

SEGMENT COMPLETION REPORT

As required by

FEDERAL AID IN FISHERIES RESTORATION ACT

TEXAS

Federal Aid Project No. F-3-R-13

Fisheries Investigations and Surveys of the Waters of Region 3-B

Job No. C-1 (Continuous) Pollution Studies

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ABSTRACT

Four reports of aquatic pollution were investigated in Region 3-B this segment.

A reported fish-kill at Lake O' the Pines was investigated but no pollution was found.

An oil pipeline leak caused a limited fish-kill in Fox Creek in Harrison County. The leak was checked immediately and the waste oil was burned to check the flow.

An investigation was made on Tinhorn Creek near Longview. No pollution was found and it was concluded that a natural oxygen depletion caused the kill.

A fish-kill was investigated on Salt Works Lake near Palestine. A high salinity content was found in the lake due to open salt water shafts in the basin. At the present concentration, this salinity is not detrimental to game fish species and provides a beneficial control of gizzard shad in the lake.

It is recommended that this job be continued to investigate future pollution activity in Region 3-B.

SEGMENT COMPLETION REPORT

State of Texas

Project No. F-3-R-13

Name: Fisheries Investigations and
Surveys of the Waters of Region 3-B

Job No. C-1 (Cont.)

Title: Pollution Studies

Period Covered: February 1, 1965 - January 31, 1966

Objectives:

To determine the source and nature of natural or man-made pollutants which effect fish populations.

Techniques:

When evidence of pollution was reported or found to be present, a search was made to find the source and nature of the pollution. Standard water analysis including pH, total alkalinity, chlorides and dissolved oxygen tests were run.

Findings:

There were four cases of pollution investigated during this segment one of which was a false report of a fish kill on Lake O' the Pines in April, 1965. An investigation failed to produce any indication of pollution. Water quality of the Reservoir was normal. It is probable that game fish injured by hooks initiated this report of a fish-kill.

On May 13, 1965, a pipeline broke and oil flowed into Fox Creek, 6.5 miles north of Marshall in Harrison County, resulting in a partial fish-kill. This is a small tributary of Little Cypress Creek. Immediate action was taken by the Schurlock Oil Company and the flow of oil into the creek was soon checked. The waste oil was burned off. Most of the dead fish observed were rough fish species.

On July 6, 1965 a fish-kill was reported on Tinhorn Creek near Longview. An investigation was made, but no pollution was found. It was concluded that an oxygen depletion caused the die-off. Large schools of mexican tetra (Astyanax mexicanus) and sunfish (Lepomis sp.) had entered the creek from the Eastman Chemical Company Lake, approximately one mile downstream from the effected area. As the water level dropped in the creek during the summer months the fish became trapped in the creek. The water volume was not adequate for the large schools of fish and the resulting oxygen depletion occurred.

On January 21, 1966 a fish-kill was reported on Salt Works Lake near Palestine. A water analysis was conducted and the water quality of the lake was normal with the exception of a high chloride content of 2,125 ppm. As the name implies, this lake is at the site of an old salt mining operation and several open salt water shafts are in the lake basin. From observations made, this kill was primarily limited to gizzard shad and served as a control measure for this species in the lake.

Conclusions and Recommendations:

It is recommended that this job be continued in order to investigate future pollution activity. Further efforts should be made to educate the public of the growing need for clean water supplies. Encouragement should be given to industries to improve their effluents even though they have permits to pollute public streams.

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Approved by Marion Toole
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Date October 7, 1966

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