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

85-377 OK R. Reed RegSup. 3/11/85 TB 10-9-85 OK SRS 10/23/85

[X] Addition  [ ] Deletion

Name of Waterbody (if known): Tonewek Cr.

Location: PRINCE OF WALES ISLAND CC. PA. NAUK. TNB  Add pinktoo

Anadromous Waters Catalog Volume and Number 103-80-10330, 2007 and 3005

USGS 1:63,360 Quadrangle CRAIG (D-5) Heceta Is. (3)

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

| Species | Date(s) Observed | Stage(s) (Spawning, Rearing, Migration) |
|---|---|---|
| Pink | 6/7/84 | Bones & emergent fry |
| | | |
| | | |
| | | |

ALASKA DEPT. OF FISH & GAME
MAR 14 1985
HABITAT
REGIONAL OFFICE

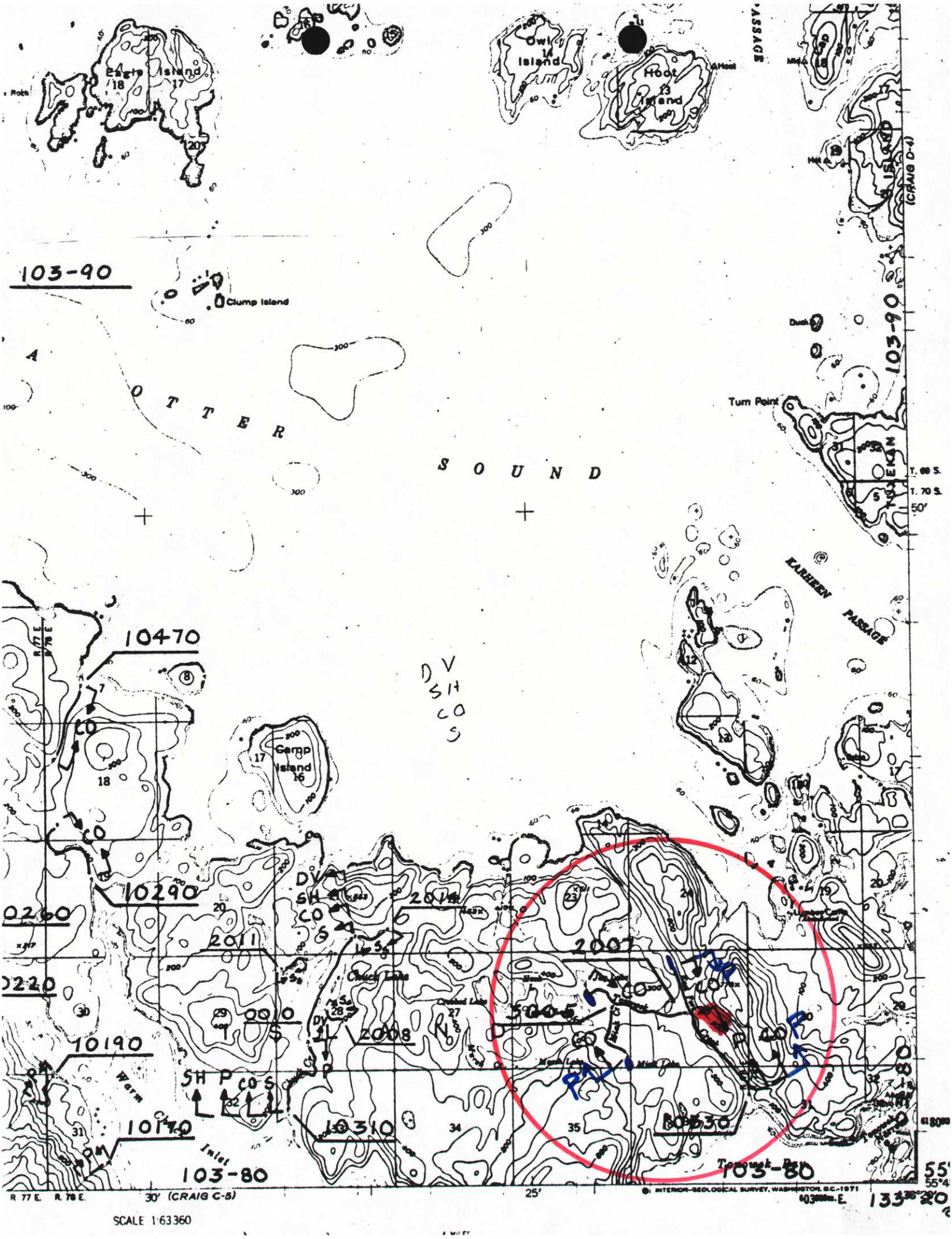
Comments: Please provide any clarifying information in addition to identification on Anadromous Waters Catalog Public Review Maps.

