS and HPPs. For example: "In Quebec, peak electricity consumption occurs during the winter when river flows are naturally at their lowest because water is locked up in snow and ice. To meet the demand for elelectricity during cold weather, dams and diversions have increased the winter flow on the La Grande River by eight times (from 18,000 to 141,000 cubic feet per second) in order to store water for the following winter and have eradicated the spring flow (flow reduced from 176,000 to 53,000 cubic feet per second)." Harper, P.P. 1992 La GrandeRiviere: A Subarctic River and a Hydroelectric Megaproject.

The six AMPSs and 2 HPPs on the La Grande River have not only heat polluted the river waters entering James and Hudson Bays but they have also converted natural freshwater into water vapor and this conversion has become atmospheric rivers of greenhouse gas (water vapor emissions) passing over and warming downwind northern Quebec and southwest Greenland, melting its glaciers and raising sea levels.

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