

Seney National Wildlife Refuge (NWR) Outflow Data (1936-2015)

Assessment Methods

Seney National Wildlife Refuge (Refuge) staff have been monitoring and documenting pool level changes since the initial flooding of the pools (1936-1942). Over the years, Seney NWR's pools have been manipulated for a variety of purposes; including, but not limited to, protecting nesting loons, swans, and geese, supporting prey populations of fish-eating birds, suppressing undesirable woody vegetation, increasing waterfowl access to submergent vegetation and invertebrates, and facilitating prescribed fires. Refuge staff calculated outflow and inflow from 1967-1988 for the following pools: A-1, B-1, C-1, D-1, E-1, F-1, G-1, H-1, I-1, J-1, Show Pools, Gray's Creek, Upper Goose Pen, Lower Goose Pen, A-2, C-2, M-2, T-2, C-3, Delta Creek Pool, and Marsh Creek Pool.

Outflow and inflow data and calculations were included in Water Management Plans without any narrative or comments regarding how or where the measurements were taken and how the data were calculated. The 1967 data include mean, minimum, maximum, and total discharge in second-feet (one second-foot is equal to one cubic foot per second) and cover the Refuge pools as a whole. Outflow data from the years 1975-1979 are in acres-feet and are only available for A-1, D-1 (east), D-1 (west), D-1 (overflow), M-2, T-2, C-3, Marsh Creek Pool, and Delta Creek Pool. Data from 1981-1988 include inflow and outflow data calculated by Refuge staff. The unit of measurement of the listed average annual evaporation rate and pool rise is unknown.

A Microsoft Excel file titled "SNWR_Outflow_Data_1936-2015" was created with separate spreadsheets for each year. The calculated monthly pool outflow and inflow data for each year were manually entered by hand into the appropriate Excel spreadsheets. Pool outflow and inflow data for the following years were unable to be located: 1936-1966, 1968-1974, 1978, 1980, 1982, 1987, 1989-2015. It should be noted that a number of locations were not observed as frequently as the others, so the available data varies from location to location.

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