

## DEPARTMENT OF ECOLOGY

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DIRECT

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November 8, 1971

MEMORANDUM

TO: Dick Cunningham

FROM: Ron Pine *RP*

SUBJECT: Snoqualmie River at Carnation - September 27, 1971 Sample

DATE: November 4, 1971

At your request Norm Thomas and I investigated the subject routine water quality monitoring station on the above date for the purpose of finding an explanation to the low pH and high copper and mercury values found in the sample collected on September 27, 1971.

Samples for heavy metal analysis were collected from the Snoqualmie and Tolt Rivers at Carnation, Griffin Creek south of Carnation and from the upper spring at Camp Gilead. Camp Gilead is located immediately upstream and on the west side of the bridge at the Snoqualmie River Station. Conductivity and temperature measurements were made at each of the stations in-situ. The results were as follows:

| Station                      | Temperature C | Conductivity $\mu$ mohs |
|------------------------------|---------------|-------------------------|
| Snoqualmie River @ Carnation | 7.8           | <40                     |
| Tolt River @ Carnation       | 8.3           | <40                     |
| Griffin Creek @ Carnation    | 8.9           | 48                      |
| Camp Gilead                  |               |                         |
| Upper Spring                 | 8.9           | 150                     |
| Lower Spring                 | 8.9           | 160                     |

Camp Gilead also has a swimming pool but it was drained on September 1, 1971. We poked around various side roads and could find nothing that could explain the high values found in the subject sample. The high conductance of the two springs in Camp Gilead indicate that they may be a factor, but the volume of water involved is so small that I doubt it.

The results of sample analysis are pending.

RP:bj

Original to \_\_\_\_\_

Copies to:  
Ron A Pine

ANALYSIS REPORT

To: Ron Pine

The following are the analytical results from survey conducted at:

Snoqualmie River

03-02-20

Collected 11/7/71

| LAB. NO. | STATION NO.                | pH  | specific conductivity | ppm lead      | ppm Copper    | ppm Zinc      |
|----------|----------------------------|-----|-----------------------|---------------|---------------|---------------|
| 71-3573  | camp Gleed                 | 7.4 | 160.                  | None Detected | None Detected | None Detected |
| 3574     | Toft River                 | 7.5 | 32.                   | ↓             | ↓             | ↓             |
| 3575     | Snoqualmie<br>nr Carnation | 7.1 | 22.                   | ↓             | ↓             | 4.02          |
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Notes:

Summarized by Pat Lee  
Date 11/8/71