85-363
012
R. Reed
Reg Supv
3/11/85

State of Alaska
Department of Fish and Game
Public Review Nomination for Waters
Important to Anadromous Species

☐ Addition ☒ Deletion

TB 10-9-85

Name of Waterbody (if known): Rio Roberts OK SDS 10/23/85

Location: PRINCE OF WALES ISLAND CC. PA. NAUK. TNP

Anadromous Waters Catalog Volume and Number 102-70-10580-2031

USGS 1:63,360 Quadrangle CRAIG (C-3) NE (3)

or 1:250,000 (if 1:63,360 not available) _____

Species	Date(s) Observed	Stage(s) (Spawning, Rearing, Migration)
Co		

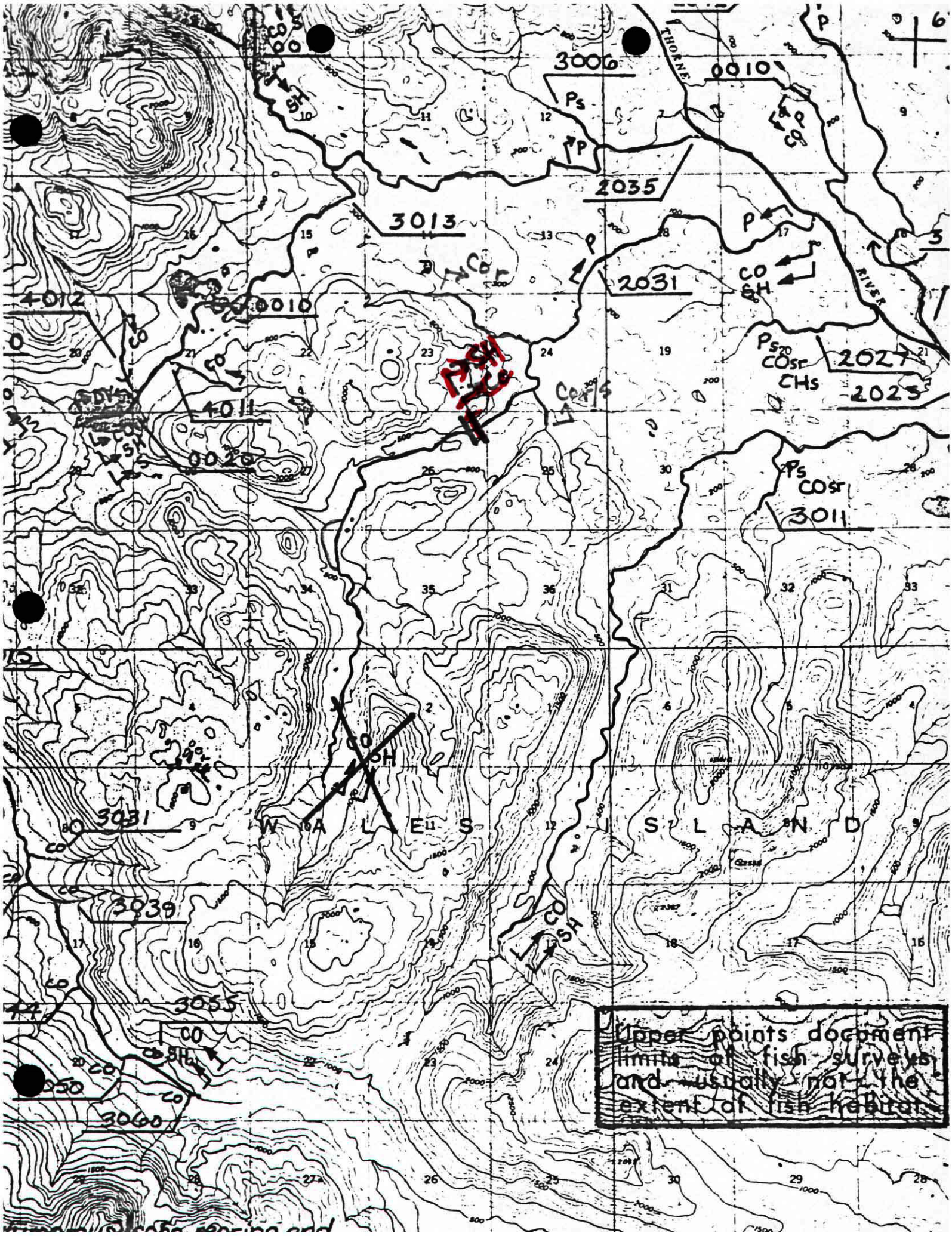
Comments: Please provide any clarifying information in addition to identification on Anadromous Waters Catalog Public Review Maps.

Previously unidentified migration barrier (see attached data and maps)
Will be evaluated as potential fish enhancement project. Shorten 2031

Name of Observer (please print) RON MEDEL FISHERIES TECH. BOB METZGER FISHERIES BIOL.

