

SHELL LAKE, WASHBURN COUNTY

Wastewater Receiving Stream Classification

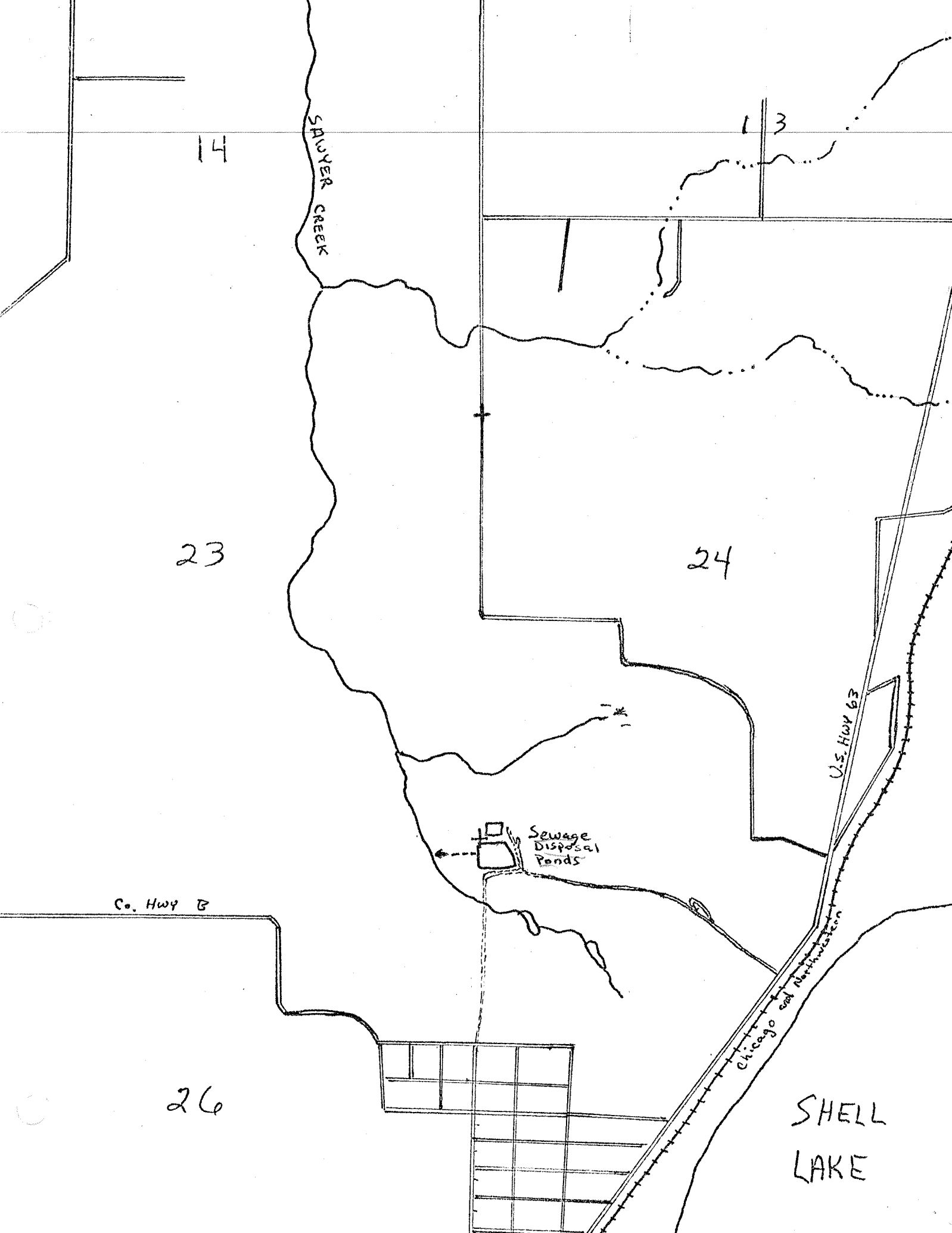
Shell Lake's two cell wastewater treatment pond system is located approximately one-half mile north of town near the headwaters of Sawyer Creek. The discharge from the second pond enters a channel which drains westerly some 350 yards before its confluence with Sawyer Creek. This channel has average dimensions of approximately 1½ foot wide and 2-3 inches deep. The continuing outflow from the sewage ponds has created a definite channel with a bed and banks. Prior to the lagoon discharge however, it is thought that the spring water and marsh discharge water present in the area reached Sawyer Creek through diffuse flow.

The upper four miles of Sawyer Creek are considered as Class II trout water and a native population of brook trout is present. Sawyer Creek, at a location approximately two and one-half miles downstream has a  $7Q_{10}$  of 2.6 cfs. and flows in a northerly direction to its confluence with the Yellow River.

Recommendation:

The 350 yard channel from the lagoon outfall to its confluence with Sawyer Creek shall be classified as "diffuse surface water". Sawyer Creek shall be classified as a continuous stream with a subcategory of "fish and aquatic life". Waste load allocation effluent limits shall be imposed at the end of the four hundred yard effluent discharge channel.

7/10/71



14

SPUYER CREEK

23

24

Co. Hwy B

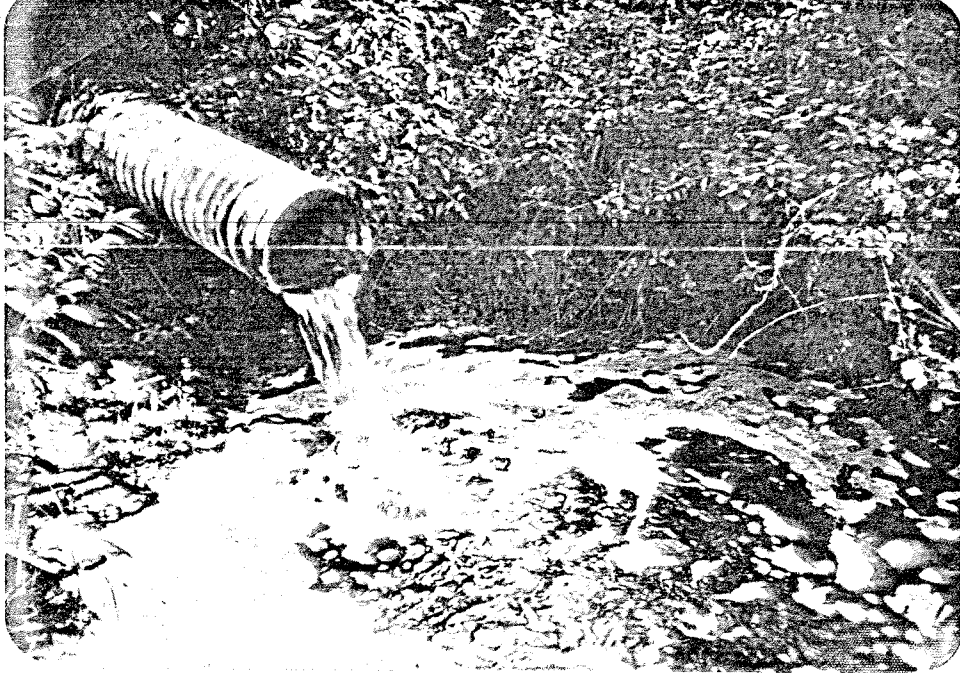
Sewage Disposal Ponds

U.S. Hwy 63

Chicago and Northwestern

26

SHELL LAKE



Shell Lake  
Sewage Treatment  
Lagoons Outfall



Shell Lake  
Channel conveying  
treated wastewater  
from lagoon outfall



Shell Lake  
Confluence of  
wastewater channel  
with Sawyer Creek