State Revolving Fund (SRF) Environmental Review Checklist

Alaska Department of Environmental Conservation – SRF Program

The following checklist outlines the information needed to initiate the environmental review process and serves as a request for categorical exclusion. ADEC will review the submitted information and notify the applicant of the type of environmental documentation required, if any. Please email the completed form and attachments to adele.fetter@alaska.gov or mail to: SRF Program, ADEC, 555 Cordova St, Anchorage, AK 99501.

Municipality or Entity	Ketchikan Gateway Borough
Project Name	South Tongass Water Phase VI – Ravenwood Tank
ADEC Project Number	
Construction Start Date:	June, 2021 - November, 2021

PROJECT DESCRIPTION: Provide a description of the project scope including what is proposed to be constructed, replaced, or upgraded, specific construction methods to be used, estimated dimensions (length, width, and depth) of excavated and disturbed areas, and the proposed construction schedule if construction will be phased.

Construct a 100,000-gallon storage tank and booster station in the Ravenwood neighborhood of Ketchikan. Work will include:

Booster Station Site: Clear vegetation and level site for 966-s.f. booster station; install valves and new 8" DI treated water mains into the new booster station; construct 320-s.f. manufactured, insulated wood-framed or metal building with concrete foundation; with (2) pumps to provide system pressures up to the Ravenwood Tank.

Tank Site: Clearing and grubbing throughout; excavation and filling a 2,922-s.f. pad on which to be placed a glass-fused steel water storage with concrete foundation; excavation to a depth of no less than 4' for the installation of 600-lf 8" HDPE treated water mains connected to 3-valve cluster with 3-way valve clusters to be installed at (2) bends to provide for future expansion to the north and south; installation of an 18" CPP storm drain in two locations to address existing creeks; and construction or upgrade roadways atop the stormdrains to a fifteen foot width.

Indicate if any of the following ancillary impacts will result from the proposed project. Check all that apply.

☒ Borrow pits	☐ Pavement replacement (street, driveway, sidewalk)
☒ Staging area for equipment/materials	☒ New access for roads or utility lines
☒ Temporary or permanent easement	☐ Demolition of existing structures (partial or entire)
☐ None of the above	

PROJECT MAP/AREA OF DISTURBANCE: Provide a recent aerial photograph or map with the marked boundaries of the projects area. The map should include labeled location(s) of all proposed construction. Include any ancillary impacts listed above as applicable. If a specific area has yet to be defined, please mark a larger area that will include the final project area.

☒ A copy of the project map is attached to this environmental review checklist.

Approximate size of the total project area (acres)	Tank: .8 acres Booster Station: .02 acres
Approximate area to be impacted by ground disturbance (excavation, grading, tree removal, etc.) (acres)	Tank: .8 acres Booster Station: .02 acres

HISTORIC PROPERTIES

Has the State Historic Preservation Officer (SHPO) been consulted regarding the proposed project?	☒ Yes – send a copy of the consultation/concurrence to the SRF Program	☐ No – provide reason below

A request has been submitted to SHPO regarding this project (attached) with a result of "No Historical Properties Affected, received on August 18, 2020.

WETLANDS

Are wetlands present in the project area?	☒ Yes	☐ No

What information was used to determine the presence or absence of wetlands present in the project area? Examples may include online mapping tools, wetland inventory reports prepared for the project, or other assessments.

Per the attached *South Tongass Water Main – Mountain Point to Whitman Creek Environmental Assessment "Draft"* by R&M Engineering – Ketchikan, Inc. dated December 2007 for the United States Environmental Protection Agency (EPA) and United States Department of Agriculture sections 3.3, 4.1.3, and 4.2.2.1, and Appendix B (Preliminary Jurisdictional Wetland Determination), the two areas in question are:

Site	Community Type	Transect	EA Findings	Proposed
Booster Station	PF04Bg (Palustrine Forested)	1A	Vegetation: predominantly hemlock; shrubs: false azalea, blueberry, and flowering 5-leaf bramble; herb: skunk cabbage, deer fern, dwarf dogwood, bog lily Hydric soils with saturation to within 4-10" of the surface Classified as wetland soils	Work for Phase VI will be performed per the terms of a US COE permit authorization
Tank & Piping	Upland	1D, 2D	Does not meet parameters for wetland – non-jurisdictional	No Change.

The EA found that the overall scope of work within Alcan would impact less than one-quarter acre of wetlands, and that the impacts would be negligible. The work proposed herein will impact the following areas:

Booster Site: .02 acres

Tank Site: .8 acres

Under the EA, the extent of ongoing disturbance (e.g. logging, roads, development) determined that the cumulative impact to wetlands was minor.

As the work areas in Phase VI is effectively the same as that in Phases I-V, there is no change to this determination.

Will the construction activities impact a wetland or water body?	☒ Yes	☐ No

If yes, describe the construction activities that will impact the wetland or water body and describe any coordination completed with the US Army Corps of Engineers or Alaska Department of Fish and Game regarding permitting requirements, if applicable.

All work will be conducted under the requirements of a US Army Corps of Engineers permit comparable to that secured prior to Phases I-V.		
FLOODPLAINS		
Will construction occur within a 100-year floodplain?	☐ Yes	☒ No
Is a FEMA Flood Insurance Rate Map (FIRM) available for this location?	☒ Yes	☐ No
If a floodplain map is not available, what information was used to determine the presence or absence of floodplains?		
The proposed location of both assets are outside areas identified in the preliminary Flood Insurance Rate Map Numbers 02130C0265C and 02130C0255C.		
If construction occurs within a 100-year floodplain, describe the construction activities in the floodplain.		
If construction occurs within the floodplain, will pre-construction contours be restored after the construction is complete?	☐ Yes	☐ No
Describe any coordination with the local floodplain management agency, and provide a copy of permits or permit applications, if applicable.		
CONTAMINATED SITES - ADEC Contaminated Sites Database Search		
Are there any contaminated sites near the project area?	☐ Yes	☒ No
If yes, list the distance and direction from the project area. Also describe any coordination completed with the ADEC Contaminated Sites Program.		
Environmental Review Checklist preparer (name, title):	Morgan K. Barry, Deputy Director of Public Works	
Email:	morganb@kgbak.us	
Phone:	(907) 228-6664	
Date completed:	07/23/2020 Revised: 12/8/2020	

Attachments:

☒ Project map (required)

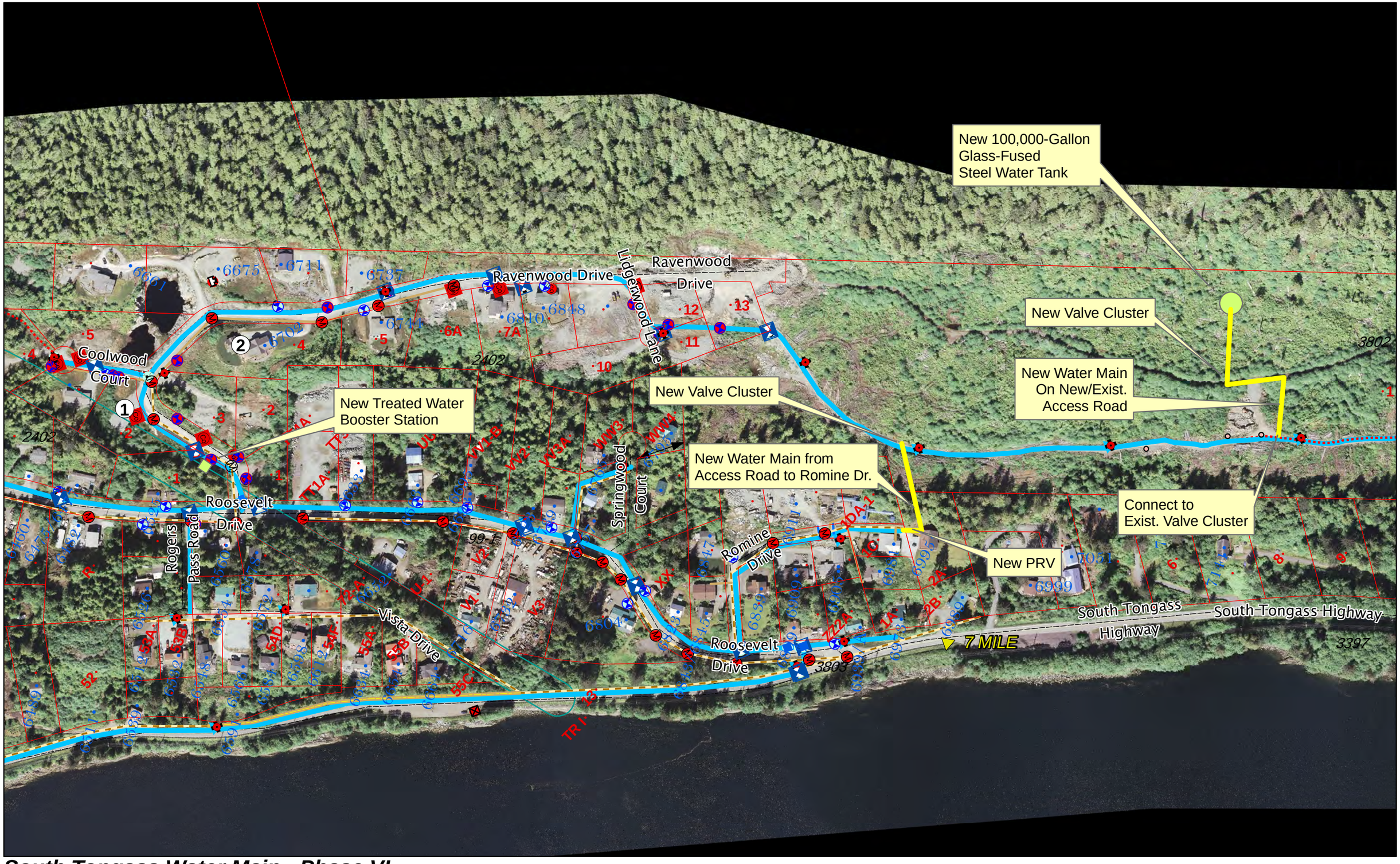
☒ Wetlands map (if applicable)

☒ Floodplain map (if applicable)

☒ SHPO coordination/concurrence letter (if available)

Please email the completed form and attachments to adele.fetter@alaska.gov
or mail to SRF Program, ADEC, 555 Cordova St, Anchorage, AK 99501.

Project Map:



South Tongass Water Main - Phase VI
Ravenwood Tank & Booster

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK–PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

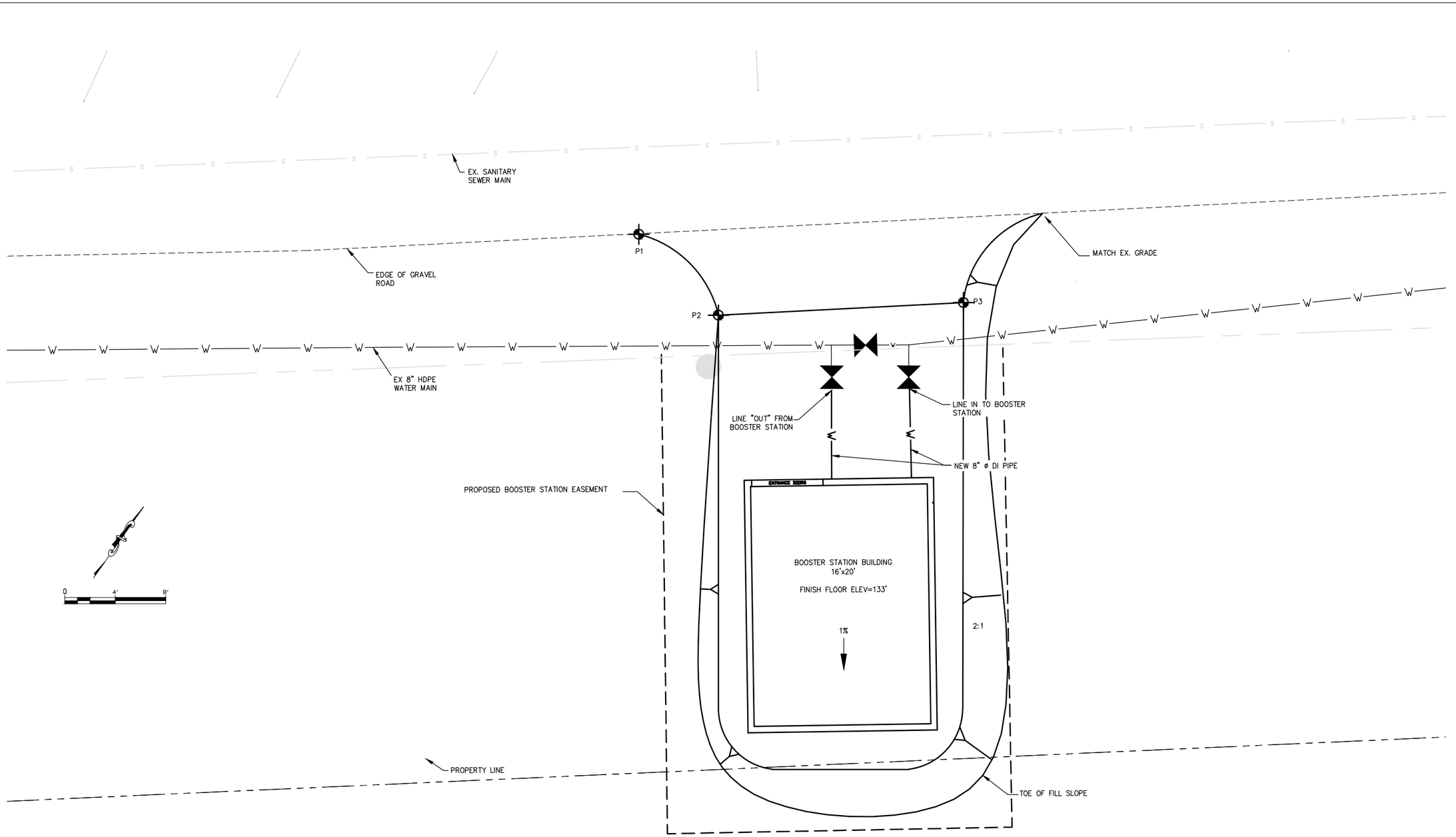
DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

R&M ENGINEERING–KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
VICINITY MAP SHEET LAYOUT

SHEET
T2



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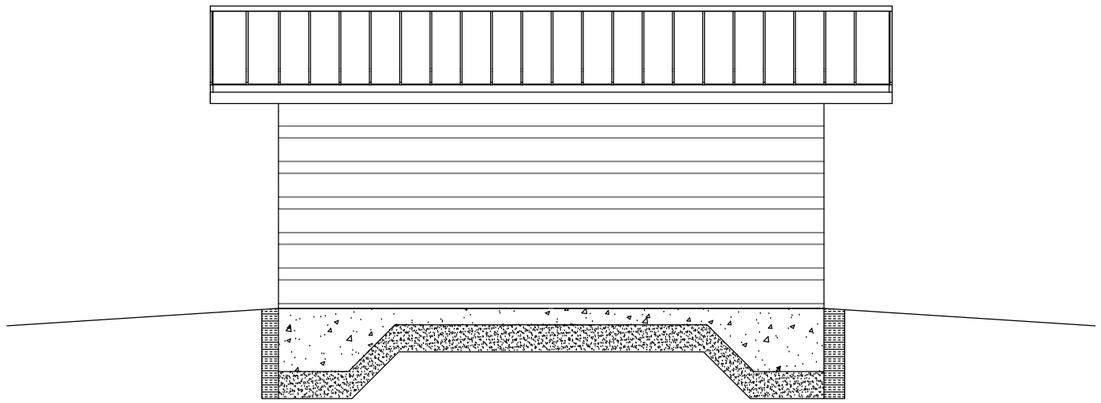
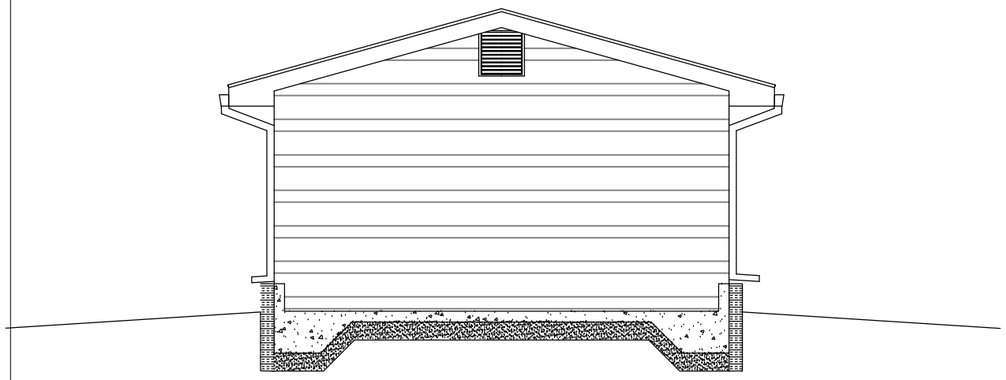
SHEET DESCRIPTION
BOOSTER STATION
SITE PLAN

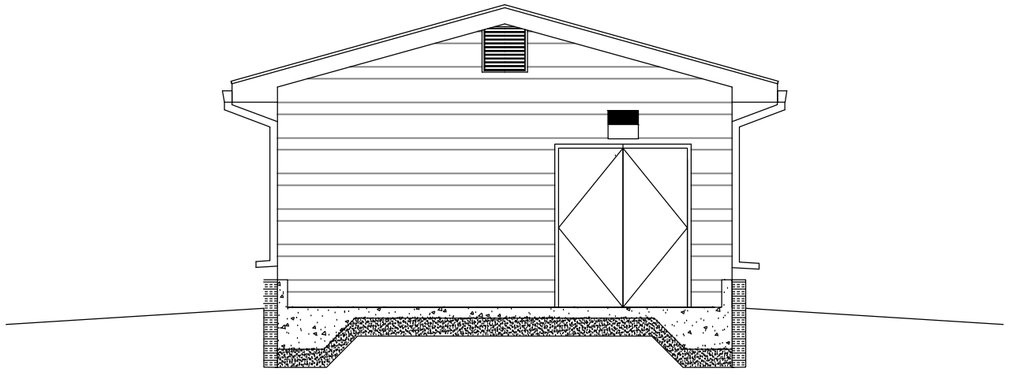
SHEET
B1



1/D1 PUMP STATION WALL EAST/WEST ELEVATION
NOT TO SCALE ANTHC / VSW STANDARD DETAIL



2/D1 PUMP STATION WALL SOUTH ELEVATION
NOT TO SCALE



3/D1 PUMP STATION WALL NORTH ELEVATION
NOT TO SCALE

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TO WHITMAN CREEK–PHASE VI
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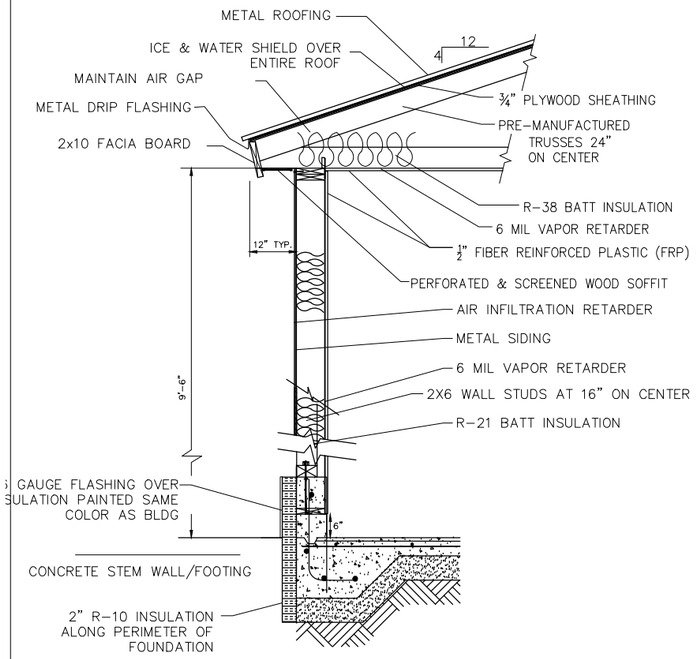
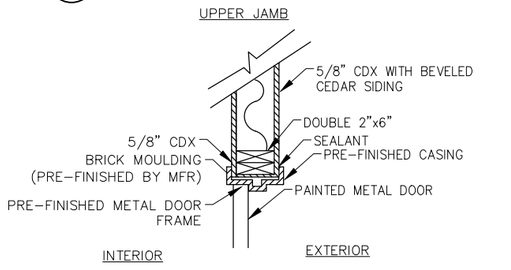
STATE OF ALASKA 49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

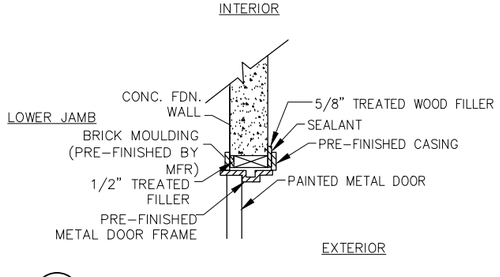
SHEET DESCRIPTION
BLDG DETAILS

SHEET
B2

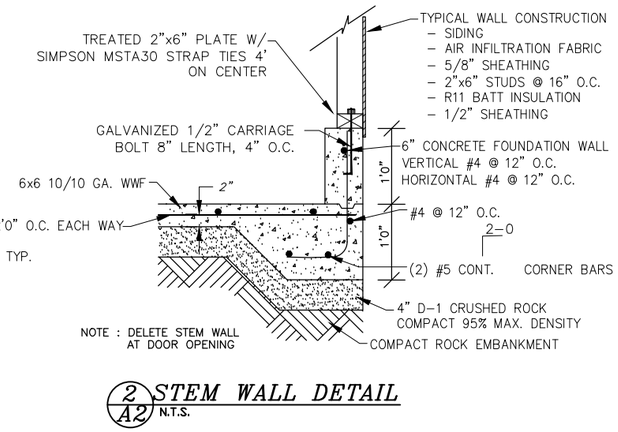


1/A2 OUTSIDE WALL DETAIL

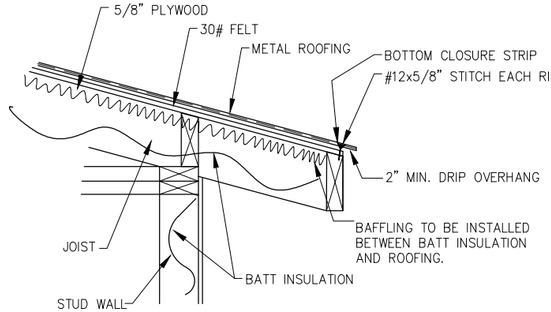




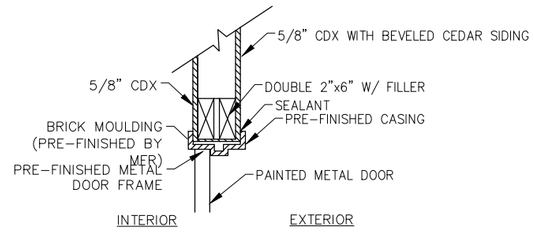
6/A2 DOOR JAMB TYP.



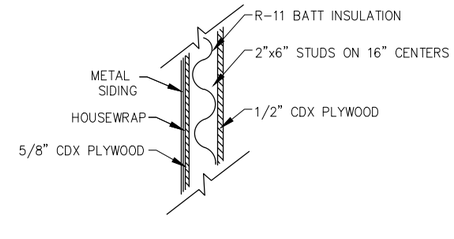
2/A2 STEM WALL DETAIL



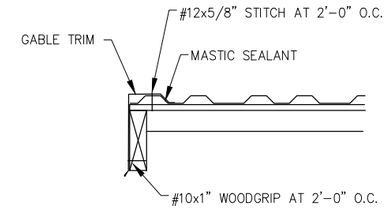
4/A2 EAVE DETAIL



7/A2 DOOR HEADER TYP.



3/A2 WALL SECTION



5/A2 GABLE DESIGN

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK–PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

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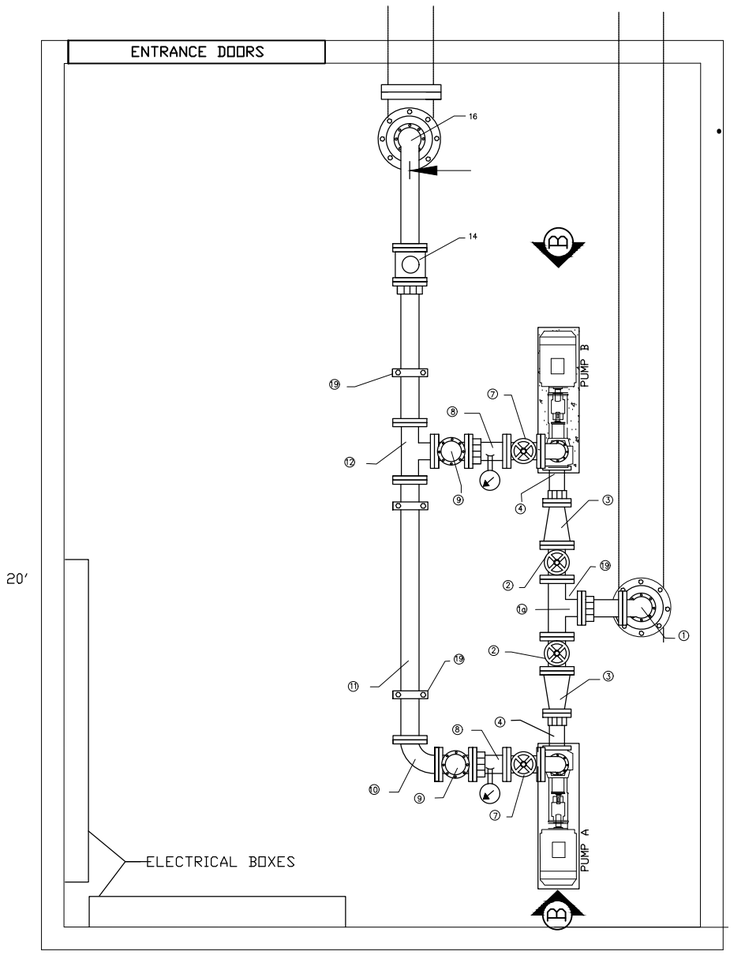
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

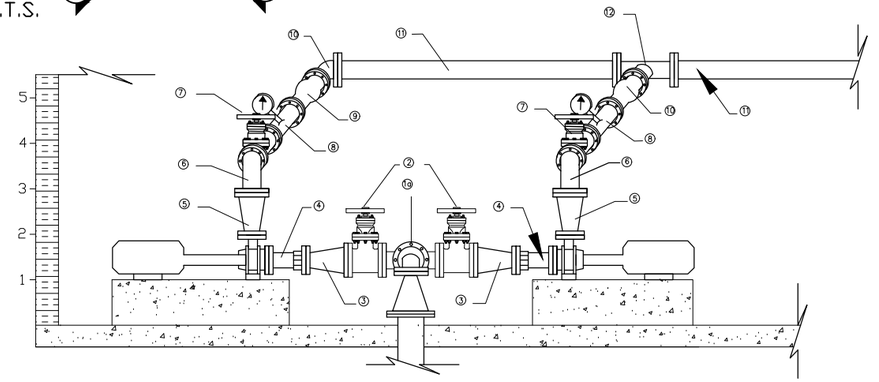
STATE OF ALASKA 49th
TREVOR SANDE CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
BLDG DETAILS CON'T

SHEET B3



PROFILE Ⓑ *to* Ⓑ
N.T.S.



SHEET NOTE'S

1. INLET CLUSTER
   - 1a 4"x"4 FLxFL D.I. TEE
   - 1b 4" FLxPE D.I. SPOIL
   - 1c 4" FLxFL D.I. 90° BEND
   - 1d 4"FLxPE D.I. SPOOL
   - 1e 4"FLxFL D.I. SPOOL
   - 1f 8"x4" D.I. FLXFL REDUCER
   - 1g 8"x8" FLxFL D.I. SPOOL
   - 1h 8"D.I. FLXFL 90° BEND
2. 4" FLxFL D.I. GATEVALVE
3. 4"x3" D.I. FLxFL REDUCER
4. 3" D.I. FLxPE SPOOL
5. 3"x4" FLxFL D.I. REDUCER
6. 4" FLxFL D.I. 90° BEND
7. 4" FLxFL D.I. GATEVALVE
8. 4" FLxPE D.I. SPOOL W/ PRESSURE GAUGE
9. 4" FLxFL CHECK VALVE
10. 4" FLxFL 90° BEND
11. 4" FLxFL D.I. SECTION
12. 4"x4" FLxFL D.I. TEE
13. 4"x4" FLxPE D.I. PIPE SECTION
14. 4" PROMAG 53 W FLOW METER
15. 4" FLxPE D.I. PIPE SECTION
16. OUTLET CLUSTER
    - 16a 4"x4" FLxFL 90° BEND
    - 16b 4" FLxPE D.I. SPOOL
    - 16c 4"x8" FLxFL D.I. REDUCER
    - 16d 8" FLxFL D.I. SPOOL
    - 16e 8" FLxFL90° D.I. BEND
    - 16f 8" FLxFL D.I. PIPE SECTION
17. TURBIDITY METER
18. WATER TEMP. GAUGE
19. PIPE SUPPORT

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT
TO WHITMAN CREEK–PHASE VI
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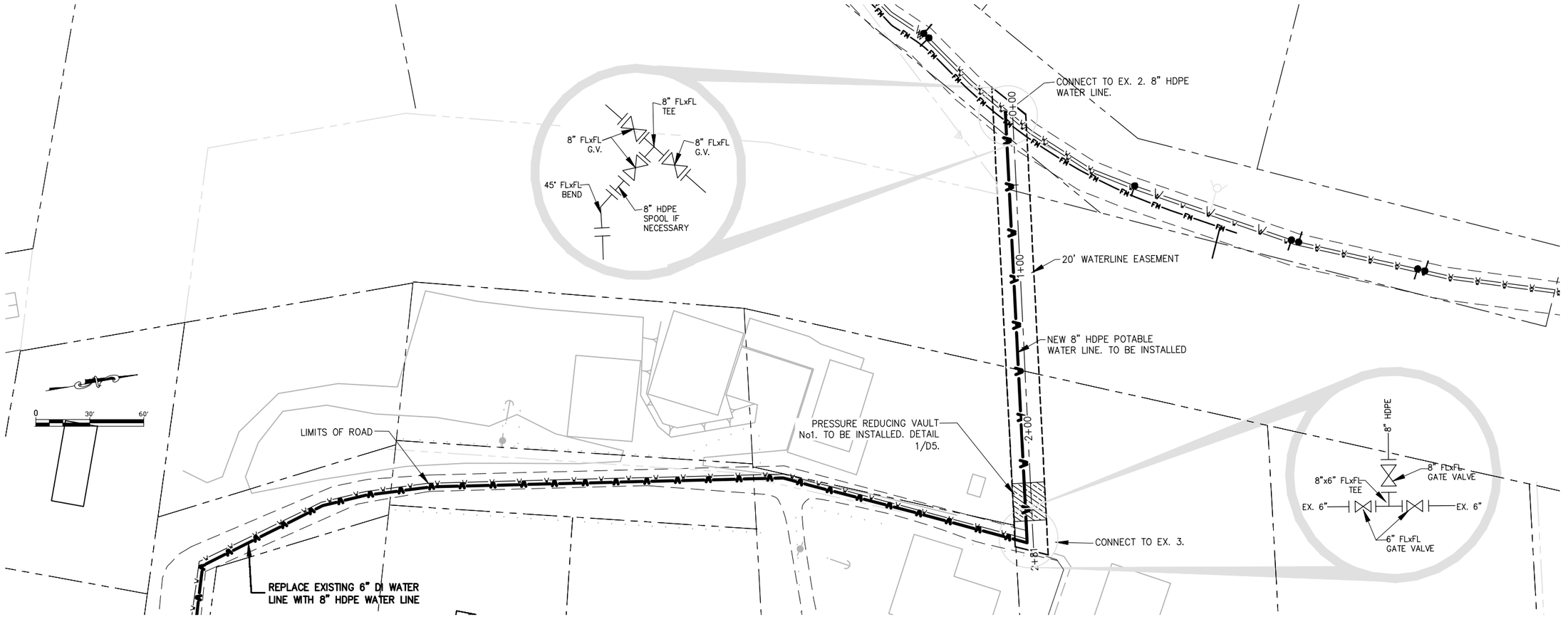
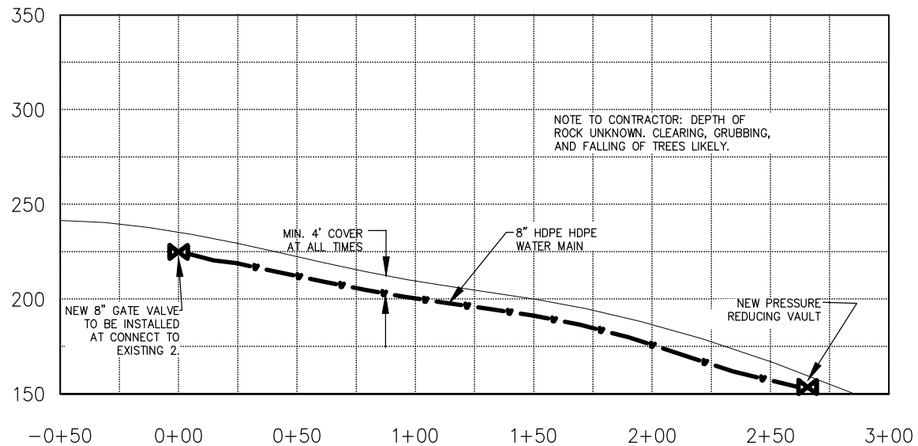
STATE OF ALASKA 49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
MECHANICAL DETAILS

SHEET
B4





Profile View of ALIGNMENT 1
HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'
VERTICAL EXAGGERATION: 10

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK-PHASE VI

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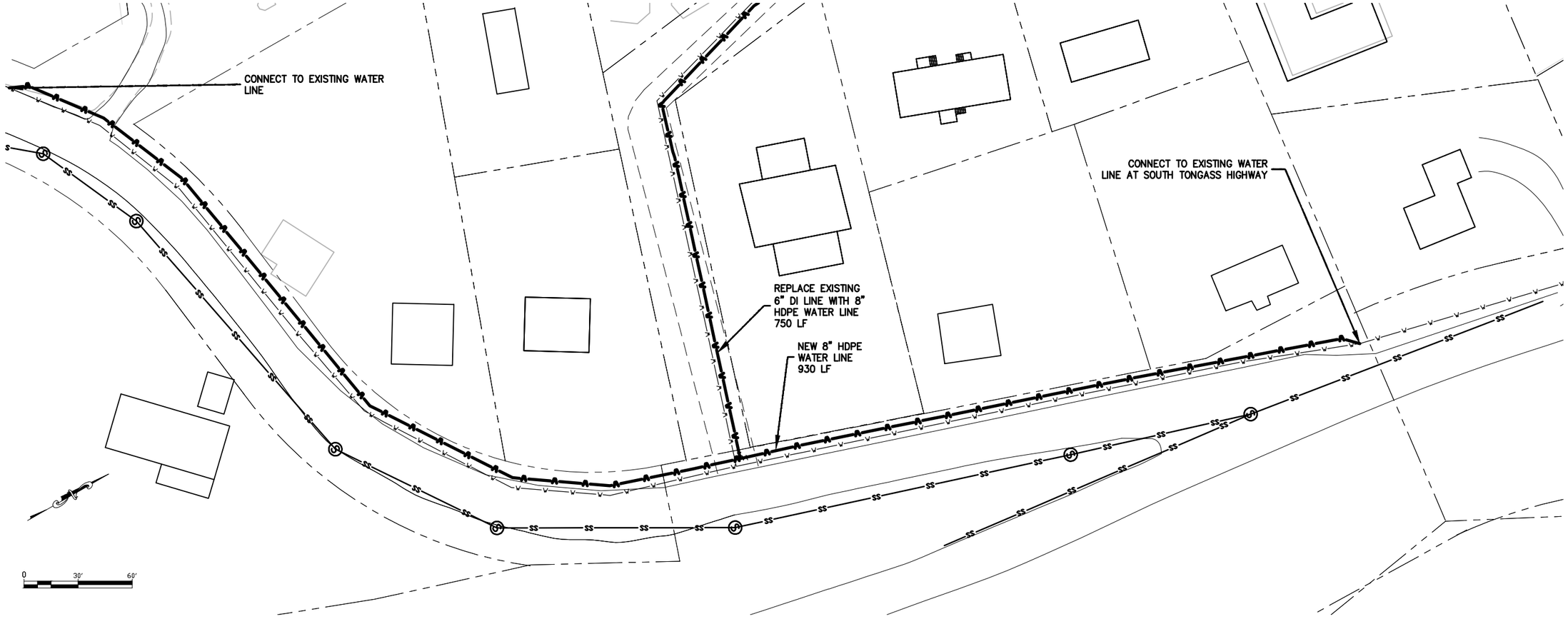
SHEET DESCRIPTION
PLAN & PROFILE
ALIGNMENT A

SHEET
W1



Profile View of ALIGNMENT 1
HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'
VERTICAL EXAGGERATION: 10

REVISIONS:

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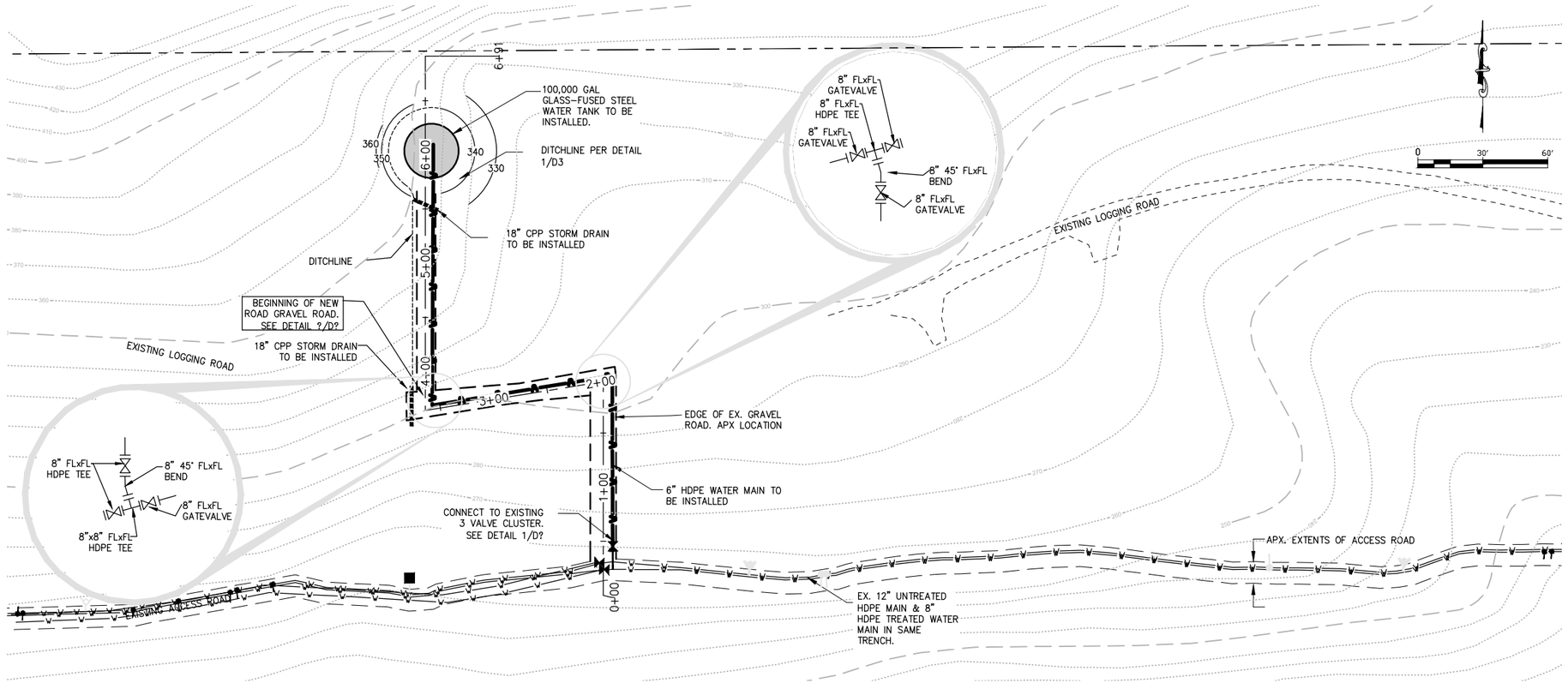
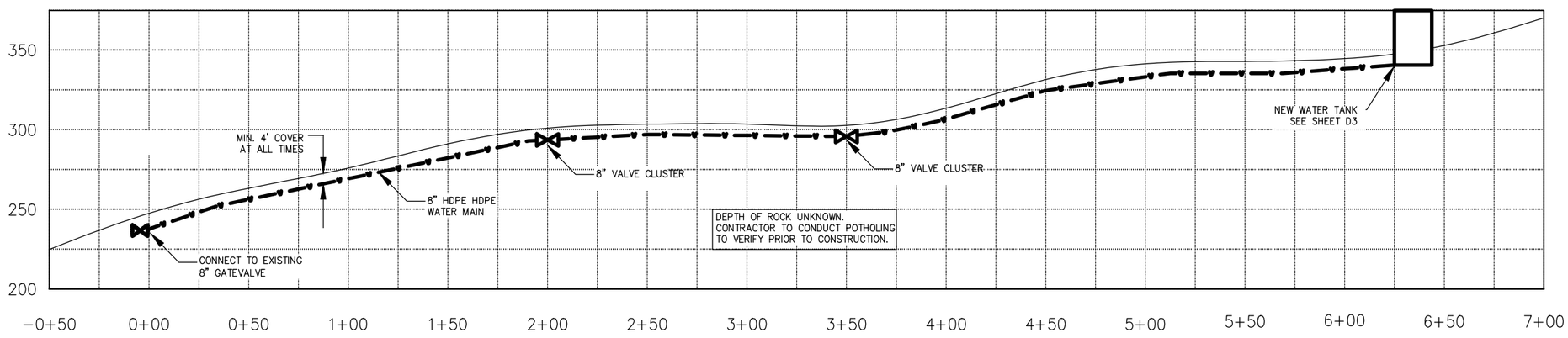
SHEET DESCRIPTION
PLAN & PROFILE
ALIGNMENT A

SHEET
W2





Profile View of ALIGNMENT 2

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'

VERTICAL EXAGGERATION: 10

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK-PHASE VI

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1900 1ST STREET

Ketchikan, Alaska 99901

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KETCHIKAN, ALASKA 99901

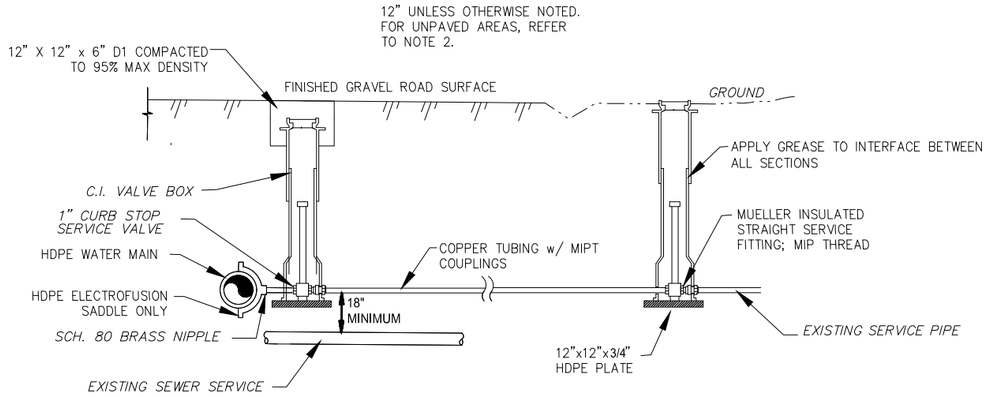
STATE OF ALASKA 49th

TREVOR SANDE CE 9778

REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
PLAN & PROFILE
ALIGNMENT B

SHEET W3

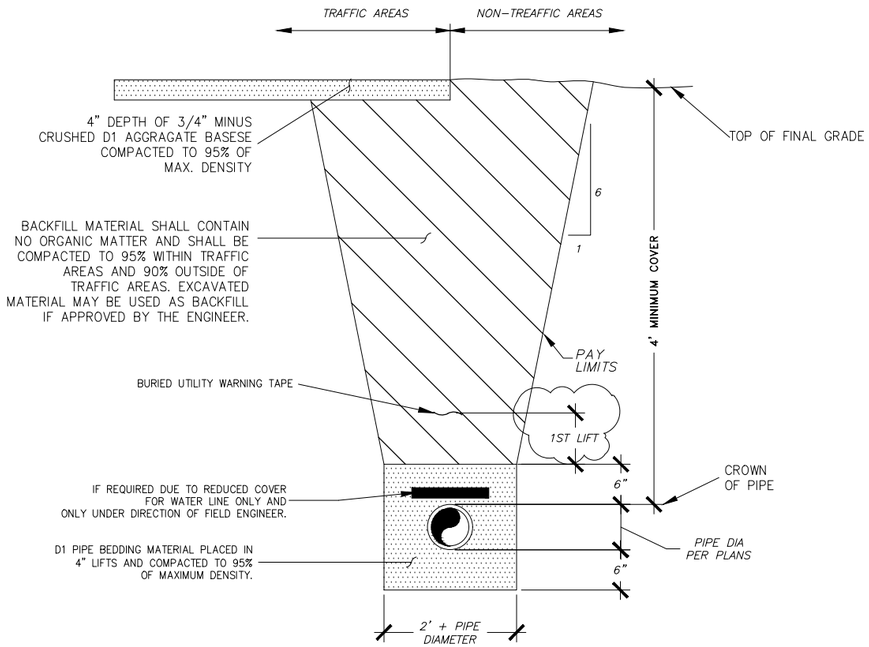


NOTES:

1. *IN ROAD SUFACE, TOP OF VALVE BOX LID TO BE INSTALLED 6" BELOW FINISH GRADE.*
2. *OUTSIDE OF ROAD PRISM, VALVE BOX LID TO BE INSTALLED AT FINISH GRADE.*
3. *ALLOW 12" FOR RAISING VALVE BOX. GREASE THE OVERLAPPING PORTION.*
4. *A SERVICE VALVE ROD EXTENSION IS REQUIRED ON ALL SERVICE VALVES 6' OR MORE BELOW FINISHED GRADE.*
5. *EXTEND SERVICE PAST SERVICE VALVE TO EXISTING SERVICE PIPE AS REQUIRED TO ESTABLISH SERVICE OR AS INDICATED ON THE PLANS. WHERE SERVICE EXTENSION IS ABOVE GROUND, PIPE SHALL BE INSULATED WITH 2" OF FOAM INSULATION WITH PROTECTIVE COATING.*
6. *PLACE BOARD INSULATION w/ BURIED UTILITY WARNING TAPE ABOVE AS REQUIRED.*
7. 6" OF D-1 MUST SURROUND ALL VALVE BOXES
8. THREADED VALVE BOX SECTIONS ARE NOT ALLOWED. CONTRACTOR SHALL REMOVE THREADED PORTIONS OF THE VALVE BOX WITH CUT-OFF SAW

1 D1 TYPICAL BURIED WATER SERVICE 2"AND SMALLER

NOT TO SCALE



NOTES (A):

1. BACKFILL MATERIAL SHALL BE PLACED IN 12" MAXIMUM LIFTS AS STATED IN SPECIFICATIONS.
2. PIPE BEDDING MATERIAL MUST BE PLACED IN 6" MAX LIFTS BETWEEN COMPACTION.
3. TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS. INDICATED SLOPE IS FOR PAY QUANTITY DETERMINATION ONLY FOR IMPORTED BACKFILL GRAVEL AND RESURFACING REQUIREMENTS.
4. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.
5. THE DITCHLINE, IF ONE EXISTS, SHALL BE RESHAPED IN SUCH A MANNER TO ALLOW POSITIVE DRAINAGE TO MATCH PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
6. TRENCH SECTION APPLICABLE FOR SEWER, WATER PIPE AND STORM.

