

**SITE NUMBER:** D-R3-01  
**LOCAL NAME:** W.F. Wishbone Springs  
**WRIA:** 20.0106A

**NORTH COAST OFF CHANNEL SITE INVENTORY DATA**

**RIVER SYSTEM:** Dickey      **DATE:** 1/17/91      **OBSERVER:** Young

**CHANNEL TYPE:** Wall based terrace trib.

**TRIBUTARY TO:** Dickey River (20.0097)

**SITE LOCATION:** R.B. @ River Mile: 5.1 (WDF)

**LEGAL DESCRIPTION:** SW/14 S6 T28N R14W

	<b><u>UPPER END</u></b>	<b><u>LOWER END</u></b>	<b><u>RIVER TEMP</u></b>
<b><u>WATER TEMP:</u></b>	7.5 C	9.5 C	7.0 C

<b><u>FLOW (CFS):</u></b>	0.5	3.0 - 4.0
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**SUBSTRATE TYPE:** Primarily (80 to 90%) silt & muck. Lower 60 m reach has gravel, cobble & bedrock. Reach immediately below 5300 road has alluvial gravel with lots of fines. Potential for better gravel above the 5300 but gradient appears to increase rapidly above the road.

**SITE SIZE:**      **Length-** 500 - 550 m from mouth to 5300 Rd. (from photo)  
                         **Width-** Lower 60 m: C.W. = 2 - 3.5 m    W.S. = 1.2 - 2.5 m  
   Middle reach: C.W. = 20 - 25 m    W.S. = 3 - 20 m  
   Upper reach: C.W. = 1 - 3 m    W.S. = 0.5 - 2 m  
                         **Depth-** 15 - 30 cm. (excluding pond)    Pond = 0.5 to 1.0

**WATER SOURCE:** Appears to be fed primarily by a small valley wall trib at the upper end of the pond area and numerous small springs from along the toe of the high terrace on the right bank. Lower 90 m of channel also receives water from D-R3-2 (see separate write up).

**DIRECTIONS TO SITE:** Go north from Forks on Hwy 101. Turn left just beyond mp 193 (1.0 mi. north of Forks) onto La Push Rd. Proceed west on La Push Rd about 3.1 mi. Turn right onto the Quillayute Rd. and continue west for 4.0 mi. Turn right onto Mina Smith Rd. (at Quillayute Cemetery) and proceed north about 0.8 mi. Turn left (west), after crossing the Colby Cr. bridge, onto the D-5000. Proceed west about 1.25 mile (crossing the Dickey R.) then turn right onto the 5300 road. A game management gate on this road will likely be locked (key is available from ITT Rayonier). Follow the road down the hill about 0.25 mi. to where it crosses a small stream via a culvert. This is the upper end of D-R3-01.

**FISH ACCESS AND CURRENT USE:** Access at mouth appears excellent. A 1 to 1.5 m high, bedrock cascade about 18 m above the mouth currently appears impassable to juveniles. Two beaver dam "dikes", 60 and 90 m above the mouth also restrict juvenile coho access. These barriers may be submerged by backwater flooding during moderate to high freshets. Some spawning might occur in the lower and uppermost reaches. No fish were seen.

**FLOODING POTENTIAL:** Backwater flooding only.

**LANDOWNER:** Unknown at this time (probably ITT Rayonier)

**COMMENTS & RECOMMENDATIONS:** The "headwaters" of D-R3-01 originate in the steep, recently clear cut, rolling hills to the north of the D-5000 and D-5300 junction. The water of D-R3-01 flows through a 3 ft diameter CMP culvert as it passes under the D-5300 road. Flow through this culvert was about 0.5 cfs and the water was at 7.5 C at the time of this survey.

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**COMMENTS & RECOMMENDATIONS:** (continued)

Below the 5300, the channel becomes quite braided as D-L3-01 flows through a wide alluvial fan of silty gravel. The alluvial material here seems somewhat soft and unstable. Young (10 - 15 year old) alder are seen at the apex of the alluvial fan (i.e. near the culvert). Sedge grasses predominate at the lower end of the fan.

