

SITE NUMBER: B-241L-02 (was B-R7-02)

LOCAL NAME: Undie Lake

WRIA: 20.0241A

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Bogachiel **DATE:** 4/19/89 **OBSERVER:** Nettnin

CHANNEL TYPE: An oxbow lake and egress channel.

TRIBUTARY TO: Bear Creek (20.0241)

SITE LOCATION: L.B. @ River mile - 0.1 (from field notes)

LEGAL DESCRIPTION:

	UPPER END	LOWER END	RIVER TEMP
WATER TEMP:	57 F	52 F (Bear Cr. = 49 F)	46 F
FLOW (CFS):	0.5 - 1.0	1.0 - 2.0	

SUBSTRATE: Mud, sand and silt.

SITE SIZE: **Length-** Egress = 210 m. Ponds and marsh = 1320 m.
South channel = 400 m. Overall = 1930 m.
Width- Egress = 1 to 2 m. Ponds and marsh = 40 to 90 m.
South channel = 10 - 15 m.
Depth- Egress = 6 to 12 inches. Pond to > 3 ft.

WATER SOURCE: Valley wall trib, Terrace tribs and Springs.

DIRECTIONS TO SITE: Heading north on Hwy 101, turn right at mile post 186 (i.e. just north of the Bogachiel bridge and directly across from Bogachiel State Park) onto Undie Rd. The road crosses the outlet of Undie Lake 1.5 miles southeast of the 101 junction.

FISH ACCESS AND CURRENT USE: Fish appear to have good access from the mouth of the channel up to the culverts at Undie Road. A two foot plunge from each of the three culverts appears to restrict access to the ponds. During freshets water may back up into these culverts. Fish were seen hitting the surface of the lake upstream of the road. Undie Lake has been smolt trapped in the past by WDF.

FLOODING POTENTIAL: Very low.

LANDOWNER: Unknown at this time.

COMMENTS & RECOMMENDATIONS: It appears that, long ago, B-241L-02 used to be the main channel of the Bogachiel River. The main river channel has since degraded considerably and moved a quarter mile to the west leaving behind a sizeable, well protected oxbow lake/pond. Roughly 95 to 99% of the habitat in B-241L-02 is ponded water and/or shallow marsh.

B-241L-02 can be divided into five areas; the large upper pond (the south arm of the oxbow), the south channel (enters the upper pond along its right bank), a wide, shallow marsh area (downstream of the upper pond), a shallow lower pond (in the north arm of the oxbow) and the egress channel (outlet of lower pond to Bear Creek).

The upper pond, which is the main body of Undie Lake, appears to have a maximum winter depth of 4 to 5 ft and an estimated surface area of at least 45,000 to 50,000 sq. meters (11 to 12 acres). It is formed, in part, by a 4 ft high beaver dam (may be passable to juveniles at certain flows). Alluvial material from a right bank trib, which enters B-241L-02 just below the beaver dam, may also help to form the upper pond.

The lake is said to contain some good sized trout.

The south channel is a tributary to the upper pond entering it along the right bank about 200 m upstream of the beaver dam. When the river flowed through the oxbow area, the south channel probably functioned as a side channel or overflow. It currently accommodates water from two small tribs. It appears to be fed by two additional tribs during heavy winter run off. Pondered water, which is backed into the lower 400 m of this channel from the upper pond, currently has a width of 10 to 15 m. Maximum water depth here appears to be 2 to 3 ft.

Downstream of the upper pond B-241L-02 becomes a wide, shallow marsh. The water in this reach flows through braided channels. A moderate-sized right bank trib enters from off the hillside at the upper end of the marsh. Material from this trib probably contribute to the shallow nature of this area. Numerous small springs were also noted entering along both banks of the marsh.

The shallow, lower pond is located at the lower end of the marsh. This pond appears to have been formed in part by the damming effect of Undie Road. Much of the pond appears to be between 1 and 2 ft deep. Some places near the outlet may be 2 to 3 ft deep. This lower pond is currently about 230 m long and 40 to 50 m wide. During the rainy season the pond may extend upstream into the marsh.

Downstream of Undie Rd. the channel becomes relatively narrow and incised, but maintains a flat gradient as it makes its way to Bear Creek. The channel enters Bear Creek at a moderately deep pool.