NOTES (B):

1. INSULATION BOARD JOINTS SHALL BE LAPPED.
2. MINIMUM DEPTH OF COVER SHALL BE 3'-0" UNLESS SHOWN OTHERWISE ON DRAWINGS OR PRIOR APPROVAL IS GRANTED FROM ENGINEER.

"H" DEPTH OF COVER	"I" INSULATION THICKNESS
4'0" OR GREATER	NONE REQUIRED
3'6" OR GREATER	2 INCHES
3'0" OR GREATER	4 INCHES

3. ALL IINSULATION SHALL BE DOW HI-60 EXTRUDED POLYSTYRENE (BLUE BOARD) OR APPROVED EQUAL.

2 D4 TYPICAL TRENCH DETAIL

NOT TO SCALE

REVISIONS:

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TO WHITMAN CREEK-PHASE VI
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1900 1ST STREET
Ketchikan, Alaska 99901

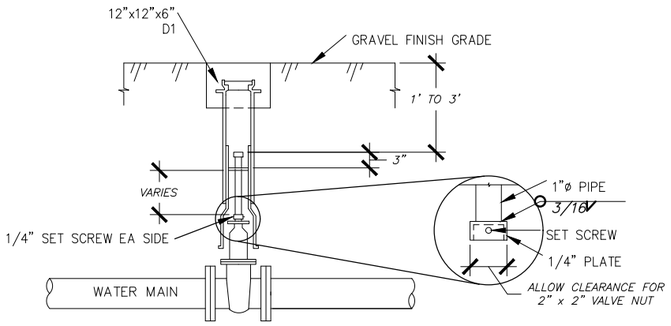
DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

R&M ENGINEERING-KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
WATER DETAILS

SHEET
D1

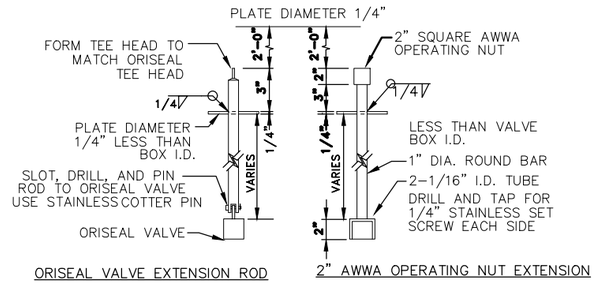


NOTE: EXTENSION IS REQUIRED ON ALL VALVES WHERE OPERATING NUT IS 6 FT OR MORE BELOW FINISHED SURFACE.

NOTES:

1. NEW VALVE BOX TO ALLOW FOR 12" MINIMUM VERTICAL ADJUSTMENT
2. THREADED VALVE BOX SECTIONS ARE NOT ALLOWED. CONTRACTOR SHALL REMOVE THREADED PORTIONS OF THE VALVE BOX WITH CUT-OFF SAW
3. CONTRACTOR SHALL APPLY GREASE TO ALL INTERFACES BETWEEN VALVE BOX SECTIONS.
4. COMPACTION AROUND VALVE BOX INSTALLATION IS CRITICAL. CONTRACTOR SHALL EMPLOY MECHANICAL TAMPING METHODS TO ENSURE THAT MATERIAL AROUND VALVE BOX REACHES 95% OF MAXIMUM COMPACTION.
5. CONTRACTOR SHALL INSTALL A 6" MINIMUM THICKNESS OF D-1 BEDDING AROUND VALVE BOX DURING BACKFILL.
6. EXTENSION IS REQUIRED ON ALL VALVES WHERE OPERATING NUT IS 6' OR MORE BELOW FINISHED SURFACE.

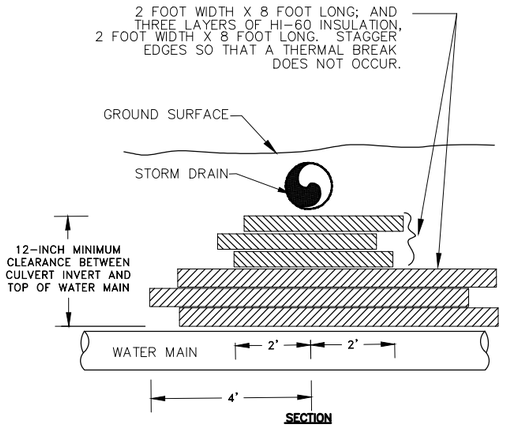
1 D2 MAIN LINE VALVE W/ OPERATING ROD, TYP.
NOT TO SCALE



ORISEAL VALVE EXTENSION ROD

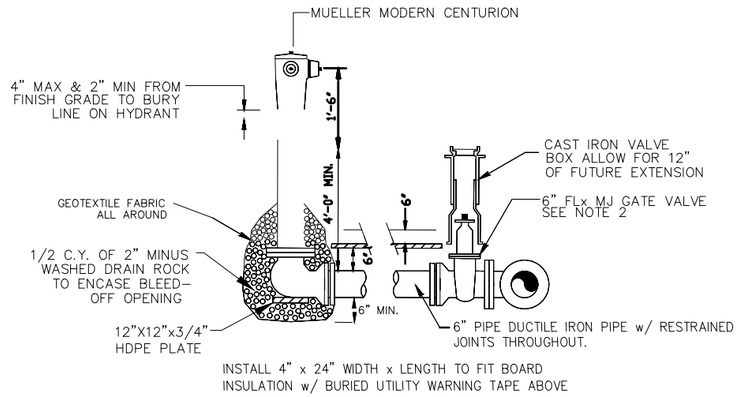
2" AWWA OPERATING NUT EXTENSION

2 D2 VAVLVE EXTENSION
NOT TO SCALE



SECTION

3 D2 RIGID INSULATION DETAIL
NOT TO SCALE

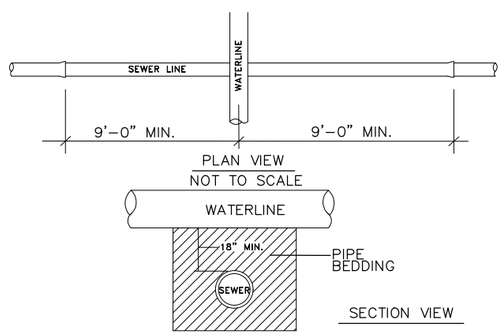


INSTALL 4" x 24" WIDTH x LENGTH TO FIT BOARD INSULATION w/ BURIED UTILITY WARNING TAPE ABOVE

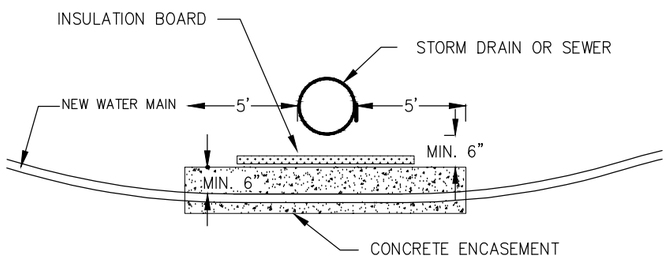
NOTES:

1. ALL BOLT THREADS TO BE GREASED PRIOR TO INSTALLATION.
2. MECHANICAL RESTRAINED JOINTS TO BE USED THROUGHOUT.
3. HYDRANT PAINT SHALL BE SPECIFIED BY THE ENGINEER.
4. DOUBLE DIPPED GALVANIZED NUTS AND BOLTS SHALL BE FREE OF CONCRETE.
5. PLACE BURIED UTILITY WARNING TAPE 6" ABOVE THE HYDRANT LEAD.
6. THRUST BLOCK MAY BE OMITTED IF PIPE BEYOND VALVE IS CONNECTED TOGETHER w/ RESTRAINED JOINTS 40 FEET EACH WAY
7. D-1 MUST BE PLACED AROUND ALL VALVE BOXES

4 D3 TYP, FIRE HYDRANT DETAIL
NOT TO SCALE



5 D3 WATER LINE OVER SEWER CROSSING
NOT TO SCALE



NOTES:

1. INSULATION SHALL BE 2" THICK AND RUN 2' EACH DIRECTION OF WATER PIPE O.C. OF STORM PIPE.
2. THERE SHALL BE A MIN. 6" SEPERATION BETWEEN THE CONCRETE ENCASEMENT AND THE STORM AND SEWER LINES
3. CONCRETE ENCASEMENT SHALL HAVE A THICKNESS OF APX 4" AND SHALL RUN CONTINOUSLY ALONG THE WATER PIPE FROM 5' OUTSIDE OF BOTH THE SEWER AND STORM DRAIN.

6 D3 WATER PIPE UNDER STORM DRAIN OR SEWER
NOT TO SCALE

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK-PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

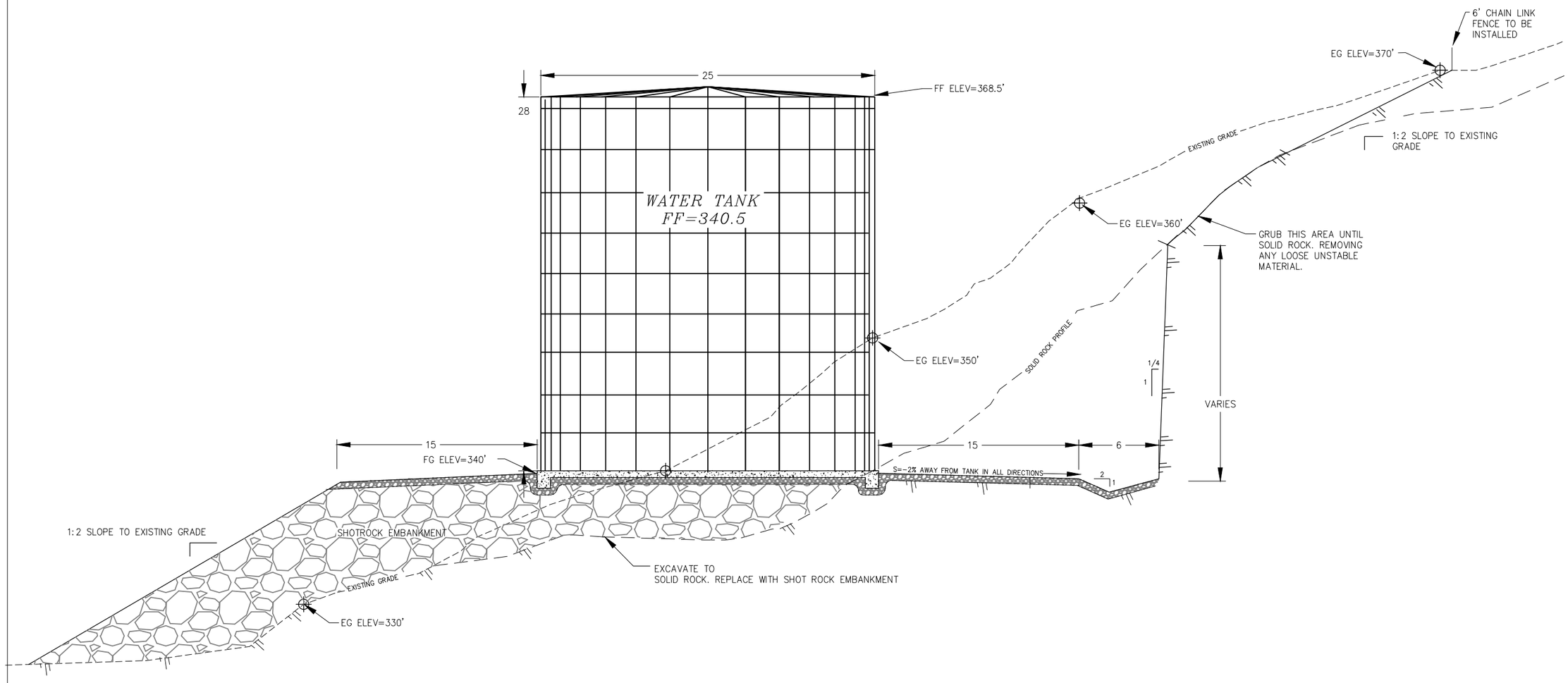
DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

R&M ENGINEERING-KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

STATE OF ALASKA 49th
TREVOR SANDE CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
WATER DETAILS

SHEET
D2



1/D3 TYPICAL TANK SITE SECTION

NOT TO SCALE

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK–PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

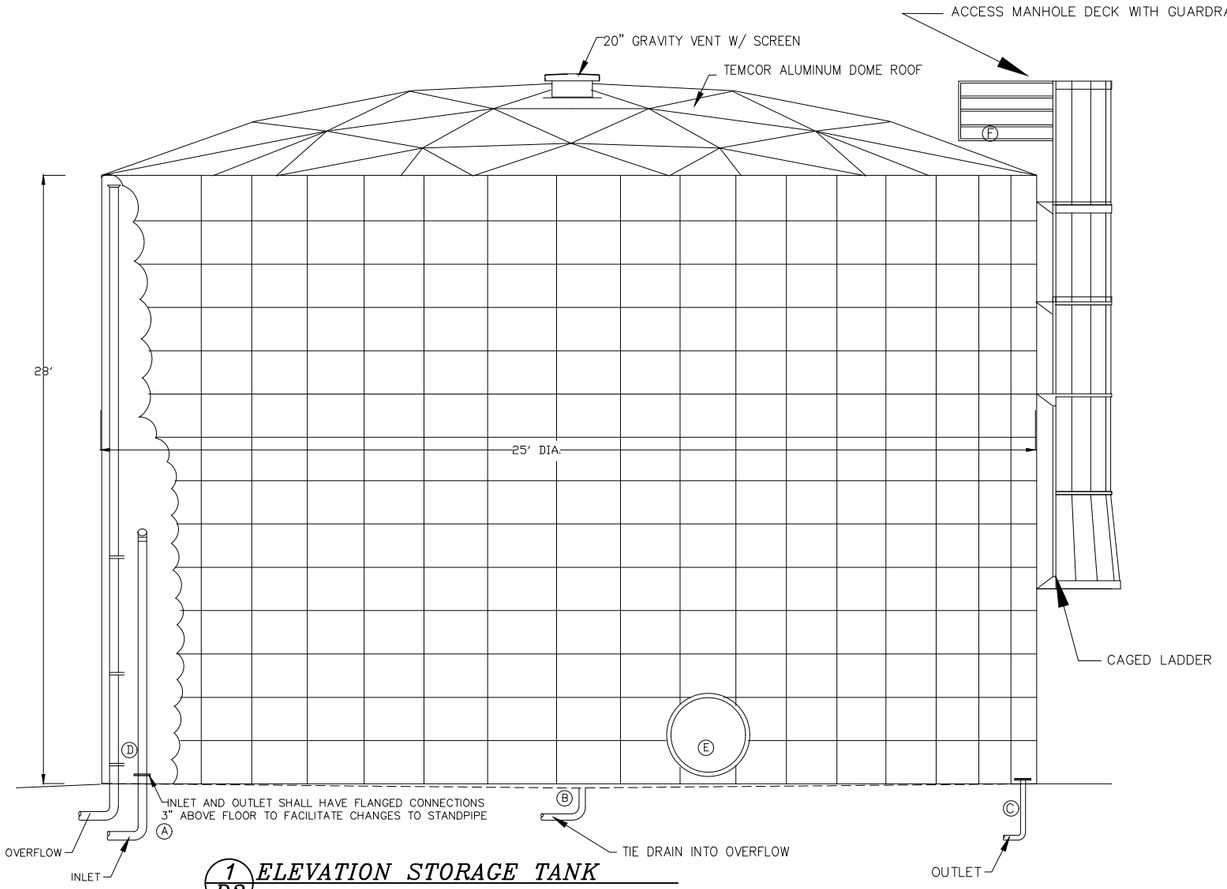
DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

R&M ENGINEERING–KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
WATER TANK PLAN & PROFILE

SHEET
D3



1/D2 ELEVATION STORAGE TANK

TANK PENETRATION INDEX

A	DIA.	TYPE	RISER MATL.	PIPE MATL.	RISER ELEV.
Ⓑ	8"	INLET	PVC	DUCTILE	3"
Ⓒ	8"	DRAIN	DUCTILE	DUCTILE	−3"
Ⓓ	8"	OUTLET	DUCTILE	DUCTILE	3"
Ⓔ	8"	OVERFLOW	PVC	DUCTILE	27'
Ⓕ		30" ROUND ACCESS DOOR			
◯		24" SQ. MANWAY			

SPLICE LENGTHS

#4 BARS – 19 INCHES

#7 BARS – 33 INCHES

#8 BARS – 37 INCHES

#10 BARS – 126 INCHES

TANK NOTES:

1) TANK SHALL BE BOLTED STEEL. MANUFACTURER SHALL MAINTAIN A CURRENT ISO−9001 CERTIFICATION

2) TANK CAPACITY SHALL BE 100,000 GALLONS.

3) TANK SHALL BE CIRCULAR, CONSTRUCTED OF CARBON STEEL AND SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION SPECIFICATION ANSI/AWWA D103−97.

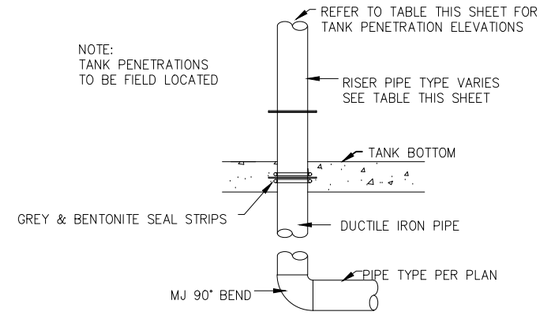
4) TANK INTERIOR AND EXTERIOR COATING SHALL BE GLASS FUSED TO STEEL AS MANUFACTURE BY ENGINEERED STORAGE PRODUCTS COMPANY OR APPROVED EQUAL.

5) IBC 2000 DESIGN LOADS: 120 MPH(AWWA D103), 40 PSF SNOW LOAD, SEISMIC: Ss=0.25, S1=0.16, Ie=1.50, SITE CLASS = B, SEISMIC USE GROUP = CATEGORY III

6) TANK SHALL BE EQUIPPED WITH: HATCH, VENT, OUTSIDE TANK LADDER, INSIDE WALL LADDER, DECK WITH PERIMETER GUARDRAIL, SHELL MANHOLE, LIQUID LEVEL INDICATOR, AND ALL PIPE PENETRATIONS SHOWN ON THE PLAN DRAWINGS.

7) TANK SHALL BE EQUIPPED WITH CONTRACTOR DESIGN CATHODIC PROTECTION SYSTEM WITH A MINIMUM OF 6 ANODES.

8) TANK SHALL BE EQUIPPED WITH AN ALUMINUM DOME ROOF MANUFACTURED BY TEMCOR, 150 W. WALNUT ST., SUITE 150, GARDEN, CA 90248 OR APPROVED EQUAL.



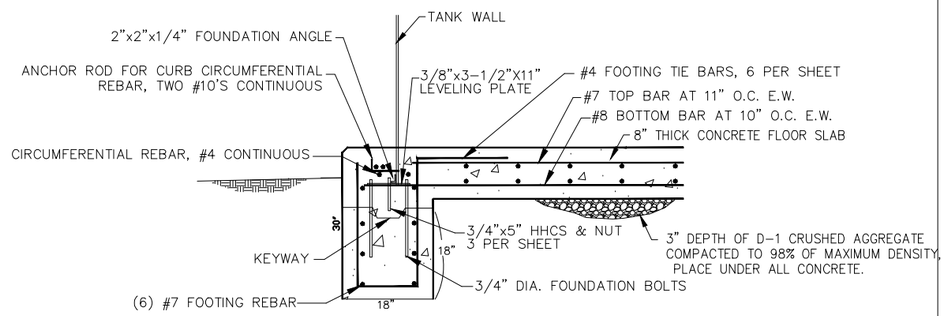
1) CLEAN THE SURFACE ALL THE WAY AROUND EACH PIPE PENETRATION WHERE THE SEAL STRIPS ARE TO BE APPLIED.

2) USING A 2 INCH WIDE PAINT BRUSH, APPLY CLEAR PRIMER TO THE CLEANED SURFACE.

3) LET THE PRIMER DRY FOR 30 TO 60 SECONDS.

4) WHEN CAST IRON OR STEEL PIPING IS USED, INSTALL BOTH SEAL STRIPS ONTO THE PRIMED SURFACE(S). APPLY THE GRAY SEAL STRIP IN THE UPPER MOST POSITION IN ALL CASES. THE BLACK SEAL STRIP IS TO BE PLACED DIRECTLY BELOW AND TIGHT AGAINST THE GRAY SEAL STRIP. BOTH STRIPS TO LAP THEMSELVES BY APPROXIMATELY 2 INCHES.

2/D2 TANK PENETRATION DETAIL



3/D2 FOUNDATION DETAIL

FOUNDATION NOTES:

1) COMPACT CRUSHED AGGREGATE LEVELING COURSE TO 98% OF MAXIMUM DRY DENSITY.

2) MINIMUM SOIL BEARING SHALL BE 3,000 POUNDS PER SQUARE FOOT.

3) CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 301−99 SPECIFICATIONS AND THE REQUIREMENTS LISTED BELOW.

4) CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 4,000 PSI.

5) REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.

6) CEMENT SHALL CONFORM TO ASTM C150, TYPE 1 OR 2 WITH AIR ENTRAINING ADMIXTURE PER ASTM C260 ADDED AT THE MIXTURE TO ACHIEVE 4−6% BY VOLUME AT THE POINT OF CONCRETE PLACEMENT.

7) MAXIMUM AGGREGATE SIZE SHALL BE 1 ½" AND SHALL CONFORM TO ASTM C33.

8) READY MIXED CONCRETE SHALL CONFORM TO ASTM C94. THE SUPPLIER SHALL BE RESPONSIBLE FOR DETERMINING THE PROPORTIONS USED IN THE CONCRETE MIX.

9) FINISHED SURFACES:
A. ROUGH FORM FINISH IS ACCEPTABLE FOR VERTICAL SURFACES.
B. FLOATED FINISH WITH HARD TROWEL IS REQUIRED ON SLABS.

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT
TO WHITMAN CREEK−PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

DRAWN BY: TSS
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DATE: 10/21/19
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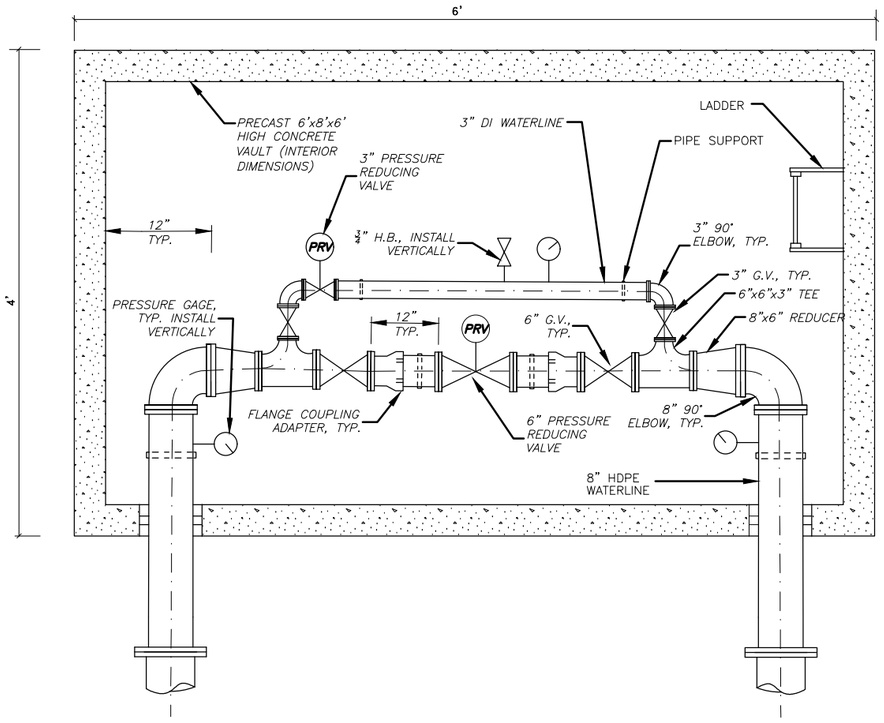
R&M ENGINEERING−KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
WATER TANK DETAILS

SHEET
D4



1/D5 PRESSURE REDUCING VALVE VAULT
NOT TO SCALE

REVISIONS:

SOUTH TONGASS WATERMAIN MOUNTAIN PT TO WHITMAN CREEK–PHASE VI
KETCHIKAN GATEWAY BOROUGH
1900 1ST STREET
Ketchikan, Alaska 99901

DRAWN BY: TSS
CHECKED BY: TSS
DATE: 10/21/19
R&M # 162340.12
CADD FILE:

R&M ENGINEERING–KETCHIKAN, INC.
71870 REVILLA ROAD, SUITE 300
KETCHIKAN, ALASKA 99901

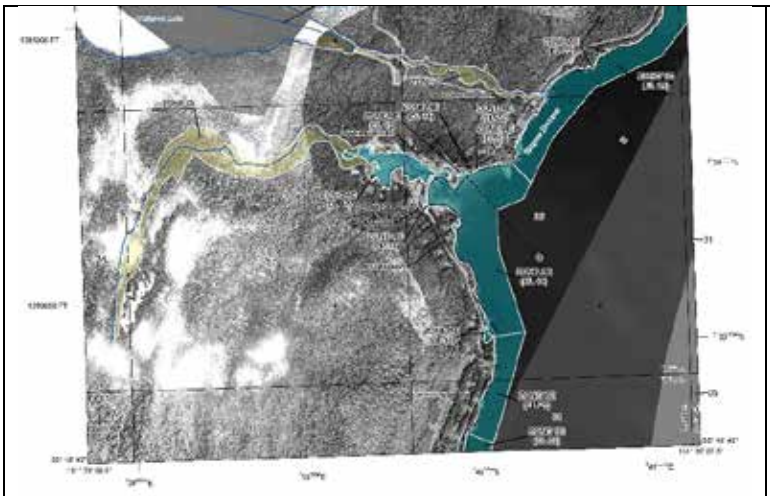
STATE OF ALASKA
49th
TREVOR SANDE
CE 9778
REGISTERED PROFESSIONAL ENGINEER

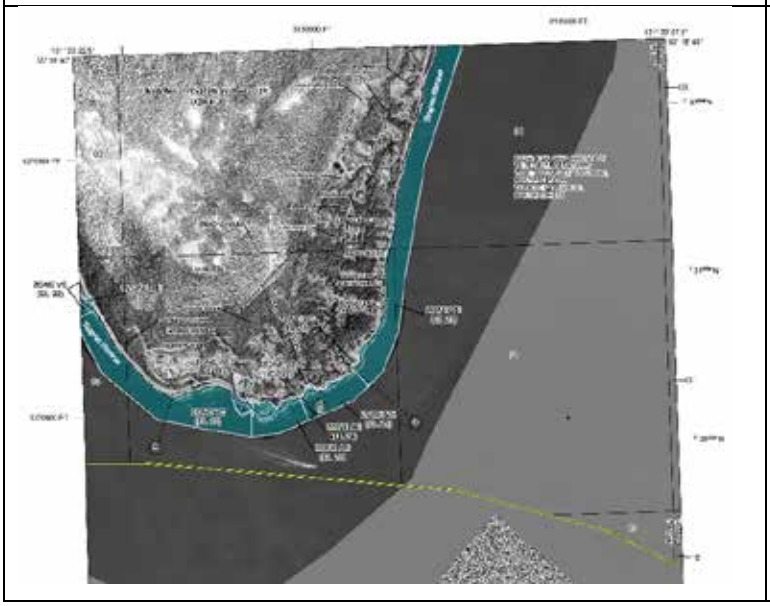
SHEET DESCRIPTION
PRESSURE REDUCING VAULT DETAILS

SHEET
D5

Wetlands Map:

Floodplains Map:





SHPO Coordination Request:

Morgan Barry

From: Johnson, McKenzie S (DNR) <mckenzie.johnson@alaska.gov>
Sent: Tuesday, August 18, 2020 8:45 AM
To: Morgan Barry
Subject: Section 106 Review - ADWF - S Tongass Water Phase VI - Ravenwood Tank, SHPO Concurrence

This sender is trusted.

File No.: 3130-2R DEC/2020-00874

The Alaska State Historic Preservation Office (AKSHPO) received the correspondence and associated documentation on July 17, 2020. Upon review, we concur that a finding of no historic properties affected is appropriate for the proposed undertaking.

Should previously unidentified archaeological resources be discovered during the project, work must be interrupted until the resources have been evaluated using the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Thank you for the opportunity to review and comment. Please let me know if we can be of further assistance.

Mckenzie S. Johnson
Archaeologist I - Review and Compliance
Alaska State Historic Preservation Office (AKSHPO)/Office of History and Archaeology (OHA)
550 W. 7th Ave, Suite 1310
Anchorage, AK 99507
mckenzie.johnson@alaska.gov
Currently working out of office, e-mail correspondence is best to reach me.

From: DNR, Parks OHA Review Compliance (DNR sponsored) <oha.revcomp@alaska.gov>
Sent: Friday, July 17, 2020 3:18 PM
To: morganb@kgbak.us <morganb@kgbak.us>
Cc: Johnson, McKenzie S (DNR) <mckenzie.johnson@alaska.gov>
Subject: FW: Section 106 Review - ADWF - S Tongass Water Phase VI - Ravenwood Tank

Good afternoon,

The Office of History and Archaeology/Alaska State Historic Preservation Office received your documentation and its review has been assigned to Mckenzie Johnson as ID No: 2020-00874. We may contact you if we require additional information. Our office ordinarily has 30 calendar days after receipt to complete our review, but our office has entered tolling in response to complications from COVID-19 and our review may be delayed as a result. Please contact the project reviewer or myself by email if you have any questions or concerns.

Best,

Sarah Meitl

Review and Compliance Coordinator
Alaska State Historic Preservation Office

Office of History and Archaeology

550 W. 7th Avenue, Suite 1310
Anchorage, AK 99501-3561
Office: 907-269-8720
Teleworking - Email is best method of communication.

From: Morgan Barry <morganb@kgbak.us>
Sent: Friday, July 17, 2020 10:19 AM
To: DNR, Parks OHA Review Compliance (DNR sponsored) <oha.revcomp@alaska.gov>
Subject: Section 106 Review - ADWF - S Tongass Water Phase VI - Ravenwood Tank

To whom it may concern,

The Ketchikan Gateway Borough is seeking a Section 106 Compliance review for work in the Ravenwood Subdivision to construct a new water tank and booster station. The attached analysis addresses the historical status of the lots, insofar as there may be information available, and the attached overall map gives an overview of the location for each asset contemplated in this project.

Thank you for you review,

Morgan
Morgan K. Barry
Deputy Director
Public Works Department
Ketchikan Gateway Borough
Office: (907) 228-6664
morganb@kgbak.us
1900 First Ave. Ste. 219
Ketchikan, AK 99901

KETCHIKAN GATEWAY BOROUGH

1900 FIRST AVENUE, SUITE 219, KETCHIKAN, ALASKA 99901
● TELEPHONE: (907) 228-6670 ● FAX (907) 228-6684
PUBLIC WORKS DEPARTMENT

Date: July 17, 2020

SUBJECT: Request for SHPO Section 106 Review (36 CFR 800)

South Tongass Water Phase VI – Ravenwood Tank

The Kechikan Gateway Borough is preparing a loan application to the State of Alaska Department of Environmental Conservation to secure funding through the Alaska Drinking Water Fund (ADWF) State Revolving Fund loan program. Pursuant to this action, the South Tongass Water Phase VI – Ravenwood Tank is seeking a Section 106 Review from the Office of History and Archeology.

Required Agency Information:

Contact Information:

Ketchikan Gateway Borough
ATTN: Morgan K. Barry, Deputy Director of Public Works
1900 First Ave., Suite 219
Ketchikan, AK 99901
e-mail: morganb@kgbak.us

Other Parties Involved:

State of Alaska Department of Environmental Conservation (ADEC) SRF Program
Environmental Protection Agency (EPA)

Agency Contact Information:

Peggy Ulman, Program Coordinator, SRF Program – (253) 677-8867; peggy.ulman@alaska.gov

I. GENERAL INFORMATION

Project Name: South Tongass Water Phase VI – Ravenwood Tank

Project Address/Location & Landowner:

Area 1: Booster Station Site

- Address: 6600 Block Ravenwood Drive, Ketchikan, Alaska
- Lot 1 of the Shields Replat, Plat No. 2014-1, KRD contained by Easement #2013-0035220
  - Owner: Roberta Shields
  - Easement Beneficiary: Ketchikan Gateway Borough
- Easement #2013-003519, KRD in Lot 2 of the Ravenwood Subdivision, Plat No. 2006-51, KRD
  - Owner: Alcan Forest Products
  - Easement Beneficiary: Ketchikan Gateway Borough
- USGS Quad Map Name: Ketchikan B-5 SW Quadrangle
- Meridian: Copper River Meridian
- Township: 76S Range: 91E Section: S2
- NAD 83 Latitude/Longitude: 55º 18’ 20”N, 131º 31’ 53” W

Area 2: Tank & Piping Site

- Address: 7100 Block Ravenwood Drive (Reference only: Right-of-Way not created)
- USS 3802 Lot 1, Turner Replat, Plat No. 2011-10, KRD
  - Owner: Alcan Forest Products
  - USGS Quad Map Name: Ketchikan B-5 SW Quadrangle

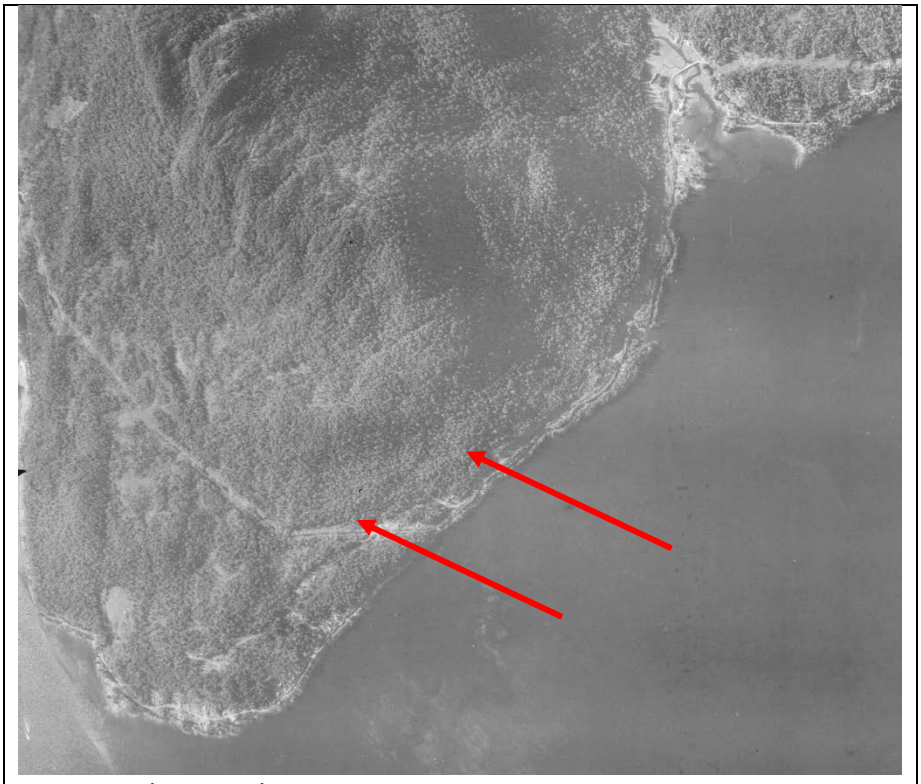
KETCHIKAN GATEWAY BOROUGH

1900 FIRST AVENUE, SUITE 219, KETCHIKAN, ALASKA 99901
● TELEPHONE: (907) 228-6670 ● FAX (907) 228-6684
PUBLIC WORKS DEPARTMENT

- Meridian: Copper River Meridian
- Township: 76S Range: 91E Section: S1
- NAD 83 Latitude/Longitude: 55º 18' 50" N, 131º 31' 35" W

II. HISTORIC ANALYSIS

This project takes place largely in areas disturbed during the course of the South Tongass Water Phases I-V project. Per Environmental Analysis conducted by R&M Engineering – Ketchikan, Inc. in December 2007, all work is within the limits or near to the uplands areas assessed by the Office of History and Archeology in 2006, and not within proximity to the Herring Bay Petroglyph (KET-077).



Pre-1963 photograph

2001 Aerial photograph

Area 1: Per the Plat of U.S. Survey 2402 Mountain Point Group of Homesites by Floyd G. Betts filed in the Public Survey Office on December 2, 1939, the General Description for Lot RR (since replatted and forming the southerly portion of Lot 1 of the Shields Subdivision) states:

> "This lot lies on a rolling southeasterly slope.
> Soil, dark loam; 2nd rate.
> Timber, scrub, spruce, hemlock, and cedar.
> Undergrowth, salmonberry, blueberry and 2nd growth spruce.

KETCHIKAN GATEWAY BOROUGH

1900 FIRST AVENUE, SUITE 219, KETCHIKAN, ALASKA 99901
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PUBLIC WORKS DEPARTMENT

Community water main along [Roosevelt Drive] road right-of-way.
No improvements on the lot."

Per that plat, Lot RR abutted a "Power-Line R.O.W." along its northerly boundary.

Per the Plat of U.S. Survey No. 3802, Alaska by Walter Cooley and approved on May 5, 1960, the northerly portion of the lot abuts Lines 19-20, though the only descriptive text for this area is that "The land embraced in the southern portion of this survey lies on a southeasterly slope… the soil is a forest mold covered with about 6 ins of moss, with spruce, hemlock and cedar timber, alder and berry bush undergrowth."

The Ravenwood Subdivision (Plat No. 2006-51) General Note 7 notes that "there may be rights-of-way across this subdivision arising from Power Project 1922, ADL 103301 and ADL 100991." Aerial photographs from pre-1963 show a cleared utility line running through the area as shown in the earlier drawings. There are currently electrical distribution lines and poles running into the Ravenwood Subdivision through an easement on Lot 1 of the Shields Replat, but the power transmission lines appear to have been relocated to South Tongass Highway, as evidenced by the abandoned electrical substation located across Roosevelt Drive in Lot 72.

The site was subsequently leveled as part of the Ravenwood Subdivision: there are no other indications of any prior development of any sort on the northerly portion of the lot in which the easement for the booster station is located.

Area 2: Per the Plat of U.S. Survey 3802, the tank site and piping is located adjacent Line 2-3 between Witness Point No. 1 and Corner 3. The extent to which this line receives any description, it is described as a "steep easterly and northeasterly slope… the soil is a forest mold covered with about 6 ins. Of moss, with spruce, hemlock and cedar timber, alder and berry bush undergrowth." Per these statements and the extent of it appears that this area received no substantial historical use until the sale from the University of Alaska to Alcan Forest Products in 2003.

Thank you for reviewing this project.
Sincerely,

Morgan K. Barry
Deputy Director of Public Works
Ketchikan Gateway Borough

Environmental Assessment:

Environmental and Cultural Reviews – ADWF Request South Tongass Water Phase VI – Ravenwood Tank by Ketchikan Gateway Borough dated July 23, 2020: addressing review items in the South Tongass Water Phase I-V project and their applicability to the South Tongass Water Phase VI – Ravenwood Tank project.

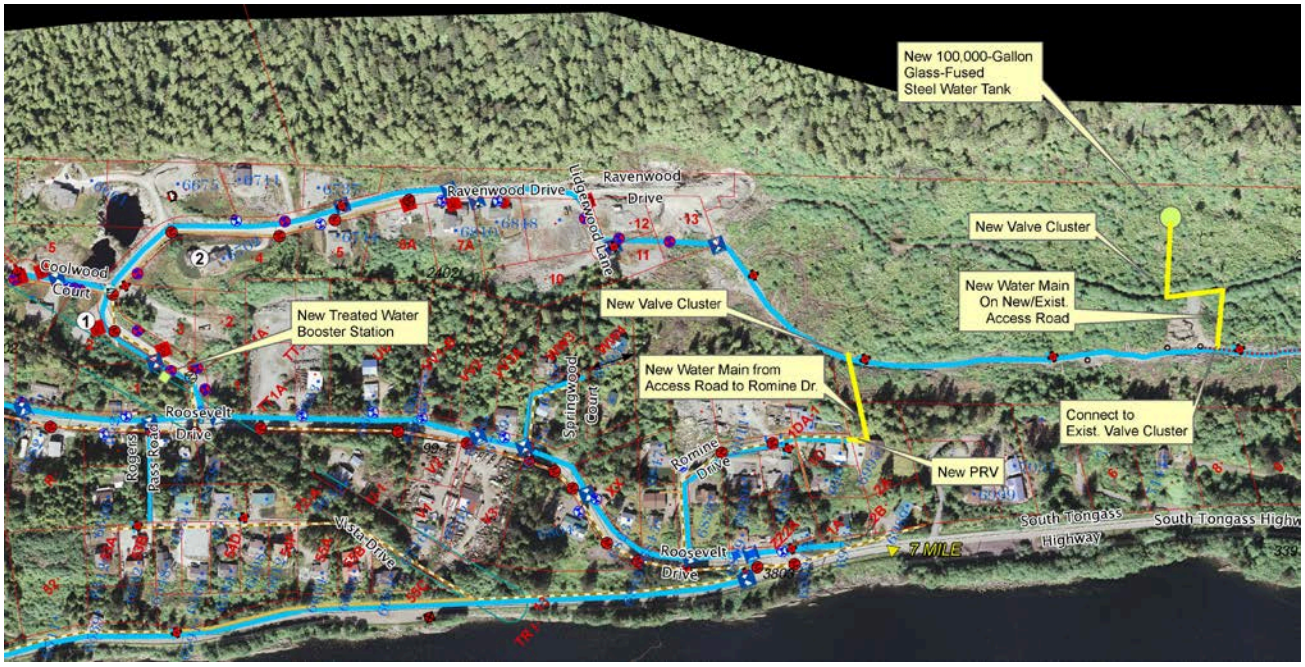
KETCHIKAN GATEWAY BOROUGH

1900 FIRST AVENUE, SUITE 219, KETCHIKAN, ALASKA 99901
● TELEPHONE: (907) 228-6670 ● FAX (907) 228-6684
PUBLIC WORKS DEPARTMENT

MORGAN K. BARRY, DEPUTY DIRECTOR
DATE: July 23, 2020
(Revised December 8, 2020)

SUBJECT: Environmental and Cultural Reviews – ADWF Request
South Tongass Water Phase VI – Ravenwood Tank

Pursuant to the requirements of the Alaska Department of Environmental Conservation State Revolving Fund program, below is the Borough's assessment of environmental conditions per the requirements of the National Environmental Policy, State Environmental Review Process, and National Historic Preservation Act. This assessment relies on testimony and analysis performed by R&M Engineering – Ketchikan, Inc. for the attached *South Tongass Water Main – Mountain Point to Whitman Creek Environmental Assessment "Draft"* dated December 2007 for the United States Environmental Protection Agency (EPA) and United States Department of Agriculture.



Work in this project consists of the new 100,000-gallon steel, treated-water storage tank; valve clusters and piping necessary to connect to the existing water transmission main; and new treated water booster station on Ravenwood Drive near Roosevelt Drive. All work in this project is adjacent to and within lands disturbed as part of the South Tongass Water Main – Mountain Point to Whitman Creek Phases I-V project.

This report addresses the current status of the items considered as part of the existing Environmental Assessment, and how the proposed Phase VI Ravenwood Tank project is consistent with or differs from the findings of that report. A preliminary analysis was submitted on July 23. A public meeting was held on October 7, and feedback from the US Fish and Wildlife Service (USFWS) was received in December. This revision reflects the totality of feedback received to date.

Section 2.0: Proposed Alternatives:

The Ketchikan Gateway Borough pursued and constructed Alternative 1, in which the raw water source was relocated to Whitman Creek, with a raw water booster station installed nearby and a raw water transmission main routed from Whitman Creek to the South Tongass Water Treatment Plant on Roosevelt Drive, and a treated water main run from the Treatment Plant to Ravenwood and down to Roosevelt Drive and up through Ravenwood back to Herring Cove.

The Phase VI project will utilize the mains installed in Ravenwood Drive for a new booster station to be installed near Roosevelt Drive and a new water tank to be located mid-way along the overland access road at the north terminus of Ravenwood Drive.

The *Preliminary Engineering Report South Tongass Water Main – Mountain Point to Whitman Creek* prepared by R&M Engineering – Ketchikan, Inc. for the USDA Rural Development and dated January 2008, discusses different alternatives, with the note in Section V(a), Alternative 1 stating "the elevation of the Fawn Mountain Tank controls the pressure zone, piping would be required to be below 260 elevation or the pressure would need to be boosted through the subdivision. Water services would be required to be below 215 feet to meet the 20 psi necessary for potable water distribution systems. Because most of Alcan's property is greater than this elevation… a water booster station [is included.] The booster station could be installed as a future phase to the project when funds allow." The preferred Alternative 2 is noted as "requiring the same easements through State land and private property as Alternative 1." Proposed Project section 6.3 – Storage and Pumping Stations notes "another smaller pump station will be located at bottom of the Alcan property to boost pressures through the high portions of the pipe route… [to] be constructed as Phase II of the water line project." Section V – Proposed Project §(A)(3.0) – Storage notes that "a smaller pump station will be located at the bottom of the Ravenswood Subdivision property to boost pressure through the high portions of the route and back to Herring Cove" and "a future project would be to construct a water tank that would serve Herring Cove and Mountain Point on property owned by Alcan Forest Products. This property is the only accessible land with elevations suitable for such a tank." Alternative 1 proposed herein fulfills this scope of work.