EXTEND UPPER LIMIT AS DESIGNATED ON MAP AND REPORT.
Pink salmon only. Coho use doubtful at present due to a very noticeable lack of coho fry (observation conditions were excellent - see attached data)

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

Date: 12-20-84  Signature: Bob Metzger

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



Eagle Island
Owl Island
Hoot Island
PASSAGE
103-90
Clump Island
OTTER SOUND
Turn Point
KARHEEN PASSAGE
10470
DV
SH
CO
S
Camp Island
10290
0260
2011
2014
2007
0220
0010
2008
10190
SH P CO S
10170
10310
10530
103-80
Warm Chuck Inlet
Tonowek Bay
R 77 E. R 78 E.
30' (CRAIG C-5)
25'
INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D.C.-1971
SCALE 1:63360

Larry

# STREAM SURVEY REPORT

Date: 6/7/84

V.C.U.: 559

Camp: PORT ALICE

Unit: 559-6

ADFG #: 103-80-10330

Road: 1445 700

Quad Map: CRAIG D-5 SE

T 70S R 73E Sect 26

Air Photo No.: 12 15 779-13

TYPE OF HABITAT

Class I - Anadromous
Class II - Resident
Class III - Water Quality

Stream Numbers

1, Tonewek Cr.

Streams Flagged: BLUE/WHITE ORANGE/WHITE GREEN/WHITE

Streams marked with metal tags: Road ____ Unit ✓

Temperature Sensitive: YES ✓ NO ____

Although this stream has been designated as temp. sensitive, its small size and the topographic shading provided by a steep V notch make this unlikely. Temp sensitive guidelines are not necessary for this unit.

Is future fish habitat enhancement possible? YES ✓ NO ____

If so, describe: Coho populations in Tonewek drainage seem to be extremely limited despite excellent rearing habitat. May be possible to introduce/enhance existing population.

Comments: Unit boundary presently crosses over and back on Mink Lk. Fork of Tonewek Cr.. Field review by fisheries biologist recommended.

Survey Crew Members:

Ron Meeded

Russ Stewart Russell a Stewart II

Report Reviewed By: Bob Metzger (Signature) Fish Biol (Title) 8/6/84 (Date)

Recommendations: See attached sheet. Special consideration will be needed for full suspension and debris cleanup along stream 1 to retain designated felled trees and debris within the stream.

Note timing restriction for felling and yarding across stream 1.

Recommend specifying skyline yarding system for this unit to insure full suspension across stream 1.

# STREAM SECTION SURVEY

ROAD/UNIT ____ ADF&G STREAM # 103-30-10330, Tonewek Creek.

