

## MEMORANDUM

## Water Pollution Control Commission

P. O. Box 829  
 OLYMPIA, WASHINGTON  
 98501

Information  Check

Publication No. 70-e03

WA-22-4045

TO: Harry Tracy &amp; Chuck Melville

DATE: March 30, 1970

FROM: Ron Lee

SUBJECT: Wildcat Creek Fish Kill

At 2000 hours on March 27, 1970 in the company of Chuck Melville and Mike Palko, I examined Wildcat Creek for dead fish carcasses in response to a fish kill complaint. Simpson door plant effluent and the McCleary Sewage Treatment Plant were suspected as possible sources of toxicity. An investigation of the stream above and below the Simpson and McCleary Sewage Treatment Plant discharge was conducted. The first dead fish were found in a pool 20 feet below the discharge ditch, none were found above. Additional carcasses were collected approximately 2 miles downstream from McCleary. Further investigations were discontinued due to darkness and resumed the following morning.

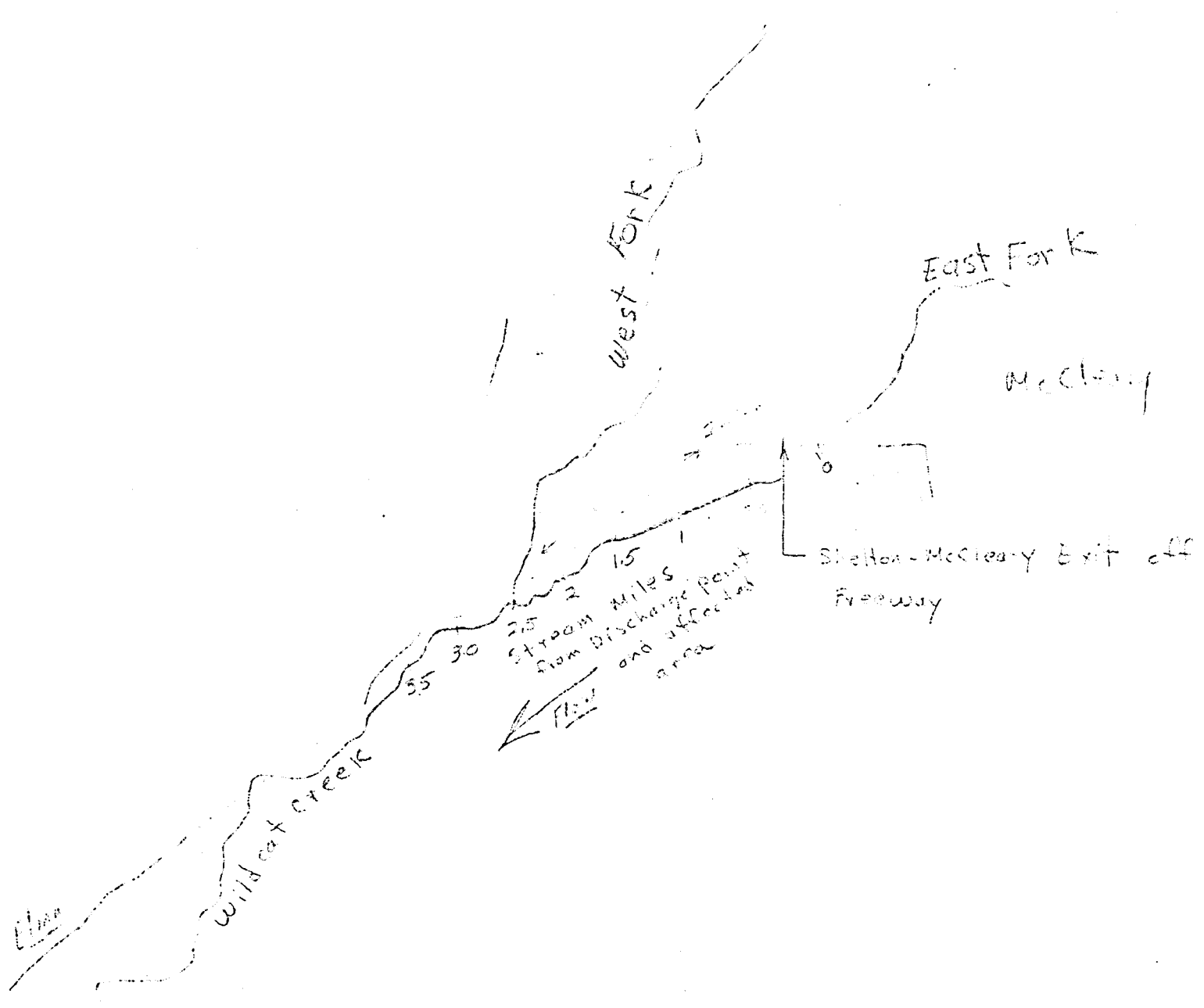
On March 28, 1970, I sampled a representative section of the creek (800 square yards) for dead fish (stream mile 2.5, Figure 1). The following results were obtained:

| <u>Species</u> | <u>Number</u> | <u>Length Frequency</u> |                  |
|----------------|---------------|-------------------------|------------------|
|                |               | <u>Steelhead</u>        | <u>Cutthroat</u> |
| Coho yearlings | 94            | 9" - 2                  | 6" - 1           |
| Coho fry       | 81            | 8" - 4                  | 5" - 4           |
| Steelhead      | 48            | 7" - 6                  | 4" - 3           |
| Cutthroat      | 8             | 6" - 15                 |                  |
| Sulpins        | 9             | 5" - 8                  |                  |
|                |               | 4" - 9                  |                  |
|                |               | 3" - 4                  |                  |

Dead and dying insects were abundant at this station. A few dead crayfish were also observed. At this point the west fork of the creek converges with the heavily affected east fork. Mortalities downstream from this confluence were much reduced (to stream mile 3.5). Below this point no dead fish were observed.

I would suggest that the densities obtained by the dead carcass count I made would underestimate the actual loss to the resource. Another method using Coho density from the literature may be more pertinent. A population study using fish shocking techniques could also prove worthwhile.

RL:lg



Flow

Wildcat Creek

West Fork

East Fork

McCleary

Shelton-McCleary Exit off Freeway

Stream Miles from Discharge point from affected area

35

30

25

2

15

1

| <u>SPECIES</u> | <u>DENSITY</u><br>(fish / yard) | <u>AREA AFFECTED</u><br>(yards) | <u>TOTAL</u> |
|----------------|---------------------------------|---------------------------------|--------------|
| Coho fry       | 0.40                            | 6160                            | 2500         |
| Coho smolts    | 0.62                            | 6160                            | 3800         |
| Trout          | 0.33                            | 6160                            | 2030         |
| other game     | 0.55                            | 6160                            | 3360         |

It is recommended that a damage claim action be taken against the Simpson Timber Company plywood plant at McCleary on the basis of field investigation findings.

RL:ah

Figure 1. Schematic drawing of Wildcat Creek illustrating the affected area in stream miles where dead fish were observed.