No Build and Alternative 1 are under consideration:

No Build Alternative: In this scenario, the booster station and storage tank will not be constructed. The upper reaches of the existing Ravenwood development, from Lots 4-12, are at an elevation that exceeds the ability for the water storage tank at Fawn Mountain to sustain usable pressures during any demand event – e.g. fire fighting, water main breaks, etc. This creates the risk of back siphonage occurring in the upper elevations and at the furthest ends of the Herring Cove neighborhood. Firefighting is also inhibited in these periods.

Alternative 1: This scenario calls for constructing the booster station along Ravenwood Drive and the 100,000 gallon water tank above the uppermost elevation of Ravenwood in order to sustain pressure and flows throughout the area. The booster station will have dual pumps sufficiently controlled by SCADA and variable frequency drives to maintain the tank on a keep full basis during periods of sustained high demand. The booster station can then be set to standby and allow the water to be used throughout the system during periods of low demand, in order to draw down the tank and inhibit the creation of secondary disinfection byproducts.

The Borough is recommending execution of the Alternative 1 described herein.

Section 3.0: Affected Environment

Per the EA, "The affected environment of the Proposed Action consists of two main types of environment: partially developed forested lands and the South Tongass Highway. Partially developed lands are mainly located… from the Mountain Point Drinking Water Treatment Plant, through the Alcan subdivision, to South Tongass Highway near the "Hole-In-The-Wall" boat harbor. This land type has been almost completely logged by Alcan Forest Products in 2003-2004 and has been under construction since logging was finished. The non-logged areas are forested, and presently the logged areas consist of unpaved roads and future building pads for subdivision homes.."

Both the proposed project areas are within the "partially developed forested lands" in the Alcan/Morningstar (now Ravenwood) Subdivision. The treated water booster station will be located on a cleared and leveled building lot (Lot 1 of the Shields Replat, Plat 2014-1 KRD, a replat of Lot 1, Block 1 of the Ravenwood Subdivision and Lot RR-2, USS 2402), and the tank will be located on a logged out portion of Lot of the Turner Replat, 2011-10, KRD, some 500-feet from the water mains running overland to from Ravenwood to South Tongass Highway.

Section 3.1: Critical Elements

Per *Table 2: Critical Elements Dismissed from Discussion* in the EA:

Critical Element	**Reason for Dismissal (EA)**	**Proposed**
Flood plains	The project is not located within any flood plains	No Change
Agricultural lands	The project is not located near or in agricultural lands	No Change
Wild and scenic rivers	The project is not located near any wild or scenic rivers	No Change
Sole source aquifers	There are no sole source aquifers within the project area	No Change
Hazardous materials /contaminated sites	There are no contaminated sites located within the project area nor will there be any hazardous materials stored on site	No Change
Subsistence	No subsistence areas are located in the project area	No Change
Recreation	The project area is not home to any specific recreation activities	No Change
Wellhead protection areas	There are no wellhead protection areas within the project area	No Change
Invasive Species	See Below Table 3, Section 3.13.	See Below

Section 3.2: Historical and Archeological Sites
Section 3.17: Cultural Resources
Section 4.1.2: Historical and archeological sites
Section 4.1.21: Cultural Resources

Per the EA and Appendix F, the sole archeological location of interest is the Herring Bay Petroglyph (KET-077), located near Herring Cove Creek, which was determined to not be adversely affected by the pipeline construction. Otherwise, there are no other known cultural resources within the project area. The EA noted that "In the unlikely event cultural resources are discovered during construction all activities in the vicinity of the cultural resources would cease, ADNR, SHPO, USACOE, and the Alaska State Troopers would be notified, and the project would shut down until a qualified archaeologist could evaluate the discovery and recommend an appropriate course of action. KGB could choose to re-engineer the route to avoid a sensitive cultural resource area."

No change. All work is within the limits or near to the uplands areas assessed by the Office of History and Archeology in 2006 for Phases I-V, and not within proximity to the Herring Bay Petroglyph (KET-077). Section 106 review has been requested from the State of Alaska Office of History and

Archeology, who have concurred with a finding of "No historic properties affected" on August 28, 2020 for Phase VI.

Section 3.3: Wetlands
Section 4.1.3: Wetlands
Section 4.2.2.1: Wetlands

Per the EA and Appendix B (Preliminary Jurisdictional Wetland Determination), the two areas in question are:

Site	Community Type	Transect	EA Findings	Proposed
Booster Station	PF04Bg (Palustrine Forested)	1A	Vegetation: predominantly hemlock; shrubs: false azalea, blueberry, and flowering 5-leaf bramble; herb: skunk cabbage, deer fern, dwarf dogwood, bog lily Hydric soils with saturation to within 4-10" of the surface Classified as wetland soils	Work for Phase VI will be performed per the terms of a US COE permit authorization
Tank & Piping	Upland	1D, 2D	Does not meet parameters for wetland – non-jurisdictional	No Change.

The EA found that the overall scope of work within Alcan would impact less than one-quarter acre of wetlands, and that the impacts would be negligible. The work proposed herein will impact the following areas:

Booster Site: .02 acres
Tank Site: .8 acres

Under the EA, the extent of ongoing disturbance (e.g. logging, roads, development) determined that the cumulative impact of the Proposed Impact to wetlands was minor.

As the work areas in Phase VI is effectively the same as that in Phases I-V, there is no change to this determination.

Section 3.4: Coastal Zone Areas
Section 4.1.4: Coastal Zone Areas

The EA examined the project area for consistency with the Alaska Coastal Management Program (ACMP) for the Ketchikan Coastal District. This program has since been discontinued by the State. Through that process, the EA includes Fish Habitat Permit and Water Rights LAS # 24055 issued by, respectively, the Alaska Division of Natural Resources (ADNR) Office of Habitat Management and Division of Mining, Land and Water. Discussions with the Office of Habitat Management related specifically to work in the Herring Bay estuary, and LAS #24055 was relative to the use of Whitman Creek as an approved water source.

These determinations are not relevant to the Phase VI work, as they are approximately a mile away and located along the waterfront and not amongst the uplands areas.

Section 3.5.1: Fish
Section 3.12: Aquatic Resources
Section 4.1.5.1: Fish
Section 4.1.8: Aquatic Resources
Section 4.2.2.2: Fish and Wildlife
Section 4.2.2.3: Aquatic Resources

The EA primarily focuses on those portions of the proposed pipeline corridor running through Herring Cove Creek. This is not relevant to the Phase VI work, as they are approximately a mile away, located along the waterfront and not amongst the uplands areas.

The EA notes that a SWPP prepared prior to construction would ensure that water pollution control measures and best management practices will be in place to control erosion and sedimentation during excavation and fill activities, and that ground water conditions would return to normal with cessation of excavation. There is no change to this condition.

Section 3.5.2: Wildlife
Section 4.5.1.2: Wildlife
Section 4.2.2.2: Fish and Wildlife
Animals noted as being proximate to the work areas are as follows:

Species	EA Findings	Proposed
Bald Eagles	USFS records indicate nests # 21, 77, 76 and 119 are within the project area. USFWS restricted heavy construction activities within 330-feet of the nests from March 1 – May 31, and extended to August 31 if the nest contained a nesting pair of eagles.	Per USFWS, three nests identified in 2016 are in proximity to the project area. Nest 021 is approximately a 3,300-feet from Site 1, and Site 2 is approximately 3,800-feet from known nests 076 and 119. Mitigation measures are identified by USFWS.
Sitka black-tailed deer	Rarely seen beyond the forest covered and primarily reside in higher altitudes unless snow and ice force them into lower elevations during winter.	No Change.
Gray Wolves	May be in some portions of the project area during the year in very low numbers.	No Change.
Red squirrel	Common to the upland forests.	No Change.
Black bear	Inhabit Herring Cove in moderate numbers.	Bear scat identified in project area: there is no indication that dens have been uncovered during logging operations.

Per the EA, "most… areas have been logged and about half of the logged land has been constructed into logging roads that are platted as future subdivision roads. Long-term impacts are negligible because most of the pipe corridor is in the process of being developed due to another project or along the highway shoulder… [and] similar forested habitat is plentiful in the general project area." It also determined that, "given the extensive disturbance within the cumulative impacts reference area, no long-term impacts to population dynamics or migration… of wildlife are expect to occur. Therefore, the cumulative impacts to… wildlife attributable to the project [are] negligible."

As both sites included in the action herein are with areas logged as part of the prior project, there is no change to this condition.

Section 3.6: Endangered Species
Section 4.1.6: Endangered Species

The EA identified no endangered species in the project area and addressed the federally protected status of the bald eagle under the Eagle Protection Act. See Section 3.5.2 above.

Federally listed organisms, per the U.S. Fish and Wildlife Service and the Norther Marine Fisheries Service, and any impacts to their habitat, consist of:

- Steller sea lion (WDPS only): the project area is located at longitude 131º31'48"W. This is east of the 144º longitude, and south of Sumner Strait. WDPS sea lions are found rarely in this area. EDPS steeler sea lions do not require consultation under Section of the ESA.
- Humpback whale: Per the Humpback DFS identification chart, the Hawaii DPS that inhabits local waters are not considered an at risk population.
- Steller's eider: Ketchikan is located in southeast Alaska, and the range, per NOAA, is noted as not including the coastal waters of southeast Alaska.
- Spectacled eider: Range is well north of southeast Alaska (e.g. Yukon Delta, Arctic Coastal Plan, St. Lawrence Island, etc.).
- Short-tailed albatross: Range is noted as being Bering Sea, Aleutian Islands, and Gulf of Alaska, well north of southeast Alaska.
- Northern sea otter: Critical habitat range includes Aleutian Islands, Kodiak Island, and AK Peninsula, well away from southeast Alaska.
- Polar bear: Range is located well north of Southeast Alaska (e.g. sea ice and coastlines of Chuckchi, Beaufort and Bering Seas).
- Aleutian shield fern: Range is limited to Adak Island, which is located in the Aleutian Islands.
- Eskimo curlew: No longer occurs in Alaska.
- Wood bison: Not currently in the wild in Alaska.

The EA found that there would be no adverse impacts from the work conducted under Phases I-V, subject to mitigation for the bald eagle nests in proximity to the project. Correspondence from USFWS received on November 20, 2020 recommended the following mitigation conditions for Phase VI, broadly comparable to those identified in 2007:

- Perform an eagle nest survey by a biologist well in advance of the start of work to determine nesting locations.
- Restrict all blasting within one-half mile of any nesting locations to dates outside of March 1 – August 31.
- Provide a landscape buffer of no less than 330-feet of natural, forested vegetation or other shielding between the project site and eagle nests, to be undisturbed throughout project activities.

- Limit human activities within 660-feet of the identified or active nesting sites.
- Restrict external construction or landscaping within 660-feet of an active or identified nesting site during the nesting season.
- Secure an eagle take permit for any work that cannot be conducted in accordance with USFWS' recommendations.

Barring the identification of any currently active nesting locations, there is sufficient distance between all previously identified nesting locations and Sites 1 and 2 that buffering woodlands or topography are not an issue.

Section 3.7: Climate
Section 4.1.17: Climate

The EA notes the location of Ketchikan on the southwest side of Revillagigedo Island in Southeast Alaska, the mild climate with average temperatures ranging from 35º to 65º Fahrenheit, and average rainfall of approximately 150 inches per year. There is no change to this condition.

Section 3.8: Hydrology
Section 4.1.18: Hydrology

The EA notes that the project area is located nearly at the bottom of the southern portion of Fawn Mountain, which has a convex topography resulting in several small creeks draining into Revillagigedo Channel. There is no change to this condition. As noted, the project only impacted the microscale hydrology on a temporary basis, with the overall hydrology unaffected by the project.

The conditions per the EA remain unchanged.

Section 3.9: Surface and Ground Water Quality
Section 4.1.19: Surface and Ground Water Quality

The EA addresses the quality of surface water discharged from Whitman Lake, the result being that the primary contaminants are color, barium and nickel, and that the ground water flow is effectively of the same quality as that of the surface water. This project will not utilize or alter the raw water resources.

The EA also notes that proposed project will temporarily increase turbidity and sediments in surface water runoff, but that the SWPP supplied by the contractor will address mitigation techniques; there be may nominal affects to ground water; and that forest floor and/or grass around the project area would provide natural particulate filtering.

These conditions remain unchanged.

Section 3.10: Air Quality
Section 4.1.7: Air Quality

The EA notes that Ketchikan's sources of air pollution consist of area sources (e.g. home furnaces and wood stoves, open burning), mobile sources (e.g. cars, trucks, boats, etc.), and cruise ship emissions (e.g. marine fuel combustion); air monitoring performed in Bear Valley from November 1993 – February 1995 showed that particulate levels did not approach or exceed National Ambient Air Quality Standard (NAAQS) for particulate matter smaller than 10 microns in diameter (PM_{10}), even during periods of air quality degradation during wintertime inversions; and determined that pollution from cruise ship and vehicular traffic through Revillagigedo Channel and the City of Ketchikan is negligible in the project area. There is no change to this condition. As noted, the main source of emissions are

created during construction: CO, PM_{10}, and $PM_{2.5}$ from construction equipment and the disturbance of soil, and recommended watering the job site to reduce dust.

There is no change to this condition.

Section 3.11: Geology and Soils
Section 4.1.16: Geology and Soils

The EA notes that the soils consist of glacial till parent soil overlain with organic till soils with little influence from the rock substrates due to influence from the wet climate. This project lies along portions of the project assessed under the EA and thereafter disturbed: the project area appears to continue to meet this condition. It was noted that current seismic codes would be implemented to address any potential for earthquake damage, but that seismic impacts are expected to be minimal. It was also noted that the piping and structure areas would result in temporary changes to the general topography, but that long-term impacts would be negligible.

There is no change to this condition.

Section 3.13: Vegetation
Section 4.1.9: Vegetation

Per the EA, all work will take place in areas described as developed.

- Booster Station: Site is cleared recently, thickly covered in salmonberry bushes interspersed with red alders, with immature spruce and hemlock (<2" trunk) widely distributed.

Common Name	Scientific Name	Invasive (grade/no)
Red Alder	Alnus rubra	No
Sitka Spruce	Picea stichensis	No
Western Hemlock	Tsuga heterophylla	No
Creeping Buttercup	Ranunculus repens	Medium
Salmonberry	Rubus spectabilis	No
Common Dandelion	Taraxacum officinale	Medium
Orange Hawkweed	Hieracium aurantiacum	Medium
Red Cedar	Thuja plicata	No
Ox-Eye Daisy	Leucanthemum vulgare	Low

- Tank Site: The tank is heavily wooded second-growth (logged circa fifteen years ago) dominated by red alders and salmonberry underbrush indicative of recent clearing, interspersed with intermittent evergreen species.

Common Name	Scientific Name	Invasive (grade/no)
Red Alder	Alnus rubra	No
Sitka Spruce	Picea stichensis	No
Western Hemlock	Tsuga heterophylla	No
Creeping Buttercup	Ranunculus repens	Medium
Salmonberry	Rubus spectabilis	No
Common Dandelion	Taraxacum officinale	Medium
Orange Hawkweed	Hieracium aurantiacum	Medium
Red Elderberry	Sambucus racemose	No
Red Cedar	Thuja plicata	No

Purple Foxglove, Foxglove	Digitalis purpurea	Low
Mountain wood fern	Thelypteris quelpaertensis	No

The EA identified several non-native plant species along South Tongass Highway. Site inspection on July 16, 2020 verified the presence of the following species:

Common Name	**Scientific Name**	**Invasive Aggressiveness**	**Presence (Tank/Booster)**
Japanese Knotweed	Polygonum cuspidatum	Medium	N/A
Reed Canary Grass	Phalaris arundinacea	Low	N/A
Common Dandelion	Taraxacum officinale	Medium	Booster
Creeping Buttercup	Ranunculus repens	Medium	Booster
Annual Bluegrass	Poa annua	Low	N/A
White Clover	Trifolium repens	Low	N/A
Common Plantain	Plantago major	Low	N/A
Ox-Eye Daisy	Leucanthemum vulgare	Low	Booster
Purple Foxglove, Foxglove	Digitalis purpurea	Low	Tank

The EA addressed that dust affecting nearby vegetation was likely to be temporary and localized, that natural growth would essentially return to areas outside the construction zone. It also notes that non-native plant species that spread through their rhizomes or zones could propagate when the soil is disturbed.

Similar to Phases I-V, excavated soil will be stockpiled along the side of the trench or roadway, or near areas where the plants are already present (e.g. along the access road through Ravenwood). In addition, this phase will result in .8 acres being permanently lost to revegetation at the tank site. The vegetation in the area is minimal and common to the area, and as second growth is neither prime nor constitutes a unique vegetative habitat.

Section 3.14: Marine Mammals
Section 4.1.20: Marine Mammals

Per the EA, mink, marten, sea otter, seals, porpoises, killer whales, and humpback whales are present in waters near the project area. However, given that the EA mostly addressed conditions in the Herring Cove Creek, and the inland location of all work under Phase VI, there will be no impact to the water conditions serving these mammals.

Section 3.15: Land Use/Management
Section 4.1.11: Land Use & Zoning

Per the EA, land use within the project area is all residential. While the EA notes there is no area wide land management practices employed in the Ketchikan Gateway Borough, the Ketchikan Gateway Borough does exercise zoning powers as a second-class Borough through its Department of Planning and Community Development. Both project areas are zoned RL – Low-Density Residential. Per Ketchikan Gateway Borough Code (KGBC) Section 18.20.020(g), Public Utility Facilities are a conditional use in residential zones. As noted, this project will not interfere with adjacent land uses, nor will it impact any protected resources in areas of special environmental concern managed by the BLM.

Section 3.16: Noise
Section 4.1.14: Noise

The EA notes that "the Alcan property is currently under construction and produces significant noise during working hours through the use of construction equipment such as backhoes and dump trucks" and notes that the booster station at Whitman generates noise from daily operations that is indiscernable from background noise near any occupied human dwelling.

At this time, Alcan continues to develop their property, with ongoing discussion regarding lots north towards the lot proposed for the tank site, and house construction is underway on at least one lot in the subdivision. However, the Whitman Booster Station is an unobtrusive presence in its residential neighborhood.

Concern regarding potential noise was received during the public meeting held on October 7. It was noted that the existing booster station on Roosevelt does generate some noise, but that the pumps in the booster station are going to be much smaller. This will be

There is no change for Phase VI.

Section 3.18: Socioeconomics
Section 4.1.15: Socioeconomics

The EA notes that socieconomics are typical to the community as a whole, and that construction would create new opportunities for new local-hires, as the work would be performed as a bid project, and that the laborers would likely be locals. The sociecoonomics of the project remain the same for Phase VI. There is no apparent change to this determination.

Section 4.1.10: Subsistence

Per the EA, subsistence activities do not occur in the project area, and therefore the alteration does not restrict subsistence use, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit user access, and therefore no impacts will occur. There is no change to this condition.

Section 4.1.12: Visual Aesthetics

The EA notes that the booster station and storage tank in Phases I-V create permanent visual impacts, but that they are located off the highway, out of the visible line of site of highway patrons. Visual impacts from Phase VI consist of the booster station on Ravenwood Drive near Roosevelt Drive, and the water tank.

The booster station will be a permanent visual impact upon completion, and is a utility building located within a residential neighborhood. However, this is similar to the condition created by the Roosevelt Booster Station at the intersection of Roosevelt Drive and Franklin Drive. As this will require condition use permit for its placement, the Planning Commission may address this as it sees fit.

The tank site is located approximately 600-lf from the nearest building lot in the most recently proposed subdivision: visual impacts to that subdivision will be minimal.

Section 4.1.13: Recreation

The EA notes that the pipe corridor located on private land is generally prohibited to recreation, and that therefore there would be no impact to recreation. This condition remains in effect for the two work areas under Phase VI.

Sincerely,

Morgan K. Barry
Deputy Director of Public Works
Ketchikan Gateway Borough

Environmental Assessment:

South Tongass Water Main – Mountain Point to Whitman Creek Environmental Assessment "Draft"
by R&M Engineering – Ketchikan, Inc. dated December 2007 for the United States Environmental Protection Agency (EPA) and United States Department of Agriculture

South Tongass Water Main
Mountain Point to Whitman Creek
Environmental Assessment
"Draft"

Prepared for:

Ketchikan Gateway Borough
Public Works
December 2007

United States Environmental
Protection Agency

United States Department
Of Agriculture

Prepared by:

R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road
Ketchikan, Alaska 99901

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LIST OF ACRONYMS

ACMP ..... Alaska Coastal Management Program
ADEC ..... Alaska Department of Environmental Conservation
ADF&G ..... Alaska Department of Fish and Game
ADNR ..... Alaska Department of Natural Resources
ADOT ..... Alaska Department of Transportation
ANILCA ..... Alaska National Interest Lands Conservation Act
BLM ..... Bureau of Land Management
BMP ..... Best Management Practices
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
CPQ ..... Coastal Project Questionnaire
EA ..... Environmental Assessment
EFH ..... Essential Fish Habitat
ESA ..... Endangered Species Act
FONSI ..... Finding of No Significant Impact
HDPE ..... High Density Poly Ethylene
KGB ..... Ketchikan Gateway Borough
KPU ..... Ketchikan Public Utilities
LEDPA ..... Least Damaging Practicable Alternative
NAAQS ..... National Ambient Air Quality Standards
NEPA ..... National Environmental Policy Act
NHPA ..... National Historic Preservation Act
NMFS ..... National Marine Fisheries Service
NPDES ..... National Pollution Discharge Eliminations System
OHA ..... Office of History and Archaeology
PM10 ..... Particulate Matter 10 or less microns in diameter
PM2.5 ..... Particulate Matter 2.5 or less microns in diameter
R&M ..... R&M Engineering
RCRA ..... Resource Conservation and Recovery Act
RFFA ..... Reasonably Foreseeable Future Actions
ROW ..... Right of Way
SHPO ..... State Historic Preservation Office
SSRAA ..... Southern Southeast Regional Aquaculture Association
SWPPP ..... Storm Water Pollution Prevention Plan
USACE ..... United States Army Corps of Engineers
USC ..... United States Code
USDA ..... United State Department of Agriculture
USEPA ..... United States Environmental Protection Agency
USFWS ..... United States Fish and Wildlife Service

1.0 INTRODUCTION

The Ketchikan Gateway Borough proposes to construct two parallel water mains that will run from the drinking water treatment plant at Mountain Point to the Whitman Creek dam at Herring Cove. The water lines will flow in opposite directions, one carrying raw water from the creek to the drinking water treatment plant, and the other distributing treated water back to Herring Cove. The proposed project is located approximately seven miles to the southeast of the City of Ketchikan, along South Tongass Highway.

The proposed action, discussed in Section 2.2, has an estimated project cost of $3,386,000 and an estimated annual pumping cost of $3,600. Current monthly water rates for the South Tongass Service Area are $38 per unit for residential users and a $25 base rate per unit for commercial users. After the project is complete, the rates are expected to remain the same or decrease. Since the design and construction costs are being funded by Federal and State agencies, the only cost left for the water users to pay is the operation and maintenance. The slight increase in operation and maintenance costs will be offset by an increased number of users paying monthly rates, thus the rates for the users will not increase.

1.1 PURPOSE AND NEED

The Ketchikan Gateway Borough and Village Safe Water have been installing water infrastructure south of Ketchikan, along South Tongass Highway (the Highway), since the late 1980's. During this time, nearly five miles of water main has been installed along the Highway. The new water pipes have expanded the Mountain Point Water Service Area to such an extent that it has been renamed the South Tongass Service Area, as it now covers an area much greater than originally planned. The new South Tongass Service Area serves nearly the entire road system south of Ketchikan and is still using the original water supplied by Forks Creek near the Mountain Point Drinking Water Treatment Plant. Originally, Forks Creek supplied water to 195 houses, however, with the recent water main extensions, the South Tongass Service Area would potentially serve over 465 houses. With the additional demand from the larger service area the capacity of the existing water source at Mountain Point is currently exceeded. The Ketchikan Gateway Borough will not allow any more residents along the Highway to connect to the new water mains due to insufficient water supply and an inability to meet fire flows. The new Fawn Mountain Elementary School has been allowed to connect and creates a large demand on the system. Throughout summer months, it is not uncommon for the South Tongass Service Area to be put on a water conservation notice due to low flows of its source at Forks Creek.

The proposed pipelines would alleviate the need for additional water throughout the South Tongass Service Area by connecting the existing drinking water treatment plant at Mountain Point to a supplemental water source at Herring Cove, further south along the Highway. The existing water source for the Herring Cove service area is clean and of

adequate volume to supply supplemental water to the rest of the South Tongass Highway Service Area.

Herring Cove is located approximately three miles south along the Highway from Mountain Point. The Herring Cove service area, which is independently owned and operated by the Herring Cove Water Users Association, has an existing water distribution system which collects water from a small dam on Whitman Creek and distributes untreated water to approximately 30 houses. The original wooden dam and ductile iron pipe system were constructed in the 1960's and do not incorporate any water treatment into their water system. Due to the distribution of untreated drinking water to an estimated 120 members, the Herring Cove Water Users Association currently has a notice of violation and a continual "boil water notice." Alaska Department of Environmental Conservation (ADEC) has issued several notices of violation and has been patient with the Herring Cove Association because of the proposed water line project; however, they have become disgruntled with continual delays.

The proposed pipelines would collect untreated water from the Whitman Creek dam, near Herring Cove, and convey it to the Mountain Point Drinking Water Treatment Plant. After treatment, the potable water would be transmitted back to Herring Cove for distribution. The two pipelines would share one utility trench.

1.2 RELATIONSHIP TO STATUTES AND REGULATIONS

National Environmental Policy Act:
The National Environmental Policy Act (NEPA) (Public Law 91-190, 42 United States Code [USC] 4321 et seq.) is the cornerstone of our Nation's environmental laws and was enacted to ensure that information on the environmental impacts of any Federal, or federally funded, action is available to public officials and citizens before any actions are taken. In 1978 the Council on Environmental Quality issued regulations to implement the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508).

Because the proposed project includes a federally funded action that could affect the human and natural environment, it requires review under NEPA. Federal actions include projects and programs entirely or partially financed, assisted, conducted, regulated, or approved by federal agencies. The proposed project is partially funded by the U.S. Environmental Protection Agency (USEPA) and United States Department of Agriculture (USDA), and would involve federal lands, permits, and approvals from other federal agencies.

NEPA requires the designation of a federal lead agency to oversee preparation of an Environmental Assessment (EA) of the proposed project. For this project, the lead agency is the USEPA. The USDA also participated in project and EA review.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, two water lines would not be installed from Mountain Point to Whitman Lake, and the Herring Cove residents would continue to drink untreated water, have a continual boil water notice, and be in violation of ADEC's Class A Public Drinking Water Standards. Under this alternative, the South Tongass Service Area would continue to have only one water source whose capacity is shown to be exceeded.

2.2 ALTERNATIVE 1 – PROPOSED ACTION

Route Description

Raw water would be provided with a new 10" HDPE water line from Whitman Creek to Mountain Point. Raw water would be collected from Whitman Creek at the location of the existing Herring Bay Water Users intake. The water would be pumped from the dam, through a new utility easement on State land for approximately 300 feet, and stored in a small bolted-steel water tank before being pumped to Mountain Point. Annual pumping costs are estimated around $3,600 per year. From the booster station and tank site the water line would be placed in the shoulder and ditch line of the South Tongass Highway. It would continue to a point near Hole-In-The-Wall Harbor where the pipe would be run through a short private property easement and then through Alcan Forest Products (Alcan) property, which is in the process of being developed into the Ravenswood Subdivision.

A treated water pipe would be installed in the same trench as the raw water. This pipe would convey water from the Mountain Point treatment plant back to Herring Cove for distribution.

One advantage of Alternative 1 is independence from ownership and potential future maintenance of Whitman Lake Dam, which could occur under Alternative 2. Whitman Lake Dam is currently owned and maintained by KPU for the purpose of constructing a future powerhouse near the SSRAA hatchery. The power project is currently a priority of KPU. If the Swan – Tyee electrical intertie project is completed, it is very likely that the Whitman project would lose priority. At present KPU has been willing to pay for all maintenance on the Whitman Dam. However, KPU could be looking to the other users to participate in the future maintenance and may try and transfer ownership to them. Sharing ownership and subsequent maintenance costs could be a significant future expense of Alternative 2.

Detailed Design Field Tasks

1. R&M Engineering-Ketchikan, Inc. (R&M) has already completed a topographical survey of the selected route along with areas that would be used for Alternatives 1 and 2.

2. R&M detailed design geotechnical tasks for Alternative 1 include: drilling an unknown quantity of boreholes along the selected route and performing soil analyses to test for suitability of native materials for construction.

Much of the proposed pipeline corridor has been logged and/or mechanically cleared and minimal hand clearing (with chainsaws) will be necessary to conduct the geotechnical tasks. Most of the boreholes will be drilled along South Tongass Highway in order to project drilling and blasting quantities necessary for construction. All geotechnical field work will be performed under the direction of an experienced R&M geologist/engineer.

3. Additional field reconnaissance has been conducted as required for detailed design. This reconnaissance was accomplished by walking the selected alignment, and did not involve disturbing the ground or cutting trees.

Construction

Clearing for the project would only be required for a small portion of private land between the Alcan property and South Tongass Highway. Stockpile areas would be provided by Alcan Forests Products and ADOT, along the highway. The water line will be placed in a trench excavated by tracked backhoes. The trench will be approximately 5 feet deep, 7 feet wide at the top, and 3.5 feet wide at the bottom. High density polyethylene pipe will be installed. The pipe will be bedded with a compacted, one inch-minus gravel mixture, and all other backfill will consist of previously excavated native material. Compaction shall be completed per R&M project specifications.

Ground water may be encountered throughout the alignment. This potential groundwater flow may be intermittent and the depth may vary seasonally. Furthermore, surface water runoff may contribute to water ponding in the trench. To ensure adequate pipe foundation support and pipe stability after installation, the pipe must be installed with the bottom of the trench in a dry condition. Water accumulation within the trench would be removed by open sump dewatering. Exact methods of excavation dewatering would be determined by the contractor and would depend upon the quantity of water encountered, soil conditions, and terrain. Excess water pumped from the trench will be dealt with in accordance with the project's Storm Water Pollution Prevention Plan (SWPPP) submitted by the contractor. In general, this water shall be placed in a detention pond with either an elevated outlet structure and/or a silt fence surrounding the outlet.

Following construction, disturbed ground surfaces will be graded to reduce surface erosion. Stockpiled organic materials will be spread on the disturbed construction easement and seeded for restoration. Seeding will facilitate the establishment of natural vegetation cover on all disturbed areas with the exception of the gravel maintenance road and booster station building area.

Booster Station and Water Storage Tank

A booster station, to be located near the Whitman Creek dam, will be a single story above ground structure on a concrete foundation with a footprint of approximately 300 square feet. The booster station will run on the utility grid power and have a diesel powered

standby generator, which would only be employed during utility power outages. The storage tank is located next to the booster station on KGB property. The 40,000-gallon storage tank will be placed on an above ground concrete pad and will be 20 feet in diameter.

2.3 ALTERNATIVE 2

Route Description

The pipeline route for Alternative 2 would be the same as Alternative 1, except raw water would be provided with a new 10" HDPE water line from Whitman Lake to Mountain Point, instead of from Whitman Creek. The point of connection would be one of the SSRAA penstocks immediately outside of the Whitman Lake dam. Treated water for Herring Cove would be run in the same trench as the raw water.

Because the elevation of the Fawn Mountain water tank controls the pressure zone, piping would be required to be installed below elevation 260, or the pressure would need to be boosted throughout the subdivision. Water services would be required to be below 215 feet to meet the 20 psi minimums for potable water distribution systems. Because most of Alcan's property is greater than this elevation, we have included a water booster station in the estimate. The booster station could be installed as a future phase to the project when funds allow.

Construction

Construction, trench dewatering, and restoration of disturbed areas would be the same as Alternative 1, the proposed action alternative. Piping from the dam to Powerhouse Road would be difficult to install, require a new easement through State land, and would require extensive use of helicopters and manual labor due to the steep terrain.

Booster Station and Water Storage Tank

A small booster station would be installed near the base of Alcan's property. The booster station would be of the same dimensions, require the same construction methods, and have the same operating procedures as the one described in Alternative 1.

2.4 ALTERNATIVE 3

Route Description

Raw Water would be collected from Whitman Creek similar to Alternative 1 and treated in a new water treatment plant. Treated water would be pumped to Mountain Point along South Tongass Highway and connect to the existing water lines at the intersection of Roosevelt Drive. Water would not be run through Alcan's property. This alternative is approximately $250,000 more than Alternative 1, however, the higher costs are offset by planned upgrades at the existing water plant. This alternative would have similar annual pumping costs as Alternative 1, however, it would also have additional costs associated with operating an additional water treatment plant. One advantage of Alternative 3 is it involves constructing a plant which is specifically designed to treat Whitman Creek water

and is better able to handle the future demands of the entire South Tongass Service Area rather than the smaller Mountain Point service area.

Alternative 3 could be constructed in multiple phases. The first phase would be the connection of the Herring Bay users to the Mountain Point system. This phase could be done immediately to bring Herring Bay into compliance with ADEC. Site work for the planned water plant could also be done as a separate contract while the water plant was under design.

Construction

Construction, trench dewatering, and restoration of disturbed areas would be the same as for Alternative 1, the proposed action alternative.

Water Treatment Plant and Water Storage Tank

The water treatment plant would replace the booster station near Whitman Creek dam, as described in Alternative 1. Construction of the treatment plant building would be the same as the booster station in Alternative 1.

2.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

No other alternatives were considered for this project.

2.6 COMPARISON OF ALTERNATIVES

Table 1 compares the four alternatives based on location of pipe route, environmental impacts, costs, and the number of new residents receiving water service. A detailed discussion of environmental impacts is discussed in Chapter 4.

Table 1:
Alternatives

	No Action	Alternative 1 Proposed Action	Alternative 2	Alternative 3
Pipe Route	There would be no pipe installed	Two pipes would run from Mt. Point water treatment plant to Whitman Creek	Two pipes would run from Mt. Point water treatment plant to Whitman Lake Penstocks at Herring Cove	Water would be withdrawn from and treated at Whitman Creek in new water treatment plant, then pumped to Mt. Point along South Tongass Highway and connect to the existing water lines at the intersection of Roosevelt Drive
Environmental Impacts	There would be no environmental impacts	·Loss of up to 0.23 acre of wetlands ·Possible harm to a small area of eelgrass ·Temporary displacement of wildlife ·Temporary increase in CO, PM10, PM2.5 ·Loss of <1 acre vegetation ·Temporary increase in turbidity/sediments in surface water runoff ·Marine mammals would experience a short term loss of habitat	·Loss of up to 0.23 acre of wetlands ·Possible harm to a small area of eelgrass ·Temporary displacement of wildlife ·Temporary increase in CO, PM10, PM2.5 ·Loss of <1 acre vegetation ·Temporary increase in turbidity/sediments in surface water runoff ·Marine mammals would experience a short term loss of habitat	·Possible harm to eelgrass ·Temporary increase in CO, PM10, PM2.5 ·Loss of 1/3 acre vegetation ·Temporary increase in turbidity/sediments in surface water runoff ·Marine mammals would experience a short term loss of habitat
Cost	$0	$3,385,932	$3,571,767	$3,628,555
New Population Served	0	640 people	640 people	400 people

3.0 AFFECTED ENVIRONMENT

This section presents the existing environmental conditions in the Proposed Action project area that would be potentially affected by the South Tongass Water project. The project is located within Section 2, Townships 75 and 76 S, Range 91 E, Copper River Meridian; Latitude 55.300° N, Longitude 131.533° W; from Mountain Point to Herring Cove, approximately 6 to 8 miles south of Ketchikan, Alaska. The project area is bound by Doe and Fawn Mountains to the west and Mountain Point and George Inlet to the east. The affected environment focuses on those aspects of the project potentially subject to impacts from construction of the water lines. Given the long and narrow pipeline construction corridor, the general study area analyzed in this report follows the length of the water line and varies in width from approximately 50 feet up to several hundred feet from the centerline of the pipe alignment. The variations in width of the general study area are caused by different possible impacts affecting certain areas of the project. For example, in some areas of the project no environmental effects are expected except a narrow band of disturbed ground and other areas may be subject to several hundred feet of possible storm water runoff. Environmental resources in the project area were identified through site visits and discussions/correspondence with federal and state representatives.

The affected environment of the Proposed Action consists of two main types of environment: partially developed forested lands and the South Tongass Highway. Partially developed lands are mainly located from Station 0+00 to 68+00; from the Mountain Point Drinking Water Treatment Plant, through the Alcan subdivision, to South Tongass Highway near the "Hole-In-The-Wall" boat harbor. This land type has been almost completely logged by Alcan Forest Products in 2003-2004 and has been under construction since logging was finished. The non-logged areas are forested, and presently the logged areas consist of unpaved roads and future building pads for subdivision homes. Another small portion of partially developed land is located at the end of the project from the beginning of the Old South Tongass Highway Right-Of-Way (ROW) to the Whitman Creek Dam.

The other type of environment that will be affected by the project is the shoulder of South Tongass Highway. This area consists of paved and unpaved roadway shoulder and ditchline. The ground in this area is generally gravel or grass. The highway was platted in 1962 with Right-Of-Ways reaching widths of up to 132 feet. South Tongass Highway was constructed and open for public travel in 1964-1965.

3.1 CRITICAL ELEMENTS

To obtain federal funding from the USEPA, the project must demonstrate compliance with all applicable laws and executive orders. Listed below are some critical elements that will be discussed in the following two chapters in order to show compliance with applicable laws.

- Historical and archeological sites
- Wetlands
- Flood plains
- Agricultural lands
- Coastal zone areas
- Wild and scenic rivers
- Fish and wildlife
- Endangered species
- Sole source aquifers
- Wellhead protection areas
- Climate
- Hydrology
- Surface and ground water quality
- Air quality
- Geology and soils
- Hazardous materials/ contaminated sites
- Aquatic resources
- Vegetation
- Marine mammals
- Invasive species
- Subsistence
- Land use/management
- Recreation
- Noise
- Cultural resources
- Socioeconomics

Several critical elements listed above are not presented in detail in the following sections of this EA. Such areas have been reviewed and would not be impacted by the project. These areas dismissed from further discussion are listed in Table 2, below, along with the reason for their dismissal.

Table 2: Critical Elements Dismissed From Discussion

Critical Element	Reason for Dismissal
Flood plains	The project is not located within any flood plains
Agricultural lands	The project is not located near or in agricultural lands
Wild and scenic rivers	The project is not located near any wild or scenic rivers
Sole source aquifers	There are no sole source aquifers within the project area
Hazardous materials / contaminated sites	There are no contaminated sites located within the project area nor will there be any hazardous materials stored on site
Subsistence	No subsistence areas are located in the project area
Recreation	The project area is not home to any specific recreation activities
Wellhead protection areas	There are no wellhead protection areas within the project area
Invasive Species	There are no invasive species known in the Ketchikan area

3.2 HISTORICAL AND ARCHEOLOGICAL SITES

A review of literature, the National Register of Historic Places, the State Historic Preservation Office (SHPO), and a Certified Archeologist did not find any cultural or historical resources that will be affected by the proposed pipeline corridor. There is an archeological artifact known to be in the vicinity of the project area near Herring Cove Creek. According to an archeological report from April 2007, the Herring Bay Petroglyph (KET-077) will not be adversely affected by the pipeline construction. Furthermore, historical records show that the petroglyph was located several hundred feet east of the pipeline corridor. The archeological report along with correspondence from SHPO can be found in Appendix F.

3.3 WETLANDS

Wetlands are transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water. Wetlands provide many important ecological functions such as habitat for wildlife and buffer surrounding areas from flooding. These areas provide habitat for small mammals such as porcupine, birds, and deer. Wetlands in the area are primarily palustrine, forested, needle leaved evergreen with vegetation including species such as western hemlock, red alder, sitka spruce, fools huckleberry, false lily-of-the-valley, and deer fern. The project area also hosts some riverine, upper perennial, streambed wetlands. Wetlands comprise approximately 3.5 percent (0.23 acres) of the proposed pipeline corridor (Klein and Fultz 2006).

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Map (USFWS 1978), topographical maps, and aerial photographs were used to locate wetlands and water of the U.S. Wetland assessments were conducted in the field along the pipeline corridor in 2006. Wetlands within the project area were classified according to the USFWS National Wetlands Classification System (Cowardin et.al 1979) and in accordance with the USCOE 1987 Wetlands Delineation Manual. The Preliminary Jurisdictional Wetland Determination report along with correspondence from USCOE can be found in Appendix B.

3.4 COASTAL ZONE AREAS

The project is located within the Ketchikan Coastal District and is therefore under the jurisdiction of the Alaska Coastal Management Program (ACMP). Based on an evaluation by the Alaska Department of Natural Resources' (ADNR) Division of Mining, Land, and Water and Office of Habitat Management, and the Ketchikan Coastal District, the State of Alaska concurs that the project is consistent with both the ACMP and the Ketchikan Coastal District's enforceable policies. The following State authorizations have been granted based on the ACMP consistency determination:

- Department of Natural Resources/Office of Habitat Management and Permitting
  Fish Habitat Permit
- Department of Natural Resources/Division of Mining, Land and Water
  Water Right LAS# 24055

3.5 FISH AND WILDLIFE

3.5.1 Fish

The proposed pipeline corridor runs through Herring Cove Creek which is listed in the Atlas and Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes as being important for silver, chum, and pink salmon. In addition king salmon also use this water body as they migrate to the Whitman Lake Hatchery upstream of the proposed pipe route. Migration begins in June and continues through October. Eggs deposited in the gravel do not complete hatching into free-swimming fry until mid-June. Juvenile silver occupy the area year-round.

3.5.2 Wildlife

Wildlife likely to occur within the project area consists primarily of birds, deer, bear, wolves, and small mammals.

The most abundant species of bird in the area include bald eagles (Haliaetus leucocephalus). The USFWS has records of four bald eagle nests located from Mountain Point to Herring Cove. Nests #s 21, 77, 76, and 119 are located on the quad map and project plan map located in Appendix C with the rest of the correspondence of USFWS. The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) prohibits molesting or disturbing bald eagles, their nests, eggs, or young. The early nesting period, during courtship and nest establishment, is the period when eagles are most sensitive to disturbance. Early nesting occurs from March through August.

Other birds that inhabit the project area include: Bonaparte's gull (Larus Philadelphia), Northwester crow (Corvus caurinus), Common crow (Cornus corax), Barn swallow (Hirundo rustica), Blue jay (Cyanocitta cristata), and Humming bird (Hemaris thysbe).

Sitka black-tailed deer are abundant on Fawn and Achilles mountains near Herring Cove, however, they area rarely seen beyond the forested cover and primarily reside in higher altitudes unless snow and ice force them into lower elevations during winter.

Black bears (Ursus americanus) inhabit the Herring Cove area in moderate numbers. They feed primarily on the salmon runs in Herring Cove Creek from April through October, when they typically begin winter hibernation. Gray wolves (Canis lupus) may be in some portions of the project area during the year in very low numbers. Red squirrel (Tamiasciurus hudsonicus) are common in the Mountain Point and Herring Cove areas in the upland forests. Mink (Mustela vison) frequent the shores of Herring Cove year round.

3.6 ENDANGERED SPECIES

According to the USFWS Endangered, Threatened, Proposed, Candidate, And Delisted Species list for Alaska, no federal or state listed species have been found to inhabit the project area. The absence of listed species in the project area was confirmed by the Alaska Department of Fish and Game (ADF&G) Ketchikan Field Office. The bald eagle is one of the most commonly seen raptors within the area. Although not threatened, endangered, or identified as a species of concern in Alaska, they are federally protected species under the Eagle Protection Act. Bald eagle nests within the project area are identified and discussed in Section 3.5.2 Wildlife.

3.7 CLIMATE

Ketchikan is located on the southwest side of Revillagegado Island in Southeast Alaska and the climate is strongly influenced by the ocean. Ketchikan has a mild climate with average temperatures ranging from 35 to 65 degrees Fahrenheit, and an average rainfall of approximately 150 inches per year.

3.8 HYDROLOGY

The first one and one half miles of the project, from Mountain Point to Herring Cove, is located nearly at the bottom of the southern portion of Fawn Mountain. This area of Fawn Mountain has a convex topography, resulting in just a couple of small creeks that drain to Revillagegado Channel.

The latter part of the project, from Herring Cove to Whitman Creek, is located at the discharge point for both the Herring Cove basin and Whitman Lake basin. Both of these drainage basins are steep, heavily forested, and relatively small.

3.9 SURFACE AND GROUND WATER QUALITY

In August 2006 the Whitman Lake discharge was tested for the ADEC Class A-public drinking water system surface water contaminants, consisting of total coliform bacteria, inorganic chemicals, nitrate, volatile organic chemicals, and secondary contaminants. Three constituents were found to be above the maximum contaminant level: color, barium, and nickel. Despite these findings, the overall water quality is considered good. The Whitman Lake discharge water is representative of all surface waters found within the project area.

Shallow bedrock throughout the project area results in considerable groundwater flow along the consolidated layer. There are no known sources of contamination within the project area, thus, the groundwater quality is expected to be similar to the surface water quality discussed above.

3.10 AIR QUALITY

Ketchikan's open marine geography combined with strong winds, contribute to the area's excellent air quality. However, some sources in the Ketchikan area (e.g., wood stoves and cruise ships) can seasonally contribute pollutants to the air and can adversely affect ambient air quality on a microscale.

Air quality is defined by ambient air concentrations of specific pollutants determined to be of concern with respect to the health and welfare of the general public. Under the Clean Air Act Amendments of 1990, the USEPA established National Ambient Air Quality Standards, including six "criteria pollutants:" lead, ozone, sulfur dioxide, oxides of nitrogen, carbon monoxide, and particulate matter smaller than 10 microns in diameter (PM_{10}). New standards for particulate matter smaller than 2.5 microns in diameter ($PM_{2.5}$) have been proposed, and policies to implement the standards are in development. Areas that exceed a federal air quality standard are designated as non-attainment areas. The project area is in attainment with the National Ambient Air Quality Standards.

ADEC conducted ambient air quality monitoring for particulate matter in the Bear Valley area of Ketchikan during the winters from November 1993 through February 1995. They measured particulate matter with a size of 10 micrometers or less (PM10). Monitoring efforts during the wood smoke season (December/January) showed that air quality in Bear Valley degrades during periods of wintertime inversions. However, the data collected indicates that levels of particulates did not approach or exceed the National Ambient Air Quality Standard (NAAQS) for PM10. Levels of particulate matter are below NAAQS throughout the project area.