STREAM # 1 AERIAL PHOTO # 12 15 779-13

VCU # 559 STREAM PHOTO #

QUAD CRAIG D-5 SE T 70 S R 78E S 25, 26

SURVEYORS MCDELL / STEWART DATE 5-30, 31

SECTION/REACH 00 → 9+05 → 19+72 → 32+49

| | | | |
|---|---|---|---|
| STREAM CLASS | I | I | I |
| GRADIENT | 1-2% | 2% | 3-4% |
| FLOW STAGE low | 6 cfs | 5.5 cfs | 5 cfs |
| CHANNEL WIDTH | 20-50' | 20-45' | 15-25' |
| WATER WIDTH | 10-30' | 10-33' | 8-20' |
| MAX. POOL DEPTH | 24" | 23" | 30" |
| RIGHT BANK SLOPE | 10-12% | 10-15% | 10-25% |
| LEFT BANK | 5-10 | 7-12 | 10-20 |
| BANK STABILITY | good | good | good |
| % BANK COVER | 65% | 70% | 70% |
| SPECIES MIX | devils club, | grasses, spruce, s. berry | |
| LOD FREQUENCY | 2-3/100' | 4-5/100' | 3-5/100' |
| POOL/RIFFLE RATIO | 25/75 | 30/70 | 30/70 |
| BEDROCK | | 10 | 35 |
| BLDR >20" | 10 | 10 | 20 |
| ROCK 6-20" | 15 | 15- | 15 |
| RBBL 3-6" | 35 | 30 | 15 |
| GRVL ¼-3" | 35 | 30 | 15 |
| SAND/SILT | 5 | 5 | |
| % ASA | 20% | 18% | 3% |
| GRAVEL QUALITY | v. good | v. good | good |
| REARING QUALITY | fair | fair | fair |
| FISH SPECIES | ADF&G enumerated coho, pinks. | | |
| ABUNDANCE | | | |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

0+00 High tide end of ITZ. Begin survey, proceed upstream. Begin B&W flagging - anadromous fishery. (See summary sheets following survey data forms.)

# STREAM SECTION SURVEY

ROAD/UNIT ____ ADF&G STREAM # 103-90-10330, Tonewek Cr. con't

STREAM # ____ AERIAL PHOTO # 12 15 777-14

VCU # 559 STREAM PHOTO # ____

QUAD CRAIG D5, SE T 70 S R 79 E S 26

SURVEYORS MCOEL/STRAMER DATE 6-5-84

| SECTION/REACH | → 45+39 | → 50+90 | → 55+00 |
|---|---|---|---|
| STREAM CLASS | I | I | I |
| GRADIENT | 1-2% | 1% | 1% |
| FLOW STAGE low | 4 5 cfs | 4.5 | 4.5 |
| CHANNEL WIDTH | 15-50' | 20-60' | 18-40' |
| WATER WIDTH | 8-25' | 8-30' | 7-23' |
| MAX. POOL DEPTH | 22" | 22" | 20" |
| RIGHT BANK SLOPE | 1-3% | 1-3% | 1-3% |
| LEFT BANK | 1-4% | 1-2% | 1-3% |
| BANK STABILITY | fair | fair | fair |
| % BANK COVER | 40% | 40 | 40 |
| SPECIES MIX | grasses, vaccinium sonce | | |
| LOD FREQUENCY | 1-2/100' | 2-3/100' | 2/100' |
| POOL/RIFFLE RATIO | 45/65 | 40/60 | 35/65 |
| BEDROCK | | | |
| BLDR >20" | | | |
| ROCK 6-20" | 10 | 5- | 5 |
| RBBL 3-6" | 30 | 10 | 15 |
| GRVL ¼-3" | 50 | 70 | 65 |
| SAND/SILT | 10 | 15 | 15 |
| % ASA | ≥25% | ≥30% | ≤30% |
| GRAVEL QUALITY | excellent | v. good | v. good |
| REARING QUALITY | fair | fair | fair |
| FISH SPECIES | ADF&G documented | | |
| ABUNDANCE | | | |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

4+30 Typical stream section. LOD is a consistent 2-3 pieces per 100 ft, of 16 to 30" diameter, mostly old, rooted, and bedded in the channel. Pools are generally few and debris associated. Streamflow is riffle through a wide, rubble and gravel channel. Streamflow width covers about 35% of channel. Spawning conditions for pink salmon appear good and are improving. Rearing habitat is fair but limited.

9+05 Bedrock outcrops begin, improving channel stability. Deep riffles and glides (to 4") are common (35'/100'). Substrate gravels are 1-4", excellent for pink salmon.

18+80 80ft. H x 70' L slide (left side downstream view). Some blowdown (3 pieces) and bank damage but no barrier potential. Section here is lined with old growth spruce (>28" DBH), with several tree rootwads forming undercut banks. Channel remains wide; streamflow width at 30% of channel, running shallow over small cobble with some bedrock (to 10%). High water marks indicate bank to bank flows are common.