Below the alluvial fan, D-R3-01 flows into a very wide (20 - 25 m), flat gradient, marshy depression. Situated at the base of a steep 60 to 80 foot high, bowl-shaped terrace wall, the channel here appears to lie in the remnant of an ancient river bed. Near the upper end of this reach, the actual water surface is only about 3 to 4 m wide with sedges filling in the remaining channel width. Continuing downstream for another 350 to 400 m, the water surface gradually widens and the strip of sedges along the edge of the channel narrows. The water appears relatively shallow (about 0.5 m max depth) until one approaches the lower end of the reach. A good deal of "mud flat" occurs between the edge of the water surface and the sedges indicating the channel may at times contain considerably more ponded water than at present. Numerous small seep springs feed D-R3-01 from the base of the high terrace along the right bank. The concentration of these small springs seems to increase near the lower end of the reach. A good deal of moderate to large woody debris is scattered throughout this reach of D-R3-01. The area surrounding and adjacent to the channel has been logged in the last 10 to 15 years leaving this entire reach with an open canopy.

At the lower end of the previously described reach, a second, wide, flat gradient, marshy channel (see D-R2-2) enters into D-R3-01 along the left bank. Just below the convergence of the two channels is a large beaver dam "dike". This dam, which backs water up into both channels, is 1 to 1.5 m high and 20 m wide. It appears impassible to up migrating juvenile coho under current water conditions.

About 30 m below the large dam is a second smaller beaver dam (less than 1 m high). A wide and fairly shallow pond (30 to 60 cm max depth) is located between the two dams. This smaller dam also appears to greatly restrict the upstream migration of juvenile salmonids under present conditions. Neither dam shows signs of recent beaver activity.

Below the lower dam, as it approaches the RMZ of the right bank of the Dickey, the channel of D-R3-01 narrows and its gradient increases. About 40 m below the lower dam (as it enters the RMZ) the channel drops through a 1 to 1.5 m high bedrock cascade. Under current conditions this cascade appears to create an impassable barrier to up migrating juvenile coho.

Below the cascades D-R3-01 traverses a short (20 to 25 m long), narrow (1.5 to 2.0 m wide), deeply incised, wooded "canyon" before converging with the river. D-R3-01 enters the Dickey on a flat gradient, at a deep, slow moving pool (about 150 to 200 m upstream of the D-5000 bridge).

Aside from the bedrock cascade, the lower 60 m reach of D-R3-01 (i.e. below the lower dam) has a gravel and cobble substrate. It contains primarily riffle habitat. During normal fall and winter freshets the cascade is most likely submerged by backwater flooding. Likewise, the lower dam is also probably submerged during normal freshets. The large, upper dam is probably submerged only during the highest freshets of the year (if at all).

This channel, combined with D-R3-2, appears to have great potential as a quality coho rearing area. With excellent entrance conditions at the mouth and only three relatively minor barriers to overcome, it may not  
(continued on next page)

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**COMMENTS & RECOMMENDATIONS:** (continued) take a lot of effort to greatly enhance the productivity of this area. We should consider improving passage at the cascades, removal of the lower dam and replacement of the large upper dam with a more stable and passable structure (control boards, small earthen dam with a juvenile fishway, etc). This would result in a larger, more stable ponded area upstream. Machine access to the site may be possible from the old grade which lies 150 to 200 m north of the large dam. Need to monitor flows in this channel throughout the year. Should minnow trap to determine the current extent of rearing habitat utilization. Smolt trapping may be feasible depending on the development of access routes.