To protect areas classified as being in attainment, Congress established the Prevention of Significant Deterioration under the Clean Air Act Amendments of 1977. Areas were classified by the additional amounts of total suspended particles and sulfur dioxide degradation that would be allowed. Class I areas have the greatest limitations, and virtually any degradation in these areas would be significant; areas where moderate controlled growth can occur were designated as Class II; those areas where the greatest degree of impact is allowed are Class III. There are no Class I, II, or III areas in the vicinity of the project area.

Sources of air pollution in the Ketchikan area include area sources (such as home furnaces, wood stoves, and fires burning in the open) and mobile sources (such as cars, trucks, boats, cruise ships, airplanes, and helicopters). Cruise ships produce marine fuel combustion and, as such, are a source of air pollution. Fuel burned in ship boilers and generators produce a variety of air pollutants, including nitrogen oxides, sulfur dioxide, carbon monoxide, and particulate matter. Pollution from cruise ship and vehicular traffic through Revillagegado Channel and the City of Ketchikan is negligible in the project area.

3.11 GEOLOGY AND SOILS

The Ketchikan area was covered by glacial ice during the Pleistocene, which resulted in the mountainous, carved landscape that defines the area. The erosion-resistant granitics were least altered and form the higher mountains on the island, such as Fawn Mountain. The metamorphics were greatly altered by glacial action resulting in the glacial till that dominates the island. This glacial till parent soil is mostly of local origin and deepest on the more altered metamorphic landforms and thinnest or absent on many granitic landforms. Organic soils overlay the glacial till and vary in thickness.

Rocks within the project area fall into two major categories: 1. the Coast Range batholith rock and 2. a complex of metamorphic rocks. The rocks have little influence on the soil properties due to the overwhelming influence of the wet climate which tends to equate soil properties. The soils in the Mountain Point area are moderately drained and become increasingly well drained toward Whitman Creek, resulting in high soil productivity.

3.12 AQUATIC RESOURCES

See Section 3.5.1 for a description of fish within Herring Cove Creek.

3.13 VEGETATION

The areas of the project that are still vegetated (most of the project area is developed) consist of coniferous forest typical to Southeast Alaska. Some dominant vegetation in the area include western hemlock, red alder, sitka spruce, fools huckleberry, false lily-of-the-valley, and deer fern. Undisturbed vegetated areas comprise approximately five percent or less of the project area.

Several non-native plant species have been documented along South Tongass Highway within the project area. These plants are listed in Table 3 along with their tendency for invasiveness. Each plant's aggressiveness is ranked from Low to High, with Low meaning that the plant will not out-compete other plants and High meaning that the plant will try to out-compete the native species and may result in a monoculture.

Table 3: Non-Native Plant Species

Common Name	Scientific Name	Invasive Aggressiveness
Japanese Knotweed	Polygonum cuspidatum	Medium
Reed Canary Grass	Phalaris arundinacea	Low
Common Dandelion	Taraxacum officinale	Medium
Creeping Buttercup	Ranunculus repens	Medium
Annual Bluegrass	Poa annua	Low
White Clover	Trifolium repens	Low
Common Plantain	Plantago major	Low
Ox-Eye Daisy	Leucanthemum vulgare	Low
Purple Foxglove, Foxglove	Digitalis purpurea	Low

3.14 MARINE MAMMALS

Many marine mammals are native to the Ketchikan area. Some that are prominent in the waters nearest the project area include: mink, marten, sea otter, seals, porpoises, killer whales, and humpback whales. The first three mammals listed reside year round within the rocky shoreline of the area, while the latter four mammals tend to frequent the area during the summer and fall when the salmon are running at Herring Cove Creek.

3.15 LAND USE/MANAGEMENT

Land use within the project area is all residential, with the exception of three industrial parcels and one commercial parcel in Herring Cove. There are no area wide land management practices employed in Ketchikan or the Ketchikan Gateway Borough.

3.16 NOISE

Typical noise levels vary throughout the project area. The Alcan property is currently under construction and produces significant noise during working hours through the use of construction equipment such as backhoes and dump trucks. The area along South Tongass Highway is generally quieter and primarily consists of vehicle noise, which is elevated in the summer due to increased tour bus traffic. Herring Cove is moderately quiet with its main noise sources being traffic, tour buses, and periodic activity on the industrial parcel to the northeast of the cove.

3.17 CULTURAL RESOURCES

SHPO has record of a petroglyph in the Herring Cove area. The Herring Bay Petroglyph (KET-077) is not visible to the common public, and could not be identified by a certified archeologist. The petroglyph is thought to be located somewhere on the southern point of Herring Cove, over 400 feet away from the proposed project. There are no other known cultural resources within the project area.

3.18 SOCIOECONOMICS

Socioeconomics throughout the project area are typical of the entire City of Ketchikan and Ketchikan Gateway Borough. The average household in the area appears to be owned by middle class, working citizens.

4.0 ENVIRONMENTAL IMPACTS

4.1 DIRECT AND INDIRECT IMPACTS OF THE ALTERNATIVES

Chapter 3, Table 2 shows a list of critical elements that may not be discussed in this chapter and the associated reason for their dismissal from further discussions.

4.1.1 Methodology

The impact analysis to evaluate alternative was conducted in a consistent manner based on standardized impact definitions. For each unique area selected for detailed analysis (see Section 3.1) direct, indirect, and cumulative impacts have been described. Impacts identified for each issue brought forward are based on the duration, extent, and intensity of the impact. Summary impact levels (characterized as negligible, minor, moderate, or major) are given for each impact topic. Impact level thresholds are defined in Table 4 below.

Table 4: Resource Assessment Impact Levels

Impact Level	Negligible	Minor	Moderate	Major
Intensity	Little or no impact to the resource would occur; any change that might occur may be perceptible, but difficult to quantify.	Change in a resource would occur, but no substantial resource impact would result. The change in the resource would be perceptible but would not alter the condition of the resource.	Noticeable change in a resource would occur and this change would alter the condition or appearance of the resource, but the integrity of the resource would remain.	Substantial impact or change in a resource area would occur that is easily defined and highly noticeable, and that measurably alter the condition or appearance of the resource.
Extent	None	Localized - Impact would occur only at alternative site or its immediate surroundings, and would not extend into the region.	Wide Area of Region - Impact would affect the resource on a regional level, extending well beyond the alternative immediate site.	Region wide - Impact would affect the resource on a national level, extending well beyond the region.
Duration	None	Temporary - Impact would occur only during construction. After construction, the resource conditions would return to pre-construction conditions.	Short-term - Impact would extend beyond the time of construction, but would not last more than two years.	Long-term - Impact would likely last more than two years and may continue beyond the lifetime of the project.

4.1.2 Historical and Archeological Sites

No Action Alternative

Under the no action alternative, no changes to the existing environment would result and no historical or archeological sites would be affected.

Alternatives 1, 2, and 3

All three alternatives have the same pipe alignment through the Herring Cove area where the Herring Bay Petroglyph (KET-077) is said to be located. An archeological report in

April 2007 concluded that the petroglyph will not be adversely affected by the proposed pipeline construction. SHPO concurred with these findings (Appendix F). In the unlikely event cultural resources are discovered during construction all activities in the vicinity of the cultural resources would cease, ADNR, SHPO, USACOE, and the Alaska State Troopers would be notified, and the project would shut down until a qualified archaeologist could evaluate the discovery and recommend an appropriate course of action. KGB could choose to re-engineer the route to avoid a sensitive cultural resource area.

4.1.3 Wetlands

Impacts to wetlands were determined by the direct loss (i.e. dredging or filling) of jurisdictional wetlands and the loss of wetland functions and values. The Wetland Preliminary Jurisdictional Determination Report describes waters of the U.S. and wetlands in the project area (Appendix B). A formal Jurisdictional Determination was performed and the USACE concluded that the pipe alignment described by Alternatives 1 and 2 is authorized under Nation Wide Permit Number 12, Utility Line Activities.

No Action Alternative

Under the no action alternative, no changes to the existing environment would result and wetlands would remain undisturbed.

Alternatives 1 and 2

Both alternatives 1 and 2 have the same pipe alignment through wetlands within the Alcan property. Implementation of either alternative would have the potential to impact less than one-quarter acre of wetlands. These wetlands were classified as palustrine forested, needle-leaved evergreen, saturated organic and are very common region wide. The following mitigation efforts shall be employed as a part of the project contract:

1. No heavy construction shall occur within 330 feet of an eagle nest tree from March 1 to May 31 of any year (this period extends to August 31 if the nest contains a nesting pair of eagles).

2. No dredging or excavating activities shall occur from April 1 to June 15 of any year.

3. If eelgrass occurs in the proposed pipeline corridor, contact the Corps and the National marine Fisheries Service prior to any dredging or excavating activities to discuss the possibility for transplanting eelgrass to an appropriate site in the cove.

See Appendix B for the preliminary jurisdictional determination of water of the U.S. and wetlands.

Overall, impacts to wetlands under Alternatives 1 and 2 would be negligible.

Alternative 3
Alternative 3 would not impact any wetlands or waters of the U.S. therefore it is the Least Damaging Practicable Alternative (LEDPA).

4.1.4 Coastal Zone Areas

The project is located within the Ketchikan Coastal District and under the jurisdiction of the Alaska Coastal Management Program (ACMP). Impacts to the Alaska Coastal Zone were evaluated based on the State of Alaska's Coastal Project Questionnaire (CPQ) and the ACMP review. Although multiple permits are required by the governing agencies for all three alternatives, no long term negative impacts to the Ketchikan Coastal District would result from the project.

No Action Alternative
Under the no action alternative, there would be no impacts to the Alaska Coastal Zone.

Alternatives 1 and 3
Through ACMP review, the State of Alaska concurs that the project is consistent with both the ACMP and the Ketchikan Coastal District's enforceable policies. Based on the CPQ, both Alternatives 1 and 3 would require the same State and Federal permits. These include:

- Department of Natural Resources/Office of Habitat Management and Permitting
  Fish Habitat Permit
- Department of Natural Resources/Division of Mining, Land and Water
  Water Right LAS# 24055
- ADOT Utility Permit
- NPDES Permit

As part of the ACMP review, it has been determined that the project has the potential to negatively impact Herring Cove Creek. The following mitigation measures will be employed by the contractor:

1. upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation, and
2. stream banks will be seeded with a native seed mix containing no fertilizer.

Alternative 2
Alternative 2 would require the same permits and mitigation measures as Alternatives 1 and 3, and would require an additional permit with Ketchikan Public Utilities in order to connect to the Whitman Lake Dam. This alternative is also consistent with both the ACMP and the Ketchikan Coastal District's enforceable policies

4.1.5 Fish and Wildlife

4.1.5.1 Fish

There is one fish bearing stream located within the project area. Herring Cove Creek (ADF&G stream number 101-45-10070) is listed as being important for spawning, rearing or migration of anadromous fishes.

No Action Alternative
Under the no action alternative, there would be no impacts to the Herring Cove Creek and its aquatic habitat.

Alternatives 1, 2, and 3
All three alternatives have the same pipe alignment through the Herring Cove Creek. To construct the pipelines across the creek, the contractor will build an earthen dam and convey the creek through a large culvert. Silt curtains will be placed up and downstream of the work area and the stream will be left in its original condition when construction is completed. These construction methods are part of the mitigation efforts stipulated in the ADNR Fish Habitat Permit. Another stipulation of the permit is that in-stream work shall not be conducted between the months of June through October. These in-stream work dates were developed by the Whitman Lake Hatchery, just upstream of the creek crossing location. Due to these mitigation techniques, there should not be any negative effects to fish species as a result of the proposed project and all its alternatives.

Essential Fish Habitat (EFH) in the form of eelgrass has been identified within the Herring Cove Creek area. The eelgrass is located both up and down stream of the pipe crossing location but will not be directly impacted by the construction of the pipeline. National Marine Fisheries Service (NMFS) requests that the eelgrass be inspected and documented prior to construction, during construction, and after the in-stream work is complete. If it appears that the eelgrass may be affected by the construction, NMFS should be contacted for assistance.

The USFWS and ADF&G have no concerns regarding the proposed pipeline project and its potential affects on the spawning, rearing, or migration of anadromous fish within Herring Cove Creek. Correspondence and permits from the regulatory agencies mentioned in this section can be found in Appendices C, D, and G.

4.1.5.2 Wildlife

Impacts to wildlife were evaluated on the basis of the potential direct, and permanent, loss of habitat. Bald eagles are abundant throughout the project area, but have been found to be tolerant of human activities. To reduce the likelihood of disturbance, the USFWS recommends that there be no heavy construction work within 330 feet of a nest tree from March 1 to May 31, with the period extending to August 31 if a nest contains a pair of nesting eagles. This mitigation effort would be applied to all three alternatives.

No Action Alternative
Under the no action alternative, there would be no impacts to wildlife or habitat.

Alternatives 1 and 2
Wildlife species residing in areas surrounding the construction corridor for Alternatives 1 and 2 could be temporarily displaced during construction activities. With the exception of the South Tongass Highway section of the pipe alignment, the habitat along the corridor would change from forested and woodland habitat to open small shrub areas. Most of these areas have been logged and about half of the logged land has been constructed into logging roads that are platted as future subdivision roads. Long-term impacts are negligible because most of the pipe corridor is in the process of being developed due to another project or along the highway shoulder. Also, similar forested habitat is plentiful in the general project area.

Overall, impacts to wildlife under Alternatives 1 and 2 would be negligible.

Alternative 3
Alternative 3 would have fewer impacts to habitat than Alternatives 1 and 2 because its alignment stays on the highway shoulder throughout the project, never entering any habitat areas. Alternative 3 would have no impacts to wildlife or wildlife habitat.

4.1.6 Endangered Species

Due to the fact that no federally recognized threatened or endangered species occur within the project area, no adverse impacts would occur under the No Action Alternative, Alternative 1, Alternative 2, or Alternative 3. Bald eagles are a federally protected species that is found in the project area. When the mitigation efforts discussed in Section 4.5.2 Wildlife are employed, there will not be any negative effects to eagles or there nests.

4.1.7 Air Quality

No Action Alternative
Under the no action alternative, there would be no impacts to air quality.

Alternatives 1, 2, and 3
All three alternatives would result in the same effects on air quality. The main source of emissions associated with this project are those created during construction. These emissions include CO, PM_{10}, and $PM_{2.5}$ from construction equipment and the disturbance of soil. Watering of the construction site would occur as necessary to decrease dust emissions and appropriately maintained vehicles and equipment would reduce air emissions during construction. Impacts would be localized, minor, and would only last the duration of construction.

4.1.8 Aquatic Resources

Determination of impacts to aquatic resources is based on the ability to protect and/or contain groundwater, surface water, potable water, and wastewater through minimization of sedimentation and contamination. Impacts to aquatic resources are based on the potential effects of the No Action Alternative and each alternative, including the Proposed Action, on the existing resources and the mitigation measures necessary to prevent potential adverse impacts.

No Action Alternative
Under the no action alternative, aquatic resources would not be affected.

Alternatives 1, 2, and 3
During construction, which includes excavation and fill, there would be temporary changes to the general topography of the project area. Prior to construction, a SWPPP would be prepared to ensure that appropriate water pollution control measures are implemented during excavation and fill activities. Once construction is complete, the site will be allowed to return to a natural state. Best management practices would be incorporated to control erosion and sedimentation. Perched groundwater could fill the trenches during excavation, however, the groundwater would return to its original state once the trenches are backfilled.

Aquatic resources in the project area would be protected by adherence to the SWPPP and establishing BMPs to control runoff and sedimentation. BMPs may include installation and maintenance of perimeter controls such as silt fencing. With adherence to the SWPPP and general construction permit, impacts to aquatic resources would be minor and temporary, lasting the duration of active construction in a given area. Overall, impacts to aquatic resources under Alternatives 1, 2, and 3 would be minor.

In addition to the SWPPP, the contractor must obtain and adhere to all stipulations of the EPA's Construction General Permit as part of the National Pollution Discharge Elimination System storm water program.

4.1.9 Vegetation

Determination of impacts to vegetation under the No Action and build alternatives is based on potential degradation of vegetative resources and the possible spread of non-native/invasive plant species. For purposes of quantifying affected area, the South Tongass Highway ditch will not be considered a vegetative resource.

No Action Alternative
Under the no action alternative, no changes to the existing environment would occur.

Alternative 1
The construction and clearing activities associated with Alternative 1 would directly impact less than one acre of vegetation. For the short-term, vegetation along the pipe line

would change from predominantly clear-cut woodland and forested to low shrub and grasses, but the long-term forested vegetation would likely return. Dust from construction could indirectly affect nearby vegetation; however, these impacts would be temporary and localized. Activities would be confined to the construction zone and no surrounding vegetation would be disturbed. Natural growth would be allowed to return to disturbed areas except for the booster station and storage tank. About one third of an acre would be permanently lost for these two structures. This small amount of lost vegetation would have a nominal impact, as they are common in the area and do not consist of prime or unique vegetative habitats.

Some non-native plants species inhabit the ditches along South Tongass Highway and would be disturbed during construction. Some of these plants spread through their rhizomes and others use seeds, meaning that the disturbed soil might aid their spreading or inhibit it. However, the excavated soil would be stockpiled along the side of the trench or on roadway pullout areas where these plants already exist. The overall effects of non-native plants in the Ketchikan area are unknown.

Overall, impacts to vegetative resources would be minor.

Alternative 2

Alternative 2 would have the same impacts to vegetation as Alternative 1, except there would not be any permanent loss of vegetation due to the booster station and storage tank. Overall, impacts to vegetative resources due to Alternative 2 would be minor.

Alternative 3

Only one third of an acre of vegetation would be lost as a result of Alternative 3. This permanent loss would occur in the area of the drinking water treatment plant. The remainder of the pipe line corridor is within the South Tongass Highway ditch and shoulder and would have the same effects on non-native plant species as Alternatives 1 and 2. Overall, impacts to vegetative resources due to Alternative 3 would be minor.

4.1.10 Subsistence

Subsistence activities do not occur in the project area; therefore, the No Action Alternative, Alternative 1, Alternative 2, and Alternative 3 would not restrict subsistence uses, decrease the abundance of subsistence resources, alter the distribution of subsistence resources, or limit user access. No impacts would occur.

4.1.11 Land Use and Zoning

No adverse impacts to land use would occur under the No Action Alternative, Alternative 1, Alternative 2, and Alternative 3. None of the build alternatives would interfere with adjacent land uses and would not impact any protected resources in areas of special environmental concern managed by the BLM. All build alternatives are consistent with relevant land management planning documents.

4.1.12 Visual Aesthetics

No Action Alternative
Under the no action alternative, no changes to the existing environment would result, and visual resources would remain unchanged.

Alternatives 1 and 3
Installation of the new pipe line would have minor temporary impacts on the visual resources during construction due to the presence of heavy equipment and excavation activities. However, after construction is complete the area would be allowed to return to its natural state. With time, visual impacts would diminish within the pipe corridor. However, there would be permanent visual impact by the construction of the booster station and storage tank with Alternative 1, and the drinking water treatment plant with Alternative 3. These structures are located off of the highway, out of the visible line of site of highway patrons. Overall, impacts to visual aesthetics due to Alternatives 1 and 3 would be minor.

Alternative 2
Alternative 2 would have the same impacts along the pipe line corridor, but would not result in any permanent visual changes because this alternative does not require the building of a structure. Overall, impacts would be temporary and negligible.

4.1.13 Recreation

The pipe corridor is located on private land and within a State highway right-of-way. Recreation is generally prohibited in these areas. The No Action Alternative, Alternative 1, Alternative 2, and Alternative 3 would result in no impacts to recreation.

4.1.14 Noise

No Action Alternative
Under the no action alternative, there would be no change in ambient noise levels.

Alternatives 1, 2, and 3
Typical construction-related temporary noise increases would occur during installation of new equipment and facilities primarily from operation of heavy equipment. The booster station or drinking water treatment plant would be located in a remote area and noise generated from daily operations would not be discernable from background noise near any occupied human dwelling. Once construction has been completed, noise levels would be similar to current levels under normal operating conditions. Overall, impacts would be temporary and minor.

4.1.15 Socioeconomics

No Action Alternative
Under the no action alternative, socioeconomic issues within the project area would remain unchanged.

Alternative 1
Construction would create new opportunities for new local-hires because the project would be put out for bid from local and regional contractors who hire local workers. Hiring labor from outside the region is not anticipated; therefore no impact to local population or housing supply would occur.

Alternative 1 is estimated to be the least expensive to construct. Alternative 1 would have a positive impact on local fiscal characteristics.

Alternative 2
Construction of Alternative 2 would have similar impacts as Alternative 1 with regard to employment, population, and housing. Alternative 2 is estimated to cost more than Alternative 1 to construct, because of much manual labor and helicopter time need to install a new water line up to Whitman Lake. Alternative 2 would have a positive impact on local fiscal characteristics.

Alternative 3
Construction of Alternative 3 would have similar impacts as Alternatives 1 and 2 with regard to employment, population, and housing. Alternative 3 is estimated to cost more than Alternatives 1 and 2 to construct. The higher cost is due to the construction of a new drinking water treatment plant. Alternative 3 would have a positive impact on local fiscal characteristics.

4.1.16 Geology and Soils

Determination of impacts to geology and soils are based on the ability to protect and conserve geological features through minimization of erosion and avoidance of geologic hazards. Impacts to geology and soils are based on the potential effects of the No Action Alternative and each alternative, including the Proposed Action, on the existing resources and the mitigation measures necessary to prevent potential adverse alteration.

No Action Alternative
Under the no action alternative, there would be no change to the existing environment.

Alternative 1
Although the proposed project is in an area with seismic potential, the potential for earthquake damage is generally no greater than in other areas of the state. Current seismic codes would be implemented during design and construction; therefore, impacts are expected to be minimal.

During construction there would be temporary changes to the general topography in the project area. Temporary minor disturbances to the soil within the construction zone would occur along the pipeline route, and at the site of the booster station and storage tank. As sections of the pipeline are installed and the booster station and storage tank are complete, excavated trench soils would be backfilled and recontoured. Construction impacts would be temporary and minor to geology and soils. Long term impacts would be negligible.

Alternative 2
Construction of Alternative 2 would have similar impacts as Alternative 1 with regard to the area of soils disturbed.

Alternative 3
Construction of Alternative 3 would have similar impacts as Alternatives 1 and 2, however it would impact less total area of soil due to a shorter pipe length.

4.1.17 Climate

No Action Alternative
Under the no action alternative, there would be no impacts to the local climate.

Alternatives 1, 2, and 3
All three alternatives would result in the same effects on the climate of the Ketchikan area. The proposed project will likely temporarily increase emissions of CO, PM_{10}, and $PM_{2.5}$ from construction equipment and the disturbance of soil. However, these temporary releases will not effect to the local climate.

4.1.18 Hydrology

No Action Alternative
Under the no action alternative, there would be no impacts to the areas hydrology.

Alternatives 1, 2, and 3
All three alternatives would result in the same effects on the hydrology of the project area. The proposed project will temporarily change the hydrology on a microscale. For example, small creeks may be temporarily retained to prevent the release of contaminated storm water runoff, or they might be redirected through a culvert while the pipe is installed across a drainage. Once the project is complete, the small scale hydrology will return to its original state.

On a macroscale basis, basin wide, the hydrology will not be affected by the proposed project.

4.1.19 Surface and Ground Water Quality

No Action Alternative
Under the no action alternative, surface and ground water quality would remain the same.

Alternatives 1, 2, and 3
All three alternatives would result in the same effects to surface and ground water quality. The proposed project will temporarily increase turbidity and sediments in surface water runoff, however, mitigation techniques will be specified in the SWPPP supplied by the contractor. Ground water will be nominally affected by the project. The forest floor and/or grass around some areas of the project will filter any particulates left in storm water runoff before it enters the ground. No other sources of surface or ground water contaminants are associated with this type of project.

4.1.20 Marine Mammals

No Action Alternative
Under the no action alternative, there would be no impacts to marine mammals in the surrounding area.

Alternatives 1, 2, and 3
Project impacts to marine mammals are the same for all three alternatives. Marine mammals will be temporarily affected by the project while the pipe is being installed through Herring Cove Creek. Some mammals might experience a short term loss of habitat, while others might be subject to an increase in turbidity in Herring Cove Creek. All impacts will be temporary and will not effect the long term well being of any marine mammals.

4.1.21 Cultural Resources

There are no known cultural resources in the project area that will be affected by the proposed action. See Section 4.1.2 Historical and Archeological Sites for a description of the Herring Cove Petroglyph.

4.2 CUMULATIVE IMPACTS

NEPA requires the analysis of the incremental impacts form the Proposed Action when added to the past, present, and reasonably foreseeable future actions (RFFA) (40 CFR 1508.7). Consideration of incremental impacts is based on the following criteria: 1) effects that occur, but are not localized to the same general area; 2) effects to a resource which are similar in nature; and 3) effects which are long-term rather than short-term in nature. Cumulative impacts can result from several individually minor impacts, which could be collectively significant over time. The geographic reference area used to evaluate cumulative impacts is similar to the project area, but is extended in all directions to include all possible effected environments. Evaluation of pertinent past, present, and RFFAs for inclusion into the cumulative impacts analysis was limited geographically by

selecting those occurring within the reference area or directly adjacent to the area, but with connection to the project area. A list of past and present actions integrated into this cumulative impacts analysis is described in Table 5.

Table 5: Past and Present Actions Within Project Area

Action	Area of Project	Summary of Action
Mountain Point Drinking Water Treatment Plant	Mountain Point	The drinking water plant was constructed in the mid 1930's with improvements in the 1980's, 1990, and 1996. The plant currently treats water for the Mountain Point Service area, from Shoup Street to Roosevelt Drive. The use of the property has not changed since the original construction.
Alcan Logging & Subdivision Development	Ravenswood Subdivision	The property was logged by Alcan Timber Corporation in the 1990's, and development of the Ravenswood Subdivision began in 2005. This development has and will result in loss of vegetation and soil cover.
South Tongass Highway	Hole in the Wall Harbor to Whitman Creek	The South Tongass Highway transportation corridor was constructed in the past and continues to operate. Within the next 10 years, a highway reconstruction and alignment project will occur within this portion of the highway.
Whitman Creek Dam	Booster Station & Storage Tank	The Whitman Creek Dam was constructed out of wood in the 1960's and was re-built with concrete within the last 15 years. The area near the dam where the booster station and water tank are to be located will experience some permanent loss of vegetation.

RFFAs in the reference area were incorporated into the cumulative impacts analysis. Evaluation of possible RFFAs was temporally limited by only including those future actions, within the cumulative impacts geographic reference area, that are currently known and planned. The list of RFFAs considered for this cumulative impacts analysis is described in Table 6.

Table 6: Reasonably Foreseeable Future Actions for South Tongass Highway

Action	Community/Area	Status	Phase	Occurrence Probability
South Tongass Highway reconstruction	Mountain Point to Herring Cove	Design	II	High
South Tongass Highway resurfacing	Herring Cove to Beaver Falls	Ongoing	Unknown	High
Aquarium in George Inlet	Whitman Creek	Design	Unknown	Medium

Alaska Department of Transportation (ADOT) is currently in the design stage of Phase II of the South Tongass Highway widening and reconstruction project. Phase I of the project is currently underway and covers the highway from Shoup Street to Mountain Point. Phase II of the project will reconstruct the highway from Mountain Point to Herring Cove which is currently being designed by ADOT. This portion of the project will likely take place within the next ten years. Most of the area affected by this project is already disturbed due to the existing highway.

ADOT also plans to resurface the portion of South Tongass Highway from Herring Cove to Beaver Falls, which is the end of the road. The road would be resurfaced from gravel to chip sealed asphalt. No widening or reconstruction is anticipated with this project, and it will likely occur within the next few years. No loss of vegetation is anticipated as a result of this project

The OceansAlaska Marine Science Center is an aquarium to be located in George Inlet just past the Whitman Creek Bridge. The aquarium is in the design stage and its progress or phase is unknown. Construction of the aquarium would involve clearing and grubbing about 2 acres of land and filling in some tidal areas.

Overall, many areas in and around the project area have already experienced some level of development activity. The following sections further consider cumulative impacts that could occur from the Proposed Action.

4.2.1 Cumulative Impacts to the Physical Environment

The following physical environments were found to have no impact or negligible impact from the Proposed Action: historical and archeological sites, coast zone, air quality, vegetation, visual aesthetics, and geology and soils. Therefore, these areas will not be analyzed in this section due to no cumulative impacts.

4.2.2 Cumulative Impacts to the Biological Environment

Only areas that have been shown in Section 4.1 to be affected by the project will be analyzed in this section. The following biological environment was found to have no impact or negligible impacts from the Proposed Action: endangered species.

4.2.2.1 Wetlands

Development of the Proposed Action would contribute to the removal of wetlands common to the region. However, once construction is completed, the area would be allowed to return to its original state. Taking into account the amount of past, present, and future disturbance (i.e. particularly logging, roads, and development) within the cumulative impacts reference area, the incremental cumulative impact of the Proposed Action to wetlands would be minor.

4.2.2.2 Fish and Wildlife

Disturbance of fish and wildlife species may occur during vegetation clearing and construction. Taking into account the amount of past, present, and future disturbance (i.e. particularly logging, roads, and development) within the cumulative impacts reference area, no long-term cumulative impacts to population dynamics or migration of fish or wildlife are expected to occur. Therefore, the cumulative impacts to fish and wildlife attributable to the project would be negligible.

4.2.2.3 Aquatic Resources

Disturbance of aquatic resources may occur during the installation of pipe across Herring Cove Creek. A SWPPP along with the mitigation efforts discussed in the ADNR Fish Habitat Permit will prevent any cumulative impacts from accruing as a result of this activity. All impacts associated with the Proposed Action would be temporary in the immediate area of construction. Therefore, the cumulative impacts to aquatic resources attributable to the Proposed Action would be minor.

4.2.3 Cumulative Impacts to the Social Environment

The following social environments were found to have no impact or negligible impact from the Proposed Action: subsistence, land use and zoning, recreation, noise, and socioeconomics. Therefore, these areas will not be analyzed in this section due to no cumulative impact.

4.3 SHORT TERM USE OF ENVIRONMENT VS. LONG TERM PRODUCTIVITY

This section documents the relationship between short-term use of the environment and the maintenance and enhancement of long-term productivity

This project responds to public safety improvements required by the Alaska Department of Environmental Conservation. To maximize the benefits of the project, the Proposed Action considers existing and future water uses and needs; and will provide safe drinking water to the largest amount of homes when compared to the other alternatives. Alternative 3 will adversely affect less wetlands than the Proposed Action, however, this is offset by the long-term failure to provide safe drinking water to many residents. The Proposed Action will result in impacts to fiscal, economic, physical, and natural resources in the project area, including the use of state and federal funds for materials, labor, and right of way acquisition. However, it is anticipated that the costs associated with the Proposed Action will, in the long-term, be partially recovered through improved public safety and an elevated tax base due to an increased number of users. Refer to Chapter 4 of this EA for additional detail on impacts to social and economic resources. Specific short-term impacts to the natural environment (e.g., wetlands and wildlife) are also discussed in more detail in Chapter 4 and will be mitigated to alleviate long-term consequences of project construction.

4.4 IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

Implementation of the Proposed Action involves the commitment of a range of fiscal, social, economic, physical, and natural resources. While the public funds required for this project are not directly retrievable, the money spent can be considered a long-term investment in the safe development and economic vitality of the area. Land used in construction is small and has already been used for development or is planned for development in the near future. Moderate quantities of fossil fuels, labor, and construction materials, such as piping, timbers, and steel for the storage tank, would be required for the Proposed Action. In addition, minor quantities of labor and natural resources are used in the fabrication and preparation of such construction materials. The use of these materials is generally considered irretrievable. The commitment of these resources is widely viewed as an acceptable trade-off for the benefits provided to residents in the immediate area, which include improved safety and economic growth. Some of the project materials, such as the water storage tank and booster stations, may have salvage value and may be recycled at the end of the facility's design life.

5.0 MITIGATION MEASURES SUMMARY

5.1 CULTURAL RESOURCES

In the unlikely event cultural resources are discovered during construction all activities in the vicinity of the cultural resources would cease, ADNR/SHPO, the USACOE, and the Alaska State Troopers would be notified, and the project would shut down until a qualified archaeologist could evaluate the discovery and recommend an appropriate course of action.

5.2 EAGLES

No heavy construction shall occur within 330 feet of an eagle nest tree from March 1 to May 31 of any year (this period extends to August 31 if the nest contains a nesting pair of eagles).

5.3 WETLANDS

No dredging or excavating activities shall occur from April 1 to June 15 of any year.

If eelgrass occurs in the proposed pipeline corridor, contact the Corps and the National marine Fisheries Service prior to any dredging or excavating activities to discuss the possibility for transplanting eelgrass to an appropriate site in the cove.

5.4 HERRING COVE CREEK

Upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation.

Stream banks will be seeded with a native seed mix containing no fertilizer.

5.5 FISH

To construct the pipelines across the creek, the contractor will build an earthen dam and convey the creek through a large culvert. Silt curtains will be placed up and downstream of the work area and the stream will be left in its original condition when construction is completed. These construction methods are part of the mitigation efforts stipulated in the ADNR Fish Habitat Permit. Another stipulation of the permit is that in-stream work shall not be conducted between the months of June through October. These dates were determined by the Whitman Lake Hatchery.

Aquatic resources in the project area would also be protected by adherence to the SWPPP and establishing BMPs to control runoff and sedimentation. BMPs may include installation and maintenance of perimeter controls such as silt fencing.

5.6 AIR QUALITY

Watering of the construction site would occur as necessary to decrease dust emissions and appropriately maintained vehicles and equipment will reduce air emissions during construction.

5.7 STORM WATER/DISCHARGES

Prior to construction, a SWPPP would be prepared to ensure that appropriate water pollution control measures are implemented during excavation and fill activities. Once construction is complete, the site will be allowed to return to a natural state. Best management practices would be incorporated to control erosion and sedimentation.

In addition to the SWPPP, the contractor must obtain and adhere to all stipulations of the EPA's Construction General Permit as part of the National Pollution Discharge Elimination System storm water program.

5.8 VEGETATION

Activities would be confined to the construction zone and no surrounding vegetation would be disturbed. Natural growth would be allowed to return to disturbed areas except for the booster station and storage tank.

5.9 GEOLOGY AND SOILS

Current seismic codes would be implemented during design and construction.

As sections of the pipeline are installed and the booster station and storage tank are complete, excavated trench soils would be backfilled and recontoured.

6.0 COMPLIANCE WITH APPLICABLE LAWS AND EXECUTIVE ORDERS

6.1 CLEAN WATER ACT

"It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act. It is the policy of Congress that the States manage the construction grant program under this Act and implement the permit programs under sections 402 and 404 of this Act."

The proposed action is concurrent with the purpose and goals of the Clean Water Act, which are to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. No long term degradation of water quality shall occur as a result of the project.

6.2 SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the Nation's public drinking water supply. EPA's general authority to set an Maximum Contaminant Level and to regulate a contaminant is modified to apply to contaminants that: may adversely effect human health; are known or likely to occur at a frequency and level of public health concern in public water systems; and for which regulation presents a meaningful opportunity for health risk reduction for persons served by public water systems. [Section 1412(b)] Sec. 102(a) SDWA.

The Herring Cove water system has been noncompliant with the Maximum Contaminant Level for coliform bacteria and other (non-coliform) bacteria for many years. The proposed action would provide potable water which has undergone treatment processes and is compliant with the ADEC's Class A public drinking water standards.

6.3 CLEAN AIR ACT

The purpose of the Clean Air Act is to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population. A primary goal of this Act is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this Act, for pollution prevention.

The Ketchikan Area is currently and consistently in attainment for all criteria air pollutants. It is expected that Ketchikan and the project area will remain in attainment for the duration of the project.

6.4 NATIONAL NATURAL LANDMARKS

The goal of the National Natural Landmarks Program is to recognize and encourage the conservation of outstanding examples of our country's natural history. There are no national natural landmarks within or near the project area.

6.5 NATIONAL HISTORIC PRESERVATION ACT; EXECUTIVE ORDER 11593

Section 106 of the National Historic Preservation Act (NHPA) requires assessment of the potential impacts from a project to cultural resources. Consultation is coordinated with the Alaska State Historic Preservation Office in the Alaska Department of Natural Resources, Office of History and Archeology (OHA).

Section 106 is a requirement of all federal actions/projects. It is the responsibility of the funding agencies to comply with Section 106. To fulfill this requirement, the owner of the project must identify the potential impacts of the proposed action on cultural resources. Mitigation measures to reduce or lessen the impacts must be provided. SHPO reviews the documentation and either approves the plan or provides comments otherwise. The latter may require a follow-up meeting with the OHA, and agreements to modify or change the plan and mitigation for the project may be necessary.

Consultation with the agencies described above identified the Herring Bay Petroglyph as being near the project but will not be harmed as a result of the proposed action. A mitigation strategy has been expressed by SHPO and will be adopted as part of the contract documents.

6.6 EXECUTIVE ORDER 11990; PROTECTION OF WETLANDS

‘The purpose of Executive Order 11990 is to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

Section 1. (a} Each agency shall provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

Sec. 2. (a) In furtherance of Section 101(b)(3) of the National Environmental Policy Act of 1969 (42 U.S.C. 4331(b)(3)) to improve and coordinate Federal plans, functions, programs and resources to the end that the Nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, each agency, to the extent permitted by law, shall avoid undertaking or providing assistance

for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors (EPA, 2006b).'

The proposed action may affect up to 0.23 acres of wetlands. These wetlands, although currently still intact, are within Phase II development of the Ravenswood Subdivision, which has been permitted by the USACE and will be entirely developed within a few years. The proposed action is the least expensive alternative, provides water service to more houses, and is safe from future ownership costs associated with the Whitman Lake Dam. Given these factors, there are no practicable alternatives. Several wetland mitigation efforts have been stipulated by agencies such as the USACE, USFWS, and NMFS to minimize harm to wetlands during construction.

6.7 EXECUTIVE ORDER 11988; FLOODPLAIN MANAGEMENT

The purpose of executive order 11988 is to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

There are no floodplains located within the project area. The portion of Herring Cove Creek where the proposed action will occur is dominated by tidal action and the floodplain is irrelevant.

6.8 COASTAL ZONE MANAGEMENT ACT

The goal of the Coastal Zone Management Act is to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations. A review of the proposed action by the Alaska Coastal Management Program determined that it is consistent with the ACMP and the Ketchikan Coastal District's enforceable policies. According to the State's review, the proposed action is consistent with the Coastal Zone Management Act.

6.9 FISH AND WILDLIFE COORDINATION ACT

The purpose of the Fish and Wildlife Coordination Act is to provide authority to the U.S. Fish and Wildlife Service for their involvement in evaluating impacts to fish and wildlife from proposed development projects that may affect water resources. One requirement of the Act is that fish and wildlife resources receive equal consideration to other project features. It also requires Federal agencies that construct, license, or permit water resource development projects to first consult with the USFWS, National Marine Fisheries Service, and State fish and wildlife agencies regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

According to consultations with the USFWS, NMFS, and the ADF&G the proposed action will not have significant detrimental affects to fish and wildlife within the project area. Some mitigation measures have been specified and are summarized in Chapter 6.

6.10 NOISE CONTROL ACT

'This Act establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. To accomplish this, the Act establishes a means for the coordination of Federal research and activities in noise control, authorizes the establishment of Federal noise emissions standards for products distributed in commerce, and provides information to the public respecting the noise emission and noise reduction characteristics of such products. The Act authorizes and directs that Federal agencies, to the fullest extent consistent with their authority under Federal laws administered by them, carry out the programs within their control in such a manner as to further the policy declared in 42 U.S.C. 4901 (Noise Control Act).'

The proposed action will involve typical construction methods that are common of a pipeline installation. The equipment used for these activities does not produce noise at levels that would be in violation of the Noise Control Act.

6.11 PROTECTION OF CHILDREN; EXECUTIVE ORDER 13045

The goal of Executive Order 13045 is to make the protection of children a high priority of the United States Government. To accomplish this, the Government has set out to identify and assess environmental health risks and safety risks that may disproportionately affect children; and shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

The proposed action will provide safe drinking water to hundreds of South Tongass residents including those of Herring Cove who are currently on a water system that undergoes no treatment and is consistently in noncompliance for coliform and non-coliform bacteria.

6.12 ENVIRONMENTAL JUSTICE; EXECUTIVE ORDER 12898

Executive Order 12898 states that to the greatest extent practicable, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories.

The proposed action will provide potable water to citizens of all classes and ethnicities, therefore, demonstrating compliance with Executive Order 12898; Environmental Justice. The proposed pipe route was selected based on engineering and economic principles only.

6.13 ENDANGERED SPECIES ACT

The Endangered Species Act (ESA) provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range, and the conservation of the ecosystems on which they depend. Under section 7(a)(2) of the ESA, Federal agencies must consult with National Oceanic and Atmospheric Administration (NOAA) Fisheries on activities that may affect a listed species. These interagency consultations are designed to assist Federal agencies in fulfilling their duty to ensure their actions do not jeopardize the continued existence of a species or destroy critical habitat.

Through consultations with NOAA and the USFWS, it has been determined that there are no endangered, threatened, or candidate species within the project area, nor is there critical habitat that will be affected by the proposed action.

6.14 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT REAUTHORIZATION ACT

The Act sets a firm deadline to end over-fishing in America, contributes to replenishing America's fish stocks, strengthens enforcement of America's fishing laws, and implements international agreements on fishery management and the protection of polar bears.

Through consultations with the NMFS, USFWS, ADF&G, and NOAA mitigation measures have been specified to protect the Herring Cove Creek habitat and the spawning, rearing, and migration of fish within the creek.

6.15 ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT

This Act provides protection for the national interest in the scenic, natural, cultural and environmental values of the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people.

Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) requires that an evaluation of subsistence uses and needs be completed for any federal determination to "withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands." The ANILCA requires that this evaluation include findings on three specific issues:

- The effect of use, occupancy, or disposition on subsistence uses and needs;
- The availability of other lands for the purpose sought to be achieved; and
- Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes.

The proposed action is not located within a subsistence area, thus a subsistence evaluation under ANILCA Section 810 is not required.

6.16 RESOUCE CONSERVATION AND RECOVERY ACT

Resource Conservation and Recovery Act (RCRA) is our nation's primary law governing the disposal of solid and hazardous waste. The purpose of RCRA is to protect us from the hazards of waste disposal, conserve energy and natural resources by recycling and recovery, reduce or eliminate waste, and clean up waste, which may have spilled, leaked, or been improperly disposed.

Solid waste generated by the proposed action would primarily include scrap pipe products and culverts that are not fit for reuse. These materials would be disposed in the local landfill when construction is complete. The project will not generate any hazardous waste or hazardous materials.

6.17 TRIBAL CONSULTATION; EXECUTIVE ORDER 13084

Executive Order 13084 directs each executive department and agency, to the greatest extent practicable and to the extent permitted by law, to consult with tribal governments prior to taking actions that have substantial direct effects on federally recognized tribal governments. In order to ensure that the rights of sovereign tribal governments are fully respected, all such consultations are to be open and candid so that tribal governments may evaluate for themselves the potential impact of relevant proposals.

Consultations with both the Ketchikan Indian Community and the City of Saxman have resulted in no concerns or opposition by the tribal governments.

6.18 PUBLIC PARTICIPATION

Public participation is a mandatory and important part of the NEPA process. Throughout the conceptual planning and design phases of this project, there has been much coordination with the Herring Cove Water Users Association.

Once the draft Environmental Assessment is complete, there will be an advertisement in the local paper for a Notice of Public Hearing and public comment. The public comment period is 30 days. During this time, the draft EA will be available for public review at the Ketchikan Public Library and/or the Ketchikan Gateway Borough Public Works Office. If substantive comments are received from the public, those comments will be adequately addressed prior to conclusion of the NEPA process. If comments can not be adequately addressed in the EA and a Finding Of No Significant Impacts (FONSI) determination can not be made, then the grantee and EPA NEPA Compliance Coordinator discuss other options for complying with NEPA requirements.

7.0 FINDING OF NO SIGNIFICANT IMPACT

The potential for cumulative impacts resulting from the Proposed Action, combined with future land use and associated infrastructure planned for the project area, were examined for those resources with the greatest potential for cumulative impacts, including: the physical environment, biological environment, wetlands, fish and wildlife, aquatic resources, and the social environment. Wetlands were determined to be a resource with the greatest potential for cumulative impacts from the Proposed Action in combination with other foreseeable future actions (future development of the Ravenwood Subdivision). However, through this analysis one can conclude that impacts to wetlands from the Proposed Action are expected to be insignificant. The other resources analyzed in this cumulative impacts assessment would also be susceptible to cumulative impacts if mitigation strategies are not adequately implemented. The implementation of mitigation strategies is vital in avoiding/minimizing the extent and severity of impacts from the Proposed Action and future development.

Based on the analysis in this environmental assessment, it is reasonable to conclude that implementation of the Proposed Action is not a major Federal action that would significantly affect the quality of the human or natural environment within the meaning of NEPA.

8.0 CONSULTATION AND COORDINATION

During the preparation of this EA, Federal, State, and local agencies were consulted to obtain information, identify issues, and define mitigation measures. The agencies contacted are listed below.

- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- National Marine Fisheries Service
- Environmental Protection Agency
- Alaska Department of Natural Resources, State Historic Preservation Office
- Alaska Department of Natural Resources, Office of Project Management and Permitting
- Alaska Department of Natural Resources, Alaska Coastal Management Program
- Alaska Department of Natural Resources, Division of Mining, Land, and Water
- Alaska Department of Natural Resources, Office of Habitat Management and Permitting
- Alaska Department of Environmental Conservation, Division of Water
- Alaska Department of Environmental Conservation, Division of Spill Prevention and Response
- United States Department of Agriculture, Rural Development
- National Oceanic and Atmospheric Association, Fisheries Division
- Ketchikan Indian Community
- City of Saxman
- United States Forest Service

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10.0 PROJECT MAILING LIST

1. R&M Engineering-Ketchikan, Inc. - Project File #012310.70
2. United States Environmental Protection Agency - Jennifer Curtis
3. United States Department of Agriculture – Timothy Krug
4. Ketchikan Gateway Borough Public Works Department – Rick Boyd
5. Ketchikan Indian Community – Richard Jackson
6. City of Saxman
7. Ketchikan Public Library

11.0 LIST OF PREPARERS

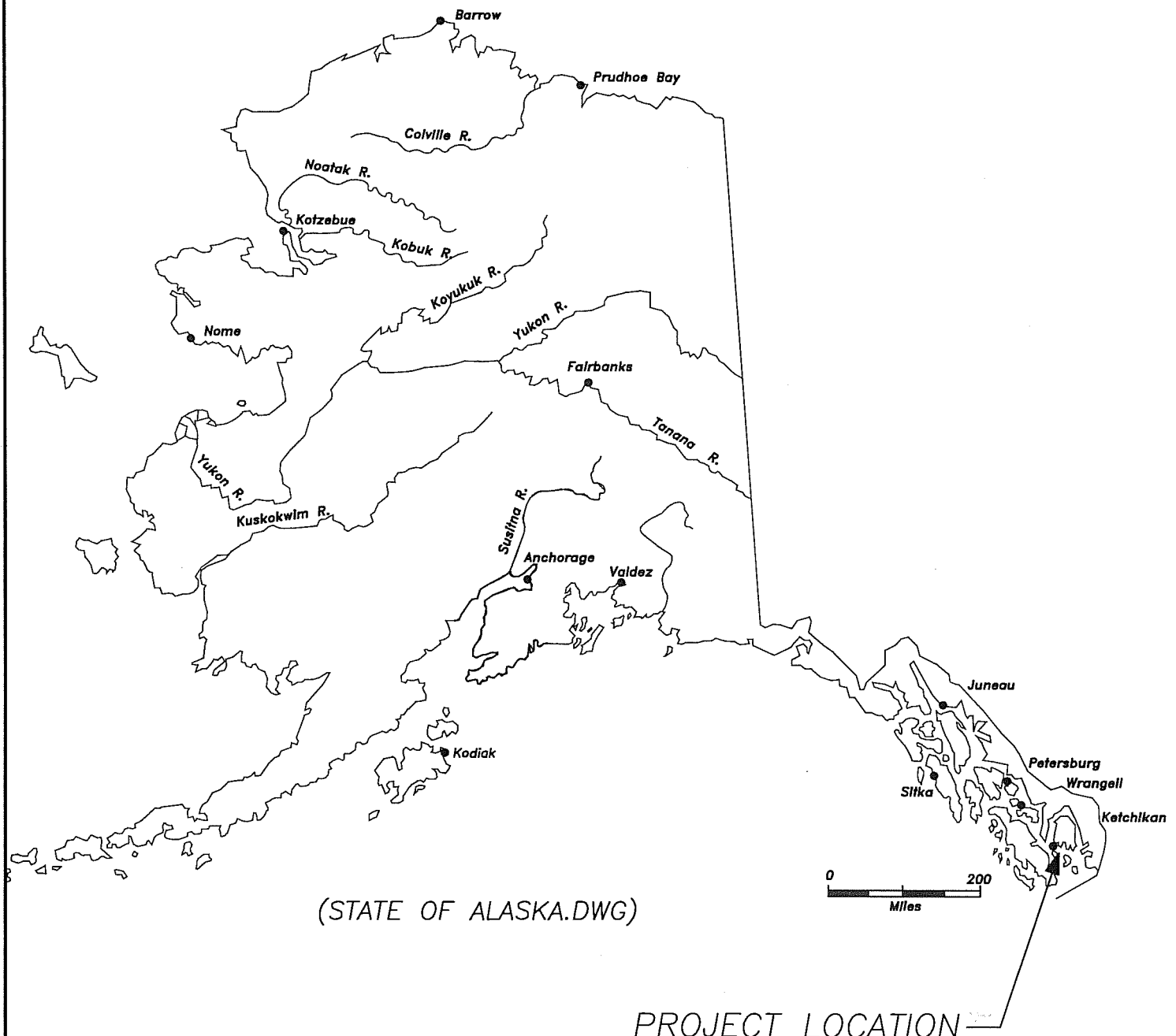
Kara R. Jurczak

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL: RNMMain@rmketchikan.com

APPENDIX A

MAPS



(STATE OF ALASKA.DWG)

PROJECT LOCATION

MAPPING TAKEN FROM:
USGS QUAD – KETCHIKAN B–5

SOUTH TONGASS WATER MAIN

PROJECT LOCATION MAP

KETCHIKAN, ALASKA

CLIENT: KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET
KETCHIKAN, ALASKA 99901

PROJECT NO.	SCALE:	DRAWN BY:	CHECKED BY:	DATE:	SHEET NO.
012310.60	1" = 200 MILES	K.R.J.	K.R.J.	8/14/07	

MAPPING TAKEN FROM:
USGS QUAD – KETCHIKAN B–5

SOUTH TONGASS WATER MAIN

PROJECT LOCATION MAP
KETCHIKAN, ALASKA

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PROJECT NO.	SCALE:	DRAWN BY:	CHECKED BY:	DATE:	SHEET NO.
012310.60	1" = 1 MILE	K.R.J.	K.R.J.	8/14/07	

BOP
MOUNTAIN POINT WATER PLANT

PIPE ALIGNMENT

ALCAN SUBDIVISION

PIPE ALIGNMENT

10+00

20+00

30+00

RAVENWOOD SOBDIVISION

RAVENWOOD SUBDIVISION

40+00

50+00

60+00

130+00

140+00

120+00

110+00 SOUTH TONGASS HIGHWAY

100+00

90+00

GEORGE INLET

GRAPHIC SCALE
100 0 200 400
SCALE IN FEET

GRAPHIC SCALE
100 0 200 400
SCALE IN FEET

180+00

HERRING COVE

170+00

190+00

EOP - RAW WATER LINE
WHITMAN CREEK DAM

PIPE ALIGNMENT

PIPE ALIGNMENT

60+00

160+00

SOUTH TONGASS HIGHWAY

150+00

GEORGE INLET

200+00

210+00

210+00

EOP - DISTRIBUTION
WATER LINE

Date	No.	Description	By

Designed: TSS | Approved: TSS | Scale: 1"=400'
Drawn: KRJ | Date: 11/6/06 | Project: 012310.60

R&M ENGINEERING-KETCHIKAN, INC.
355 CABLANA LAKE ROAD

Client: KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET

Project: SOUTH TONGASS WATER MAIN

Sheet Description: KEY MAP

Sheet No. G2

APPENDIX B

US ARMY CORPS
OF ENGINEERS

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 20, 2006

Dennis Stone
Project Manager
U.S. Army Corp of Engineers
CO-R-E
P.O. Box 6898
Elmendorf AFB, Alaska 99506-6898

Subject: Jurisdictional Determination for Acquisition of Vacant Land and State right-of-way, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Stone:

This letter requests your views concerning the identification of jurisdictional waters of the United States on vacant property and State right-of-way located in Ketchikan to fulfill Title 24 Part 58 environmental review requirements for the Department of Housing and Urban Development and Executive Order 11990. Please note that your determination will be used for land acquisition only. Once acquired, The Ketchikan Gateway Borough (KGB) will complete its utility improvement plans and file the appropriate permits with your office for utility improvements under Section 404 of the Clean Water Act.

KGB intends to use an EPA grant to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map, a project plan map, and a Preliminary Jurisdictional Wetland Determination Report (September 2005).

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.

Preliminary Jurisdictional Wetland Determination Report

A Portion of US Survey 3802

Ketchikan, Alaska

Prepared for:

R & M Engineering, Inc
For Alcan Forest Products
2960 Tongass Avenue
Ketchikan, Alaska 99901

September 2005

Prepared by:

Wetland Delineation & Design Services
A Division of Critter Enterprises, LLC
PO Box 1373
Ward Cove, Alaska 99928

Table of Contents

DESCRIPTION

The project area is located approximately 6 1/2 miles south of the City of Ketchikan. There is a logging access road directly across from mailbox #6560 on Roosevelt Drive. The proposed subdivision encompasses approximately 55 acres of recent timber harvest area and logging roadbed.

The project area contains the following wetland type: Palustrine forested. Additionally there are 5 unconsolidated, perennial streams noted within the project area.

Site investigation and plot construction were performed on September 10, 2005. Weather during the investigation was 68 °F and clear skies.

R. F. Billings 1974. Soil Management Report for the Ketchikan Area indicates this area has Tolstoi, Kupreanof & Wadley soil series that can vary from freely to poorly drained, indicative of gently sloping lowlands and footslopes. These varying soils were verified by the field soil pits and extrapolated into areas of disturbance. Additionally, the soil characteristics are influenced by variability in depths to bedrock.

This Jurisdictional Determination (JD) is based on best professional judgment utilizing data collected during site visits, topographic maps, and National Wetland Inventory Maps. Wetlands were classified within the project area according to the US Fish and Wildlife National Wetlands Classification system (Cowardin et.al 1979) and in accordance with the US Army Corps of Engineers 1987 Wetlands Delineation Manual.

All wetlands including intermittent streams are jurisdictional under Section 404 of the Clean Water Act.

There are five perennial streams noted within this project area.

OTHER FACTORS OF CONSIDERATION

There has been recent disturbance throughout parts of this property that are readily identifiable, including initial clearing and building of a logging road, and mature timber removal.

Due to the type of disturbance (mature timber harvest) on the property, a greater weight has been given to research resource material (NWI map and geology report) prior to timber harvest to depict initial conditions. The road construction activities do, however allow access to soil profiles (not necessarily

in situ) and this information was taken into consideration during the investigation.

Within the areas of extensive disturbance, the results of surrounding field conditions were extrapolated to designate these areas. In addition, the site topography survey was utilized to attempt to re-create the most likely boundaries of wetland and upland.

COMMUNITY TYPES

UPLAND = Does not meet parameters for wetland – non-jurisdictional

Transect 1 Data Points: D, E
Transect 2 Data Points: D, E

Description: This portion of the project site demonstrates characteristics of a disturbed upland community type. The tree vegetation is predominately hemlock (*Tsuga heterophylla*) and large diameter spruce (*Picea sitchensis*). Shrubs within these portions of the site include: false azalea (*Menziesia ferruginea*), blueberry (*Vaccinium ovalifolium or Alaskaense*), salmonberry (*Rubus spectabilis*) and devil's club (*Oplopanax horridus*). Predominate within the herb vegetation is deer fern (*Blechnum spicant*), dwarf dogwood (*Cornus canadensis*) false lily of the valley (*Maianthemum dilatatum*) and sword fern (*Polystichum munitum*).

Soils are predominant fibric organic in the first 1-2" and than very brightly mottled loam to bedrock or parent schist material. The soils found within this area did not demonstrate reducing conditions or hydric characteristics and there was very little to no hydrology.

PFO4Bg = Palustrine, Forested, Needle leaved evergreen, Saturated, Organic

Transect 1 Data Points: A, B, C
Transect 2 Data Points: A, B, C

Description: This portion of the project site demonstrates characteristics of a Palustrine forested wetland. In this community type the tree vegetation is predominately hemlock (*Tsuga heterophylla*). Shrubs within these portions of the site include: false azalea (*Menziesia ferruginea*), blueberry (*Vaccinium ovalifolium or Alaskaense*), and flowering 5-leaf bramble (*Rubus pedatus*). Predominate throughout the majority of this Palustrine area within the herb vegetation is skunk cabbage (*Lysichiton americanum*), deer fern (*Blechnum spicant*), dwarf dogwood (*Cornus canadensis*) and bog lily (*Plantanthera occidentalis*).

Soils are predominant mucky, fibric histosol to bedrock with little variance in mottles or color. The soils found within this area were hydric - containing high moisture content. Hydrology was apparent as saturation to within 4-10" of the surface. A very strong sulphidic odor was present at the majority of the test pits.

Within this Palustrine forested area there appears to be some pockets of unusual soils that have an ability to drain underneath allowing for a unique soil profile that consists of an anerobic histosol above deep aerobic loam to schist and bedrock.
This is still being considered wetland soils as the histosol meets the depth conditions and all other data supports wetland.

STREAMS

R3UB3 **Riverine, upper perennial, unconsolidated, mud**

Description: There are 5 perennial, unconsolidated streams that enter the project area along the Northern border. Currently, where the streams intersect the logging road bed there are culverts to allow unobstructed movement of the streams. The streams appear to be fed by the adjacent un-logged Palustrine forested area. All streams have unconsolidated beds averaging 12" width. The topography of the property allows for the development of smaller pools in areas where the topography is fairly flat – this is most notably within the first 4 acres on the Northern border.

METHODS OF DELINEATION

Wetlands were delineated following the guidelines of the U.S. Army Corps of Engineers Wetland Delineation Manual (1987) to meet the requirements of Section 404 of the Clean Water Act.

Wetlands are defined by the EPA (Federal Register, 1980) and US Army Corps of Engineers as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Field investigations included representative sample points within each vegetative community type in the project area. At each plot, the three environmental parameters of hydrology, soil, and vegetation were sampled, observed, evaluated and field noted on standard wetland determination forms (US ACOE 1987) to establish whether wetland indicators were present. To meet the jurisdictional requirements for a wetland, all three environmental indicators are required to be present.

The National Wetland Inventory Map B-5was referenced for classification. A soil management report prepared for the Ketchikan Gateway Borough by R. Billings in 1974 was also referenced.

The following categories and their abbreviations from the U.S. Fish and Wildlife National Wetlands and Deepwater Habitats Classification (Cowardin et.al 1979) are found and adapted in the area of investigation and are delineated and labeled on the accompanying Appendices.

Abbreviation	*NWI System, Class, Subclass, Modifier*
Upland	**Upland, does not meet parameters for wetland**
PFO4Bg	**Palustrine, forested, needle leaved evergreen, saturated, organic**
R3UB3	**Riverine, upper perennial, streambed, unconsolidated, mud**

VEGETATION

Dominant plant species (>20% cover at a sampling plot) were recorded on the data forms. Dominance is based on basal area for trees and percent of cover for shrubs and herbs. Plant species were classified according to moisture tolerance and then placed into the appropriate indicator classifications. Species that were not dominant, but were present may be marked on the data sheets for informational purposes only.

An estimated 30' radius was used for tree dominance, 10' for shrub and 5' radius for herbaceous vegetation at each sampling plot.

Plants were taxonomically classified and compared to the U. S. Fish & Wildlife National List of Plant Species. Categories are: obligate wetland (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU) and upland (UPL). Dominant species that are classified as OBL, FACW & FAC are totaled and then divided by the total number of dominant species to obtain a percentage of hydrophytic vegetation for each sampling point. If the percent of hydrophytic vegetation is 50% or greater, then the wetland vegetation parameter was met.

SOILS

Soils at each sampling point were inspected to a depth of 20" or refusal to determine presence or absence of hydric soil conditions. Soil hue, value and chroma and texture were determined for the soil horizons. Matrix and any mottles that exist were determined using Earth Colors Soil Chart, published 1997.

HYDROLOGY

Presence or absence of wetland hydrology was determined at each sampling plot. The presence of standing water, depth to free water in the soil pit and depth to saturated soils was recorded. Other primary indicators such as presence of watermarks, drift lines, sediment deposits and drainage patterns in wetlands were recorded when observed.

Hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions respectively. Hydrology is often the least exact of the three environmental parameters and indicators of wetland hydrology are sometimes difficult to find in the field.

STREAMS

All streams found within the project area are jurisdictional from Ordinary High Water to Ordinary High Water according to Section 404 of the Clean Water Act and are regulated by the US Army Corps of Engineers.

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APPENDIX A

FIELD OBSERVATION DATA SHEETS

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site **USS 3802**

Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
	Mature timber harvested	State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	PFO4Bg
	Adjacent rockpit	Transect ID	1
Is the area a potential Problem Area?	No	Plot ID	A

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Vaccinium ovalifolium	S	FAC
Vaccinium parvifolium	S	NI
Menziesia ferruginea	S	NI
Rubus pedatus	S	FAC
Cornus canadensis	H	FACU
Lysichiton americanum	H	OBL
Minors:		
Picea sitchensis	T	
Tiarella trifoliata	H	
Blechnum spicant	H	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) **4/5=80%**

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):

Stream, Lake, or Tide Gauge

Aerial Photographs

Other

No Recorded Data Available

Field Observations:

Depth to Surface Water:	Surface
Depth to Free Water in Pit	4"
Depth to Saturated Soil	1"

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

Inundated

Saturated in uppr 12" Yes

Water Marks

Drift Lines

Sediment Deposits

Drainage Patterns in Wetlands

Secondary Indicators (2+ Req)

Oxidized channels in upr 12"

Water Stained Leaves

Local Soil Survey Data

FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site USS 3802 Transect ID 1

Applicant/Owner Alcan Forest Products Plot ID A

SOILS

Map Unit Name

(Series and Phase)

Drainage Class

Field Observations

Taxonomy (Subgroup)

Confirm Mapped Type

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"	O	10R2.5/1		Fibric muck
4-5"		10YR2.5/1		Muck
5-20"		10YR2/2	10R2.5/1 & 7.5YR2.5/1	Muck

HYDRIC SOIL INDICATORS

Histosol	Yes	**Reducing Conditions**	Yes	Organic Streaking in Sandy Soils
Histic Epipedon		Gleyed or Low-Chroma		Listed on Local Hydric Soils List
Sulfidic Odor	Yes	Concretions		Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in		Other (Explain in Remarks)
		Surface layer in Sandy Soils		

HYDRIC SOIL PRESENT Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes
Wetland Hydrology Present?	Yes
Hydric Soils Present?	Yes
Is the sampling point a wetland?	Yes

Remarks:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site **USS 3802**

Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	PFO4Bg
		Transect ID	1
Is the area a potential Problem Area?	No	Plot ID	B

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Vaccinium alaskaense	S	FAC
Menziesia ferruginea	S	NI
Platanthera dilatata	H	OBL
Lysichiton americanum	H	OBL
Blechnum spicant	H	FAC
Malanthemum dilatatum	H	NI
Minor		
Picea sitchensis	T	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 5/5=100%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):

Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit 8"
Depth to Saturated Soil 2"

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

Inundated
Saturated in uppr 12" Yes
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site USS 3802 Transect ID 1

Applicant/Owner Alcan Forest Products Plot ID B

SOILS

Map Unit Name
(Series and Phase) Drainage Class
Field Observations
Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"		2.5YR2.5/1		Fibric muck
3-24"		2.5YR2.5/2	2.5YR2.5/1 & 10R3/6	Muck

HYDRIC SOIL INDICATORS

Histosol	Yes	Reducing Cond	Yes	Organic Streaking in Sandy Soils
Histic Epipedon		Gleyed or Low-C		Listed on Local Hydric Soils List
Sulfidic Odor	Yes	Concretions		Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in Surface layer in Sandy Soils		Other (Explain in Remarks)

HYDRIC SOIL PRESENT Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Preser	Yes
Wetland Hydrology Present?	Yes
Hydric Soils Present?	Yes
Is the sampling point a wetlan	Yes

Remarks:

Data Forr.
Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site **USS 3802**
Applicant/Owner **Alcan Forest Products**

Do normal circumstances exist on this site?	No	Date	9.10.05
	Mature timber harvested	County	KGB
Is the site a significantly disturbed (Atypical Situation?)	Yes	State	AK
		Community ID	PFO4Bg
Is the area a potential Problem Area?	No	Transect ID	1
		Plot ID	C

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Vaccinium alaskaense	S	FAC
Rubus spectabilis	S	FACU
Rubus pedatus	S	FAC
Lysichiton americanum	H	OBL
Cornus canadensis	H	FACU
Blechnum spicant	H	FAC
Tiarella trifoliata	H	FAC
Minor		
Carex sp		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 6/8=75%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):
Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit 4"
Depth to Saturated Soil 1"

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
Inundated
Saturated in uppr 12" Yes
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form
Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site USS 3802 Transect ID 1
Applicant/Owner Alcan Forest Products Plot ID C

SOILS
Map Unit Name
(Series and Phase) Drainage Class
Field Observations
Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8"		5YR2.5/1		Fibric muck
8-18"		7.5YR2.5/2	Uniform	Muck
18-20"		5Y4/4	5Y8/4	Olive shist loam

HYDRIC SOIL INDICATORS

Histosol	Yes	Reducing Cond	Yes	Organic Streaking in Sandy Soils
Histic Epipedon		Gleyed or Low-C		Listed on Local Hydric Soils List
Sulfidic Odor	Yes	Concretions		Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in Surface layer in Sandy Soils		Other (Explain in Remarks)
		HYDRIC SOIL PRESENT	Yes	

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Preser	Yes
Wetland Hydrology Present?	Yes
Hydric Soils Present?	Yes
Is the sampling point a wetlan	Yes

Remarks:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site **USS 3802**

Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	Upland
		Transect ID	1
Is the area a potential Problem Area?	No	Plot ID	D

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Picea sitchensis	T	FACU
Vaccinium alaskaense	S	FAC
Rubus spectabilis	S	FACU
Oplopanax horridus	S	FACU
Streptopus roseus	H	FACU
Cornus canadensis	H	FACU
Blechnum spicant	H	FAC
Minor:		
Sambucus racemosa ssp pubens	S	
Lysichiton americanum	H	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 3/8=38%

Remarks:

Also non indicator *Menziesia ferruginea* shrub

HYDROLOGY

Recorded Data (Describe in remarks):
Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit
Depth to Saturated Soil

Moist, but no saturation

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
Inundated
Saturated in uppr 12"
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site USS 3802 Transect ID 1

Applicant/Owner Alcan Forest Products Plot ID D

SOILS

Map Unit Name
(Series and Phase) Drainage Class
Field Observations
Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"		7.5R2.5/1		Fibric rooty muck
4-6"		5YR6/3	5YR7/4 & 7.5YR8/3 pink	Pinkish Loam
6-20"		7.5YR5/6	7.5YR2.5/2 & 7.5YR6/4 and 7.5YR3/4 & 7.5YR5/8	Loam w/ streaking

HYDRIC SOIL INDICATORS

Histosol	Reducing Condit	Organic Streaking in Sandy Soils
Histic Epipedon	Gleyed or Low-C	Listed on Local Hydric Soils List
Sulfidic Odor	Concretions	Listed on National Hydric Soils List
Aquic Moisture Regime	High Organic Streaking in Surface layer in Sandy Soils	Other (Explain in Remarks)

HYDRIC SOIL PRESENT No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Preser	No
Wetland Hydrology Present?	No
Hydric Soils Present?	No
Is the sampling point a wetlan	No

Remarks:

Uphill slope - south facing end survey

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site **USS 3802**
Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	Upland
		Transect ID	1
Is the area a potential Problem Area?	No	Plot ID	E

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Picea sitchensis	T	FACU
Vaccinium ovalifolium	S	FAC
Rubus spectabilis	S	FACU
Blechnum spicant	H	FAC
Cornus canadensis	H	FACU
Malanthemum dilatatum	H	NI

Percent of Dominent Species that are OBL, FACW or FAC (excluding FACU) 3/6=50%
Not more than 50%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):
Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit
Depth to Saturated Soil

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
Inundated
Saturated in uppr 12"
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site USS 3802 Transect ID 1
Applicant/Owner Alcan Forest Products Plot ID E

SOILS

Map Unit Name
(Series and Phase) Drainage Class
Field Observations
Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1"		2.5YR2.5/2		Fibric muck
1-16"		7.5YR4/6	10YR7/3 & 2.5YR4/8 & 2.5YR2.5/2 & 7.5YR4/5	Intensly mottled loam
16-20"		5GY7/1	2.5YR4/6	Lt Green Loam w/ gray schist

HYDRIC SOIL INDICATORS

Histosol	Reducing Condit	Organic Streaking in Sandy Soils
Histic Epipedon	Gleyed or Low-C	Listed on Local Hydric Soils List
Sulfidic Odor	Concretions	Listed on National Hydric Soils List
Aquic Moisture Regime	High Organic Streaking in Surface layer in Sandy Soils	Other (Explain in Remarks)

HYDRIC SOIL PRESENT No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Preser	No
Wetland Hydrology Present?	No
Hydric Soils Present?	No
Is the sampling point a wetlan	No

Remarks:

Best representain of very disturbed area

Data Form
Field Investigation by: Chere Klein, Cheryl Fultz
Project/Site **USS 3802**
Applicant/Owner **Alcan Forest Products**

Do normal circumstances exist on this site?	No	Date	9.10.05
		County	KGB
	Mature timber harvested	State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	PFO4Bg
		Transect ID	2
Is the area a potential Problem Area?	No	Plot ID	A

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Rubus spectabilis	S	FACU
Vaccinium alaskaense	S	FAC
Vaccinium parvifolium	S	NI
Menziesia ferruginea	S	NI
Lysichition americanum	H	OBL
Blechnum spicant	H	FAC
Cornus canadensis	H	FACU
Coptis trifolia	H	FAC
Malanthemum dilatatum	H	NI
Tiarella trifoliata	H	FAC
Minor:		
Platanthera occidentalis	H	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 6/8=75%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):
Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit 4"
Depth to Saturated Soil Surface

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
Inundated
Saturated in uppr 12" Yes
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands

Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form
Field Investigation by Chere Klein , Cheryl Fultz
Project/Site USS 3802 Transect ID 2
Applicant/Owner Alcan Forest Products Plot ID A

SOILS

Map Unit Name
(Series and Phase)
Drainage Class
Field Observations
Taxonomy (Subgroup)
Confirm Mapped Type

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12"	O	10R2.5/1	Uniform	**Muck**
12-24"		10YR3/2	10YR5/8 & 5Y6/3	**Muck w/ small pockets of mottling**

HYDRIC SOIL INDICATORS

Histosol	Yes	Reducing Conditions	Yes	Organic Streaking in Sandy Soils
Histic Epipadon		Gleyed or Low-Chroma Co		Listed on Local Hydric Soils List
Sulfidic Odor	Yes	Concretions		Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in Surface layer in Sandy Soils		Other (Explain in Remarks)

HYDRIC SOIL PRESENT Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	YES
Wetland Hydrology Present?	YES
Hydric Soils Present?	YES
Is the sampling point a wetland?	YES

Remarks:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site: **USS 3802**

Applicant/Owner: **Alcan Forest Products**

Do normal circumstances exist on this site?	No	Date	9.10.05
	Mature timber harvested	County	KGB
Is the site a significantly disturbed (Atypical Situation?)	Yes	State	AK
		Community ID	PFO4Bg
		Transect ID	2
Is the area a potential Problem Area?	No	Plot ID	B

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Vaccinium ovalifolium	S	FAC
Vaccinium parvifolium	S	NI
Menziesia ferruginea	S	NI
Blechnum spicant	H	FAC
Cornus canadensis	H	FACU
Maianthemum dilatatum	H	NI
Platanthera occidentalis	H	OBL
Minor:		
Rubus spectabilis	S	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU): 4/5=80%

Remarks:

Stream corridor has Oplopanax horridus

HYDROLOGY

Recorded Data (Describe in remarks):

Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available

Field Observations:

Depth to Surface Water:
Depth to Free Water in Pit
Depth to Saturated Soil: 4"

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

Inundated
Saturated in uppr 12": Yes
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands

Secondary Indicators (2+ Req)

Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site: USS 3802 — Transect ID: 2

Applicant/Owner: Alcan Forest Products — Plot ID: B

SOILS

Map Unit Name
(Series and Phase)

Drainage Class
Field Observations
Confirm Mapped Type

Taxonomy (Subgroup)

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-7"		2.5YR2.5/1	Uniform	Muck
7-10"		5YR3/2	5YR3/4 & 10YR4/4	Loamy muck schist
10-16"		5YR3/4	2.5YR2.5/4 & 7.5YR2.5/1 & 10YR7/4 & 7.5YR4/6	Muck Mucky loam-w/bright mottling
rock				

HYDRIC SOIL INDICATORS

Histosol: Yes

Histic Epipedon
Sulfidic Odor
Aquic Moisture Regime

Reducing Conditio
Gleyed or Low-Chrc
Concretions
High Organic Streaking in Surface layer in Sandy Soils

Organic Streaking in Sandy Soils
Listed on Local Hydric Soils List
Listed on National Hydric Soils List
Other (Explain in Remarks)

HYDRIC SOIL PRESENT: Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes
Wetland Hydrology Present?	Yes
Hydric Soils Present?	Yes
Is the sampling point a wetland?	Yes

Remarks:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site **USS 3802**

Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	PFO4Bg
		Transect ID	2
Is the area a potential Problem Area?	No	Plot ID	C

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Vaccinium ovalifolium	S	FAC
Vaccinium parvifolium	S	NI
Menziesia ferruginea	S	NI
Rubus spectabilis	S	FACU
Blechnum spicant	H	FAC
Cornus canadensis	H	FACU
Malanthemum dilatatum	H	NI
Platanthera occidentalis	H	OBL
Lysichiton americanum	H	OBL
Tiarella trifoliata	H	FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 6/8=75%

Remarks:

Minor Spruce -also a Carex along ditch

HYDROLOGY

Recorded Data (Describe in remarks):

Stream, Lake, or Tide Gauge

Aerial Photographs

Other

No Recorded Data Available

Field Observations:

Depth to Surface Water:

Depth to Free Water in Pit 8" seepage

Depth to Saturated Soil 2"

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

Inundated

Saturated in uppr 12" Yes

Water Marks

Drift Lines

Sediment Deposits

Drainage Patterns in Wetlands

Secondary Indicators (2+ Req)

Oxidized channels in upr 12"

Water Stained Leaves

Local Soil Survey Data

FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site USS 3802 Transect ID 2

Applicant/Owner Alcan Forest Products Plot ID C

SOILS

Map Unit Name

(Series and Phase) Drainage Class

Field Observations

Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4"		10R2.5/1		Fibric muck w/ wood rot
4-8"		7.5YR3/1	10YR7/3 & 2.5Y2.5/1&10YR4/6	Grayish Muck
8-20"		5YR3/3	10YR2/3 & 2.5YR2.5/1 & 5YR4/6	Muck

HYDRIC SOIL INDICATORS

Histosol	**Yes**	**Reducing Conc**	Organic Streaking in Sandy Soils
Histic Epipedon		Gleyed or Low-C	Listed on Local Hydric Soils List
Sulfidic Odor		Concretions	Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in Surface layer in Sandy Soils	Other (Explain in Remarks)

HYDRIC SOIL PRESENT Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes
Wetland Hydrology Present?	Yes
Hydric Soils Present?	Yes
Is the sampling point a wetland?	Yes

Remarks:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site **USS 3802**
Applicant/Owner **Alcan Forest Products**

		Date	9.10.05
Do normal circumstances exist on this site?	No	County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	Upland
		Transect ID	2
Is the area a potential Problem Area?	No	Plot ID	D

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Picea sitchensis	T	FACU
Vaccinium ovalifolium	S	FAC
Vaccinium parvifolium	S	NI
Menziesia ferruginea	S	NI
Rubus spectabilis	S	FACU
Oplopanax horridus	S	FACU
Blechnum spicant	H	FAC
Cornus canadensis	H	FACU
Malanthemum dilatatum	H	NI

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 3/7=43%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):
Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit
Depth to Saturated Soil

Damp, but not saturated

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:
Inundated
Saturated in uppr 12"
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz
Project/Site USS 3802 Transect ID 2
Applicant/Owner Alcan Forest Products Plot ID D

SOILS
Map Unit Name
(Series and Phase) Drainage Class
Field Observations
Taxonomy (Subgroup) Confirm Mapped Type

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6"		7.5R2/2	2.5YR2.5/1 & 2.5YR3/3 & 10R2.5/1	Red Fibric mossy organic
6-15"		7.5R2.5/1	2.5YR4/6 & 10R2.5/1	Fibric muck
15-24"		10R2.5/2	10R4/6 & 10R3/6	Mucky fibric

HYDRIC SOIL INDICATORS

Histosol	Yes	Reducing Condi	Organic Streaking in Sandy Soils
Histic Epipedon		Gleyed or Low-C	Listed on Local Hydric Soils List
Sulfidic Odor		Concretions	Listed on National Hydric Soils List
Aquic Moisture Regime		High Organic Streaking in Surface layer in Sandy Soils	Other (Explain in Remarks)

HYDRIC SOIL PRESENT Yes

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	No
Wetland Hydrology Present?	No
Hydric Soils Present?	Yes
Is the sampling point a wetland?	No

Remarks:

Hillside above monument - transition to upland

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site **USS 3802**

Applicant/Owner **Alcan Forest Products**

Do normal circumstances exist on this site?	No	Date	9.10.05
		County	KGB
Mature timber harvested		State	AK
Is the site a significantly disturbed (Atypical Situation?)	Yes	Community ID	Upland
		Transect ID	2
Is the area a potential Problem Area?	No	Plot ID	E

Vegetation

Dominant Plant Species	Stratum	Indicator
Tsuga heterophylla	T	FAC
Picea sitchensis	T	FACU
Vaccinium alaskaense	S	FAC
Rubus spectabilis	S	FACU
Rubus pedatus	S	FAC
Oplopanax horridus	S	FACU
Cornus canadensis	H	FACU
Polystichum munitum	H	FACU
Malanthemum dilatatum	H	NI
Minor:		
Sambucus racemosa ssp pubens	S	

Percent of Dominant Species that are OBL, FACW or FAC (excluding FACU) 3/8=38%

Remarks:

HYDROLOGY

Recorded Data (Describe in remarks):

Stream, Lake, or Tide Gauge
Aerial Photographs
Other
No Recorded Data Available
Field Observations:
Depth to Surface Water:
Depth to Free Water in Pit
Depth to Saturated Soil

Moist, but no saturation

WETLAND HYDROLOGY INDICATORS:

Primary Indicators:

Inundated
Saturated in uppr 12"
Water Marks
Drift Lines
Sediment Deposits
Drainage Patterns in Wetlands
Secondary Indicators (2+ Req)
Oxidized channels in upr 12"
Water Stained Leaves
Local Soil Survey Data
FAC_ Neutral Test:

Data Form

Field Investigation by: Chere Klein & Cheryl Fultz

Project/Site USS 3802 Transect ID 2

Applicant/Owner Alcan Forest Products Plot ID E

SOILS

Map Unit Name
(Series and Phase)

Drainage Class
Field Observations

Taxonomy (Subgroup)

Confirm Mapped Type

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3"		10R2.5/2		Fibric muck
3-5"		2.5YR2.5/2		Fibric muck
5-8"		2.5YR3/3	7.5YR2.5/1 & 2.5YR3/6 & 2.5YR5/8 and 2.5YR4/6 & 5YR4/2	Organic-stained very mottled Loam
8-20"			5YR2.5/1 & 7.5YR7/4	Loam

HYDRIC SOIL INDICATORS

Histosol	Reducing Condit	Organic Streaking in Sandy Soils
Histic Epipedon	Gleyed or Low-C	Listed on Local Hydric Soils List
Sulfidic Odor	Concretions	Listed on National Hydric Soils List
Aquic Moisture Regime	High Organic Streaking in Surface layer in Sandy Soils	Other (Explain in Remarks)

HYDRIC SOIL PRESENT No

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Preser	No
Wetland Hydrology Present?	No
Hydric Soils Present?	No
Is the sampling point a wetlan	No

Remarks:

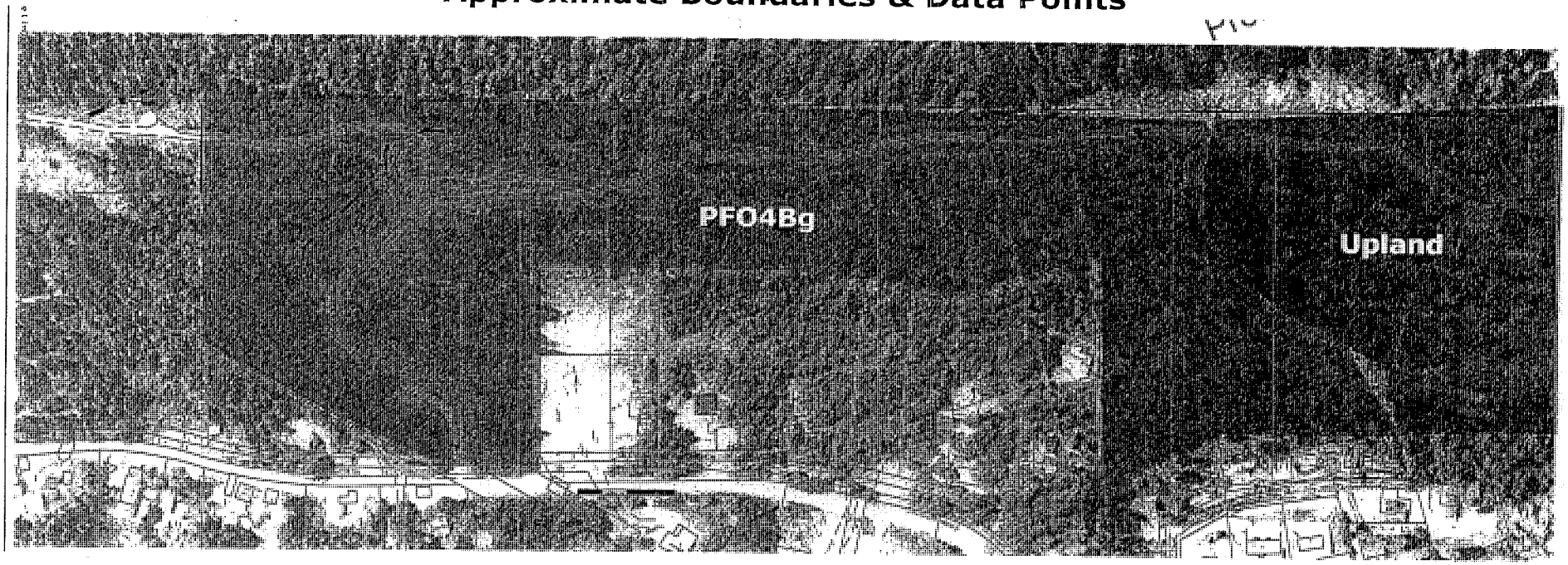
Uphill slope - south facing end survey

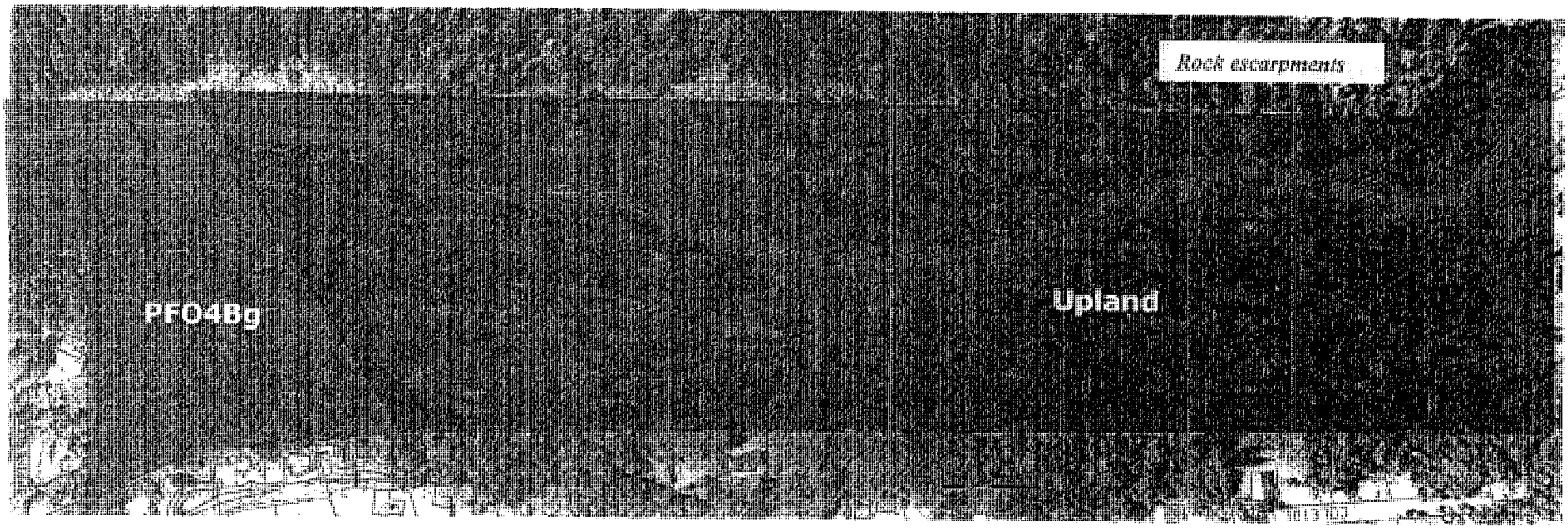
APPENDIX B –

APPROXIMATE WETLAND BOUNDARY DELINEATION

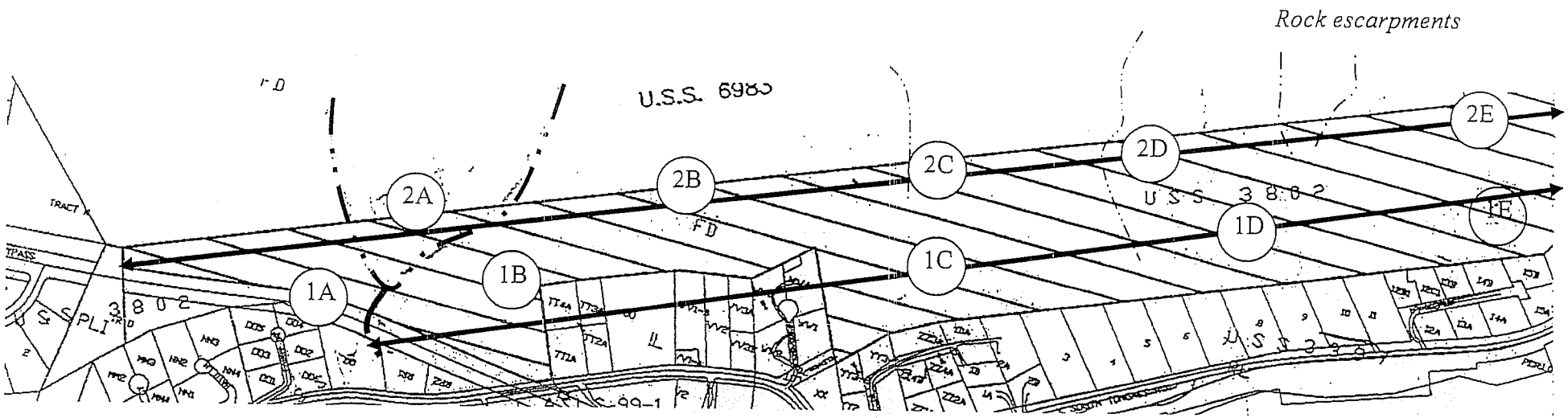
The varying boundaries shown on this exhibit are approximate. An accurate survey depicting the site dimensions and intermittent stream drainage boundaries would produce a very precise JD.

Approximate Boundaries & Data Points





Transects & Approximate Location of Data Points
USS 3802



APPENDIX C –

Field Photographs of Data Points

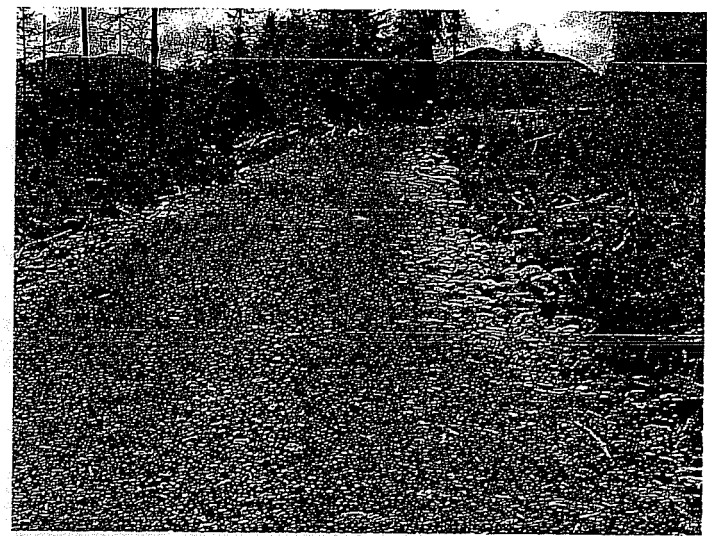
Transect 1 Data Point A

Transect 1 Data Point B

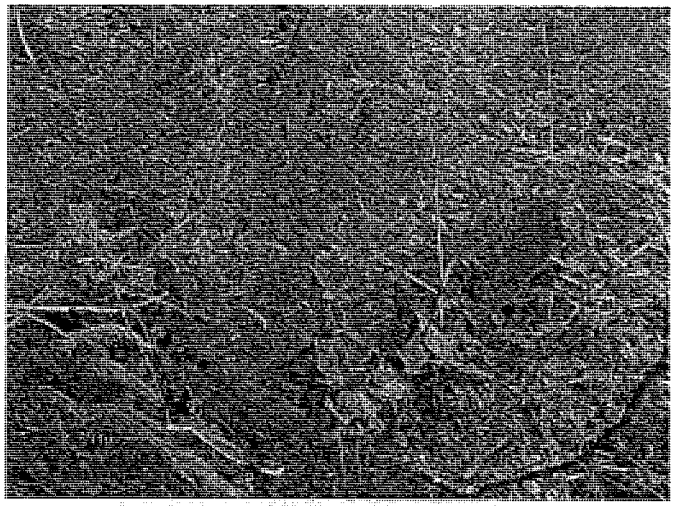
Transect 1 Data Point C

Transect 1 Data Point D

Transect 1 Data Point E



Logging Road & timber harvest area



Transect 2 Data Point A

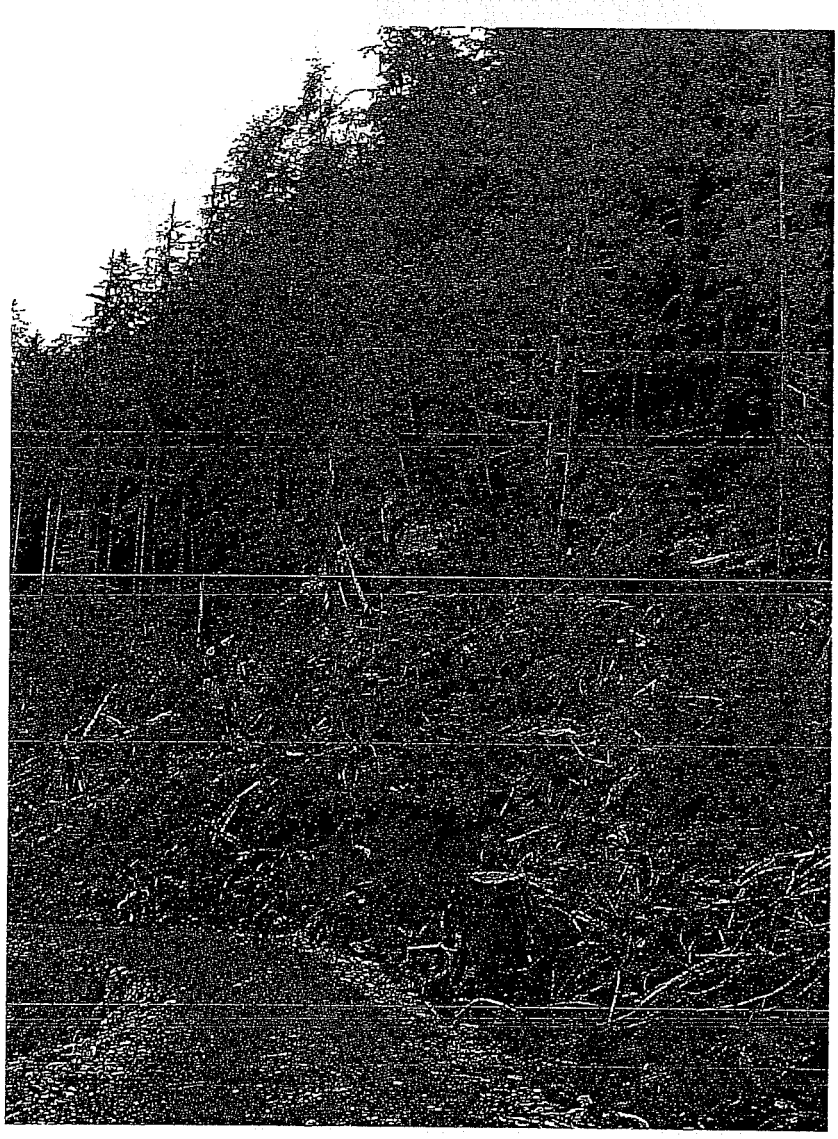
Transect 2 Data Point B

Transect 2 Data Point C

Transect 2 Data Point D

Transect 2 Data Point E

Rock pit development – road access



Rock escarpment near end project

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO
ATTENTION OF:

SEP 22 2005

Regulatory Branch
East Section
POA-2005-1059

Trevor Sande, Agent
R&M Engineering - Ketchikan
355 Carlanna Lake Road
Ketchikan, Alaska 99901

Dear Mr. Sande:

Enclosed is the signed Department of the Army permit, file number POA-2005-1059, George Inlet, authorizing fill placement in the Boyer Subdivision, 6.5 miles south of Ketchikan, Alaska. Also enclosed is a Notice of Authorization which should be posted in a prominent location near the authorized work.