19+72 Begin section of bedrock dominated channel. Flow is 5.5 cfs through a channel narrowing to 18ft. in a semi-v-notch. Right bank slope (downstream view) is 35%, left is 10%. Stream gradient to this point has not exceeded 2%.

25+05 50ft L x 3 ft H bedrock chute/fall. Previously identified by ADF&G (41+34, includes ITZ, 6-16-78). LOD at head of chute creates a 2ft. drop over 2 well-established logs (bank to bank). This is not a migration barrier to pink salmon; see attached upstream section survey data.

29+72 USFS hydrology tag site (6-83), in 200-ft. long bedrock gorge. Gradient averages 3.5%.

32+49 Bedrock ends. Enter open (to 120ft wide), flat, grassed-covered drainage basin. Stream gradient 1% and decreasing

35+60 → 45+00 Typical stream section. Streamflow through this open "meadow" area is long glide and riffle over excellent spawning gravels. Still cutbanks with rootwads and associated LOD are common but pools are shallow and provide limited shelter. No coho fry observed

45+39 Enter smaller "meadow" basin, averaging 80ft. wide.

50+80 Meadow ending, dropping in width to 60 ft, then 45 ft.

55+00 Confluence of Main fork Tonewek Cr. with the E fork tributary (1.5 cfs). Flat basin area appears to extend upstream on Tonewek but ends soon up the E. fork. (See Unit #559-1 survey data for E fork summary, and Unit #559-6 for data on upstream portions of Tonewek Cr.)

# STREAM SECTION SURVEY

2007

ROAD/UNIT _____ ADF&G STREAM # 103-30-10330

STREAM # Tonewek Cr. AERIAL PHOTO # 12 15 779-14

VCU # 559 STREAM PHOTO #

QUAD CRAIG D5, SE T70S R78E S 25

SURVEYORS MEDEL, STEWART DATE 6-5-94

Tonewek Cr, from confluence with E Fork. (see Map)

| SECTION/REACH | 00 → 6+33 | → 3+70 | → 16+63 |
|---|---|---|---|
| STREAM CLASS | I | I | I |
| GRADIENT | 1-2% | 2-3% | 1% |
| FLOW STAGE low | 6.0 cfs | 6.0 cfs | 5.0 cfs |
| CHANNEL WIDTH | 20-35' | 15-25' | 20-40' |
| WATER WIDTH | 8-20' | 6-18' | 6-25' |
| MAX. POOL DEPTH | 20" | 18" | 48" |
| RIGHT BANK SLOPE | 5-10% | 5-10% | 3-10% |
| LEFT BANK | 25% | 20-40% | 5-10% |
| BANK STABILITY | good | fair | good |
| % BANK COVER | ~70% | 30% | 60% |
| SPECIES MIX | < berry, devil's club | | |
| LOD FREQUENCY low | <1/100' | <1/100' | 2-3/100' |
| POOL/RIFFLE RATIO | 35/65 | 30/70 | 50/50 |
| BEDROCK | | | 5 |
| BLDR > 20" | | 15 | |
| ROCK 6-20" | 30 | 40 - | 10 |
| RBBL 3-6" | 40 | 30 | 30 |
| GRVL ¼-3" | 20 | 10 | 45 |
| SAND/SILT | 10 | 5 | 10 |
| % ASA | <5% | <3% | 20% |
| GRAVEL QUALITY | poor to fair | poor | V. good |
| REARING QUALITY | fair | poor | good |
| FISH SPECIES | | | pink bones |
| ABUNDANCE | | | V. common |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

0+00 Confluence of Tonewek with E Ark tributary. Proceed upstream on Tonewek, resume B & W flagging.

