8-18-2004

Ex. 279-US-420

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Oregon Department of Fish and Wildlife

C. Huntington
Oregon Department of Fish and Wildlife

Stream: Sycan River
Tributary to: Sprague River>Williamson River
Reach: 1 Hyde
Survey Type: ODFW Stream Habitat
Access: Foot
Start: T36S-R12E-S10NE
Quad: Beatty
Date: 18 August 04
Surveyors: R. Nawa K. Hartzell
Report: R. Nawa, C. Huntington
Distance Surveyed: 3.8 km

Land Use
Land use is light grazing and hay production.

Valley and Stream Channel Geometry
The river was in a broad valley over 2 km wide. Extremely low stream gradient (0.03%) was accompanied by high sinuosity (2.0). High terraces sloped abruptly to constrain narrow floodplains adjacent to the 16 m wide river. Riffles were 10 percent bedrock which may indicate a trend towards downcutting.

Substrate
The streambed was very fine textured. An estimated 84 percent of the streambed was sand/organics, 13 percent gravel, and 3 percent bedrock.

Spawning Gravel
Riffles were fine textured gravel (62%) and sand (28%). Approximately 190 m^2 of spawning gravel was suitable for spawning steelhead (52 m^2 /km). Most of this gravel was in a riffle unit 34 at the uppermost end of the reach (Map; Photo 100). The median size (D50) of gravel at riffle unit 26 was 4mm-8mm(Wolman Pebble Count). About 250 m^2 of marginal spawning gravel at riffle unit 26 was judged to be too small for spawning salmon and steelhead. Units 23 and 31 had a total of 300 m^2 of marginal gravel which was also judged to be too fine for spawning (90% < 21mm). We observed numerous recent redds in the fine textured gravel in the lower portions of the reach. The redds were probably made by lamprey (Photo 93).

Riparian Vegetation
Grass dominates the riparian zone with occasional willows (Photo 100). Existing grass and shrub cover is inadequate to stabilize streambanks. About 16 percent of streambanks were actively eroding. Shade from high terraces averaged only 5 percent.

Wood
No wood was found in the channel because there are no trees on the streambanks.

Rearing and Adult holding Habitat
Extremely low stream gradient caused the stream to be mostly pools (47%) and glides (47%). Pool depths ranged from 0.7m-1.8m. Glides averaged 0.4 m deep. Residual pool depths averaged 0.73 m. About four percent of the streambanks were undercut.

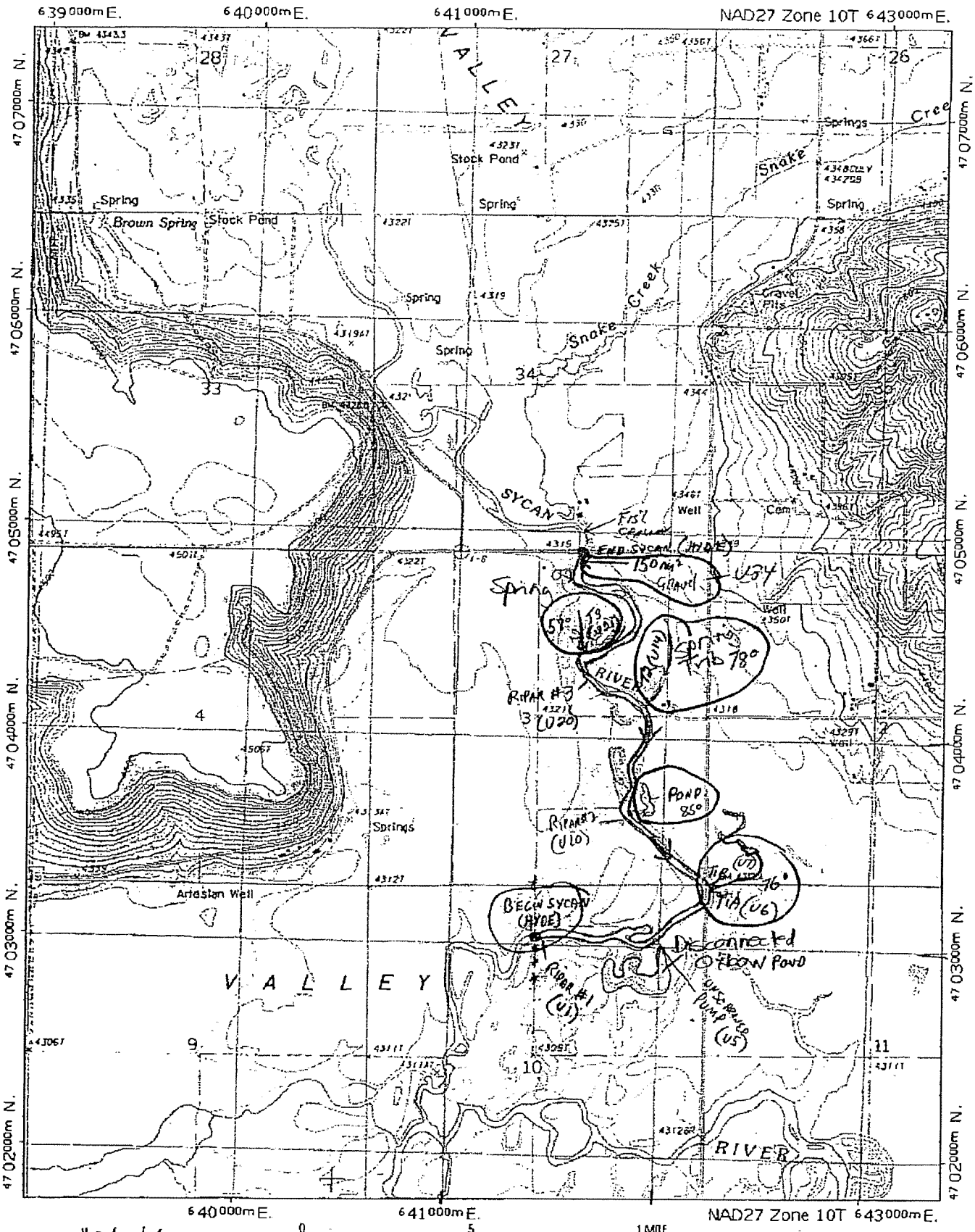
Stream Temperature/Spring Fed Tributaries