If changes in the plans or location of the work are necessary for any reason, plans should be submitted to this office promptly. Federal law requires approval before construction is begun; if the changes are unobjectionable, approval will be issued without delay.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinances, or regulations which may affect the proposed work.

Please take a moment to complete and return the enclosed questionnaire. We are interested in your comments on our program.

Please contact me at (907) 753-2720, toll free from within Alaska at (800) 478-2712, by email at mary.f.leykom@poa02.usace.army.mil or by regular mail at the address above, ATTN: CEPOA-CO-R-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Mary Leykom

Mary Leykom
Project Manager

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: Laurin C. Boyer (R&M Engineering, agent)

Permit No.: POA-2005-1059

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Place approximately 7,100 cubic yards of clean fill material to construct two gravel subdivision access roads; one with a 24-foot crown width by 350 feet long, the second with a 16-foot crown width by a total of 533 feet long (separated into two segments by an existing road). Construct 4 house foundation pads averaging 100-feet by 100-feet. Install approximately 1,550 feet of buried water and sewer lines to service the new homes, and also install 2 culverts to maintain existing drainages through the new road fill. Approximately 4,425 cubic yards of unsuitable material would be excavated from the construction areas and disposed of in upland areas of the subdivision. Total wetland acreage impacted would be 1.28 acres.

All work will be performed in accordance with the attached plan, sheets **1-6**, dated **May 2005**.

Project Location: Boyer Subdivision, located approximately 6.5 miles southeast of Ketchikan, Alaska. The subdivision is located in the SE ¼, section 2, T. 76 S., R. 91 E., Copper River Meridian, at Latitude 55.300°N., Longitude 131.533°W.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on August 31, 2008. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. No fill, construction materials, or equipment, shall be stockpiled in wetlands outside of the proposed fill or excavation footprint of this project.

2. The applicant shall use erosion control materials such as silt fence, straw bales, check dams and fiber matting to eliminate sediment from being carried to wetlands, streams, or drainages.

3. The boundary of the fill limits in wetlands must be staked or flagged prior to work start-up to prevent inadvertent encroachment into wetlands.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a revaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Lauren C Boyer / owner — Aug 25, 2005

(PERMITTEE) AND TITLE — (DATE)

by Power of Attorney Jaqueline C Boyer

Jaqueline C. Boyer — Sept 08, 2005

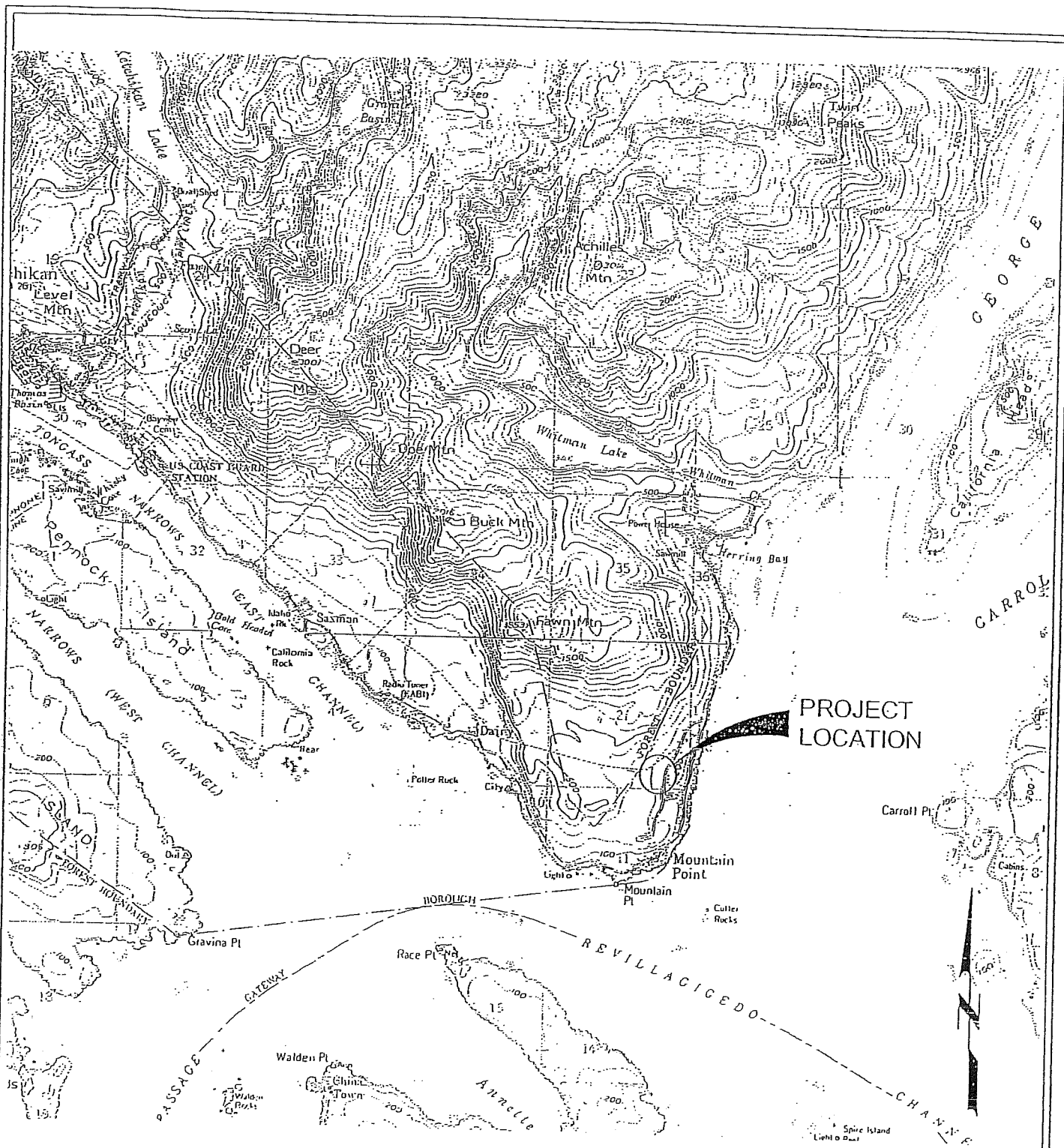
This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

[illegible] — Sept. 19, 2005

(DISTRICT ENGINEER) — (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

(TRANSFEREE) — (DATE)



POA-2005-1059 Sheet 1 of 6

VICINITY MAP

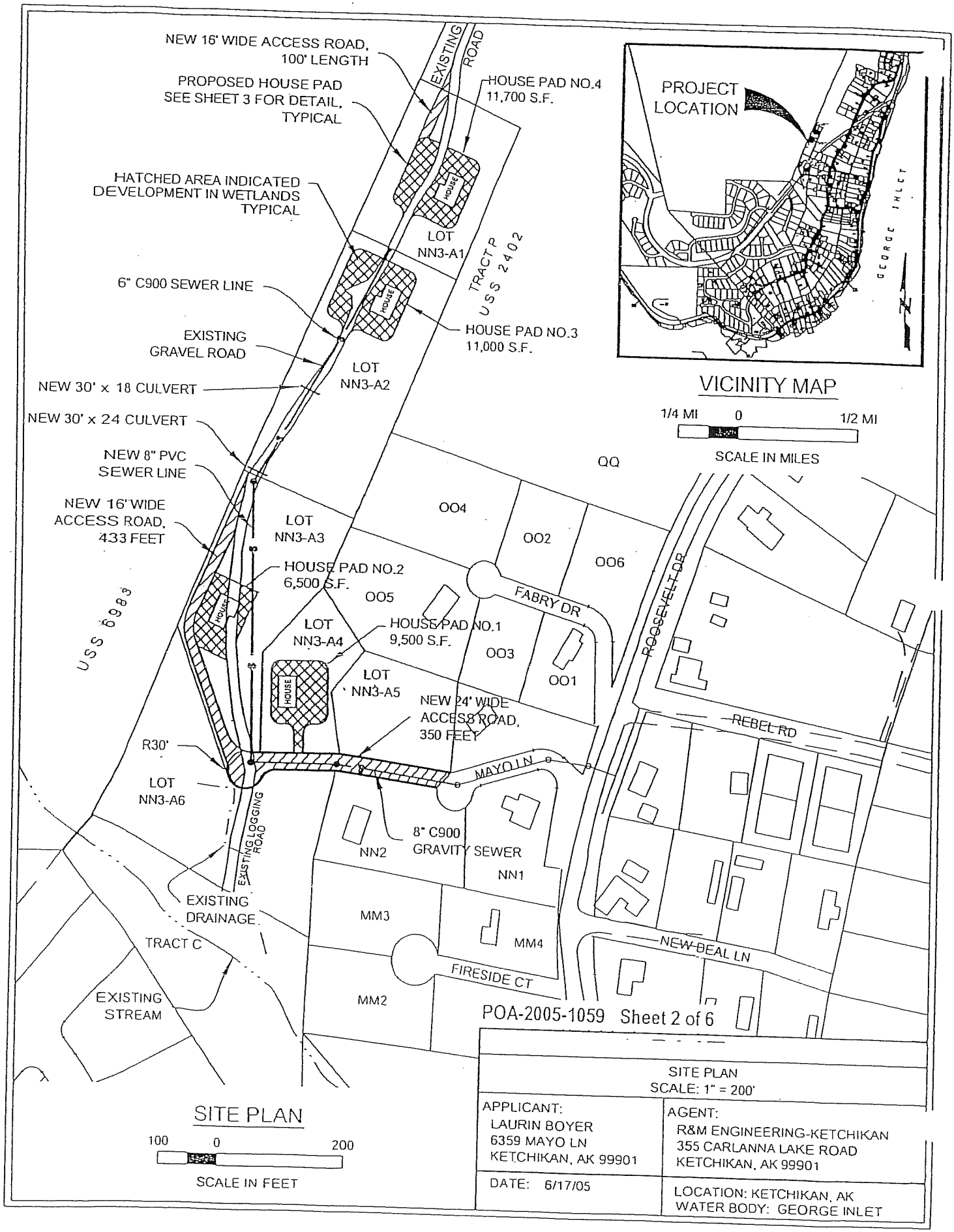
1/2 0 1

SCALE IN MILES

BOYER SUBDIVISION

VICINITY MAP
SCALE: 1" = 1 MILE

APPLICANT: LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 5/25/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET



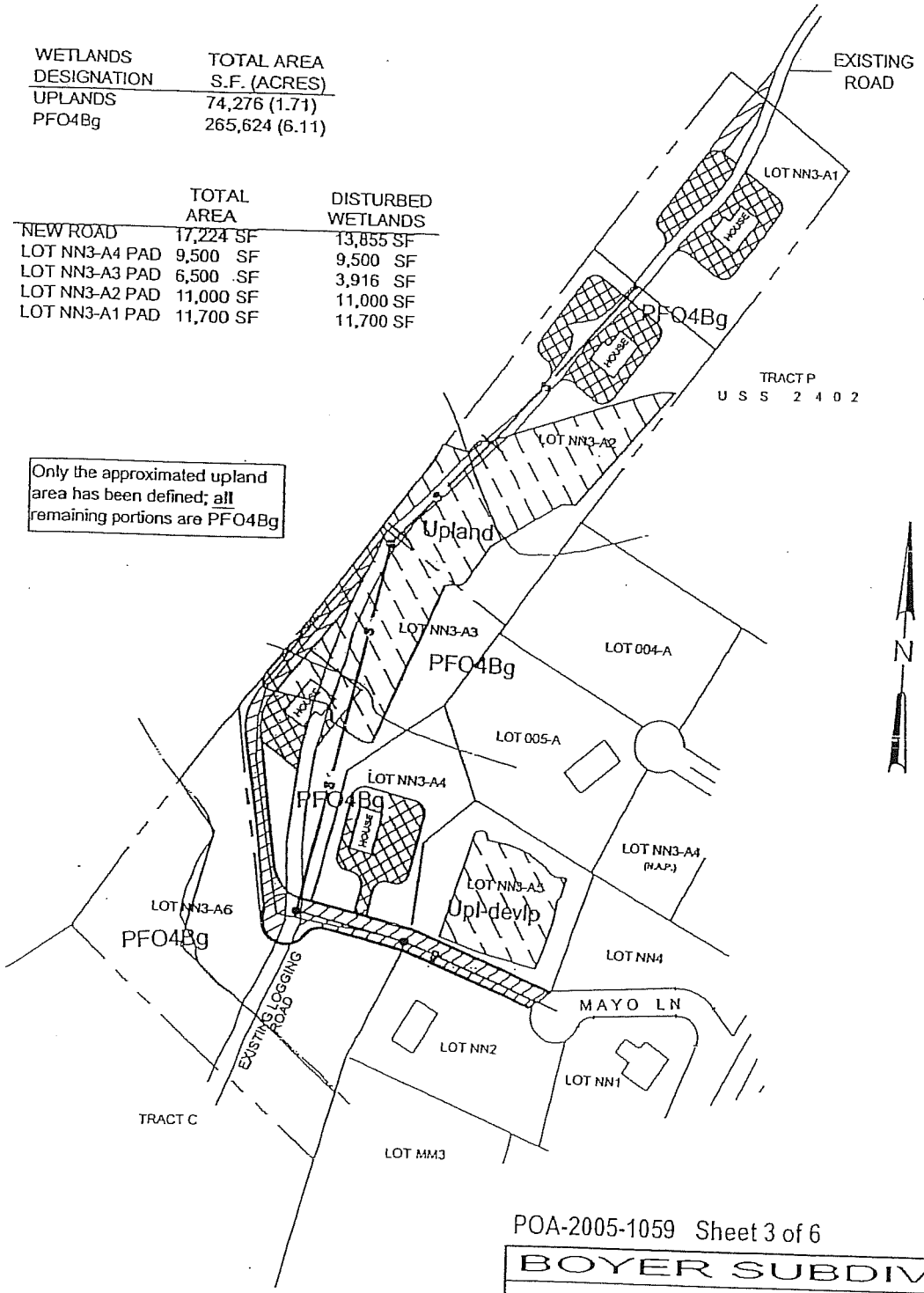
POA-2005-1059 Sheet 2 of 6

SITE PLAN SCALE: 1" = 200'	
APPLICANT: LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 6/17/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET

WETLANDS DESIGNATION	TOTAL AREA S.F. (ACRES)
UPLANDS	74,276 (1.71)
PFO4Bg	265,624 (6.11)

	TOTAL AREA	DISTURBED WETLANDS
NEW ROAD	17,224 SF	13,855 SF
LOT NN3-A4 PAD	9,500 SF	9,500 SF
LOT NN3-A3 PAD	6,500 SF	3,916 SF
LOT NN3-A2 PAD	11,000 SF	11,000 SF
LOT NN3-A1 PAD	11,700 SF	11,700 SF

Only the approximated upland area has been defined; all remaining portions are PFO4Bg



SITE PLAN

100 0 200

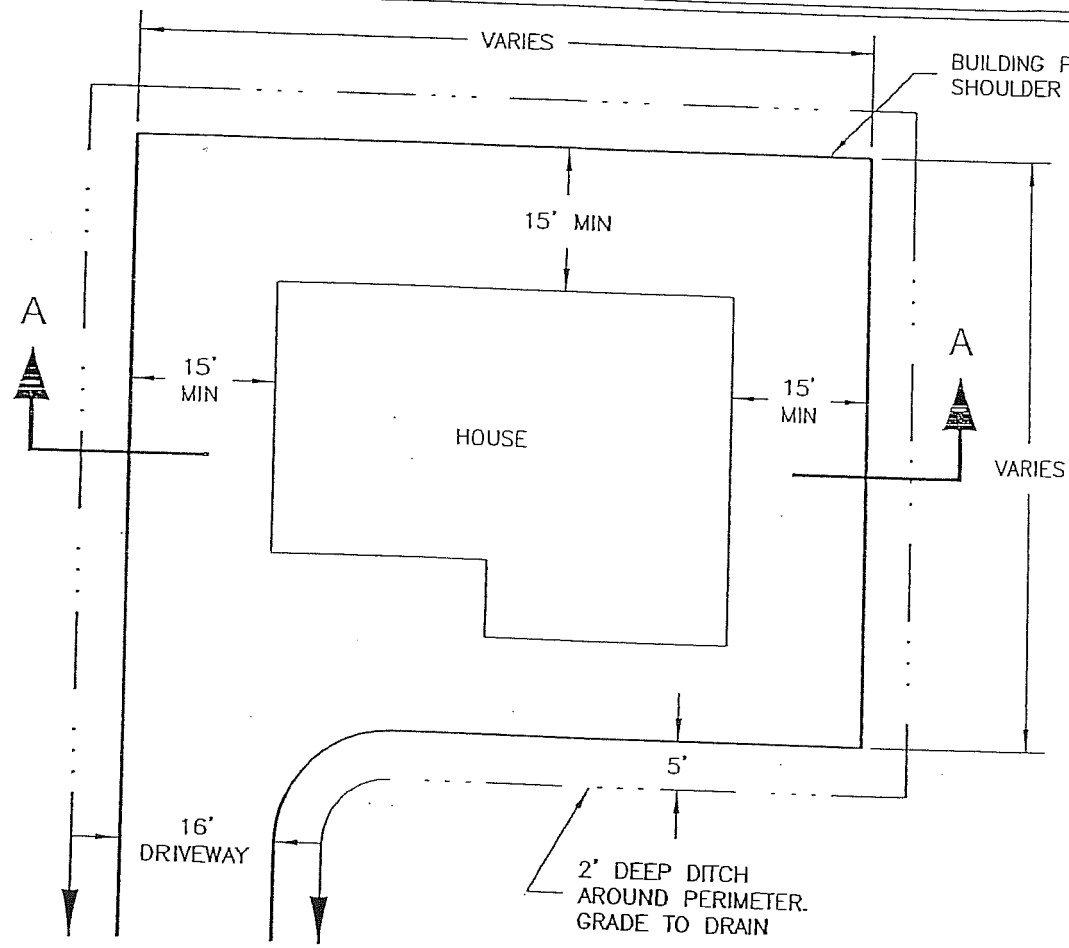
SCALE IN FEET

POA-2005-1059 Sheet 3 of 6

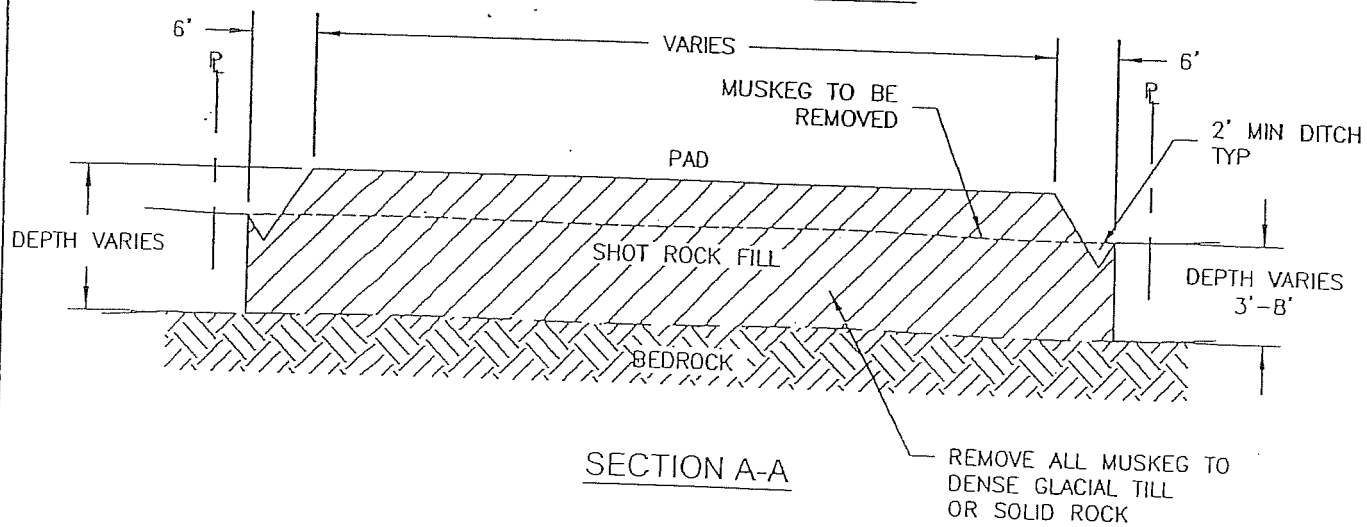
BOYER SUBDIVISION

Wetland Boundary Delineations
SCALE: 1" = 200'

APPLICANT:	AGENT:
LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 6/17/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET



TYPICAL HOUSE PAD PLAN



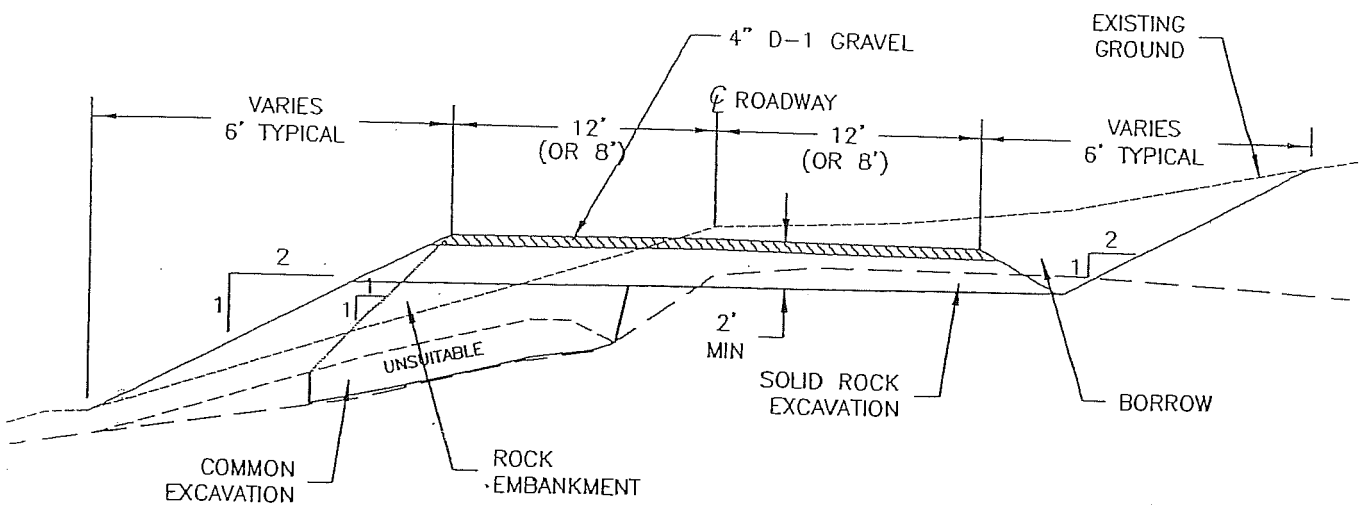
SECTION A-A

POA-2005-1059 Sheet 4 of 6

10 0 20

SCALE IN FEET

BOYER SUBDIVISION	
TYPICAL HOUSE PAD - PLAN & SECTION SCALE: 1" = 20'	
APPLICANT: LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 5/25/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET

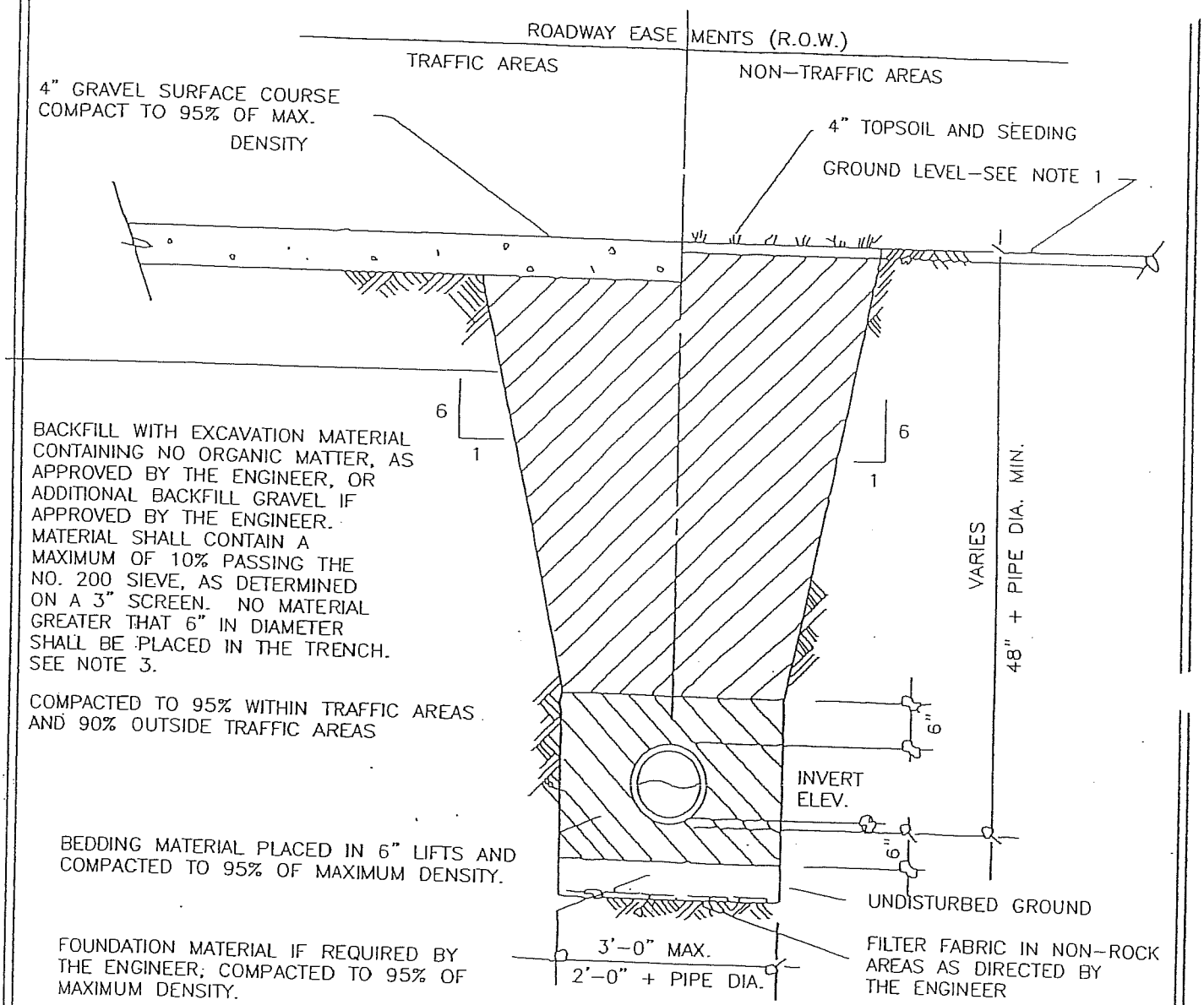


TYPICAL ROADWAY SECTION

SCALE: NONE

POA-2005-1059 Sheet 5 of 6

BOYER SUBDIVISION	
TYPICAL ROADWAY SECTION SCALE: NONE	
APPLICANT: LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 5/25/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET



TYPICAL SEWER SECTION

SCALE: NONE

POA-2005-1059 Sheet 6 of 6

BOYER SUBDIVISION	
TYPICAL ROADWAY SECTION SCALE: NONE	
APPLICANT: LAURIN BOYER 6359 MAYO LN KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 5/25/05	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT/PERMITTING
ALASKA COASTAL MANAGEMENT PROGRAM

☐ SOUTHCENTRAL REGIONAL OFFICE
550 W 7th AVENUE SUITE 1660
ANCHORAGE, ALASKA 99501
PH: (907) 269-7470 FAX: (907) 269-3891

☒ CENTRAL OFFICE
302 GOLD STREET
JUNEAU, ALASKA 99801
PH: (907) 465-3562 FAX: (907) 465-3075

☐ PIPELINE COORDINATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501
PH: (907) 2857-1351 FAX: (907) 272-3829

www.alaskacoast.state.ak.us

September 13, 2005

Mr. Trevor Sande
R&M Engineering-Ketchikan
355 Carlanna Lake Road
Ketchikan, AK 99901

Dear Mr. Sande:

Subject: **George Inlet (Boyer Subdivision Fills)**
State I.D. No. AK 0507-10J
Final Consistency Determination - Concurrence

The Office of Project Management and Permitting (OPMP) has completed coordinating the State's review of the proposed residential subdivision near Ketchikan, Alaska for consistency with the Alaska Coastal Management Program (ACMP).

Based upon review by the Alaska Department of Natural Resources and the affected coastal district, OPMP has developed the enclosed final consistency determination, in which the State concurs with certification that was signed by the applicant, that the project is consistent with the ACMP and affected coastal district's enforceable policies.

By copy of this letter, I am informing the U.S. Army Corps of Engineers and State review participants of OPMP's proposed finding. If you have any questions, please contact me at 907-465-8791 or email ben_white@dnr.state.ak.us.

Sincerely,

Ben White

Ben White
ACMP Project Specialist

Enclosure

Distribution List:

Jim Powell - ADEC, Juneau*
Wayne Dolezal - ADFG, Anchorage*
Mark Jaqua - ADNR/DMLW, Juneau*
Doug Sanvik - ADNR/DMLW, Juneau*
Mark Minnillo - ADNR/OHMP, Craig*
Rhonda Ren-Kingery - ADNR/OHMP, Craig*
Jen Becker - ADNR/OPMP, Juneau*
Margie Goatley - ADNR/SHPO, Anchorage*
Andy Hughes - ADOT/PF, Juneau*
Erin Reeve - Coastal District, Ketchikan*
Katharine Miller – NMFS, Juneau*
Mary Leykom, USACE, Anchorage* **
Chris Meade, USEPA, Juneau*

* = Emailed, ** = Faxed

ALASKA COASTAL MANAGEMENT PROGRAM
FINAL CONSISTENCY DETERMINATION
CONCURRENCE

DATE ISSUED: September 13, 2005

PROJECT TITLE: George Inlet (Boyer Subdivision Fills)

STATE ID. NO.: AK 0507-10J

AFFECTED COASTAL RESOURCE DISTRICT: Ketchikan

APPLICANT: Laurin Boyer / Trevor Sande

PROJECT LOCATION:
The proposed subdivision would be located within Section 2, Township 76 South, Range 91 East, Copper River Meridian; located at approximately Latitude 55.300° North and Longitude 131.533° West near Ketchikan, Alaska.

DESCRIPTION OF PROJECT SUBJECT TO ACMP REVIEW:
The applicant proposes to construct two gravel access roads approximately 350 feet long and 533 feet long to access a new low-density residential subdivision. Two culverts will be installed to maintain the existing drainages through the subdivision and under the new access roads. The subdivision comprises 7.86 acres and has an existing road within the subdivision that was constructed in 2003 to provide access to logging operations. The subdivision will consist of 4 house foundation pads that will measure approximately 100-feet by 100-feet and have connections to utilities. The applicant will install up to 1,550 feet of buried water and sewer lines to the house sites. Approximately 4,425 cubic yards (CY) of unsuitable material would be excavated from the site and disposed of onto upland areas within the subdivision. The proposed subdivision will require approximately 7,100 CY of clean shot rock fill material that is obtained from a local commercial source. It is estimated that the total amount of wetland acreage to be filled by the proposed subdivision is 1.28 acres.

SCOPE OF PROJECT REVIEW:
The scope of the project subject to the consistency review includes all activities that require an authorization from a Federal and State agency for the project to proceed – with the following exception: the scope of this review does not include the Alaska Department of Environmental Conservation (ADEC) 401 Certification process required from the State prior to the issuance of a Section 404 (of the Clean Water Act of 1977) permit by the Department of the Army.

AUTHORIZATIONS:
The project must be found consistent with the ACMP before the following Federal and State authorizations may be issued:

U.S. Army Corps of Engineers (COE)
Section 404 Permit No. POA-2005-1059

Alaska Department of Environmental Conservation (ADEC)
· 401 Certificate of Reasonable Assurance (Waived as of July 26, 2005)

CONSISTENCY STATEMENT:
Based on an evaluation of your project by the Alaska Department of Natural Resources – Division of Mining, Land and Water (DMLW), and Office of Habitat Management and Permitting (OHMP), and the Ketchikan Coastal District, the State of Alaska concurs with the consistency certification submitted by the applicant, Laurin Boyer, and signed by the project agent, Trevor Sande.

State permits. State agencies shall issue permits within five days after OPMP issues the final consistency determination that concurs with the applicant's consistency certification, unless the resource agency considers additional time necessary to fulfill its statutory or regulatory authority.

Please note that, in addition to their consistency review, State agencies with permitting responsibilities will evaluate this proposed project according to their specific permitting authorities. Agencies will issue permits and authorizations only if they find the proposed project complies with their statutes and regulations in addition to being consistent with the coastal program. An agency permit of authorization may be denied even though the State concurs with the ACMP. Authorities outside the ACMP may result in additional permit/lease conditions. If a requirement set out in a final consistency determination [per 11 AAC 110.260(f)] is more or less restrictive than a similar requirement in a resource agency authorization, the applicant shall comply with the more restrictive requirement. Applicants may not use any State land or water without ADNR authorization.

This final consistency determination represents a consensus reached between you as the project applicant and the reviewing agencies listed above; regarding the conditions necessary to ensure the proposed project is consistent with the ACMP. We are informing the federal agency responsible for approving a federal authorization for your project that your original proposal has been modified subject to the conditions in this consistency determination.

This final consistency determination is a final administrative decision for purposes of Alaska Appellate Rules 601-612. Any appeal from this decision to the superior court must be made within 30 days of the date of this determination.

ADVISORIES:
Department of Natural Resources:
Division of Mining, Land and Water (DMLW) – On July 5, 2005 OPMP received email confirmation that there were not any State lands involved in the project and that DMLW did not have any comments on the proposed project.

Office of Habitat Management and Permitting (OHMP) – On July 26, 2005 OPMP received an email from OHMP indicating that there were no catalogued anadromous fish streams within the proposed project area. There were no additional comments or recommendations.

Ketchikan Coastal District – On August 18, 2005 OPMP received written comments from the Ketchikan Coastal District. The Ketchikan Coastal District comments were as follows:

"The purpose of the project is to provide low-density residential housing in the Ketchikan Gateway Borough. The Ketchikan District has reviewed the above referenced application. The project is consistent with the Ketchikan District Coastal Zone Management Program.

Our current Coastal District Plan provides no guidance for the review of projects which involve wetlands fill, except where they impact anadromous fish streams. This project does not appear to impact catalogued streams. We defer to the Alaska Department of Fish and Game to determine if the fill impacts any streams negatively.

Advisory:

Note that the property is zoned Low-Density Residential (RL). The applicant will need a zoning permit for all structures over 30" above grade from the Borough Planning Department prior to commencement of construction."

This consistency determination may include reference to specific laws and regulations, but this in no way precludes an applicant's responsibility to comply with all other applicable State and federal laws and regulations.

This consistency determination is only for the project as described. If, after issuance of a final consistency determination or response, the applicant proposes any changes to the approved project, including its intended use, prior to or during its siting, construction, or operation, the applicant must contact this office immediately to determine if further review and approval of the modifications to the project is necessary. Changes may require amendments to the State authorizations listed in this determination or response, or may require additional authorizations.

If the proposed activities reveal cultural or paleontological resources, the applicant is to stop any work that would disturb such resources and immediately contact the State Historic Preservation Office (907-269-8720) and the U.S. Army Corps of Engineers (907-753-2712) so that consultation per section 106 of the National Historic Preservation Act may proceed.

FINAL CONSISTENCY DETERMINATION PREPARED BY:

Ben White – ACMP Project Specialist
Department of Natural Resources
Alaska Coastal Management Program
302 Gold Street, Ste. 202
Juneau, Alaska 99801-0030
(907) 465-8791

Ben White

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO
ATTENTION OF:

MAR 07 2006

Regulatory Branch
POA-2005-2046-4

Trevor Sande
R&M Engineering
355 Carlanna Lake Road
Ketchikan, Alaska 99901

Dear Mr. Sande:

Enclosed are two copies of Department of the Army (DA) permit POA-2005-2046-4, which would authorize the development of a total of 55 lots to create the Ravenswood Subdivision (27 would be located within wetlands which fall within the Corps regulatory Jurisdiction). The proposed project is located within section 33, T. 75 S., R. 91 E., Copper River Meridian; Latitude 55.308° N., Longitude 131.528° W.; in Mountain Point, approximately 6 miles southeast of Ketchikan, Alaska.

Enclosed are two unsigned copies of a "**PROVISIONAL PERMIT.**" The provisional permit is **NOT VALID** and does not authorize you to do your work. The provisional permit describes the work that will be authorized, and the General and Special Conditions which will be placed on your final DA permit, if the State of Alaska Water Quality Certification and Coastal Zone Management (CZM) consistency requirements are satisfied as described below. No work is to be performed in the waterway or adjacent wetlands until you have received a validated copy of the DA permit.

Additionally, we have enclosed a Notification of Administrative Appeals Options and Process and Request for Appeal form regarding this DA permit (see section labeled "Initial Proffered Permit").

By Federal law a DA permit cannot be issued until a State Section 401 Water Quality Certification has been issued or has been waived and the State has concurred with a permit applicant's CZM consistency determination or concurrence has been presumed. As of this date, the Alaska Department of Environmental Conservation (ADEC) has not issued a Section 401 Water Quality Certification for your proposed work. If ADEC fails or refuses to act by January 11, 2007, the Section 401 Water Quality Certification requirement will be automatically waived. Also, as of this date, the Alaska Department of Natural Resources (ADNR) has not concurred with your CZM consistency determination. If ADNR neither concurs nor provides written objections to the certification statement by July 11, 2006, then concurrence with your CZM consistency determination may be presumed.

Conditions of the State Section 401 Water Quality Certification will become conditions to the final DA permit. Should the State's action on the required certification or concurrence preclude validation of the provisional permit in its current form, a modification to the provisional permit will be evaluated and you will be notified as appropriate. Substantial changes may require a new permit evaluation process, including issuing a new public notice.

Once the State has issued the required Section 401 Water Quality Certification and concurred with your CZM consistency determination or the dates above have passed without the State acting, and you agree to the terms and conditions of the provisional permit, you should sign and date both copies and return them to us along with your $10.00 permit fee. Your check or money order should be made payable to FAO, USACE, Alaska District. Your DA permit will not be valid until we have returned a copy to you bearing both your signature and the signature of the appropriate Corps official.

If the State denies the required Section 401 Water Quality Certification and/or does not concur with your CZM consistency determination, then the DA permit application file will be closed. If you should subsequently obtain a Section 401 Water Quality Certification or a CZM consistency determination concurrence, you should contact this office to determine how to proceed with your permit application.

If you have any questions concerning your State Section 401 Water Quality Certification, please contact the ADEC at WQM/401 Certification, 410 Willoughby Avenue, Juneau, Alaska 99801-1795, or by telephone at (907) 465-5321.

If you have any questions concerning your CZM consistency determination, please contact the DNR at the Office of Project Management and Permitting, Alaska Coastal Management Program, 302 Gold Street, Suite 202, Juneau, Alaska 99801-1127, or by telephone at (907) 465-3562.

You may contact Ms. Serena Sweet at (907) 753-2712, toll free from within Alaska at (800) 478-2712, by email at serena.e.sweet@poa02.usace.army.mil or by mail at the address above, ATTN: CEPOA-CO-R-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Victor Ross
Team Leader
East Section

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: Alcan Forest Products

Permit No.: POA-2005-2046-4, George Inlet

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Develop 27 lots impacting a total of 5.02 acres (218,597 square feet) of wetlands habitat. Each lot includes a fill pad and access driveway measuring approximately 80-feet wide by 100-feet long total. A total of 24,488 cubic yards of overburden material will be excavated and removed and 46,813 cubic yards of fill material will be placed to construct the house pads for all 27 lots.

Also, construct 1,644 linear feet of the subdivision roads by excavating 5,831 cubic yards of overburden material and placing 6,020 cubic yards of fill material. The roads would very in width from 20-feet to 24-feet wide. A total of 1.20 acres (52,482 square feet) of wetlands habitat would be impacted by the road construction.

All work will be performed in accordance with the attached plan, sheets 1-8, dated December 22, 2005.

Project Location: The proposed project is located within section 33, T. 75 S., R. 91 E., Copper River Meridian; Latitude 55.308° N., Longitude 131.528° W.; in Mountain Point, approximately 6 miles southeast of Ketchikan, Alaska.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **March 31, 2009**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee shall install a device, such as a silt fence, curtain, or other structure, at the toe of the fill in order to assure that suspended sediment and increases in turbidity do not affect waters beyond the immediate work area. The device shall be properly maintained and functioning for the entire construction period and left in place until such time as the fill has stabilized and there is no further sedimentation occurring. This structure will also provide clearly identified project limits of the authorized fill to ensure avoidance of impacts to waters of the U.S. (including wetlands) beyond the project footprint. All equipment operators and laborers shall be advised that the areas beyond this structure are not to be disturbed.

(Continued on page 2A)

Special Information:

Any condition incorporated by reference into this permit by General Condition 5, remains a condition of this permit unless expressly modified or deleted, in writing, by the District Engineer or his authorized representative.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

2: Fill material shall consist of clean fill, free of unsuitable material (e.g. trash, debris, car bodies, asphalt, etc.), and free of toxic pollutants.

3. Natural drainage patterns must be maintained, to the extent practicable, without introducing ponding or drying. Control of drainage must be provided by appropriate ditching, culverts, storm drain systems, and other measures. Roadway culverts must be installed in accordance with sound engineering practices and to manufacturer's specifications, to support proper drainage and prevent undue ponding, erosion, or barriers to aquatic organisms.