4+00 Drainage basin to right (downstream view) is

# STREAM SECTION SURVEY

ROAD/UNIT 559-6 ADF&G STREAM # 103-90-10330-2007

STREAM # Tonewek Cr AERIAL PHOTO # 12 15 779-14

VCU # 559-6 STREAM PHOTO #

QUAD CRAIG D5 SE T 70S R 78E S 26

SURVEYORS MEDEL/STEWART DATE 6-5-84

| SECTION/REACH | → 21+00 | → 36+71 | → 37+84 |
|---|---|---|---|
| STREAM CLASS | I | I | I |
| GRADIENT | 1-2% | 2-3% | 1% |
| FLOW STAGE | 5.0 cfs | 5.0 cfs | 5.0 cfs |
| CHANNEL WIDTH | 25-30' | 8-30 | 15-35 |
| WATER WIDTH | 8-20' | 6-15 | 6-25 |
| MAX. POOL DEPTH | 30" | 30" | 28" |
| RIGHT BANK SLOPE | 3-5% | 15-80% | 5-10% |
| LEFT BANK | 15% | 20-40% | 5-10% |
| BANK STABILITY | good | good | fair |
| % BANK COVER | 60% | 60% | 60% |
| SPECIES MIX | grasses, | D. club, conifer overstory | |
| LOD FREQUENCY | 3/100' | 1-2/100' | 2-3/100' |
| POOL/RIFFLE RATIO | 60/40 | 40/60 | 50/50 |
| BEDROCK | 10% | 30 | |
| BLDR >20" | | 5 | |
| ROCK 6-20" | 10 | 25- | |
| RBBL 3-6" | 25 | 20 | 15 |
| GRVL ¼-3" | 50 | 15 | 25 |
| SAND/SILT | 5 | 5 | 60 |
| % ASA | 19 | 5% | 3% |
| GRAVEL QUALITY | v. good | good | poor |
| REARING QUALITY | good | fair | fair |
| FISH SPECIES | sink bones | throughout | |
| ABUNDANCE | | | |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

generally flat (muskeg) through this section. LOD has been infrequent, with streamflow mostly riffle over rough, angular rubble and rock

6+33 Marble rock and small boulders becoming the channel substrate. Flow is rapid down the rough substrate. Poor spawning and rearing habitat for anadromous salmonids

8+70 Small slide left bank (downstream view). Approx. 50'H x 35'L. Marble rock and boulder released into stream channel at this point, none above. Bank damage slight, no barrier potential.

10+90 10-1¼" pink salmon fry; 7 live, 3 dead; in stream-flow fringe area. LOD increasing, spawning habitat improving rapidly due to substrate change (abundant gravels).

12+56 Pink salmon bones (vertebral columns, opercular bones) on grass banks are commonly noted. LOD now 3/100 ft., partially submerged, of 10-20' dia.. Many are rooted to one bank and are angled into the channel and stream, causing deflection flows and creating excellent sheltered pools and gravel deposition. Gravels are of excellent spawning quality.

16+63 Bedrock outcrops alternate with sections of very good quality spawning gravels in long glides and shallow pools. Drainage basin to stream right remains flat.

21+00 Bedrock sections now to 60-ft/100-ft. (40% overall). Gradient 2-3%, and between the bedrock are sections of mixed angular rocks and smooth gravels. Drainage basin slopes increasing to 20% average by 27+00.

30+00 Unit 559-6 boundary is up on rim to stream right, (downstream view) approximately 150 ft. plus from stream.

Boundary flagging is not visible from the stream. The stream is down in a v-notch, with bank slopes to 80%. No impact from unit harvest is expected in this section or upstream portion for 400 ft.

36+71 R-line road crossing of 1445 Stream channel channel changes to mud, silt, organic debris dominated substrate. Drainage basin is flat with muskeg. Very poor spawning habitat. Beaver activity visible upstream. Unit-559-6 boundary now down to drainage basin on stream right (downstream view).

37+84 Confluence of Tonewek Cr., Mink Lk. fork with the Jay Lk. fork (see map), in wide, grass-covered basin amid beaver ponds.

Note: Main fork stream length to above confluence totals 92+84. No coho fry yet observed, but pink salmon use noted throughout survey.

# STREAM SECTION SURVEY

2007-3005 Mink Lk. fork, Tonewek Cr.