**NORTH COAST OFF CHANNEL SURVEY  
SUBSEQUENT SITE EVALUATION FORM**

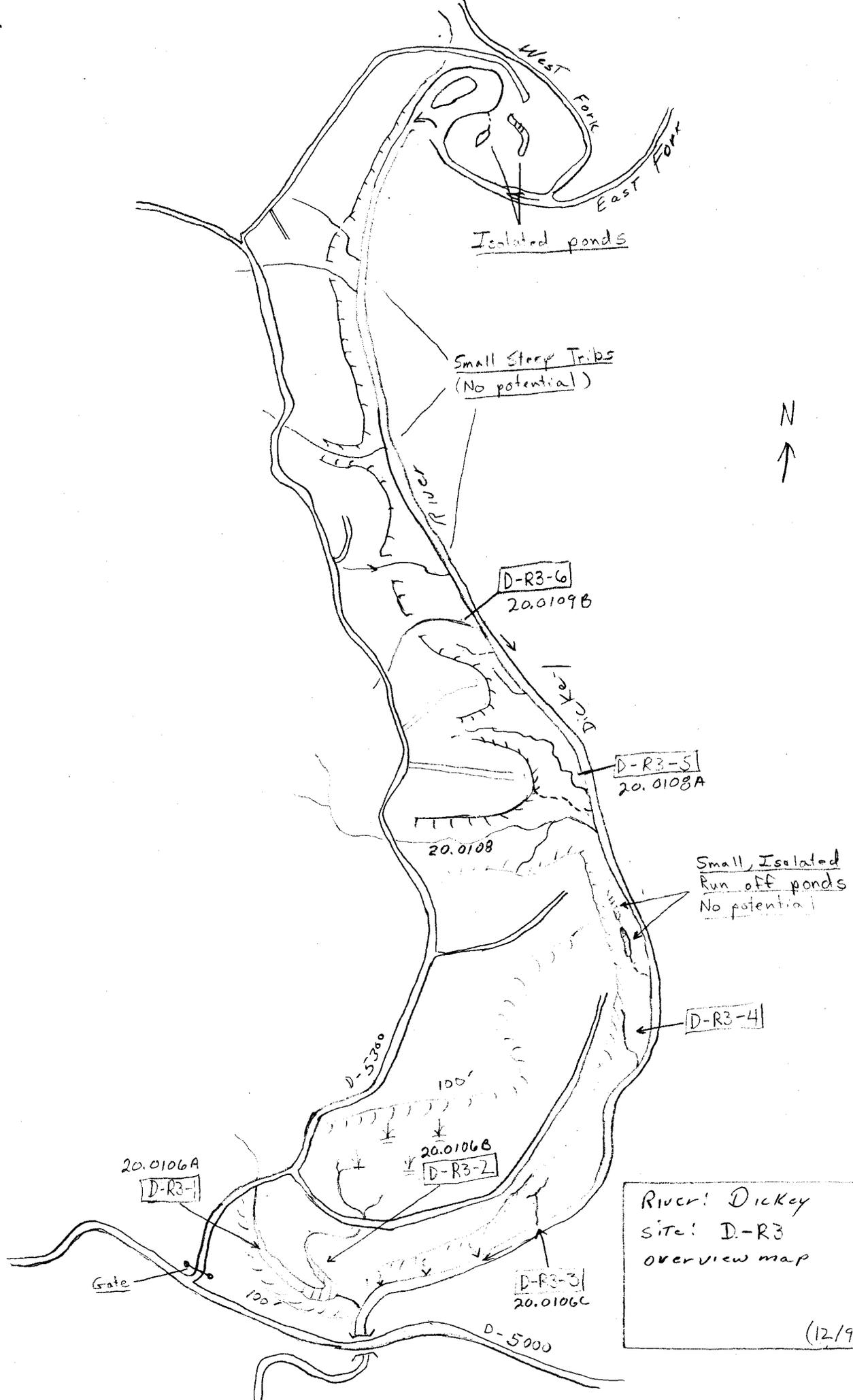
**River System:** Dickey

**Channel No.:** D-R3-01  
**Site Name:** W.F. Wishbone Springs  
**WRIA:** 20.0106A

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**DATE:** 5/24/91      **OBSERVER:** Young