According to Roger Mosley (and the USGS maps), water used to leave Undie Lake from both the north and south ends of the oxbow. Water leaving from the south end ran into a flat area and spread out into poorly defined channels. Since many fish became stranded in this area, the south egress was blocked off and all water was forced to flow out the north egress channel (as it does at present).

Controls placed downstream of the Undie Rd. culverts could reduce restrictions on fish access to the ponds. Deepening of the marsh and lower pond may be feasible by resetting the culverts. Need to determine the extent of present utilization. Obtain previous trapping data from WDF in Forks.

POND NAME: Upper Undie Lake **POND DATA SUPPLEMENT**

DATE: 4/19/89

OBSERVER: Nettnin

INLET(S) **OUTLET**

WATER TEMPERATURE: 47 - 50 F 58 F

POND SIZE: (Approx. 12 acres)

LENGTH - 750 m

WIDTH - Avg = 60 - 80 m

EST. MAXIMUM DEPTH - > 3ft

(If dry est. depth from high water mark on bank)

WATER SOURCE: Terrace tribs and springs

FISH ACCESS & CURRENT USE: No fish were seen. In order for juvenile coho to move up into this part of the lake they must first get past the culverts at Undie Rd. and into the lower pond. The culverts appear to restrict fish passage at certain flows. Once above the culverts, fish must work their way through the lower pond and marsh and then over or around the 4 ft beaver dam at the outlet of the upper lake. It appears that water runs around the end of the dam during higher flows and the upper pond is probably accessible to fish at that time. There are reports of nice-sized trout in the lake.

TYPE & AMOUNT OF IN POND COVER: Upper Undie Lake has excellent cover throughout. Both floating and submerged woody debris are present as well as pond lillies and other aquatic vegetation. Bank overhangs and brush also provide cover. Sedges and reeds create important cover in the shallows. In the deeper areas water depth may also provide cover.

COMMENTS & RECOMMENDATIONS: This large pond should be an excellent coho rearing area. Need to determine how restrictive the beaver dam is to fish access. Controls or a fishway may be needed to make dam more passable. See comments section of channel writeup for additional comments.

POND NAME: Lower Undie Lk. **POND DATA SUPPLEMENT**

DATE: 4/19/89

OBSERVER: Nettnin

INLET(S) **OUTLET**

WATER TEMPERATURE: 51 F (V.W. Trib) 52 F

(Water coming in from Upper Undie Lk. was 58 F)

POND SIZE: (Approx. 2.5 acres)

LENGTH - 230 m

WIDTH - Avg = 40 - 50 m

EST. MAXIMUM DEPTH - 2 - 3ft

(If dry est. depth from high water mark on bank)

WATER SOURCE: Valley wall trib, springs and Upper Undie Lake.

FISH ACCESS & CURRENT USE: Fish were observed in this pond. The three culverts at Undie Road (i.e. at the outlet of this pond) appear to restrict the upstream migration of juvenile coho at certain flows.

TYPE & AMOUNT OF IN POND COVER: Most of the cover appears to be provided by reeds and sedges in the upper end of this shallow pond. Some woody debris is also present. Overall, however, the pond seems lacking in cover.

COMMENTS & RECOMMENDATIONS: It appears this lower pond is in the process of being filled in by sediment material from the valley wall trib (which enters B-241L-02 just below the upper pond). Deepening of the pond and increasing the amount of cover structures would be beneficial. Control structures downstream of the Undie Rd. culverts could improve fish access. A dissolved oxygen reading at the outlet of the pond (upstream of the culverts) showed a healthy 11.0 mg/l.