ROAD/UNIT 559-6 ADF&G STREAM # 103-80-10330-

STREAM # 1 AERIAL PHOTO # 12 15 779-13

VCU # 596 STREAM PHOTO #

QUAD CRAIG D5 SE T 70S R 78E S 26

SURVEYORS MEDEL, STUART DATE 6-7-84

SECTION/REACH 00 → 13+50 → 17+50 → 24+30 → 3500

| | | | | |
|---|---|---|---|---|
| STREAM CLASS | I | I | I | I |
| GRADIENT | <1% | 1% | 25% | 2% |
| FLOW STAGE low | 1.25 cfs | 1.25 | 1.0 | 0.75 |
| CHANNEL WIDTH | 12-20' | 8-15' | 8-15' | 6-12' |
| WATER WIDTH | 6-10' | 2-10' | 2-10' | 2-8' |
| MAX. POOL DEPTH | 10" | 8" | 12" | 8" |
| RIGHT BANK SLOPE | 2-4% | <5% | 7-45% | 7-15% |
| LEFT BANK | 3-5% | <5% | 15-20% | 7-20% |
| BANK STABILITY | fair | fair | fair | poor |
| % BANK COVER | 30% | 40% | 45% | 45% |
| SPECIES MIX | grasses, lodgepole | | lodgepole | grass |
| LOD FREQUENCY | >5/100' | ≥5/100' | >7/100' | >7/100' |
| POOL/RIFFLE RATIO | 40/60 | 60/40 | 35/65 | 30/70 |
| BEDROCK | | | 35 | 30 |
| BLDR >20" | | | 10 | 15 |
| ROCK 6-20" | 5 | 5 | 15 | 15 |
| RBBL 3-6" | 15 | 15 | 15 | 15 |
| GRVL ¼-3" | 35 | 60 | 15 | 10 |
| SAND/SILT | 45 | 20 | 10 | 15 |
| % ASA | <5% | 12% | | |
| GRAVEL QUALITY | fair | good | fair | poor |
| REARING QUALITY | fair | fair | poor | poor |
| FISH SPECIES | | pink bones | — | |
| ABUNDANCE | | | 32 sets | |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

0+00 Confluence of Mink Lk. Fork, Tonewek Creek, with Jay Lk fork. Resume E+W flagging, proceed upstream on mink Lk. fork

3+00 Begin typical section. Drainage basin area is very flat, grass covered with bulrush and cedar. Channel substrate is mostly sand, silt and very fine gravels. Streambanks are mud/soil, and the stream winds in a meandering fashion down through the flat basin. Stream gradient is less than 1%. LOD is decaying and old, but 60% retain rootwads and do provide shelter and create pools. The unit boundary lanes in distance from the stream due to lack of merchantable timber in or on the channel edge, but does draw increasingly closer (from 60 ft to 10 ft.).

14+00 Banks become soil/rock. LOD still contributing to habitat conditions. Substrate now 1-3 inch loose gravels, as high as 60% of bottom (good spawning habitat).

14+86 Unit boundary crosses the stream (see map and aerial). Nine sets of pink salmon bones observed at crossing. Gravels of excellent quality. Streambanks are consistently undercut and stable. Long glides are very common, and flow is shallow.

16+14 30" hemlock rootwad bridges the stream (rooted to both banks. Leave tree, flagged yellow.

17+50 Enter slight V-notch, increasing upstream (side slope %)

19+00 Left bank slope (downstream view) near vertical face bedrock. Stream gradient now 2-3%.

21+00 Channel substrate is 20-50% bedrock. Gravel quality poor. LOD is very common and much tree debris is in the stream. Stream gradient now 3.5%

24+00 Notch flattens out. Bedrock still common, but

streambanks are low and somewhat sloppy, indicating poor stability (sloughing).

26+50 Unit boundary crosses back over to border right stream side (downstream view). 32 sets of pink bones (vertebral columns) have been casually noted on the grass covered stream banks. Stream and fish habitat are decreasing in size and quality. Survey tag site.

28+95 Stream and channel very small. Stream flows braided down small channel of alternating bedrock and mud/soil streambanks. Side slopes are of slight gradient. Skunk cabbage is commonly growing in the channel. Both spawning and rearing habitat are marginal and limited.