4. Any material excavated from the project site shall be disposed of at an authorized disposal site or other upland site. Excavation of overburden shall be followed by placement of fill within the shortest reasonable time, so that substrate is not left exposed for extended periods.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a revaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

PARTNER, AZCAV
(PERMITTEE) AND TITLE

3-9-06
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

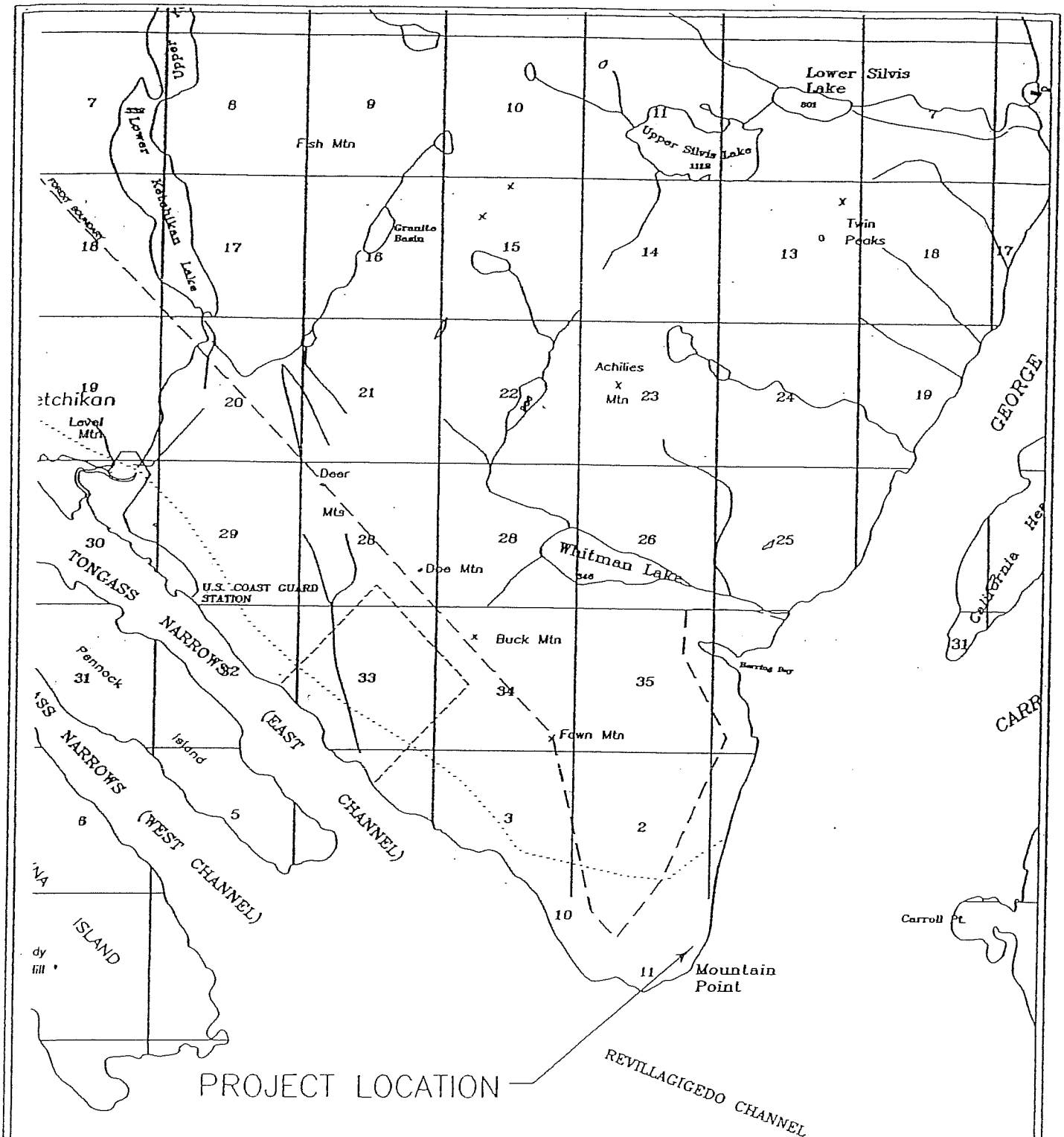
For: (DISTRICT ENGINEER) Colonel Timothy J. Gallagher
Serena E. Sweet, Regulatory Specialist
Regulatory Branch, East Section

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

(TRANSFEREE)

(DATE)

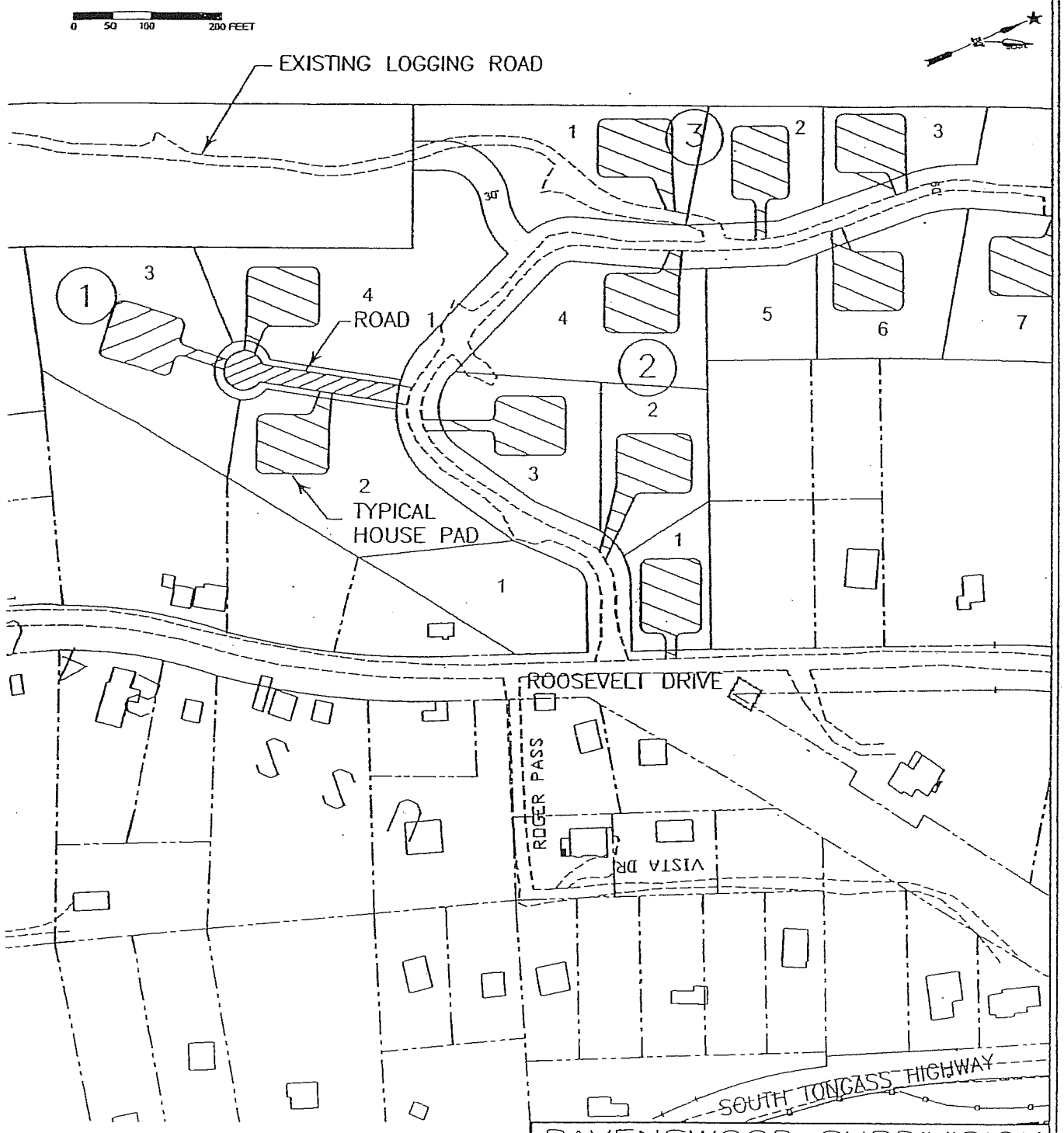


FROM KETCHIKAN B-5 QUAD

RAVENSWOOD SUBDIVISION

SITE PLAN
SCALE: 1" = 400 FEET

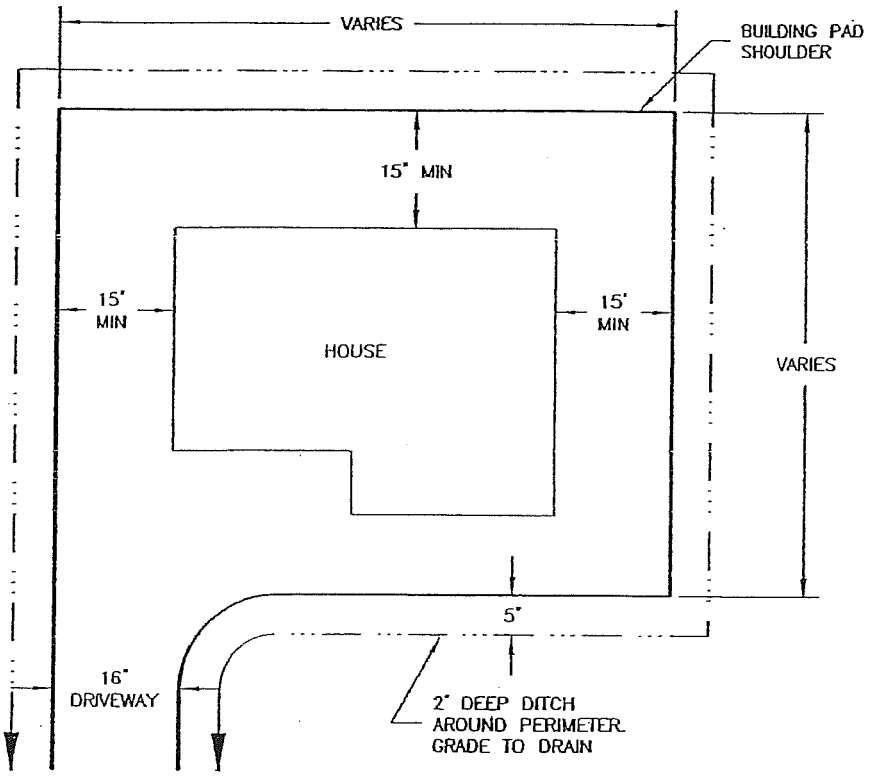
APPLICANT:	AGENT:
ALCAN TIMBER 111 STEDMAN STREET KETCHIKAN, AK 99901	R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/22/05 SHEET: 1 OF 8	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET

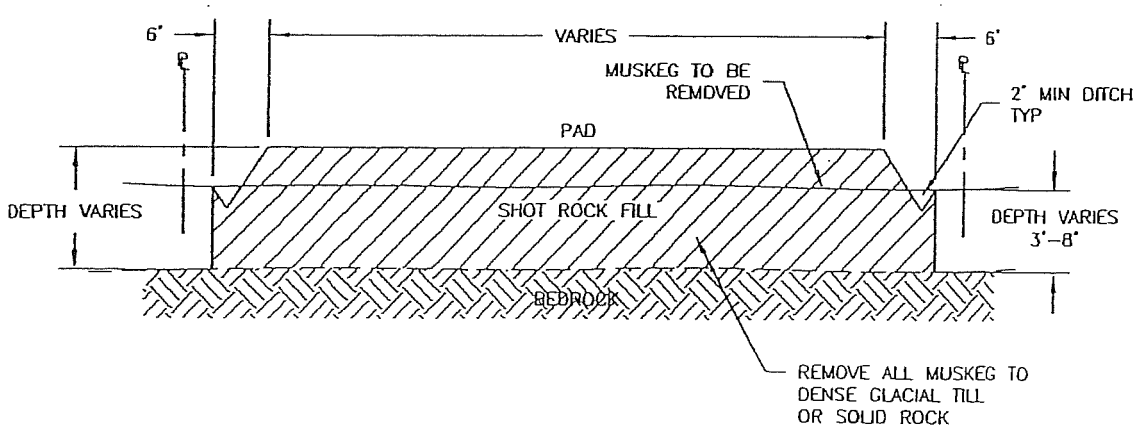


RAVENSWOOD SUBDIVISION

SITE PLAN
SCALE: 1" = 400 FEET

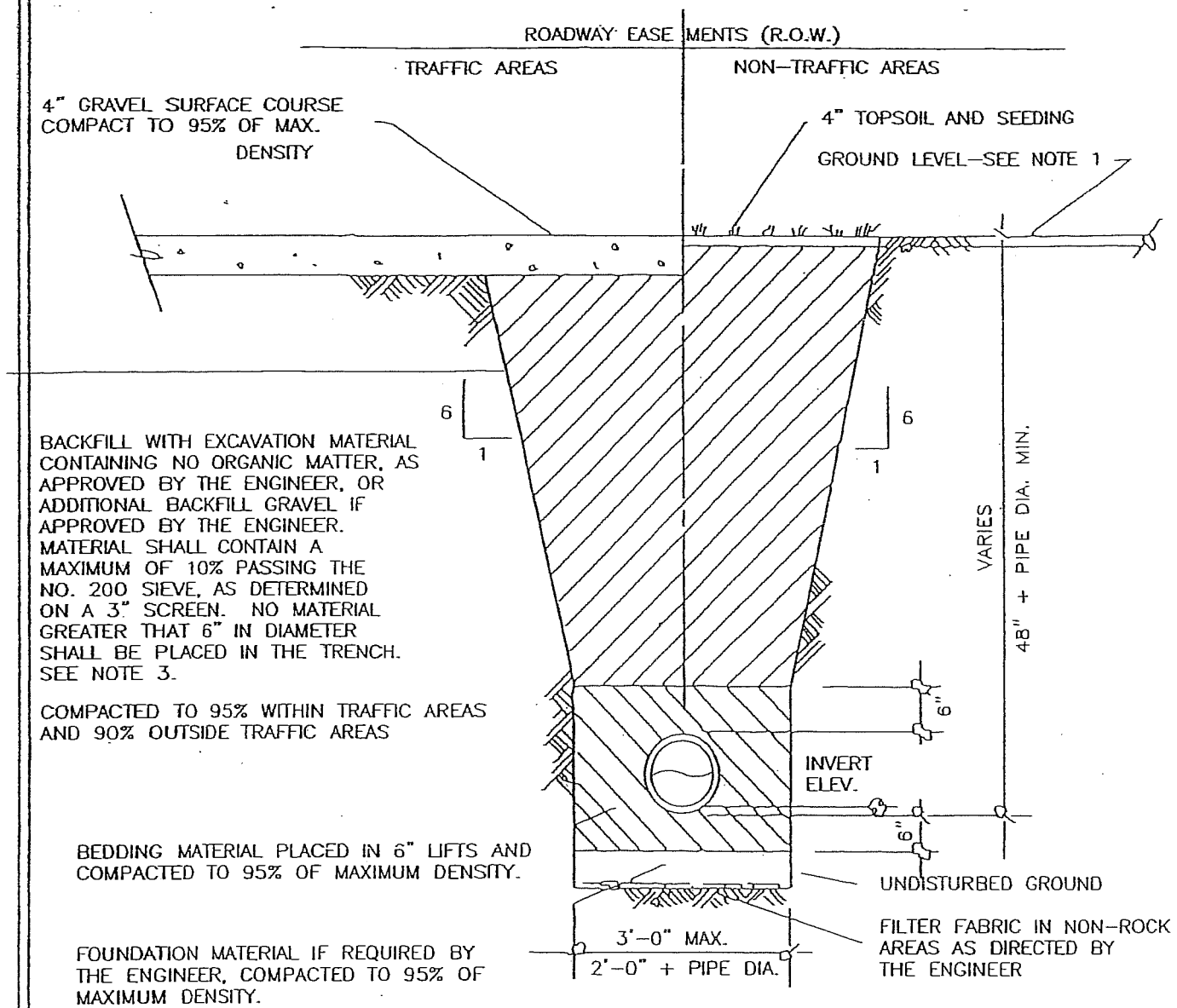
APPLICANT:	AGENT:
ALCAN TIMBER 111 STEDMAN STREET KETCHIKAN, AK 99901	R&M ENGINEERING–KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/22/05 SHEET: 3 OF 8	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET





THE BUILDING PADS SHOWN ON THE DRAWNGS ARE BASED ON A FINISHED PAD OF 60'x80' WITH ALLOWANCES FOR 10' ALL AROUND THE PERIMETER FOR THE FILL SLOPES FOR A TOTAL FOOTPRINT OF APPROXIMATLEY 80'x100'.

RAVENSWOOD SUBDIVISION	
SITE PLAN SCALE: 1" = 400 FEET	
APPLICANT: ALCAN TIMBER 111 STEDMAN STREET KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/22/05 SHEET: 5 OF 8	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET



TYPICAL SEWER SECTION

SCALE: NONE

RAVENSWOOD SUBDIVISION	
SITE PLAN SCALE: 1" = 400 FEET	
APPLICANT: ALCAN TIMBER 111 STEDMAN STREET KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/22/05 SHEET: 7 OF 8	LOCATION: KETCHIKAN, AK WATER BODY: GEORGE INLET

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO
ATTENTION OF:

AUG 11 2006

Regulatory Branch
POA-2006-1333-9

Mr. Trevor Sande
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road, Suite 200
Ketchikan, Alaska 99901-5614

Dear Mr. Sande:

This is in response to your July 20, 2006, request for a jurisdictional determination concerning your proposed project to expand the Mountain Point Water Service Area and upgrade the system's water source. The site is located along the South Tongass Highway, from Mountain Point to Herring Cove, on Revillagigedo Island, near Ketchikan, Alaska.

Based on our review of the information you furnished and available to us, we have preliminarily determined that the above property may contain wetlands under Corps regulatory jurisdiction.

If you would like us to begin evaluation of your request, more information is essential for the application to be considered complete. Please provide the following:

a. The preliminary jurisdictional wetland determination report, which was provided along with your request, contains black and white maps and pictures which are unreadable. Provide all maps and pictures in color.

b. On page 12 of the preliminary jurisdictional wetland determination report, it is stated that "an accurate survey depicting the site dimensions and intermittent boundaries would produce a very precise [Jurisdictional Determination]." Is a survey of the proposed project area planned?

Upon receipt of the requested information we will begin evaluating your application. If we do not receive the information within 30 days of the date of this letter, we will close your file. Closure of your file at such time will not preclude you from re-opening the file at a later date should you wish to do so.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact me at (907) 753-2712, toll free from within Alaska at (800) 478-2712, by email at serena.e.sweet@poa02.usace.army.mil or by mail at

the address above, ATTN: CEPOA-CO-R-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Serena Sweet
Regulatory Specialist

Enclosure

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO
ATTENTION OF:

Regulatory Branch
POA-2006-1333-9

SEP 15 2006

Mr. Trevor Sande
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road, Suite 200
Ketchikan, Alaska 99901-5614

Dear Mr. Sande:

This is in response to our September 7, 2006, meeting regarding your request for a jurisdictional determination concerning the proposed expansion and upgrades to the Mountain Point Water Service Area system. The site is located along the South Tongass Highway, from Mountain Point to Herring Cove, on Revillagigedo Island, near Ketchikan, Alaska.

Based on our discussion, we are now aware that previously approved jurisdictional determinations include portions of the project area. Therefore, the new overall preliminary delineation report shall address all areas along the proposed project length; however, the data used to create the previous reports may be reused for this overall report.

Also, it is recommended that you identify in your plan sheets which areas along the project length are located within previously approved delineations.

Upon receipt of the requested information we will begin evaluating your request. If we do not receive the information within 30 days of the date of this letter, we will close your file. Closure of your file at such time will not preclude you from re-opening the file at a later date should you wish to do so.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact me at (907) 753-2712, toll free from within Alaska at (800) 478-2712, by email at serena.e.sweet@poa02.usace.army.mil or by mail at the address above, ATTN: CEPOA-CO-R-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Serena Sweet
Regulatory Specialist

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL RNMMain@rmketchikan.com

November 9, 2006

Serena Sweet
Regulatory Specialist
U.S. Army Corps of Engineers
P.O. Box 6898
Elmendorf AFB, Alaska 99506-6898

RE: Jurisdictional Determination for Acquisition of Vacant Land and State right-of-way, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Serena,

Enclosed for your review, is our preliminary submittal for the proposed South Tongass Water Main – Mountain Point to Herring Cove in Ketchikan, Alaska. The submittal contains a set of plan and profile construction drawings and a complete preliminary jurisdictional wetland determination report per your request in a letter dated September 15, 2006. During our September 7th meeting, we discussed the option of a Nation Wide Corps permit for this project. Please let me know if this permit is applicable to our project, or which permit would be best suited.

Please call if you have any questions or concerns.

Sincerely,

R & M ENGINEERING-KETCHIKAN, INC.

Kara R. Jurczak, E.I.T.
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road
Ketchikan, Alaska 99901
Phone: (907)-225-7917 X 312
Fax: (907)-225-3441
Email: karajurczak@rmketchikan.com

cc: R & M Project 012310.60

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

REPLY TO
ATTENTION OF:

JAN 29 2007

Regulatory Division
POA-2006-1333-D

Ms. Kara Jurczak
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road, Suite 200
Ketchikan, Alaska 99901-5614

Dear Ms. Jurczak:

This is in response to your January 12, 2007, email regarding changes to the proposal which was authorized by Department of the Army (DA) Nationwide permit (NWP) verification number POA-2006-1333-D, issued to R&M Engineering-Ketchikan, Inc. on December 12, 2006. The authorized work included placement of a new water main from Herring Cove to Mountain Point. A total of two pipes will be buried (one 12-inch diameter raw water pipe and one 8-inch diameter potable water pipe) in a 4-foot wide by approximately 12,420-foot long trench. Approximately 2,520 linear feet of the project area will be located within areas that fall within the Corps regulatory jurisdiction. Construction of the proposal would impact up to 0.23 acres of wetlands.

As per your email, the two pipes will no longer be suspended under the Herring Cove Bridge as previously proposed. Instead they will continue to be buried through Herring Cove Creek. Also, the two pipelines will no longer be installed down Powerhouse Road to the Whitman Lake Hatchery. Instead they will continue southbound along South Tongass Highway to the Whitman Creek Dam. A new pump station and water storage tank will be built near the dam.

Based upon the updated information and project description you provided, we hereby verify that the revised plan described above remains authorized by Nationwide Permit (NWP) No. 12, Utility line Activities. Also, Special Conditions No. 2 and No.3 below have been added to the NWP verification.

1. No heavy construction shall occur within 330 feet of an eagle nest tree from March 1 to May 31 of any year (this period extends to August 31 if the nest contains a nesting pair of eagles).

2. No dredging or excavating activities shall occur from April 1 to June 15 of any year.

3. If eelgrass occurs in the proposed pipeline corridor, contact the Corps and the National Marine Fisheries Service prior to any dredging or excavating activities to discuss the possibility for transplanting eelgrass to an appropriate site in the cove.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2007. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit.

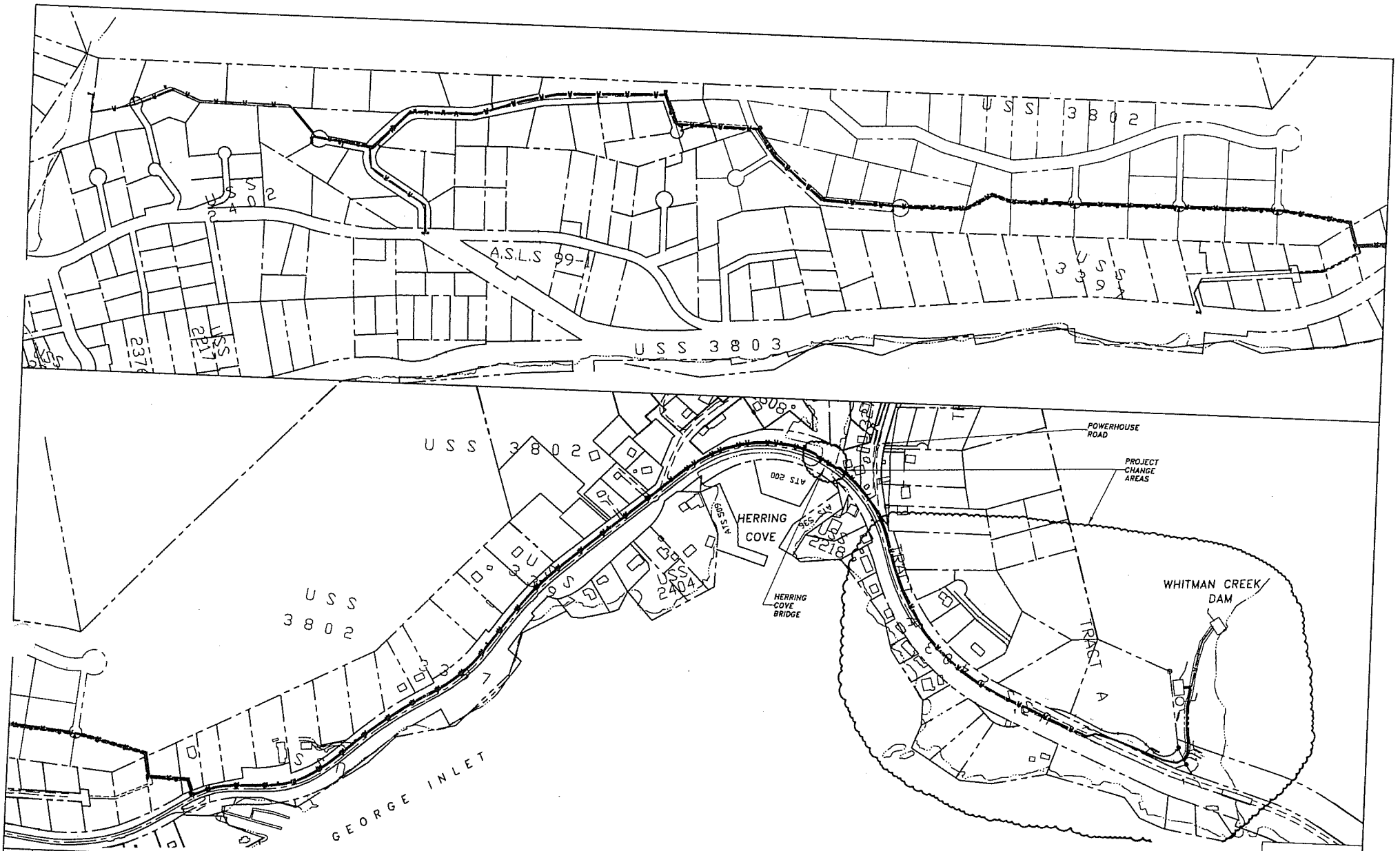
Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact me at (907) 753-2712, toll free from within Alaska at (800) 478-2712, by email at serena.e.sweet@poa02.usace.army.mil or by mail at the address above, ATTN: CEPOA-RD-E, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Serena Sweet
Regulatory Specialist

Enclosures



Date	No.	Description Revision	By

Designed: TSS | Approved: TSS | Scale: 1"=200'
Drawn: KRJ | Date: 1/11/07 | Project: 012310.60
Checked: TSS | File:

R&M ENGINEERING-KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

Client: KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET
KETCHIKAN, ALASKA 99901

Project: SOUTH TONGASS WATER MAIN
MOUNTAIN POINT TO HERRING COVE

Sheet Description: ALIGNMENT CHANGE

Sheet No. C3

South Tongass Water Main – Mountain Point to Herring Cove

Project Description

The project area stretches from approximately 6 miles to 8.2 miles south of the City of Ketchikan. The project consists of installing 2.4 miles of buried water lines from the Mountain Point Water Treatment Plant to the Herring Bay Water Association's intake dam at Whitman Creek. The 12-inch HDPE water main will convey raw water from the dam to the drinking water treatment plant at Mountain Point; while the 8-inch HDPE water main will carry potable water from the treatment plant, back to the Herring Bay Service area for consumption. The two pipes run along an existing logging road for 2,400 feet, then are located near future roads and easements within the proposed Morningstar Subdivision for approximately 4,100 feet before converging with South Tongass Highway, which hosts the buried water lines for the remaining 6,200 feet to the Whitman Creek dam.

Installation of the waterlines will involve trench excavation along the entire project length. Excavated materials will be used to backfill the pipe trench once the pipes have been installed. Improvements to the Whitman Creek dam will be made in order to connect the new 12-inch water main.

The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek. This will provide new potable water to the Morningstar Subdivision, residents along South Tongass Highway, and the Herring Bay Service area, as well as improve water service to the existing Mountain Point Service Area. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 24, 2007

Serena Sweet
Project Manager
U.S. Army Corp of Engineers
CO-R-E
P.O. Box 6898
Elmendorf AFB, Alaska 99506-6898

Subject: Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Stone:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment because the project will effect 0.23 acres of wetlands. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Per your correspondence dated January 29th, 2007, the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. No heavy construction shall occur within 330 feet of an eagle nest tree from March 1 to May 31 of any year (this period extends to August 31 if the nest contains a nesting pair of eagles).

2. No dredging or excavating activities shall occur from April 1 to June 15 of any year.

3. If eelgrass occurs in the proposed pipeline corridor, contact the Corps and the National marine Fisheries Service prior to any dredging or excavating activities to discuss the possibility for transplanting eelgrass to an appropriate site in the cove.

Sincerely,

R&M ENGINEERING-KETCHIKAN, INC.

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com
907-225-7917 X312

APPENDIX C

US FISH AND WILDLIFE SERVICE

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 20, 2006

Bill Hanson
Assessment & Monitoring Branch Chief
United States Fish & Wildlife Field Office
3000 Vintage Blvd. Suite 201
Juneau, Alaska 99801

Subject: USFWS Determination for Acquisition of Vacant Land, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Hanson:

This letter requests your agency's views concerning a proposal by the Ketchikan Gateway Borough (KGB) to purchase vacant land for future utility improvements and the consistency of this activity with the United States Fish & Wildlife Service. Your comments are intended to fulfill Title 24 Part 58 environmental review requirements for the Department of Housing and Urban Development. Please note that the project at this stage is for the release of federal funds for land acquisition only. Once acquired, KGB will complete its utility improvement plans and file the appropriate permits with your office.

KGB intends to use an EPA grant to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map and project plan map.

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307. Thank you for your prompt attention to this material.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.

Cc: Jim Voetburg, Ketchikan Gateway Borough
R&M File 012310.60

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Office of Migratory Bird Management
Raptor Management Studies
3000 Vintage Blvd., Suite 240
Juneau, Alaska 99801-7100
(907) 780-1163

November 27, 2006

Kara R. Jurczak
R&M Engineering – Ketchikan, Inc.
355 Carlanna Lake Road
Ketchikan, Alaska 99901

Dear Ms. Jurczak:

Your letter to Bill Hanson regarding the South Tongass Water Main/Mountain Point Water Service Area at Ketchikan was passed along to me. I apologize for this very late reply.

We have records of four bald eagle nests located from Mountain Point to Herring Bay. I have placed the approximate location of the nests (#s 21, 77, 76, and 119) on the enclosed quad map and copy of the project plan map you provided.

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) prohibits molesting or disturbing bald eagles, their nests, eggs or young. The early nesting period, during courtship and nest establishment, is the period when eagles are most sensitive to disturbance. To reduce the likelihood of disturbance it is our standard recommendation that there be no heavy construction work within 330 feet of a nest tree from March 1 to May 31, and this period extends to August 31 if a nest contains a nesting pair of eagles.

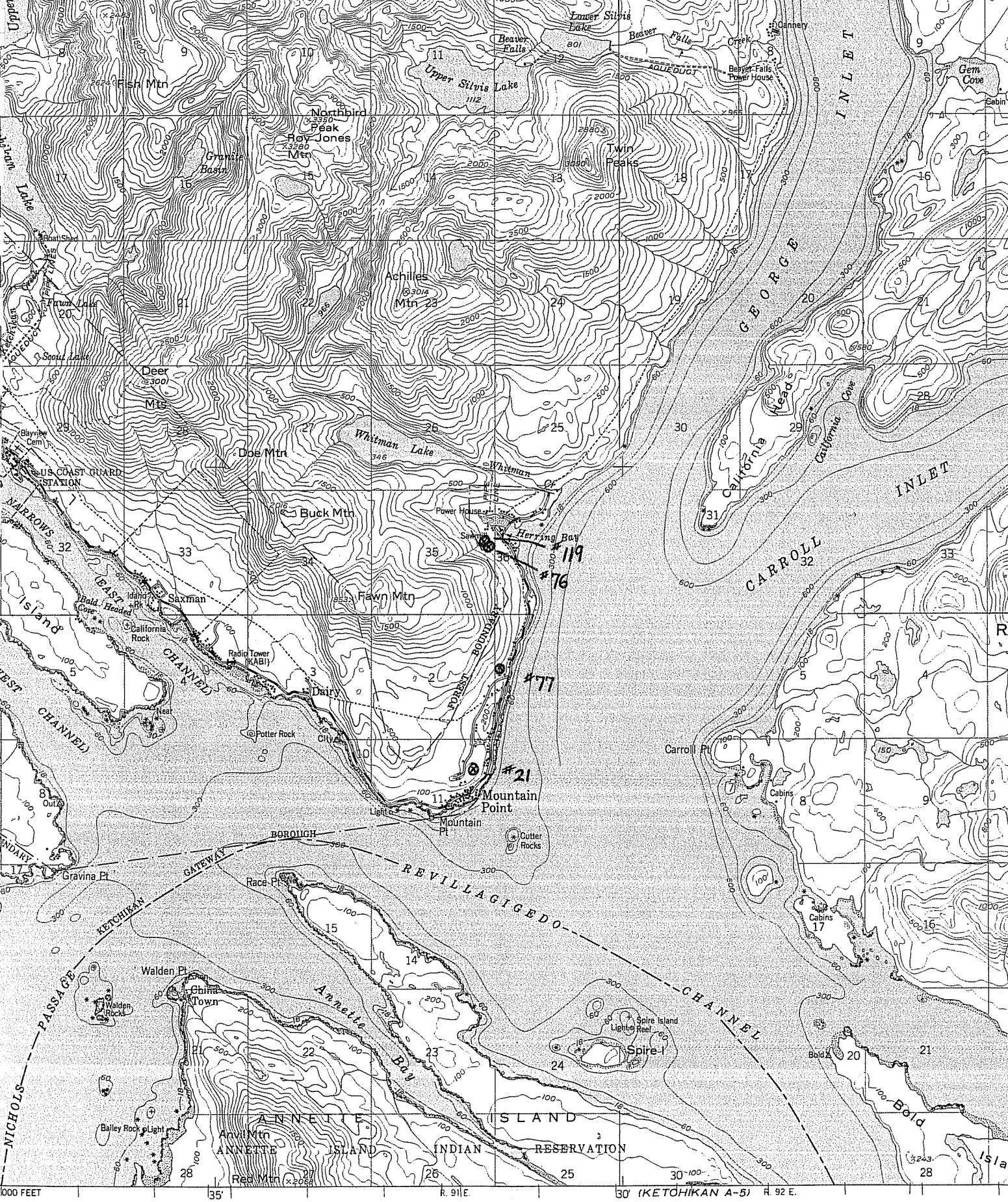
Eagles at these nest sites have shown considerable tolerance toward human activities nearby. Even if one or more of the nests is in active use by eagles after May 31 I believe the short term use of a backhoe within 330 ft of a nest (after May 31) has a low probability of disturbing the eagles and is unlikely to violate the Bald and Golden Eagle Protection Act.

Thank you for your patience and for providing the information regarding this project. Please contact me at (907) 780-1172 if you have any questions.

Sincerely,

Mike Jacobson

Mike Jacobson
Wildlife Biologist



e Geological Survey

from aerial photographs
ot field checked

USC&GS Charts
scale), T-2061, and
d for navigational purposes

SCALE 1:63 360

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

28½°

TRUE NORTH

MAGNETIC NORTH

CONTOUR INTERVAL 100 FEET

Date	No.	Description Revision	By

Designed:
Drawn: KRJ
Checked: TSS
Approved:
Date: 7/20/06
File:
Scale: 1"=200'
Project: 012310.60

R&M ENGINEERING-KETCHIKAN, INC.
355 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

Client: KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET
KETCHIKAN, ALASKA 99901

Project:
SOUTH TONGASS WATER MAIN
MOUNTAIN POINT TO HERRING BAY

Sheet Description:
PROJECT PLAN MAP

Sheet No.
2

Kara Jurczak

From: Mike_Jacobson@fws.gov
Sent: Thursday, January 18, 2007 3:43 PM
To: Kara Jurczak
Cc: Phil_Schempf@fws.gov
Subject: Re: KGB South Tongass Water_EA Addendum

Hello Kara,

I have looked over the recent material you provided about the proposed alignment change for the Ketchikan Gateway Borough South Tongass Water Main Project, and I do not have any new or different bald eagle information to add to my letter of 11/27/ 06. We are not aware of any bald eagle nests located near the South Tongass Highway from Herring Cove Creek to Whitman Creek and Whitman Creek Dam.

Thanks for providing the information regarding the proposed alignment change.

Mike Jacobson
Wildlife Biologist
U.S. Fish and Wildlife Service
3000 Vintage Blvd., Suite 240
Juneau, Alaska 99801
(907) 780-1172

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 24, 2007

Bill Hanson
Assessment & Monitoring Branch Chief
United States Fish & Wildlife Field Office
3000 Vintage Blvd. Suite 201
Juneau, Alaska 99801

Subject: USFWS Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Hanson:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Per the letter dated November 27, 2006, the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. To reduce the likelihood of disturbance during the early nesting period no heavy construction work will occur within 330 feet of a eagle nest tree from March 1 to May 31. This period shall be extended to August 31 if a nest contains a nesting pair of eagles.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com

kara Jurczak

From: Steve_Brockmann@fws.gov
Sent: Wednesday, November 07, 2007 8:48 AM
To: kara Jurczak
Subject: Fw: Ketchikan area endangered species

Kara,

There are no endangered, threatened or candidate species under the jurisdiction of the Fish and Wildlife Service in the Ketchikan area. Your log number for this consultation is 71440-2008-SL-0005.

For our records, please briefly describe the nature of the "public works construction project" you are working on.

Thank you,
Steve Brockmann
U.S. Fish and Wildife Service
Juneau, AK

----- Forwarded by Steve Brockmann/R7/FWS/DOI on 11/07/2007 08:43 AM -----

Tina Racy/R7/FWS/DOI
11/01/2007 10:51 AM

To: Steve Brockmann/R7/FWS/DOI@FWS
cc:
Subject: Fw: Ketchikan area endangered species

See below.

~~~~~~~~~~~~~~~~~~~~~~~~~
Tina Y. Racy
Administrative Officer

Anchorage Fish & Wildlife Field Office
605 West 4th
Anchorage, Alaska 99501

Email: tina_racy@fws.gov

Phone: (907) 271-2780

----- Forwarded by Tina Racy/R7/FWS/DOI on 11/01/2007 10:50 AM -----

"kara Jurczak" <karajurczak@rmketchikan.com>

To: <juneau@fws.gov>
~~~~~~~~~~~~~~~~~~~~~~~~~

10/25/2007 01:30 PM

cc

Subject
Ketchikan area endangered species

Hello,

I'm conducting an environmental assessment for the EPA for a public works construction project in Ketchikan. Can you please tell me if there are any federal or state listed endangered species in my area?

I appreciate your quick response as I am trying to finalize this project.

Thanks for your help,

Kara Jurczak
Civil Engineer Jr.
R&M Engineering-Ketchikan, Inc.
((907) 225-7917 x312

APPENDIX D

NATIONAL MARINE FISHERIES SERVICE

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 20, 2006

John Kurland
Assistant Administrator
National Marine Fisheries Service
PO Box 21668
Juneau, Alaska 99802

Subject: NMFS Determination for Acquisition of Vacant Land, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Kurland:

This letter requests your agency's views concerning a proposal by the Ketchikan Gateway Borough (KGB) to purchase vacant land for future utility improvements and the consistency of this activity with the National Marine Fisheries Service. Your comments are intended to fulfill Title 24 Part 58 environmental review requirements for the Department of Housing and Urban Development. Please note that the project at this stage is for the release of federal funds for land acquisition only. Once acquired, KGB will complete its utility improvement plans and file the appropriate permits with your office.

KGB intends to use an EPA grant to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map and project plan map.

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307. Thank you for your prompt attention to this material.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.

Cc: Jim Voetburg, Ketchikan Gateway Borough
R&M File 012310.60

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

August 1, 2006

Kara R. Jurczak
R&M Engineering Ketchikan Inc.
355 Carlanna Lake Road, Suite 200
Ketchikan, Alaska 99901

Dear Ms. Jurczak:

Thank you for your recent letter concerning the Ketchikan Gateway Borough (KGB) proposal to purchase vacant land for future utility improvements. KGB intends to expand the Mountain Point Water Service Area and upgrade the water source by installing new buried water mains.

The National Marine Fisheries Service has no concerns with the proposed land acquisition. As project plans evolve, we encourage KGB to design the project to avoid impacts to adjacent tidal waters and associated wetlands and streams. If you have questions regarding potential effects to living marine resources or their habitats, please contact Katharine Miller at 907-586-7643.

Sincerely,

Jonathan M. Kurland
Assistant Regional Administrator
for Habitat Conservation

Kara Jurczak

From: John Hudson [John.Hudson@noaa.gov]
Sent: Tuesday, January 16, 2007 12:20 PM
To: Kara Jurczak
Cc: Jon Kurland
Subject: Herring Cove water main

Kara,

NMFS has no further comments concerning the proposal to bury pipe in a trench across Herring Cove. The Conservation Recommendations outlined in our 7 December 2006 letter still apply.

John

--
John Hudson
Marine Habitat Resource Specialist
Habitat Conservation Division
National Marine Fisheries Service
709 West 9th Street
Juneau, AK 99801-1668

Tel: 907-586-7639
Fax: 907-586-7358
john.hudson@noaa.gov

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 24, 2007

John Kurland
Assistant Administrator
National Marine Fisheries Service
PO Box 21668
Juneau, Alaska 99802

Subject: Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Kurland:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Per your letter dated December 7, 2006, the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. No dredging or excavating should be permitted from April 1 to June 15. These activities can produce high levels of turbidity that are harmful to juvenile salmon.

2. If eelgrass occurs in the proposed pipeline corridor, contact NMFS to discuss the possibility for transplanting eelgrass to an appropriate site in the cove.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com

kara Jurczak

From: Timothy G. Wilkins [Timothy.Wilkins@noaa.gov]
Sent: Friday, November 09, 2007 3:04 PM
To: kara Jurczak
Cc: Katharine.Miller@noaa.gov; Cindy Hartmann
Subject: Re: EFH in Herring Cove, Ketchikan

Attachments: COE Herring Cove RM Ketchikan water sewer 12-7-06 jph.pdf

COE Herring
ɜ RM Ketchika

Hi Kara,

I located and have attached the response from NMFS referencing the work at Herring Cove Creek, POA-2006-1333-D. Eelgrass beds are extremely important to nearshore coastal habitat and marine species and any loss is most unfortunate when preventable. Including the implementation of your proposed mitigation measures and following the suggested in-stream work timing windows for juvenile and adult salmon, if you would please inspect the downstream discharge area at Herring Cove prior to beginning your in-stream work for the presence of eelgrass and monitor the sedimentation when constructing and breaching the earthen dam it would be greatly appreciated. Photographs are generally a reliable tool if you have any questions. If you find that eelgrass beds might be impacted by construction activities please contact us for assistance.
Thank you very much for keeping us informed.

Tim

Katharine.Miller@noaa.gov wrote:
> Kara,
>
> Sorry to take so long to get back to you. I am currently out of the office for an extended period. Tim Wilkins is covering my work at present. I've cc'd him on this email. If you haven't already done so, perhaps you can give him a call at (907) 586-7643 to discuss the project in more detail. The seagrass meadow at the site is an area of concern for NMFS, and Tim would probably want more information on how extensively it would be damaged and how you would return it to a natural state.
>
> Regards,
>
> - Katharine
>
>
>
> ----- Original Message -----
> From: kara Jurczak <karajurczak@rmketchikan.com>
> Date: Tuesday, October 30, 2007 3:20 pm
> Subject: EFH in Herring Cove, Ketchikan
> To: Katharine.Miller@noaa.gov
>
>
>
>> Hello Katherine,
>>
>>
>>
>> I'm conducting an environmental assessment for a pipeline project in
>> Ketchikan. I need to know if any EFH will be affected if we bury a
>> pipe through the Herring Cove Creek, approximately 40 feet upstream
>> of the Herring Cove Bridge, south of Ketchikan. If so, do you concur
>> that the following mitigation measures would be sufficient to protect

>> long term effects to the EFH?
>>
>>
>>
>>
>>
>> Prior to construction, a SWPPP would be prepared to ensure that
>> appropriate water pollution control measures are implemented during
>> excavation and fill activities. Once construction is complete, the
>> site will be allowed to return to a natural state. Best management
>> practices would be incorporated to control erosion and sedimentation.
>>
>>
>>
>> To construct the pipelines across the creek, the contractor will
>> build an earthen dam and convey the creek through a large culvert.
>> Silt curtains will be placed up and downstream of the work area and
>> the stream will be left in its original condition when construction
>> is completed. All in stream work will be started and completed
>> within 2 full tidal cycles.
>> These
>> construction methods are part of the mitigation efforts stipulated in
>> the ADNR Fish Habitat Permit. Another stipulation of the permit is
>> that in-stream work shall not be conducted between the months of June
>> through October. These in-stream work dates were developed by the
>> Whitman Lake Hatchery, just upstream of the creek crossing location.
>>
>>
>>
>> 1. upon completion of the project, all materials associated with the
>> diversion and culvert shall be removed from below the ordinary high
>> water, and the streambed recontoured to its natural gradient and elevation, and
>> 2. stream banks will be seeded with a native seed mix containing no
>> fertilizer.
>>
>>
>>
>> Thanks for your help, and let me know if you have any questions or
>> would like more information.
>>
>> Kara Jurczak
>>
>> Civil Engineer Jr.
>>
>> R&M Engineering-Ketchikan, Inc.
>>
>> *(907) 225-7917 x312
>>
>>
>>
>>

--
Timothy G. Wilkins
Cartographer
Field Operations and Analysis Division
National Geodetic Survey
Phone: (757) 441-6265

on temporary assignment to

Habitat Conservation Division
National Marine Fisheries Service
709 W. 9th Street
Juneau, AK 99802-1668
(907)586-7643

APPENDIX E

ENVIRONMENTAL PROTECTION AGENCY

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 20, 2006

Dennis Wagner
Alaska Water and Wastewater Infrastructure Programs Manager
Public Water Systems Compliance Program
United States Environmental Protection Agency
222 West 7th Ave. #19
Anchorage, AK 99513-7588

Subject: USEPA Determination for Acquisition of Vacant Land, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Wagner:

This letter requests your agency's views concerning a proposal by the Ketchikan Gateway Borough (KGB) to purchase vacant land for future utility improvements and the consistency of this activity with the United States Environmental Protection Agency. Your comments are intended to fulfill Title 24 Part 58 environmental review requirements for the Department of Housing and Urban Development. Please note that the project at this stage is for the release of federal funds for land acquisition only. Once acquired, KGB will complete its utility improvement plans and file the appropriate permits with your office.

KGB intends to use an EPA grant to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map and project plan map.

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307. Thank you for your prompt attention to this material.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.

Cc: Jim Voetburg, Ketchikan Gateway Borough
R&M File 012310.60

November 20, 2006

Jennifer Curtis
EPA Region 10
Alaska Operations Office
222 West 7th Avenue (#19)
Anchorage, Alaska 99513-7588

Subject: Request for Categorical Exclusion. Ketchikan Gateway Borough South Tongass Water Main – Mountain Point to Whitman Lake

Dear Ms. Curtis,

The purpose of this letter is to Request a Categorical Exclusion as part of the EPA grant and NEPA processes for Special Appropriations Act Grants Program. Enclosed for your review is a detailed project description, narrative, and summary of actions, a complete set of construction drawings, and a statement that the proposed action meets the CE criteria, which includes supporting agency correspondence.

Please contact me if you have any questions.

Sincerely,

Kara Jurczak, E.I.T.
R&M Engineering-Ketchikan, Inc.
(907) 225-7917 x312
karajurczak@rmketchikan.com

South Tongass Water Main – Mountain Point to Herring Cove
Project Description

The project area stretches from approximately 6 miles to 8.2 miles south of the City of Ketchikan. The project consists of installing 2.4 miles of buried water lines from the Mountain Point Water Treatment Plant to the Herring Bay Water Association's intake dam at Whitman Creek. The 12-inch HDPE water main will convey raw water from the dam to the drinking water treatment plant at Mountain Point; while the 8-inch HDPE water main will carry potable water from the treatment plant, back to the Herring Bay Service area for consumption. The two pipes run along an existing logging road for 2,400 feet, then are located near future roads and easements within the proposed Morningstar Subdivision for approximately 4,100 feet before converging with South Tongass Highway, which hosts the buried water lines for the remaining 6,200 feet to the Whitman Creek dam.

Installation of the waterlines will involve trench excavation along the entire project length. Excavated materials will be used to backfill the pipe trench once the pipes have been installed. Improvements to the Whitman Creek dam will be made in order to connect the new 12-inch water main.

The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek. This will provide new potable water to the Morningstar Subdivision, residents along South Tongass Highway, and the Herring Bay Service area, as well as improve water service to the existing Mountain Point Service Area. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

South Tongass Water Main – Mountain Point to Herring Cove
Statement of Categorical Exclusion

The project referenced above will involve construction of new ancillary facilities appurtenant to existing facilities. Furthermore, this action will have no effect on the degree of treatment or capacity of the existing Mountain Point Drinking Water Treatment Plant.

The proposed South Tongass Water Main will not have a significant effect on the human environment at any point during the utility's life span.

