Appendix Q: Tenakee Springs

Guide to direct fieldwork for cataloging anadromous water bodies in Southeast Alaska

Alaska Department of Fish and Game

Division of Habitat



Symbols and Abbreviations

K Chinook salmon
CH chum salmon
CO coho salmon

CT cutthroat trout (anadromous and resident juveniles and adults)

DV Dolly Varden char

OU eulachon

S sockeye salmon P pink salmon

RT rainbow trout (unknown juvenile or resident adult)

SC sculpin sp.

SH steelhead trout (adult)
SB threespine stickleback

s spawning
r rearing
p presence
EF electrofish

VI visual identification

HN handnet
RS route survey
MT minnow trap
BS beach seine
FN fyke net

(ginger pink) route correction

(apatite blue) addition

(solar yellow) future investigation

(poinsettia red) resident fish
(lepidolite lilac) conveyance
(electron gold) deletion
(lapis lazuli) AWC

(lapis lazuli) overflow channel

* (electron gold) barrier

This appendix is a working document updated as new information is acquired. Figures and tables are numbered per water body. Pages numbers are eliminated to prevent document reprinting when individual pages are inserted or removed.

TENAKEE SPRINGS SURVEYS

Tenakee Springs, population 128, is located on the east side of Chichagof Island, on the north shore of Tenakee Inlet (Figure 1). Tenakee Avenue, the main road, is about 2 miles long.

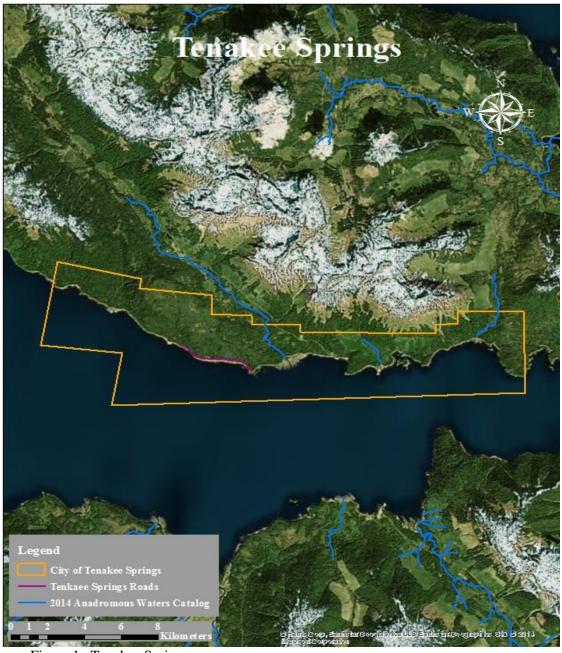


Figure 1.—Tenakee Springs survey map.

State of Alaska Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs database. Available from: http://www.commerce.state.ak.us/cra/DCRAExternal/Community/Details/ecaf2206-4d4a-46d7-bdfa-1760ebbf3564. (Accessed June 24, 2015).



112-42-10080 CORRECTION

Water body name: Indian River

Survey date: 8/29/2012

Water body number: 112-42-10080

Species & Lifestage: CHp, COpr, Pp, DVp

Watershed: Tenakee Inlet-Frontal Chatham Strait

MTR: C047S063E Quad: Sitka D-4

Findings: We surveyed Indian River using minnow traps and a GPS (Table 1). We captured

rearing coho salmon and Dolly Varden char at Site 8.

Recommendations: Extend anadromous reach of Indian River up to waypoint 4, where rearing

coho were captured in August, 2012 (Figure 1).

Nomination: 14-727

Table 1.-112-42-10080 survey data.

| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
|----------|----------|-----------|--------------------------------|---------------|----------------|
| 4 | 57.8650 | -135.3200 | Site 8. 2 CO at this location | MT | 2 CO, 248 DV |
| | | | and other traps in area caught | | |
| | | | DV. | | |



Figure 1.–112-42-10080 route correction map.