35+00 Strong V-notch of solid bedrock. Stream flows in 6" deep trough down the center. Channel rises 6' over 15'. Unit boundary well away from influence (see map)

35+50 Mink lake outlet, beaver activity noted. Actually begins at crest of bedrock V-notch described above. End of B&W flagging, end survey.

# STREAM SECTION SURVEY

East Fork Tonewek Cr.

ROAD/UNIT 559-1 ADF&G STREAM # 103-80-10330

STREAM # 1 AERIAL PHOTO # 12 15 779-14

VCU # 559 STREAM PHOTO #

QUAD CRAIG D-5, SE T 70S R 78E S 25

SURVEYORS MEDEL / STEWART DATE 6-5-84

| SECTION/REACH | 0+00 → 4+55 | → 9+83 | → 14+53 |
|---|---|---|---|
| STREAM CLASS | I | I | I |
| GRADIENT | 0.5% | 0.5% | 1-2% |
| FLOW STAGE low | 0.75 cfs | 0.75 | 0.5 |
| CHANNEL WIDTH | 8-14 | 6-12 | 6-10 |
| WATER WIDTH | 3-7 | 3-6 | 2-5 |
| MAX. POOL DEPTH | 14" | 12" | 12" |
| RIGHT BANK SLOPE | 3-10 | 30-40 | 25-40 |
| LEFT BANK | 3-15 | 20-75 | 15-35 |
| BANK STABILITY | good | good | fair |
| % BANK COVER | 50% | 50% | 40% |
| SPECIES MIX | devil's club, | salmon berry | |
| LOD FREQUENCY | 5-8/100' | 3/100' | >7/100' |
| POOL/RIFFLE RATIO | 25/75 | 35/65 | 20/80 |
| BEDROCK | | | |
| BLDR >20" | | | 5 |
| ROCK 6-20" | | 5 | 25 |
| RBBL 3-6" | 40 | 45 | 35 |
| GRVL ¼-3" | 45 | 35 | 25 |
| SAND/SILT | 15 | 15 | 10 |
| % ASA | 15% | ≤20% | <5% |
| GRAVEL QUALITY | fair | good- | v. poor |
| REARING QUALITY | poor | fair | poor |
| FISH SPECIES | | pink bones | |
| ABUNDANCE | | 1 set | |

3/84

COMMENTS (MIGRATION BARRIERS, BLOWDOWN, LEAVE TREES, FLAGGING, TAGS, DESCRIBE LOD, ENHANCEMENT OPPORTUNITIES, TEMPERATURE SENSITIVITY, MANAGEMENT RECOMMENDATIONS)

0+00 Confluence of E fork with Tonewek Cr (see map and aerial). Begin survey, begin Blue & white flagging, proceed upstream

3+00 Stream section flows thru older blowdown. Upturned

rootwads are common in the channel, approximately 2 per 100 ft. of stream. The stream channel is reestablishing in and about the rootwads. Flow is mostly shallow riffle down the slight stream gradient, over mixed rubble, gravels, and sand. Bank slope gradients are also slight

4+55 LOD and blowdown rapidly decreasing. Stream gradient remains slight, as do bank slopes.