Date: 12-21-84 Signature: Bob Metzger

THORNE BAY RANGER DISTRICT
POB(8438)
KETCHIKAN, ALASKA, 99901



3006
0010
2035
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THORNE
RIVER
W A L E S I S L A N D
Upper points document limits of fish surveys and usually not the extent of fish habitat.

Field Survey Report - Fisheries

Three Lakes Study Area

10 Year Independent Sale Program

Thorne Bay Ranger District

By Ron Medel and Russ Stewart

This field survey of the Three Lakes Study Area covers stream main stems and tributaries in portions of four major watersheds. The largest system, encompassing most of the study area, is the Thorne River. Tributaries to the Thorne occuring within the study area include the North Fork of the Thorne, Rio Beaver, Rio Roberts, and the Cutthroat Lake - Balls/Control Lake fork of the Thorne (map 1 & 2).

The second major drainage is the upper section of Logjam Creek, a major tributary to Sweetwater Lake. The stream flows north through the upper "peninsula" of the study area (map 1 & 3).

There are two additional small watersheds within the study area boundary. One is a two-mile headwater section of Hatchery Creek (Sec 13, map 4); the other is a small, upper fork of Steehead Creek (Sec 29, 30, 31; map 5).

The survey ran from August 1 to September 7, 1984. The field observations were conducted to identify preliminary fishery resources of the streams within the study area. No site specific stream data were collected for any given stream reach. What follows here is an overall fishery and/or fish habitat assessment for the streams as observed during the field traverse, based on the objective judgement of the surveyors.

Rio Roberts

ADF&G #102-70-10580-2031

The first 1 1/2 mile of Rio Roberts, from its confluence with the Thorne River, is another area of major salmon and steelhead spawning use (Sec. 17, map 7). The overall fish habitat condition is exactly like that of the lower mile of Rio Beaver described earlier. Rio Roberts carried more water at time of survey (20-30 cfs) and exhibited a wider channel range (to 120 ft.) with common "braided" streamflows within the defined, soil-banked channel. Extensive gravel depositions (of excellent spawning quality) eventually cause the stream channel to branch out in an alluvial pattern as it enters the Thorne River.

Above the heavily utilized spawning reaches of lower Rio Roberts, the stream exhibits a two mile stream reach of migration water and rearing habitat (Sec. 18, map 9) where flow is generally shallow riffle over rock and rubble. The next 1 1/2 mile to the 30 Road is another prime spawning habitat stream reach (Map 9). The channel is wide (± 60 ft) and predominantly gravel. The gradient is 1 to 2%, and there is at least one piece of LOD (usually a 40 inch diameter spruce) every 100 ft. Rearing habitat is also good, and coho fry of 1 1/2 to 2 1/2 inch lengths were observed in large numbers.

Lower Newlunberry Creek, a 10 to 15 foot wide tributary to this stream reach of Rio Roberts (Sec 25), also receives spawning use by coho salmon and provides good rearing habitat. Habitat above the 30 Road bridge crossing is limited due to steep gradient (greater than 10%).

For approximately 3500 feet above the 30 Road, Rio Roberts flows fairly fast down a bedrock base v-notch at 2 to 4% gradient. A previously unidentified 20 foot cascade/fall (overall height) halts further upstream migration of fish at approximately 2000 feet above the 30 Road bridge. Seven, 14 inch dolly varden were found dead at the base and to the side of the fall where they had fallen on exposed rock. Numerous adult dolly varden to 20 inches in length were observed in a pool 150 feet below this fall.

No coho fry were observed above this fall or in any of the upstream surveyed reaches of Rio Roberts. Another smaller cascade (12 to 14 ft. high) is located 400 to 500 feet upstream, and yet another (plus a log debris jam) about 1,000 feet further upstream.

The 4 to 5 stream miles of Rio Roberts above the last upstream barrier is very impressive, high quality spawning and rearing habitat receiving use only by a resident cutthroat and dolly varden population.

Gravels in the 60 to 80 feet wide channel are smooth, round and of 1/2 to 3" diameter. They comprise 85% of any given stream reach. The LOD is 30 to 40 inch diameter spruce that have fallen in at 2 pieces per 100 feet and are in various stages of decay. Some are suspended above the streamflow, but whose rootwads cause flow swirls and deep, sheltered pools. Some are imbedded deep into the channel and create small, 1 foot falls with extensive gravel bedload fill above and below the log. All LOD appeared to deflect and direct flows to rearrange and cleanse the extensive gravel beds, and form pools to 6 feet deep. Overall habitat diversity approached a 50/50 pool to riffle ratio. Dolly varden and cutthroat trout of 7 to 8 inch lengths were observed in the pools, and fry numbered perhaps 5 per 50 feet of stream.

Enhancement potential for upper Rio Roberts is very high. Successful barrier modification of the first and major fall should provide passage and would make available to coho salmon at least 14 full acres of prime spawning and rearing habitat.