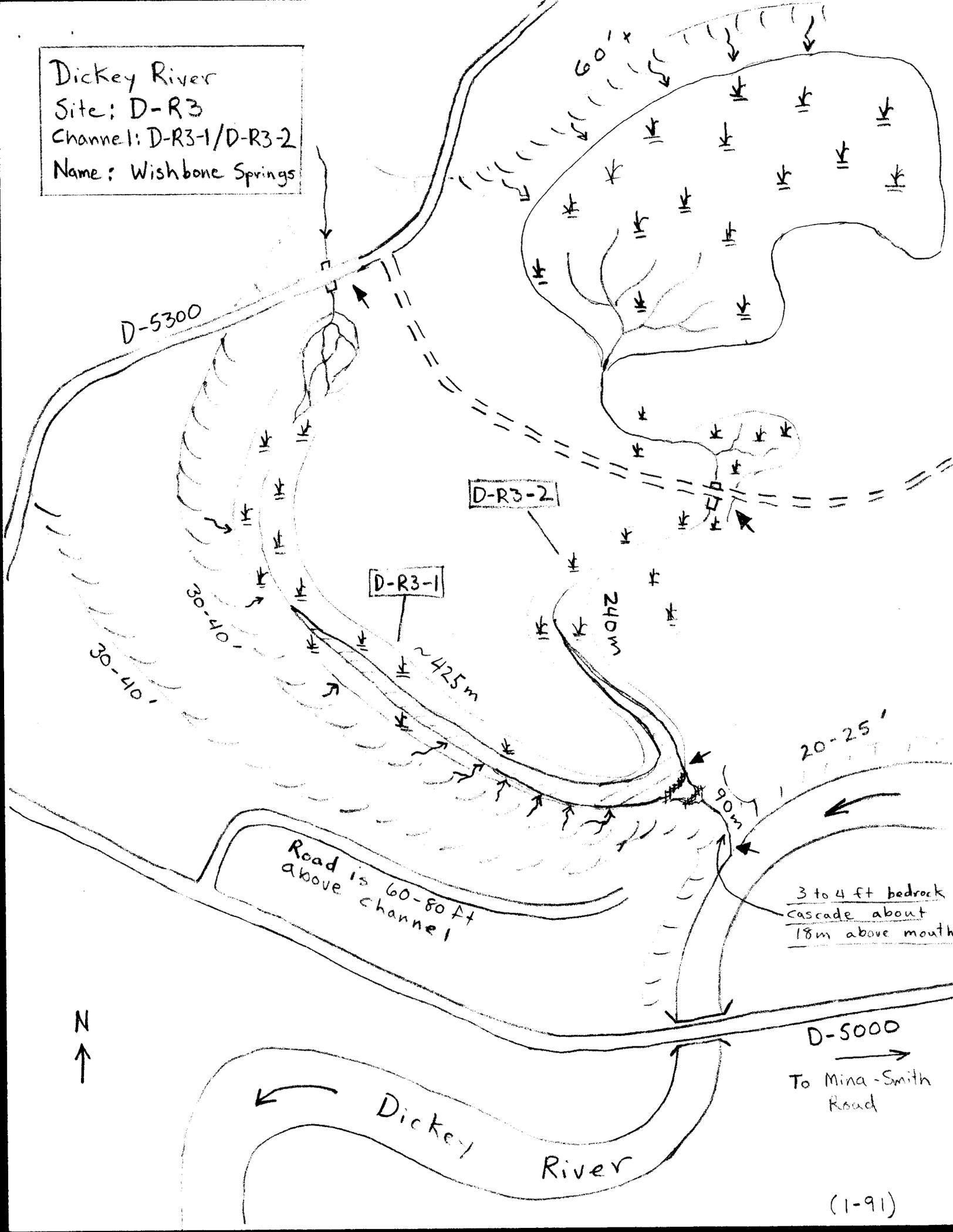
The remaining trees in the upper watershed (i.e. above the D-5300) are currently being clear cut. The channel is dry at the D-5300 road crossing (i.e. at the upper culvert). Only a small amount of shallow, ponded water was seen above the large beaver dam. The pond and potential rearing area is greatly reduced. Lots of "mud flat" area above the dam. About 0.5 cfs at the mouth of D-R3-01. Only a trickle of this flow is from D-R3-02. River temperature was 11 C. Water in channel was at 12 C. Rainfall amounts for the last half of April and the first part of May are probably below normal. The rearing potential of this area does not look nearly as promising as it did last January.