Tenakee Springs

112-42-10080-2202

ADDITION

Water body name: Survey date: 8/30/2012 Water body number: 112-42-10080-2202 Species & Lifestage: COr

Watershed: Tenakee Inlet-Frontal Chatham Strait

MTR: C047S063E Quad: Sitka D-4

Findings: We surveyed this tributary to Indian River using minnow traps and a GPS (Table 1). We set 30 minnow traps between the mouth and waypoint 1. We captured rearing coho salmon

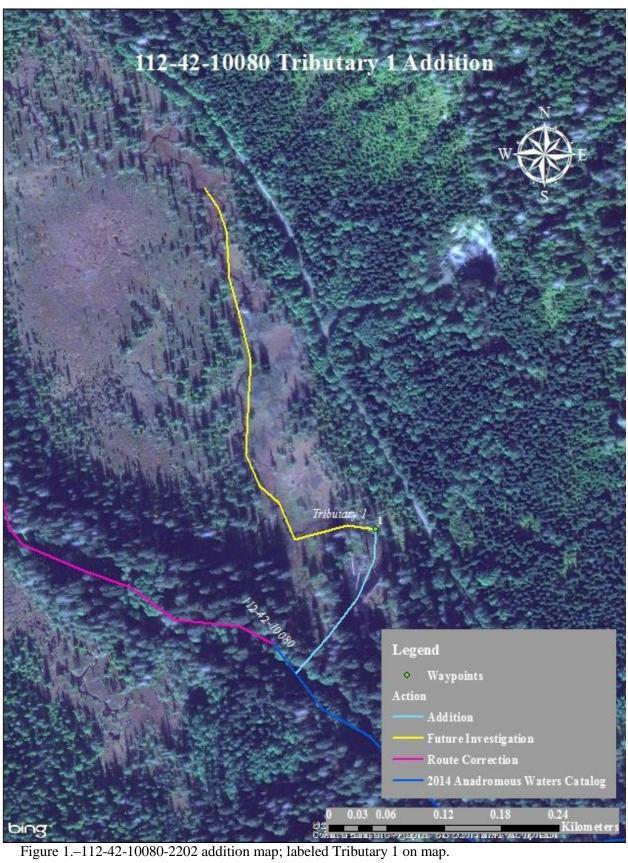
and Dolly Varden char at site 4.

Recommendations: Add stream and rearing coho salmon to the AWC (Figure 1).

Nomination: 14-729

Table 1.–112-42-10080-2202 survey data.

| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
|----------|----------|-----------|------------------------------|---------------|----------------|
| 1 | 57.8284 | -135.2610 | Site 4. 30 traps set between | MT | 9 CO, 220 DV |
| | | | this location and mainstem. | | |



Tenakee Springs

112-42-10080-2241

ADDITION

Water body name: Survey date: 8/29/2012 Water body number: 112-42-10080-2241 Species & Lifestage: COr

Watershed: Tenakee Inlet-Frontal Chatham Strait

MTR: C047S063E Quad: Sitka D-4

Findings: We surveyed this tributary to Indian River using minnow traps and a GPS (Table 1). We set 30 minnow traps between the mouth and waypoint 2. We captured rearing coho salmon

and Dolly Varden char.

Recommendations: Add stream and rearing coho salmon to the AWC (Figure 1).

Nomination: 14-728

Table 1.–112-42-10080-2241 survey data.

| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
|----------|----------|-----------|-------------------------------|---------------|----------------|
| 2 | 57.8416 | -135.2900 | Site 6. 30 minnow traps set | MT | 28 CO, 142 DV |
| | | | between this location and the | | |
| | | | mainstem. | | |



Figure 1.–112-42-10080-2241 addition map; labeled Tributary 2 on map.

Tenakee Springs

112-42-10080-2302

ADDITION

Water body name: Survey date: 8/29/2012 Water body number: 112-42-10080-2302 Species & Lifestage: COr

Watershed: Tenakee Inlet-Frontal Chatham Strait

MTR: C047S063E Quad: Sitka D-4

Findings: We surveyed this uncataloged tributary using minnow traps and a GPS (Table 1). We set 30 minnow traps between the mouth and waypoint 3. We captured rearing coho salmon and

Dolly Varden char.