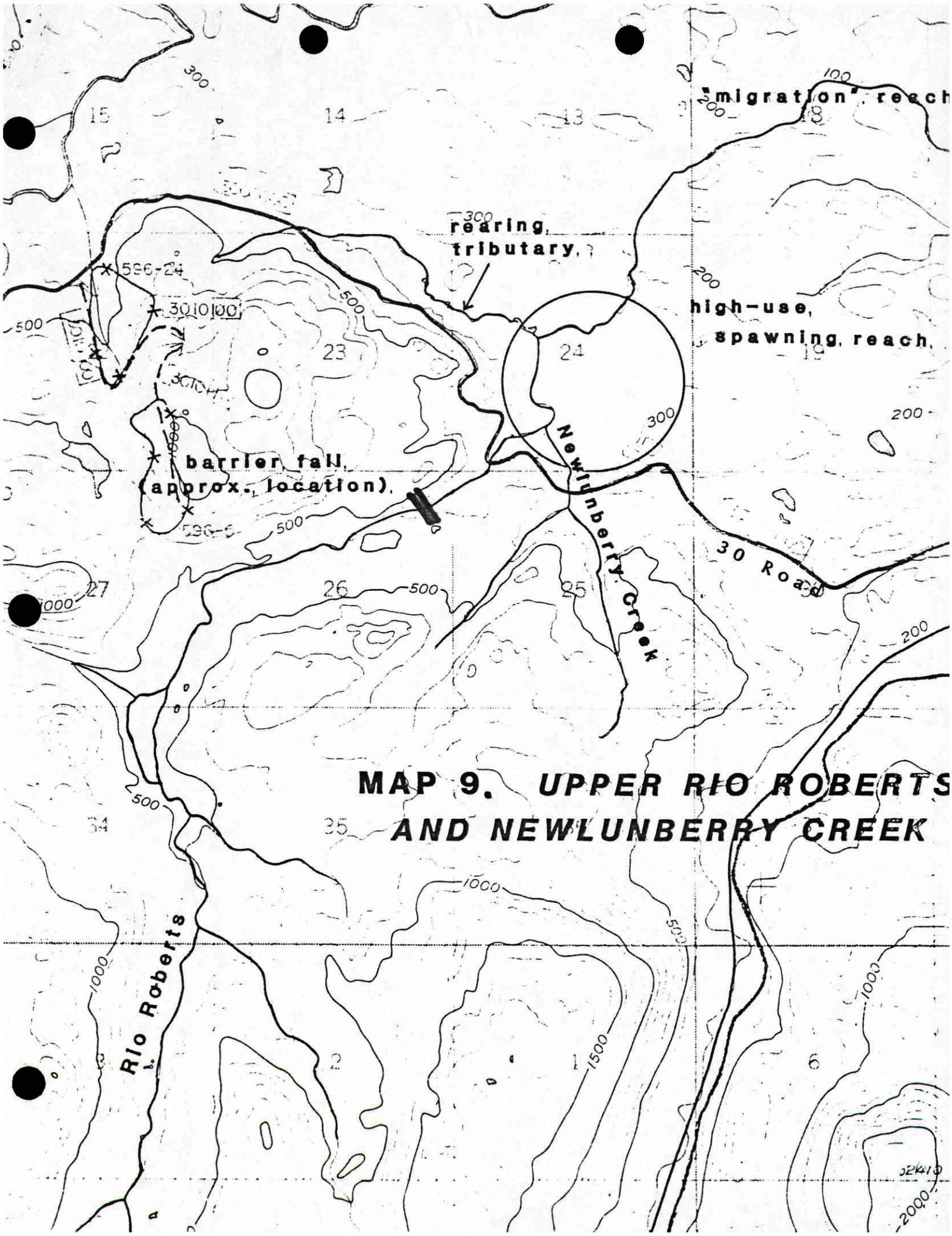
Neither Rio Roberts or Rio Beaver are designated as temperature sensitive stream courses by the USFS.

Additional Resources

During the course of this field survey, it was noted that virtually every streambank reach of the Thorne River and its tributaries are lined with a stand of old-growth spruce. The width of these streambank "corridors" vary, but the corridors typically widened and supported more and larger spruce in the stream reaches of heavily utilized spawning gravels. Most stream "migration" reach corridors of spruce were bordered by muskeg or "scrub" timber right up to the immediate streambank edge, where the spruce eventually took hold.

Both Rio Beaver and Rio Roberts exhibit these old growth spruce dominated streambanks, especially towards their confluence with the Thorne River, but also in their upstream reaches, such as Rio Roberts immediately below the 30 Road and in the upper stream reach above the previously discussed barrier falls.

Even some smaller streams, such as the Control Lake tributary utilized by spawning sockeye (Sec 28, map 8) are lined by large diameter, old-growth



MAP 9. *UPPER RIO ROBERTS AND NEWLUNBERRY CREEK*