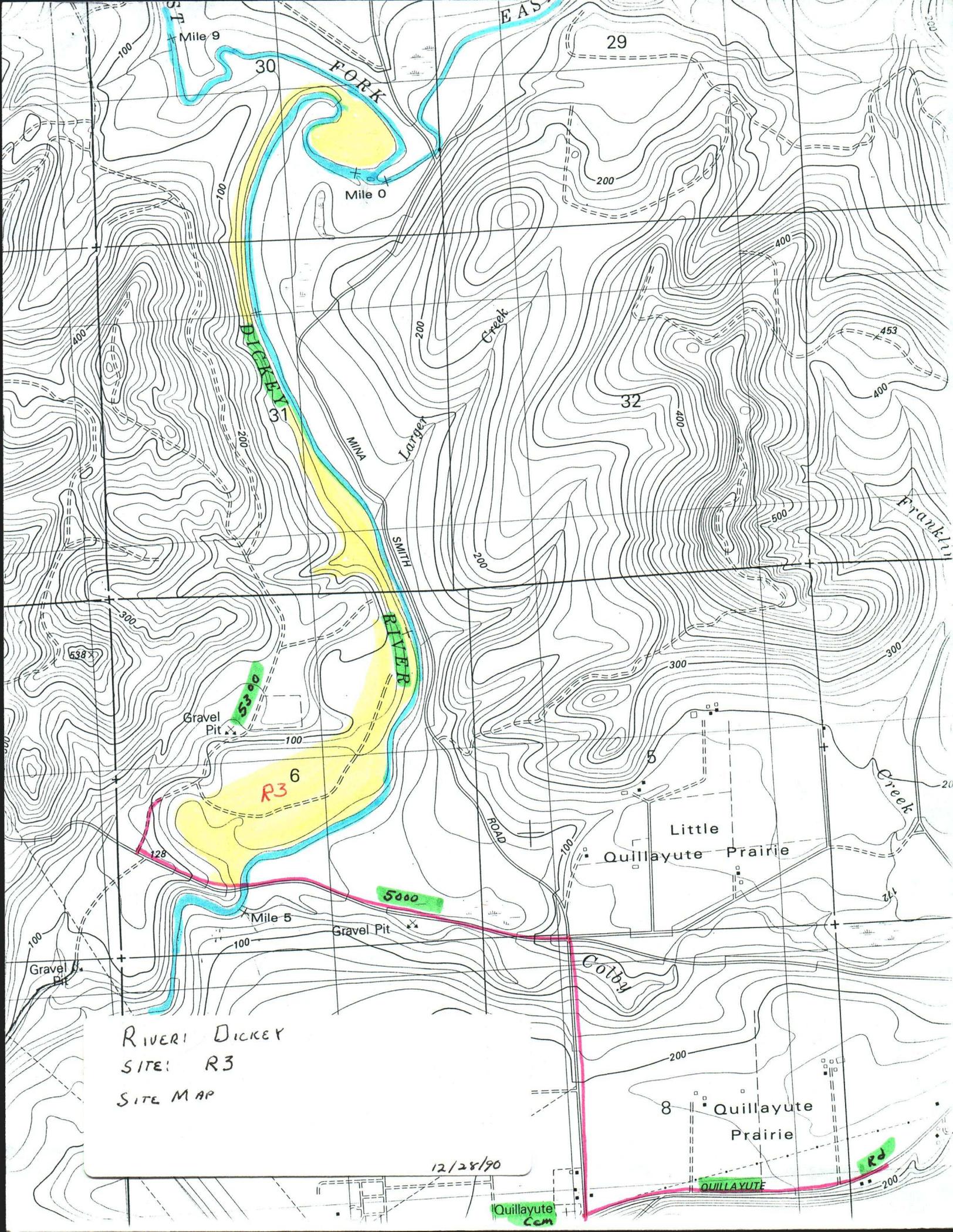


River: Dickey  
 site: D-R3  
 overview map

(12/90)

Dickey River  
Site: D-R3  
Channel: D-R3-1/D-R3-2  
Name: Wishbone Springs





RIVER: DICKEY  
SITE: R3  
SITE MAP

12/28/90

Quillayute  
Cem

R3

QUILLAYUTE