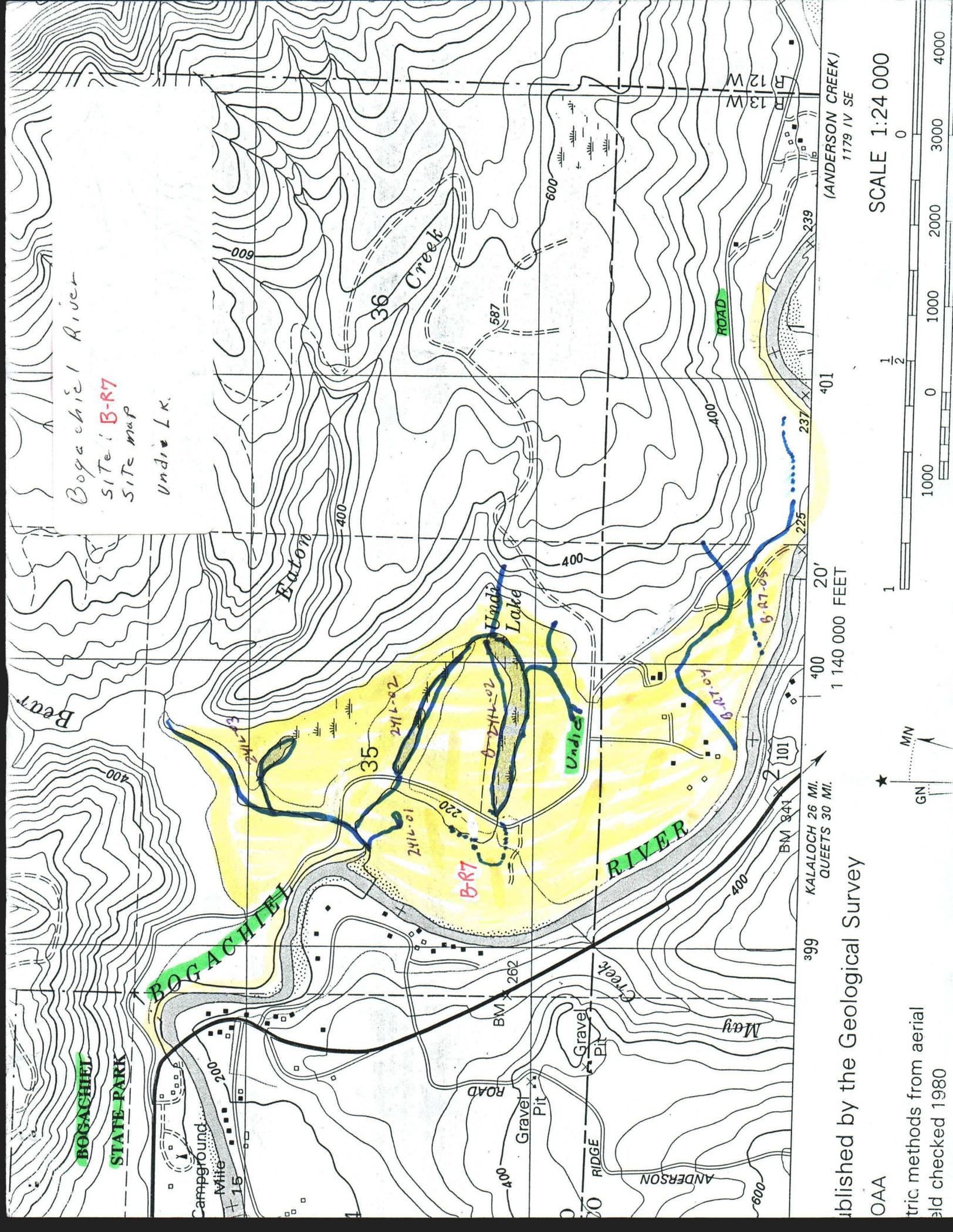
DATE: 8/17/89

OBSERVER: Young

It has been determined, through a personal communication with Roger Moseley, that Undie Lake (i.e. B-241L-02) is regularly planted in the Spring with coho fry. He also mentioned that past estimates of coho smolt outmigration from the lake have been in excess of 10,000 fish. A summary of past trapping data for Undie Lake (and all other previously trapped off-channel sites along the Bogachiel) has been requested from the Forks WDF office.

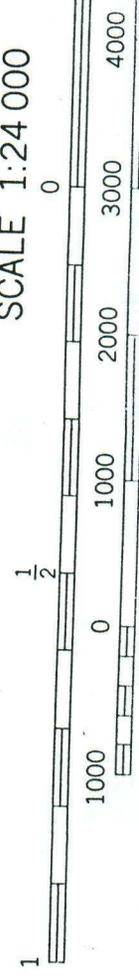
DATE: 12/19/89

Culverts look like they could be juvenile fish blocks at low flows and at high flows if velocity becomes a problem.



Bogachiel River
 Site B-R7
 Site map
 Undie L.K.

SCALE 1:24 000



Published by the Geological Survey

OAA

tronic methods from aerial
 field checked 1980