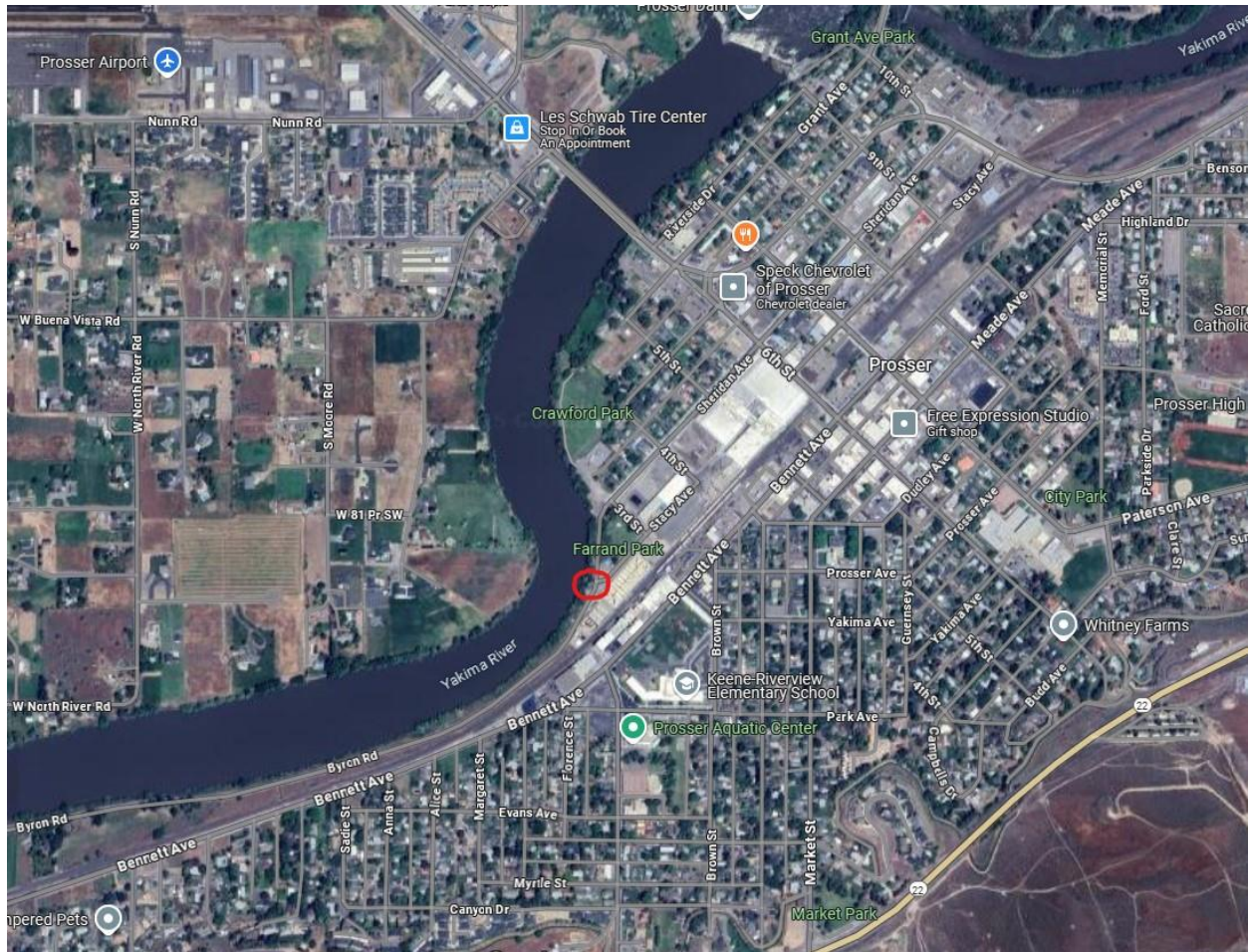


The Milne “storm drain” outfall is located along the Yakima river on the other side of Byron Road in Prosser. It is located at coordinates 46.202651, -119.777298. The outfall discharger area is shared with the City of Prosser Stormwater drainage system as well. The red circle indicates where the discharge is located. It is located approximately 1 mile upstream of the Chandler Diversion dam. This part of the river is basically a reservoir due to the dam and the minimal current in this part of the river.



An evaluation of the area was conducted and it is found to be overgrown from the road side. A drone was utilized to try to see the outfall from the river and it was not located as there is a tree that has fallen that blocks the actual drain pipe from view.

DEPARTMENT OF ECOLOGY
CENTRAL REGIONAL OFFICE

RECEIVED

May 19, 2025

Received via: stephanie.giesin@ecy.wa.gov

This is a view from the road



This is a view from the drone – the discharge is in the blue square. The water quality of the river appears to be significantly better than the pictures from 1998.



The discharge is blocked from view by the fallen tree.



A survey of the discharge was done back in late 1998. At that time, it was not quite as overgrown as it is now, both on the water side and the road side. My boat was utilized to look at the drain from the water. The pipe appears to be approximately 14-16" in diameter and is basically horizontal to the river. From the below picture, the drain is approximately three to four feet above the river level.



As the picture was taken in November, the river a little low. One thing that is very evident from the pictures is the water quality. The river back in 1998 was very brown in color. The storm drain is located in the middle of the picture. The old pipe on the left appeared to be abandoned, but could be the City of Prosser's stormwater drain. Back in 1998, we did a dye test to determine the correct discharge to the river.



APPENDIX C – TECHNICAL CALCULATIONS

COOLING WATER DISCHARGE

Milne has a discharge from its cooling towers in amounts that do not exceed 29,000 gallons per day. The flow is discharged to the City of Prosser storm sewer, and flows through a 16-inch concrete pipe, co-mingling with cooling water discharged from Twin City Foods before flowing about 500 feet to the Yakima River. The slope of the storm pipe is about 1/8 inch per foot.

This discharge is similar in many respects to a cooling water discharge from Hi Country to the Yakima River at Selah. As part of a recent waste discharge permitting process at Hi Country, a study was performed to determine potential temperature impacts in the Yakima River.

Measurements of temperature versus distance were made along the Hi Country discharge pipe. Temperature data were converted to logarithmic values and plotted against distance along the pipe.

Temperature at various distances from the source are calculated from the equation below.

$$\ln(T_1 - T_o) = -\text{slope} \times (\text{distance}) + \ln(T_o - T_f)$$

T_1 = Temperature at time when water has flowed d , distance

T_f = Temperature beneath surface (ground water) or final temperature of water in pipe after infinite flow

T_o = Temperature at beginning of model section or zero distance

The above relationship developed from Hi Country data was applied to the Milne discharge. The calculated temperature of the discharge at the river was 2.017 degrees C above groundwater temperature.

The above is information from the last permit regarding the mixing and temperature calculations. They were compared to another companies discharge.