Superfund Site. The selected remedy has several components: institutional controls ("ICs"), monitored natural recovery ("MNR"), enhanced natural recovery ("ENR"), long-term monitoring, and five-year reviews. Each of these components addresses human consumption of fish contaminated by mercury or methylmercury. Human consumption of mercury-contaminated fish caught from the river represents the sole actionable threat to human health; there is no actionable threat or risk to the environment. Nine sections or reaches of the Sudbury River were evaluated as part of OU4 (Reaches 2-10). Two reaches, Reaches 5 and 7, do not present unacceptable impacts to human health or the environment. As a result, the selected remedy focuses on Reaches 2, 3, 4, 6, 8, 9, and 10. Reach 1 is upstream and has not been impacted by contamination from the Nyanza facility. This remedy will allow most of OU4 to be used for fishing and fish consumption assuming "recreational" quantities of fish are consumed. This conclusion is, however, dependent on projections about the quantity of mercury deposited in the river by sources unrelated to the Nyanza facility. There is also an exception for Reach 8 of the river, which is less amenable to remediation measures, primarily due to ongoing atmospheric deposition of mercury (unrelated to the Nyanza facility) and natural hydrological features of Reach 8 that convert even small amounts of mercury into relatively high levels of contamination in fish. In this reach, fish contamination is expected to continue at levels that would not allow for consumption of fish by recreational anglers; exposures will be reduced to acceptable levels by reliance on institutional controls (e.g., fish advisories). Because Reach 8 is a national wildlife refuge managed by the U.S. Fish and Wildlife Service, EPA believes it will be easier to implement, monitor and maintain/enforce institutional controls there, including maintaining fish advisory signs and performing outreach on a nearly continual basis (e.g., warnings in brochures or elsewhere at the visitors' center and informal reminders by FWS staff).

The major components of this selected remedy are:

1. ENR. ENR entails placing a six-inch layer of sand over sediments containing a concentration of mercury in excess of 10 parts per million ("ppm") in surface sediment, so as to accelerate natural recovery processes by which mercury is diluted in river sediments. This, in turn, will contribute to a reduction of mercury concentrations in fish tissue over time. ENR will occur in a portion of Reach 3, which is the reach with the highest level of mercury contamination.
2. MNR. MNR will involve taking samples of fish tissue, sediment, and/or surface water to monitor natural recovery processes. This will occur in Reaches 2, 4, 6, 9, and 10.
3. Long-term Monitoring. Reach 8 will be monitored to verify the impact of the selected remedy and the effects of ongoing atmospheric deposition. EPA expects mercury concentrations in fish will be stable or decrease over time in this reach, although it is possible that atmospheric deposition of mercury will result in increases in fish tissue contamination.
4. ICs. The ICs for OU4 shall include posting of fish advisory signs, coordination with State agencies responsible for maintaining dam structures along the river, and public outreach to discourage consumption of contaminated fish. Reach 8 will rely on institutional controls in the long term for the remedy to remain protective.
5. Five Year Reviews. There will be five-year reviews of the remedy's protectiveness and

EPA NEW ENGLAND
REGION 1

RECORD OF DECISION

NYANZA CHEMICAL WASTE DUMP SUPERFUND SITE, OPERABLE UNIT 4 (SUDBURY RIVER)

ASHLAND, FRAMINGHAM, SUDBURY, WAYLAND, LINCOLN AND CONCORD, MASSACHUSETTS

SEPTEMBER 2010