Recommendations: Add stream and rearing coho salmon to the AWC (Figure 1).

Nomination: 14-730

Table 1.–112-42-10080-2302 survey data.

| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
|----------|----------|-----------|-----------------------------|---------------|----------------|
| 3 | 57.8575 | -135.3068 | Site 7. 30 minnow traps set | MT | 129 CO, 34 DV |
| | | | between this location and | | |
| | | | mainstem. | | |



Figure 1.–112-42-10080-2302 addition map; labeled Tributary 3 on map.

Tenakee Springs

112-42-10120 CORRECTION

Water body name: Tenakee Creek
Water body number: 112-42-10120
Species & Lifestage: Pp

Watershed: Tenakee Inlet-Frontal Chatham Strait

MTR: C047S063E Quad: Sitka D-4

Findings: We used a backpack electrofisher and caught Dolly Varden char and rearing coho

salmon (Table 1). The stream route differs from the current AWC (Figures 1, 2). **Recommendations:** Add coho salmon and update the stream route in the AWC.

Nomination: 15-651

Table 1.–112-42-10120 survey data.

| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
|----------|----------|-----------|---|---------------|-------------------------|
| 999 | 57.7801 | -135.1390 | Confluence of side channel and Tenakee Creek. Tenakee Creek is clear with good | | |
| 1000 | 57.7824 | -135.1395 | spawning substrate. Bridge over creek. ~ 15 ft wide, 8% grade. | | |
| 1003 | 57.7825 | -135.1396 | Seeping trib entering on river left. | | |
| 1005 | 57.7837 | -135.1426 | Tributary entering on river right. | | |
| 1006 | 57.7848 | -135.1424 | Top of watered area. Water coming in from under the forest. | | |
| 1007 | 57.7843 | -135.1428 | Trib entering river left. Steep chute, bedrock at mouth. Upstream is cobble and gravel. | | |
| 1008 | 57.7840 | -135.1441 | Upper extent of tributary on river right. | | |
| 1011 | 57.7842 | -135.1430 | In mainstem just upstream of tributary. | EF | 1 DV, and 1 DV below |
| 1012 | 57.7843 | -135.1435 | • | EF | 3 DV, 1 YOY CO |
| 1013 | 57.7848 | -135.1441 | 4-5 ft. plunge over tree roots. | | |
| 1014 | 57.7849 | -135.1447 | Trib river left, staying on mainstem. | | |
| 1015 | 57.7853 | -135.1453 | Trib river left. | EF | 2 DV |
| 1019 | 57.7853 | -135.1465 | | EF | 2 DV |
| 1020 | 57.7858 | -135.1472 | Higher gradient, cobble. | EF | 2 DV |
| 1021 | 57.7860 | -135.1478 | Rock chute barrier. | | |
| 1022 | 57.7866 | -135.1482 | Stopped EF above barrier. No fish. | | |

Table 1.—Continued.

| 1 4010 11 | Committee or. | | | | |
|-----------|---------------|-----------|-------------------------------|---------------|----------------|
| Waypoint | Latitude | Longitude | Notes | Sample Effort | Sample Results |
| 1023 | 57.7873 | -135.1480 | At base of 40 ft waterfall. | | |
| 1025 | 57.7839 | -135.1428 | Gravel, wood, organics. Mouth | | |
| | | | of trib. | | |
| 1026 | 57.7840 | -135.1433 | DV up to this point. | EF | DV |
| 1028 | 57.7839 | -135.1427 | In mainstem side pool. | EF | 2 CO |
| 1031 | 57.7811 | -135.1398 | | EF | No Fish |
| 1032 | 57.7825 | -135.1415 | | EF | No Fish |
| 1034 | 57.7800 | -135.1394 | | EF | 1 DV, and 1 DV |
| | | | | | below |
| 1035 | 57.7787 | -135.1374 | Mouth of Tenakee Creek. | | |



Figure 1.—Coho salmon caught in Tenakee Creek.



Figure 2.—Stream No. 112-42-10120 survey map; labeled Tenakee Creek on map.