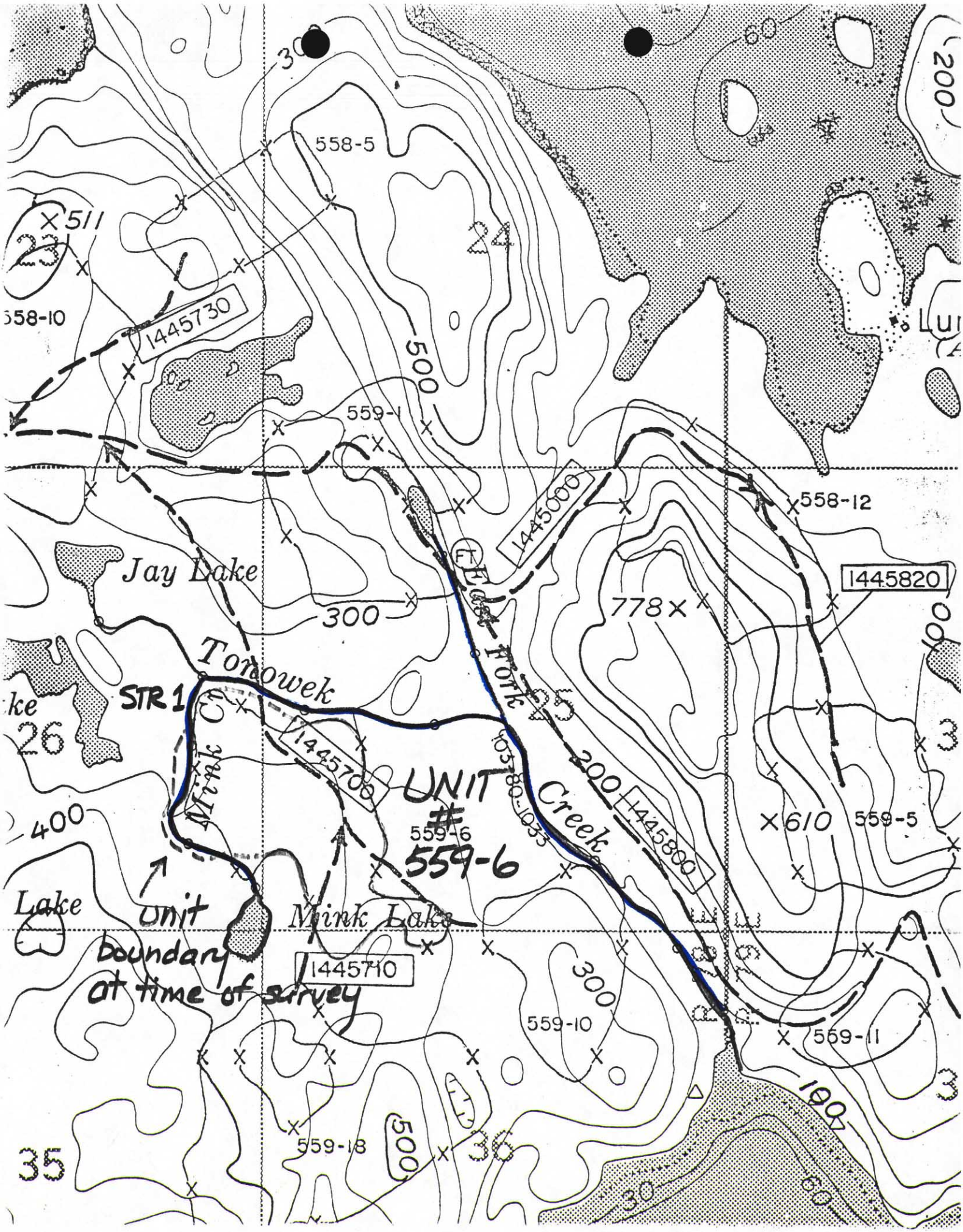
6+78 V-notch developing. Stream is typically shallow pools and long riffles/glides with fair spawning habitat for pink salmon.

8+98 Pink salmon vertebral column on streambank. Spawning habitat good, but limited rearing. No coho fry have been observed in E. fork Tonewek.

9+83 Substrate size increasing (rock & rubble). Poor spawning habitat, no rearing. Stream gradient 1-2%. V-notch slopes average 40%.

10+83 Begin second blowdown section, continuous to "Lake". Log debris and tree sections are very common in the stream. Boulders now present in channel substrate. Enter Unit #559-1 influence. Unit boundary is up on V-notch rim, 40-60 ft from stream, and remains so to lake. There are no barriers to migrating fish but habitat is extremely poor and limited.

14+53 4' beaver dam at outlet of E. fork lake. End of v-notch. Survey of lake shore revealed one rearing only tributary draining muskeg/grass flat above lake but not in unit 559-1 (see map). End B & W flagging.



558-5
511
23
24
558-10
1445730
500
559-1
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1445000
FT
East Fork
1445820
Jay Lake
300
778
Tonowek
STR 1
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Mink Cr
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UNIT
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559-6
103-80-1033
200
Creek
1445800
610
559-5
400
Lake
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boundary
at time of survey
Mink Lake
1445710
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559-10
559-11
100
559-18
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