

SOME INTER-COUNTY MOSQUITO CONTROL OPERATIONS SHOWING EQUIPMENT USED IN IMPROVEMENT OF THE UPPER PASSAIC RIVER CHANNEL IN ESSEX AND MORRIS COUNTIES, NEW JERSEY

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The upper Passaic River valley, situated only fifteen miles from the center of Newark, and extending from Millington to Little Falls, is one of the great fresh

water mosquito breeding areas in New Jersey. Following periods of heavy or prolonged rainfall, 32,000 acres of swamp and meadow lands flood and produce great



Fig. 1. A specially designed, sectional dredge-boat used in inter-county, mosquito control improvement of the upper Passaic River.

A 10-inch, cutter-type hydraulic dredge of 540 cubic yards daily capacity. Specially built in demountable sections for convenient passage under bridges and through narrow spaces between bridge piers. Cost \$20,000.

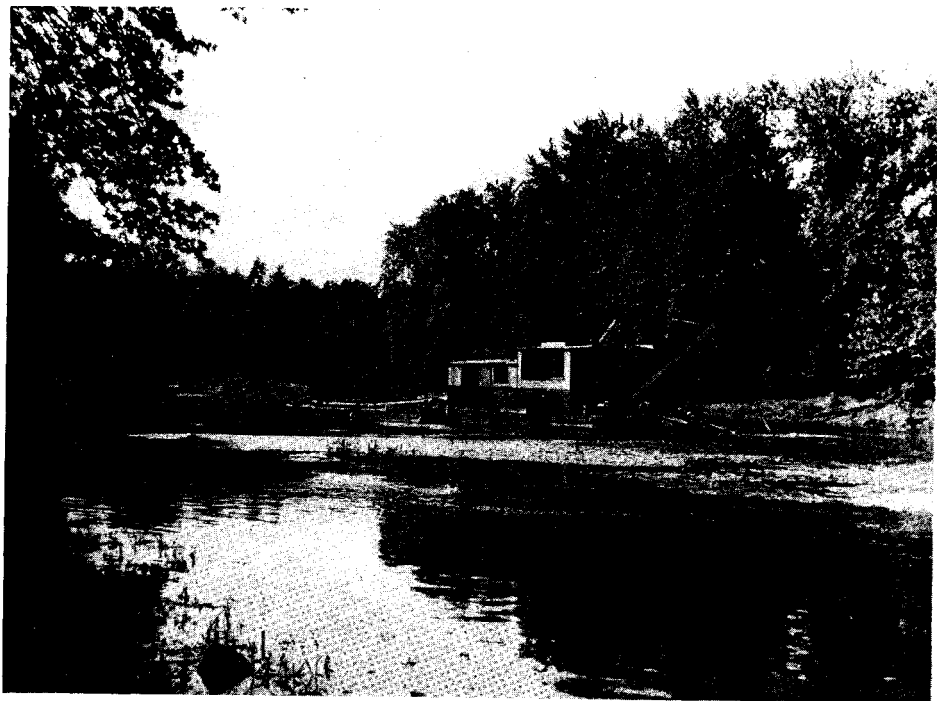


Fig. 2. The Passaic River dredge cutting through the neck of a meander.



Fig. 3. A close up view from the rear.

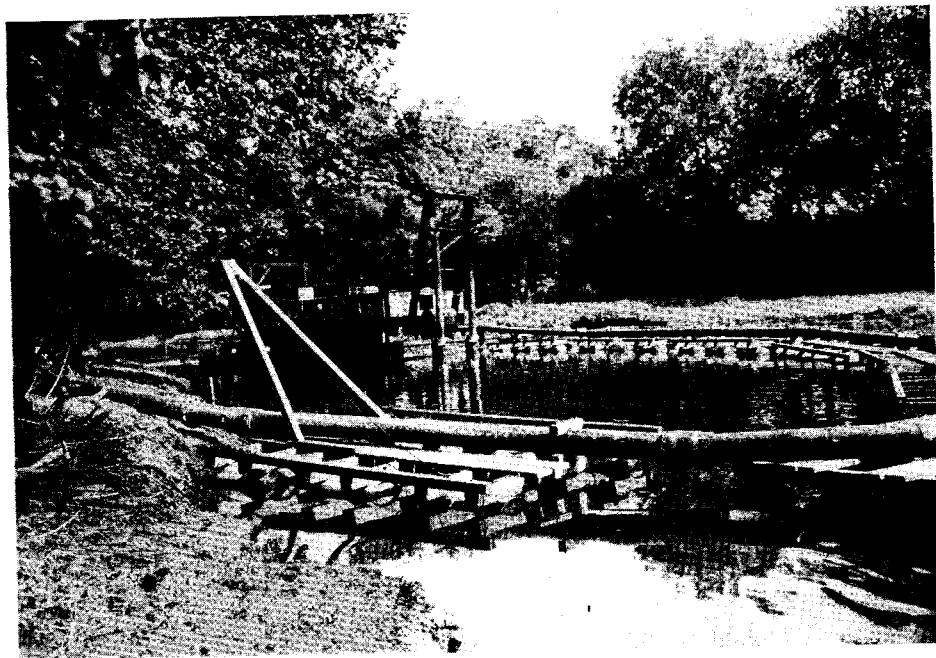


Fig. 4. The dredge and spoil-pipe assembly from the rear.



Fig. 5. A $\frac{3}{4}$ yard drag-line bucket operating from a caterpillar crane equipped with a 40 foot boom

broods of *Aedes vexans* and *Aedes trivittatus* which migrate as far as ten miles, affecting a population of one and a quarter million people residing in four counties.

To overcome this summertime scourge, the County Mosquito Commissions of Essex, Morris, Union and Passaic organized an intercounty committee for the purpose of preparing plans leading to the control of mosquito breeding in the area. Operating with funds supplied by the Essex and Morris County Commissions, dredging equipment has been purchased and built and to date some ten miles of river channel have been dredged to increase the run-off of flood waters. Minor floods now drain from the meadows prior to brood emergence and as the work progresses, greater benefits will result.



Fig. 6. A $\frac{1}{2}$ yard clam-shell bucket operating from a 40 foot boom mounted on a scow.