Maximum spot stream temperature in was 24.4°C at 1600 pdt. Warm 24.4°C water flowed into the mainstem from springs and ponds located east of Godowa Springs Road (T1A,B; Map). Culverts below the road prevent fish access to this tributary. A spring fed tributary (T2) at unit 14 was 25.5°C (Map). A spring fed tributary (T3) at unit 21 was 13.9°C (Map). An off-channel pond near unit 10 was 29.5 °C (Map).

Photo93 Unit 1
Unidentified redds in fine textured gravel judged too small for salmon and steelhead spawning

Photo 100 Unit34
Riffle in center of photo had 150 m^2 of suitable spawning gravel. Redband trout are known to spawn in this area.

• Hyde



♀ = female

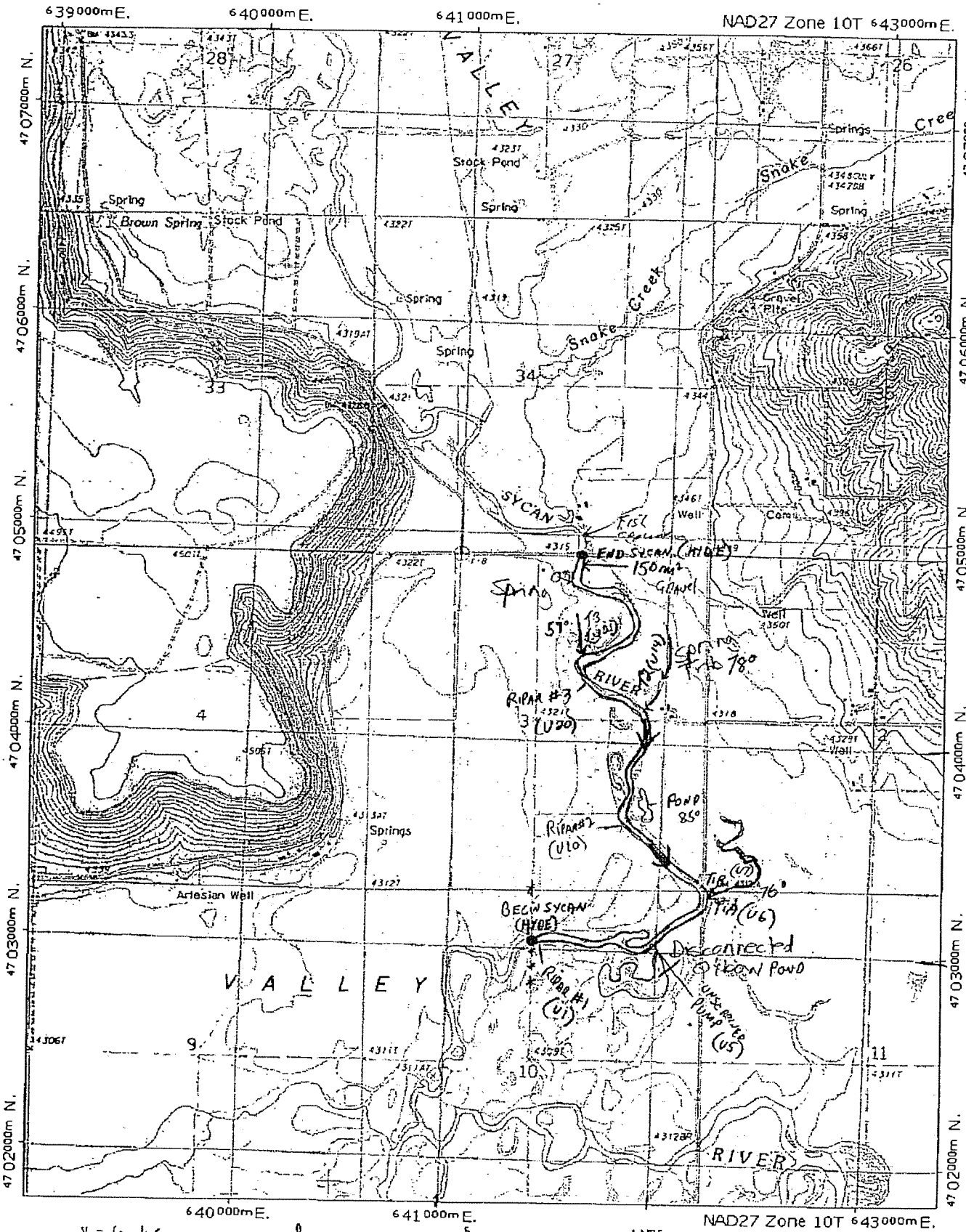
0 5 MILE
0 1000 FEET 0 500 1000 METERS

Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

24 AUG 04
R. NAWA

Sycan R.

• Hyde



♀ = female

24 Aug 04
R. NAwA

Sycan R.