The action will not directly or indirectly affect cultural resource areas nor harm scientific, prehistoric, historic, or archaeological data.

The project is not expected to affect endangered or threatened species and their critical habitats.

The proposed South Tongass Water Main will not affect environmentally important natural resource areas.

The new facilities will not serve a population 30% greater than the existing population.

The project is a cost-effective way to provide necessary drinking water to residents south of Ketchikan without causing public controversy, creating new or relocating existing discharges to surface or ground waters, affecting the volume of discharge to receiving waters, or increasing pollutant loading to receiving waters.

U.S. ENVIRONMENTAL PROTECTION AGENCY

Grant Agreement

ASSISTANCE ID NO.			DATE OF AWARD
PRG	DOC ID	AMEND#	
XP -	96010401	- 0	4-27-06
TYPE OF ACTION: New			MAILING DATE: 5-4-06
PAYMENT METHOD:			ACH#

RECIPIENT TYPE:
County

Send Payment Request to:
EPA Finance Unit, OMP-145
FAX # 206-553-6525

RECIPIENT:
Ketchikan Gateway Borough
344 Front Street
Ketchikan, AK 99901
EIN: 92-0034526

PAYEE:
Ketchikan Gateway Borough
344 Front Street
Ketchikan, AK 99901

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Jim Voelberg 344 Front Street Ketchikan, AK 99901 E-Mail: jimv@borough.ketchikan.ak.us Phone: 907-225-6645	Bill Gissel P. O. Box 20370, AOOU Juneau, AK 99802-0370 E-Mail: Gissel.Bill@epamail.epa.gov Phone: 907-586-7620	Valerie Bacon 1200 Sixth Avenue, OMP-145 Seattle, WA 98101 E-Mail: bacon.valerie@epa.gov Phone: 206-553-1141

PROJECT TITLE AND DESCRIPTION
Mountain Point to Herring Cove Water Project

This project consists of installing approximately two miles of 12" HDPE raw water line, installing approximately two miles of 8" HDPE water line, and upgrading the Mountain Point water treatment facility.

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
09/01/2005 - 11/30/2007	09/01/2005 - 11/30/2007	$2,343,145.00	$2,343,145.00

NOTE: The Agreement must be completed in duplicate and the Original returned to the appropriate Grants Management Office listed below, within 3 calendar weeks after receipt or within any extension of time as may be granted by EPA. Receipt of a written refusal or failure to return the properly executed document within the prescribed time, may result in the withdrawal of the offer by the Agency. Any change to the Agreement by the Recipient subsequent to the document being signed by the EPA Award Official, which the Award Official determines to materially alter the Agreement, shall void the Agreement.

OFFER AND ACCEPTANCE

The United States, acting by and through the U.S. Environmental Protection Agency (EPA), hereby offers Assistance/Amendment to the Ketchikan Gateway Borough for 37.00 % of all approved costs incurred up to and not exceeding $873,000 for the support of approved budget period effort described in application (including all application modifications) cited in the Project Title and Description above, signed 09/01/2005 included herein by reference.

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	ORGANIZATION / ADDRESS
EPA Region 10 Mail Code: OMP-145 1200 Sixth Avenue Seattle, WA 98101	U.S. EPA, Region 10 Office of Water and Watersheds 1200 Sixth Avenue Seattle, WA 98101

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

SIGNATURE OF AWARD OFFICIAL	TYPED NAME AND TITLE	DATE
	Michael F. Gearheard, Director - Office of Water and Watersheds	4-27-06

This agreement is subject to applicable U.S. Environmental Protection Agency statutory provisions and assistance regulations. In accepting this award or amendment and any payments made pursuant thereto, (1) the undersigned represents that he is duly authorized to act on behalf of the recipient organization, and (2) the recipient agrees (a) that the award is subject to the applicable provisions of 40 CFR Chapter 1, Subchapter B and of the provisions of this agreement (and all attachments), and (b) that acceptance of any payments constitutes an agreement by the payee that the amounts, if any found by EPA to have been overpaid will be refunded or credited in full to EPA.

BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION

SIGNATURE	TYPED NAME AND TITLE	DATE
	Roy Eckert, Borough Manager	5-8-06

From: Kara Jurczak [mailto:karajurczak@rmketchikan.com]
Sent: Friday, January 12, 2007 9:03 AM
To: Serena Sweet; Mike Jacobson; John Kurland; Judy_Bittner@dnr.state.ak.us; Claire Batac; McMullen, Carrie
Subject: KGB South Tongass Water_EA Addendum

Good morning,

This email is to notify you of the proposed alignment change for the Ketchikan Gateway Borough's South Tongass Water Mains utility improvement project.

In order to complete our request for a Categorical Exclusion (CE) with the USEPA, we must include this addendum to our existing CE. Attached for your review is a revised project description and project plan sheet that shows the changed alignment.

To aid in a timely review process, the following is a summary of the proposed changes:

> The two pipelines will not be suspended under the Herring Cove Bridge; instead they will continue to be buried through the Herring Cove Creek. This action would be conducted in accordance with the National Marine Fisheries Service's Essential Fish Habitat Conservation Recommendations outlined in their December 7, 2006 letter.
>
> The two pipelines will not be installed down Powerhouse Road to the Whitman Lake Hatchery; instead they will continue southbound along South Tongass Highway to the Whitman Creek Dam where the Herring Cove Water Association currently withdrawals water from an existing dam. A new pump station and water storage tank will be built near the dam.

Please respond via email with your agencies views and concerns regarding the proposed project changes. Your response will be submitted to the USEPA as an addendum to our current request for CE. Thank you for your prompt attention to this material.

Sincerely,
R&M Engineering-Ketchikan, Inc.

Kara Jurczak, E.I.T.
Civil Engineer Jr.
(907) 225-7917 x312
karajurczak@rmketchikan.com

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL: RNMMain@rmketchikan.com

May 29, 2007

Jennifer Curtis
EPA Region 10
Alaska Operations Office
222 West 7th Avenue (#19)
Anchorage, Alaska 99513-7588

Subject: ADDENDUM. Request for Categorical Exclusion. Ketchikan Gateway Borough South Tongass Water Main – Mountain Point to Whitman Lake

Dear Ms. Curtis,

Enclosed is correspondence from state and federal agencies regarding proposed changes to the South Tongass Water Main project. This submittal will hopefully allow you to resume your review of our request for a Categorical Exclusion, which was originally submitted on November 20, 2006.

Please contact me if you have any questions or need additional information.

Sincerely,

R&M ENGINEERING-KETCHIKAN, INC.

Kara Jurczak, E.I.T.
(907) 225-7917 x312
karajurczak@rmketchikan.com

Enclosure

APPENDIX F

STATE HISTORIC PRESERVATION OFFICE

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 12, 2006

Judith E. Bittner
State Historic Preservation Officer
Division of Parks and Outdoor Recreation
Office of History and Archeology
550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501

Subject: Section 106 Compliance Request, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Ms. Bittner:

This letter requests your views concerning the identification of historic properties for the purpose of compliance with Section 106 of the National Historic Preservation Act. The Ketchikan Gateway Borough intends to use the EPA grant (id #XP-96010401) to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map and a project plan map.

By copy of this letter, we have consulted with and invite the comments of others in the community with an expressed interest in the management of local historic properties. Based upon our review of state historic property list, it is R&M Engineering's determination that no historic properties will be affected by the proposed project [pursuant to Section 800.4(d)(1)]. We are requesting your concurrence or comment upon these findings by August 12, 2006.

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.
Cc. Historic Ketchikan
Ketchikan Gateway Borough Planning Department

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 12, 2006

Due 8/17

RECEIVED
JUL 17 2006
OHA

Judith E. Bittner
State Historic Preservation Officer
Division of Parks and Outdoor Recreation
Office of History and Archeology
550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501

Subject: Section 106 Compliance Request, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Ms. Bittner:

This letter requests your views concerning the identification of historic properties for the purpose of compliance with Section 106 of the National Historic Preservation Act. The Ketchikan Gateway Borough intends to use the EPA grant (id #XP-96010401) to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a project location map and a project plan map.

By copy of this letter, we have consulted with and invite the comments of others in the community with an expressed interest in the management of local historic properties. Based upon our review of state historic property list, it is R&M Engineering's determination that no historic properties will be affected by the proposed project [pursuant to Section 800.4(d)(1)]. We are requesting your concurrence or comment upon these findings by August 12, 2006.

8/18/06

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307.

No Historic Properties Affected
Alaska State Historic Preservation Officer
Date: 8/21/06
File No.: 3130-1R EPA

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.
Cc. Historic Ketchikan
Ketchikan Gateway Borough Planning Department

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION

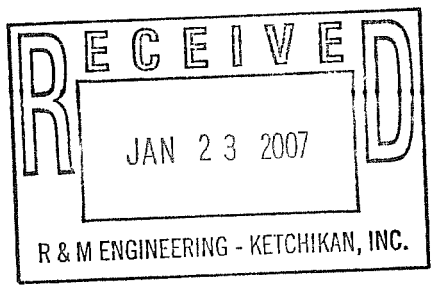
OFFICE OF HISTORY AND ARCHAEOLOGY

550 W. 7TH AVENUE, SUITE 1310
ANCHORAGE, ALASKA 99501-3565
PHONE: (907) 269-8721
FAX: (907) 269-8908

January 18, 2007

File No.: 3130-1R EPA

SUBJECT: Modification to the South Tongass Water Main, Mountain Point to Herring Cove, Ketchikan



Kara Jurczak
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road, Ste. 200
Ketchikan, Alaska 99901

Dear Ms. Jurczak,

We have received your email (1/12/07) regarding the proposed modifications to the South Tongass Water Main project located in Ketchikan, Alaska. According to your email, the following modifications will occur:

- Two pipelines will be buried under Herring Cove Creek instead of being suspended below the Herring Cove Bridge
- The two pipelines will continue southbound along South Tongass Highway and then on to Whitman Creek Dam instead of continuing down Powerhouse Road to the Whitman Lake Hatchery
- A new pump station and water storage tank will be built near the existing Whitman Creek Dam

Before our office can comment in regards to Section 106 of the National Historic Preservation Act, we are requesting the following information:

- Are there existing (including collapsed) structures in the vicinity of the Whitman Creek Dam (this includes structures outside the immediate project area for the proposed pump station and water storage tank)
  - If so, please provide original construction dates of these structures
- Provide the original construction date of the Whitman Creek Dam
- Any additional information (such as photos) that you believe would aid our office in your review

Once our office has received the above information, our review and compliance staff will have the information necessary to properly review this project under Section 106 of the National Historic Preservation Act.

Please contact Margie Goatley at 269-8722 if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner

Judith E. Bittner
State Historic Preservation Officer

JEB:mmg

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION

OFFICE OF HISTORY AND ARCHAEOLOGY

550 W. 7TH AVENUE, SUITE 1310
ANCHORAGE, ALASKA 99501-3565
PHONE: (907) 269-8721
FAX: (907) 269-8908

January 26, 2007

File No.: 3130-1R EPA

SUBJECT: Modification to the South Tongass Water Main, Mountain Point to Herring Cove, Ketchikan

Kara Jurczak
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road, Ste. 200
Ketchikan, Alaska 99901

Dear Ms. Jurczak,

We have received your email (1/19/07) responding to our request for additional information in our letter of 1/18/07. According to your email, our review and compliance staff understands the following:

- There are no structures (standing or collapsed) in the vicinity of the existing Whitman Creek Dam or the proposed New Pump Station location
- The original Whitman Creek Dam was built from logs during the 1960s
  - Within the past 15 years, the original dam was removed and replaced with the present concrete dam

As you have previously stated, modifications to this project include burying two pipelines under Herring Cove Creek instead of suspending the pipelines under the Herring Cove Bridge. This modification could have an adverse affect to the Herring Bay Petroglyph (KET-077). Therefore, we are recommending a qualified archaeologist (meeting the Secretary of Interior Standards) locate the petroglyph prior to **any** ground disturbing activities in the vicinity of Herring Cove. If the archaeologist believes the petroglyph has the potential to be impacted by construction activities, the petroglyph should be clearly flagged and avoided. If the petroglyph cannot be avoided during construction activities, our office must be contacted well in advance of ground disturbing activities in this area so that a suitable solution can be reached.

Once the Herring Bay Petroglyph has been located, the coordinates should be recorded. Additionally, a sketch map and pictures of the petroglyph should be forwarded to our office with a brief written statement from the archaeologist regarding the relation of the petroglyph to the project area. Once we receive the coordinates, map, and brief written statement, our office will be able to make further comments regarding concurrence with Section 106 of the National Historic Preservation Act.

Please contact Margie Goatley at 269-8722 if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner
State Historic Preservation Officer

JEB:mmg

Alaska Heritage Resources Survey

Alaska Office of History and Archaeology

Compiled: Mon Apr 23 15:02:49 AKDT 2007

SITE #: KET-00077 MAPSHEET: B5 MTRS: C075S091E36
Lat: 55°19'33.5565" Long: -131°31'25.288" AREA:<001
UTM: 339892.9192E 6133968.6508N Zone: 9
PRESERVATION STATUS: NDE NHR DATE:

HERRING BAY PETROGLYPH

One square to rectangular slab of rock with shallow pecked grooves which combine to form a pattern of concentric circles separated by straight lines. The pattern was badly eroded and thus indistinct.

SITE SIGNIFICANCE:

LOCATION:

On the north side of the entrance to Herring Bay, on the west shore of the entrance to George Inlet, approx. 7.5km ESE of Ketchikan.

ASSIGNTO:

CITATIONS:

Ackerman, R.E. and R.D. Shaw 1978:9

USFS (Autrey/Stanford) 09/03 (CRM Rpt R2003100552009, Rock Art...)

DANGER OF DESTRUCTION: CONDITION: A
ASSOCIATED DATE: ENVIRON: 0915
PERIOD: Prehistoric
RESOURCE NATURE: Site, Petroglyph
CULTURAL AFFILIATION: Tlingit
OWNER: USBLM
REPOSITORY:
ACCESSION:
BIA/BLM#: OTHER#: USFS 10055200311
RELIABILITY: A1 CODED BY: RGD Date of Entry: 04-04-1978
Last updated: 09-26-2006

The Modification to the South Tongass Water Main Project Area Related to the Location of the Herring Cove Petroglyph, KET-077.

By John T. Autrey
Archaeologist

April 30, 2007

Ms. Judith Bittner, SHPO
Office of History and Archaeology
Alaska State Division of Parks and Outdoor Recreation
550 West 7th Avenue, Suite 1310-3565
Anchorage, Ak. 99501

Dear Ms. Bittner:

The Herring Cove Petroglyph site, KET-077, has been reported as being located approximately 400 feet to the southeast of the Herring Cove Bridge location (see attached Ackerman and Shaw location map), where it is proposed to bury two pipelines in the creek bed rather than suspending the two pipelines under the Bridge as stated in your January 26, 2007 letter to Ms. Jurezak at R&M Engineering.

I conducted a pedestrian survey along both shorelines beneath and adjacent to the Herring Cove Bridge on April 24, and 28th 2007 at a low tidal stages and determined that the tidelands have been altered through past activities that have included log storage, and the movement of inter-tidal rocks into various piles and alignments, for sewer lines and industrial manipulations. Industrial cable, approximately 1" diameter, was observed in several locations within the area along the north and south shores of the stream adjacent to the bridge. Some of these inter-tidal rocks have been drilled with rock drills and are likely left over from the road fill and bridge construction activities. The beach adjacent to the private property on the north shore and paralleling the stream has also been disturbed. This area has been filled with rock as a building pad for the construction of houses and other structures to the east. Property owner of the uplands and a portion of the inter-tidal area, Phil McElroy, stated that he remembered seeing a petroglyph out near the point, years ago, (about 2001), but has not seen it since. Prior to the investigation, the Ackerman and Shaw photograph (with a film canister used as scale) was copied for field use to help identify the feature. By using the film canister as scale, the dimensions of KET-044 was determined to be approximately 33 inches in width at the top and by 25 inches in length on the sides.

With a copy of this photograph, pedestrian investigations of the specific area of KET-077 (identified by Ackerman, R.E. and R.D. Shaw in their 1978 report on page 9, location map) and the verbal description provided by Mr. McElroy was accomplished. Careful visual inspection of the rocks from the point back to the bridge was accomplished. A rock similar in size and shape was observed and recorded about 245 feet east from the bridge.

This tan colored rock covered with barnacles was located below the second structure to the east of the highway on the north shore of the stream. The GPS location is N 55deg 19'35.7" W 131deg 31'21.2". Barnacles cover much of the face of the rock and no petroglyph designs were discernable. However, the measured dimensions are very approximate to the dimensions ascertained from the photograph of KET-077. There is a faint circular shape in the lower central part of this rock that is visible in the attached photograph. However, no design or relief due to pecking was observed in the field. The abundant growth of barnacles and the light conditions were not conducive to this determination. Additional observations will be required to make this determination. There are also discernable differences from the photograph of KET- 077, which has distinctive cracks and a character, which the similar rock does not display, in comparison of the two photographs.

Archaeological Survey results:

The investigations failed to locate and positively identify KET-044. A rock similar in shape and size was located and documented. The faint circle observed in the photograph, may or may not be cultural. The location of KET-044, as identified by Ackerman and Shaw is approximately 400 feet from the east side of the Ward Cove Bridge. The similar shaped rock is 245 feet to the east of the Ward cove Bridge as measured by GPS. No inter-tidal stake weirs or stone fish traps were observed.

Effects of Proposed Activities:

The proposed waterline construction activities, will occur within approximately 30 feet of the bridge(see attached Stream Crossing Plan) and will not affect the Herring Cove Petroglyph, KET-077, reportedly located approximately 400 feet from the proposed activity (Figure 2), nor the similarly shaped rock with a faint circle located approximately 245 feet away.

It is my opinion that, the proposed activities associated with the, modification to the South Tongass Water Main project will have no effect on the Herring Cove Petroglyph, KET-044.

If you have any questions concerning this report, please contact me at 907-228-6264 (daytime) or 907-225-0603 (evenings).

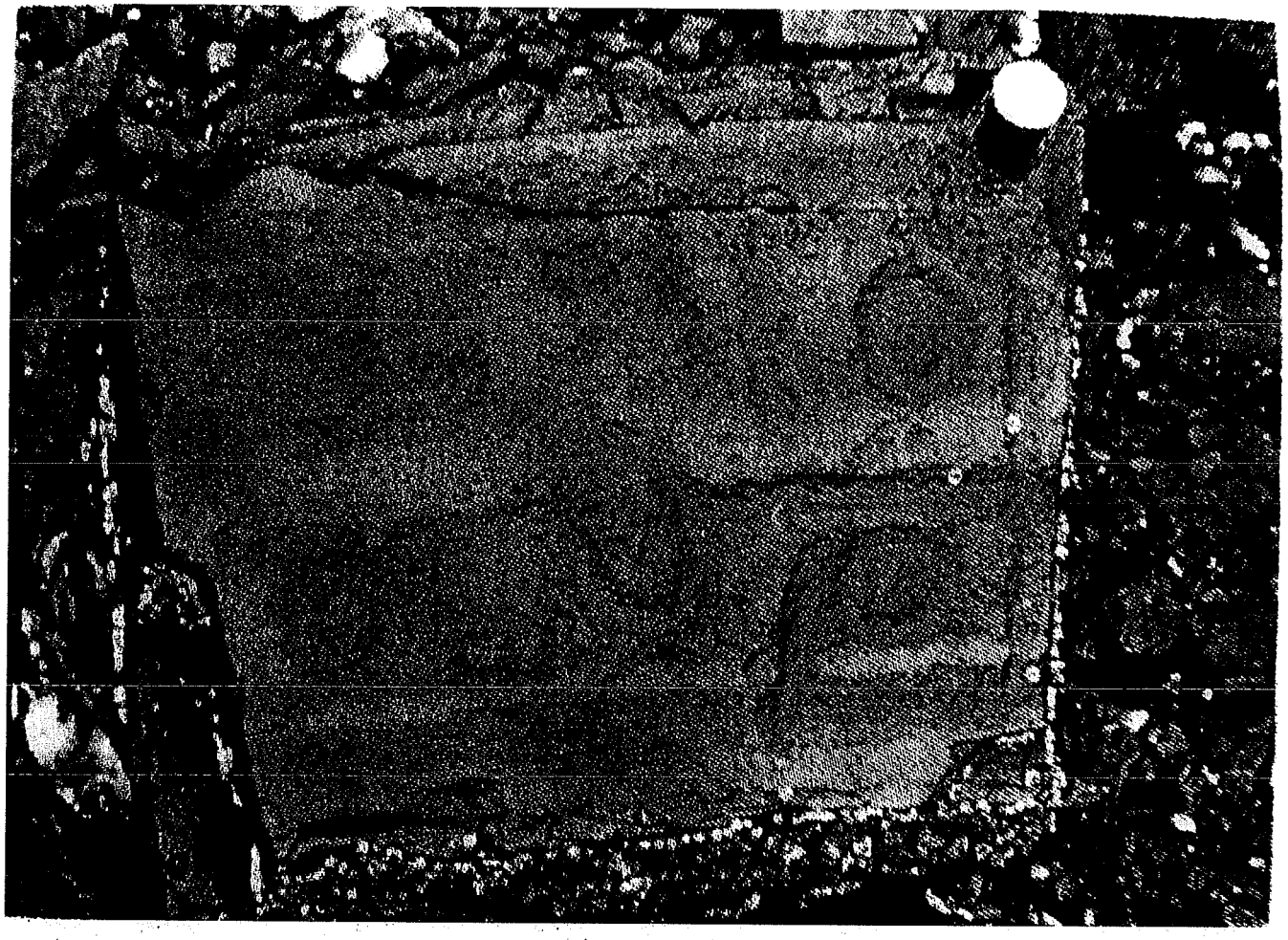
Sincerely,

John T. Autrey

cc:
Cara Jurczak
Civil Engineer
R&M Engineering

Enclosures:
Figure 1, Project Area.
Figure 2, Location of Herring Cove Petroglyph, KET-044, in relation to the Herring Cove Bridge.

Copy of Ackerman and Shaw KET-077 site location map.



Herring Cove Petroglyph, KET-077

Photograph by Ackerman and Shaw

Rock located with similar dimensions to KET-007

Location of similar rock

Location of KET-004 as described by Ackerman and Shaw

Location of recently located rock of similar shape and size

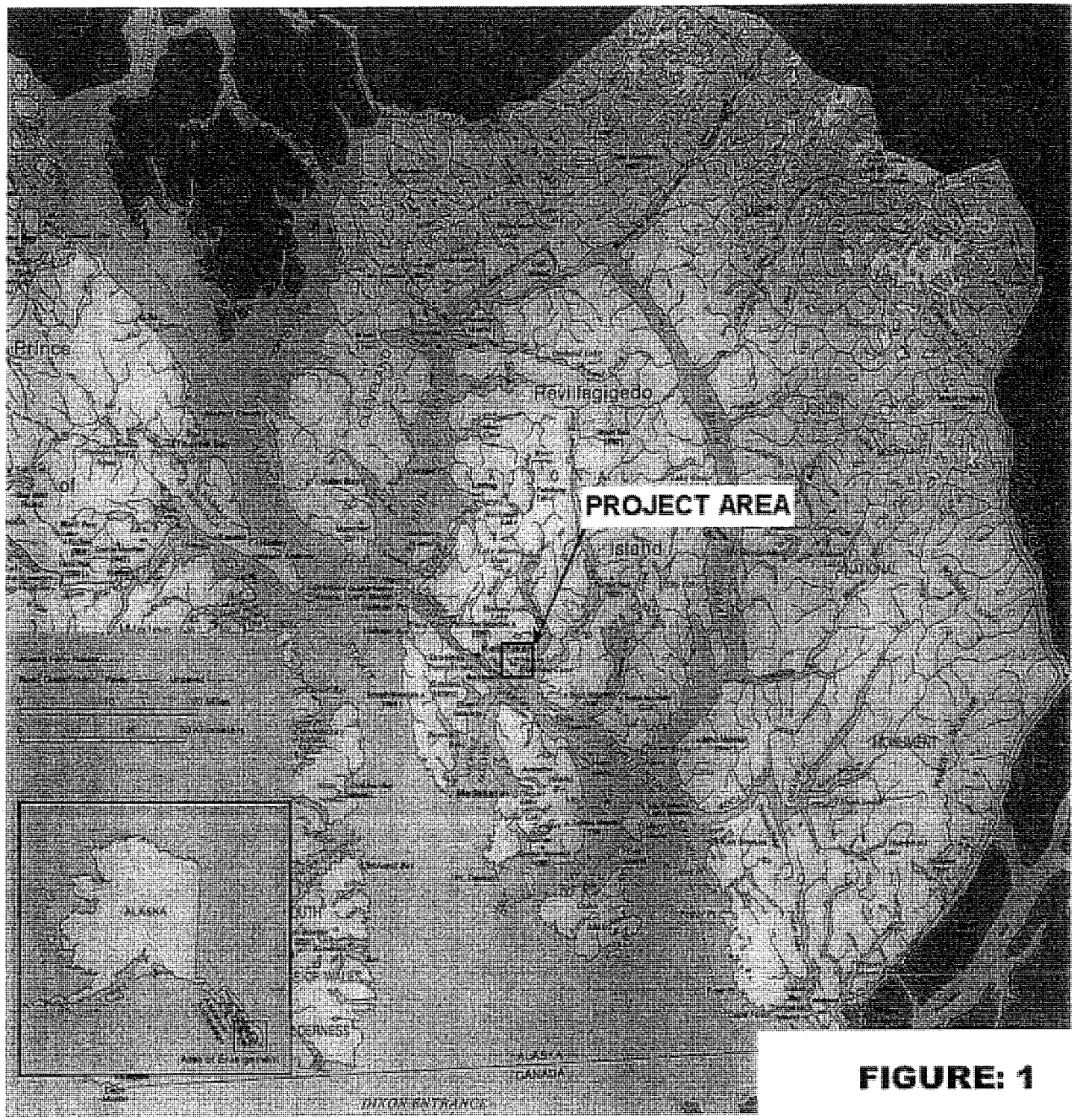


FIGURE: 1

PROJECT AREA

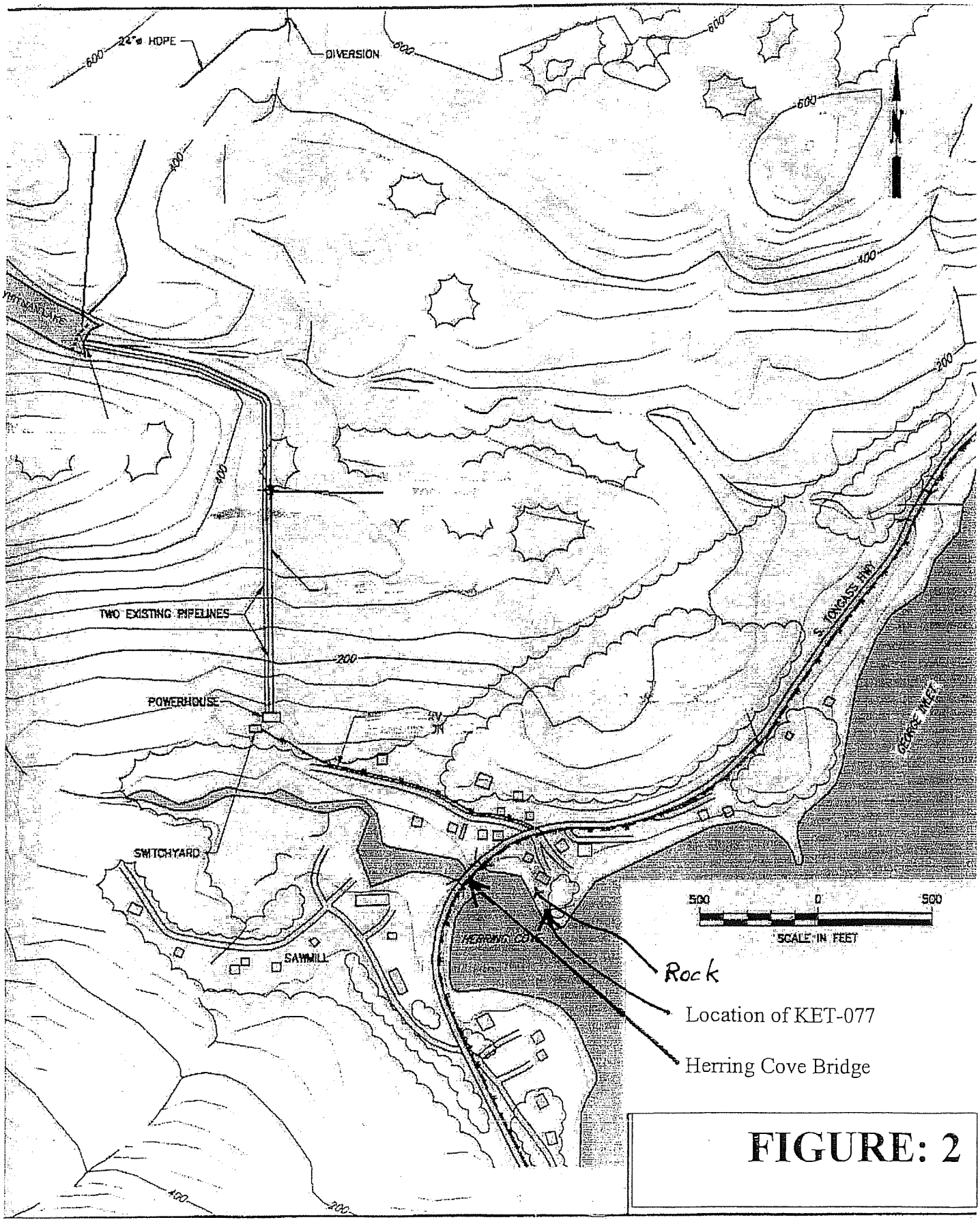
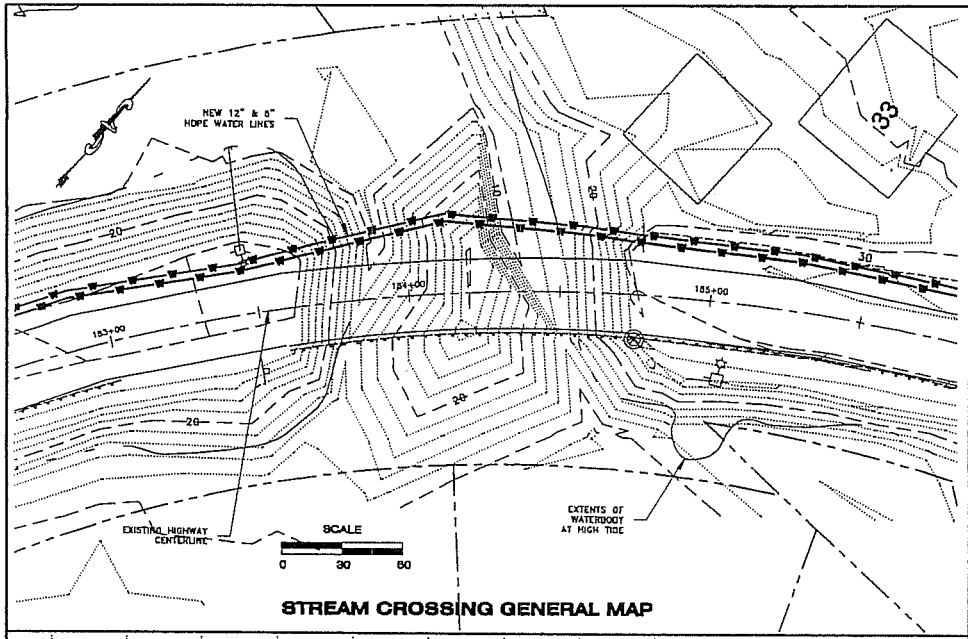
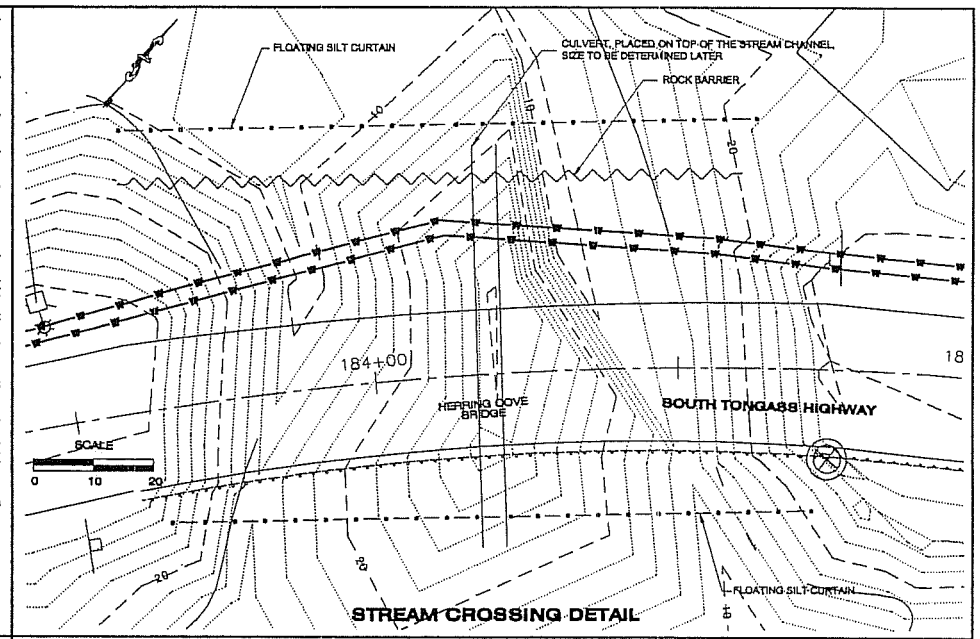


FIGURE: 2

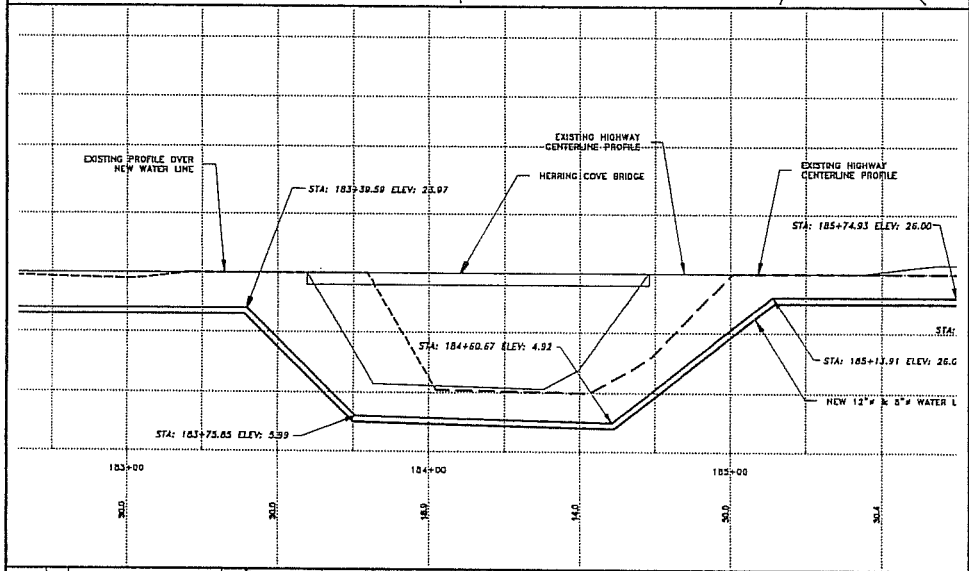
Location of Herring Cove Petroglyph, KET-077

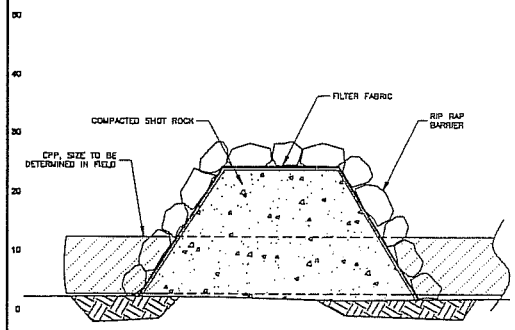


STREAM CROSSING GENERAL MAP

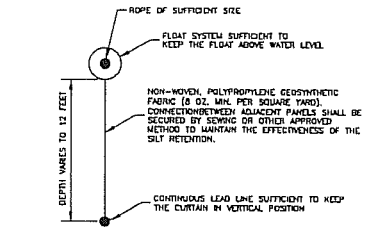


STREAM CROSSING DETAIL





EARTH DAM DETAIL
NOT TO SCALE



FLOATING SILT CURTAIN DETAIL
NOT TO SCALE

Date	No.	Description	By
		Revision	

Designed: TSS | Approved: TSS | Scale: AS NOTED
Drawn: KRJ | Date: 4/18/07 | Project: 012310.60
Checked: TSS | File:

R&M ENGINEERING-KETCHIKAN, INC.
315 CARLANNA LAKE ROAD
KETCHIKAN, ALASKA 99901

Client: KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET
KETCHIKAN, ALASKA 99901

Project: SOUTH TONGASS WATER MAIN
MOUNTAIN POINT TO HERRING COVE

Sheet Description: PLAN & PROFILE
STREAM CROSSING PLAN

Sheet No. W14

STATE OF ALASKA
49th
TREVOR SUMOI
DC 1778
REGISTERED ENGINEER

ARCHEOLOGICAL SURVEY OF PROPOSED FISH HATCHERY SITE IN HERRING BAY, REVILLAGIGEDO ISLAND, ALASKA

FINAL REPORT

Robert E. Ackerman
Robert D. Shaw

ARCTIC RESEARCH SECTION
LABORATORY OF ANTHROPOLOGY
WASHINGTON STATE UNIVERSITY

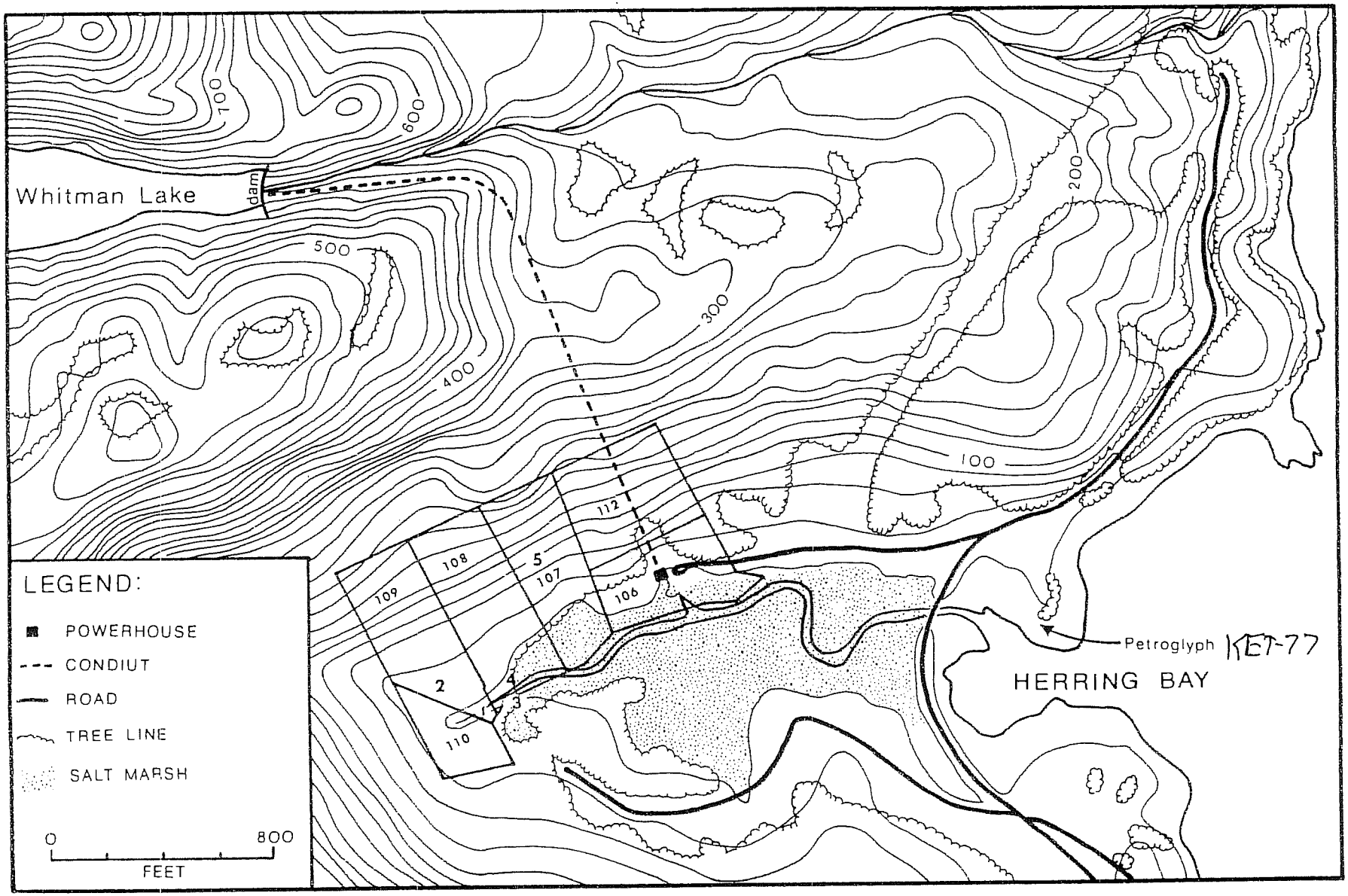


Fig. 2. Herring Bay survey area

kara Jurczak

From: Margie Goatley [margie_goatley@dnr.state.ak.us]
Sent: Tuesday, May 29, 2007 9:21 AM
To: Kara Jurczak
Subject: herring bay

kara,
i'm looking over the arch. report for the herring bay project. we are fine with the project and believe that no historic properties will be adversely affected by this project and therefore have no further concerns.
this xerox copy is hard to read however, could you send me a color copy?
also on friday i got a phone call from alaska airlines goldstreak saying that i had a package from r&m ketchikan that had been there since 5/22...do you have any idea what that would be?
thanks,
margie

--
Margie Goatley
Review and Compliance Archaeologist
Office of History and Archaeology
550 W. 7th Ave., Ste. 1310
Anchorage, AK 99501-3565
Phone: (907)269-8722
Fax: (907)269-8908

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 24, 2007

Judith E. Bittner
State Historic Preservation Officer
Division of Parks and Outdoor Recreation
Office of History and Archeology
550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501

Subject: Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Ms. Bittner:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Per your letter dated January 26, 2007 the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. If the archaeologist believes the petroglyph has the potential to be impacted by construction activities, the petroglyph will be clearly flagged and avoided.

2. If the petroglyph cannot be avoided during construction activities, SHPO will be contacted well in advance of ground disturbing activities in this area so a suitable solution can be reached.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com

APPENDIX G

ALASKA DEPARTMENT OF NATURAL RESOURCES

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 20, 2006

Joe Donohue
Project Review Supervisor
Office of Project Management and Permitting
Alaska Coastal Management Program
Alaska Dept. of Natural Resources
302 Gold Street, Suite 2002
Juneau, Alaska 99801-0030

Subject: ACMP Determination for Acquisition of Vacant Land, South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Donohue:

This letter requests your agency's views concerning a proposal by the Ketchikan Gateway Borough (KGB) to purchase vacant land for future utility improvements and the consistency of this activity with the Alaska Coastal Management Program. Your comments are intended to fulfill Title 24 Part 58 environmental review requirements for the Department of Housing and Urban Development. Please note that the project at this stage is for the release of federal funds for land acquisition only. Once acquired, KGB will complete its utility improvement plans and file the appropriate permits with your office for utility improvements and full coastal consistency review.

KGB intends to use an EPA grant to expand the Mountain Point Water Service Area and upgrade the system's water source. This would be accomplished through installing approximately 2 miles of buried water mains from Herring Bay to Mountain Point, near Ketchikan, Alaska. Enclosed are a complete Coastal Project Questionnaire, a project location map, a project plan map, and a Preliminary Jurisdictional Wetland Determination Report (September 2005).

If you have any questions regarding this letter, please contact Trevor Sande, Project Engineer, (907) 225-7917x307. Thank you for your prompt attention to this material.

Sincerely,

Kara R. Jurczak
Civil Engineer, Jr.

Enc.

Coastal Project Questionnaire and Certification Statement

All questions must be answered. **If you answer "Yes" to any of the questions, please call that specific department for further instructions to avoid delay in processing your application**. Maps and plan drawings must be included with your packet.

An incomplete packet will be returned.

APPLICANT INFORMATION

1. KETCHIKAN GATEWAY BOROUGH
Name of Applicant
344 FRONT STREET
Address
KETCHIKAN, ALASKA 99901
City/State/Zip
907-247-5541
Daytime Phone
907-247-8265
Fax Number E-mail Address

2. R&M ENGINEERING-KETCHIKAN, INC.
Agent (or responsible party if other than applicant)
355 CARLANNA LAKE ROAD
Address
KETCHIKAN, ALASKA 99901
City/State/ZipState Zip Code
907-225-7917
Daytime Phone
907-225-3441
Fax Number E-mail Address

PROJECT INFORMATION

	Yes	No
1. This activity is a: ☒ new project ☐ modification or addition to an existing project If this is a modification, do you currently have any State, federal or local approvals for this activity?	☐	☐

Note: Approval means any form of authorization. If "yes," please list below:

Approval Type		Approval #		Issuance Date		Expiration Date

	Yes	No
2. If this is a modification, was this project reviewed for consistency with Alaska Coastal Management?	☐	☐

Previous State I.D. Number: AK _____

Previous Project Name _____

PROJECT DESCRIPTION

1. Provide a brief description of your entire project and ALL associated facilities and land use conversions.

The project area stretches from approximately 6 miles to 8.2 miles south of the City of Ketchikan. The project consists of installing 2.4 miles of buried water lines from the Mountain Point Water Treatment Plant to the Herring Bay Water Association's intake dam at Whitman Creek. The 12-inch HDPE water main will convey raw water from the dam to the drinking water treatment plant at Mountain Point; while the 8-inch HDPE water main will carry potable water from the treatment plant, back to the Herring Bay Service area for

consumption. The two pipes run along an existing logging road for 2,400 feet, then are located near future roads and easements within the proposed Morningstar Subdivision for approximately 4,100 feet before converging with South Tongass Highway, which hosts the buried water lines for the remaining 6,200 feet to the Whitman Creek dam.

The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek. This will provide new potable water to the Morningstar Subdivision, residents along South Tongass Highway, and the Herring Bay Service area, as well as improve water service to the existing Mountain Point Service Area. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

Proposed starting date for project: MAY 2007 Proposed ending date for project: OCTOBER 2007

2. Attach the following: • a detailed project description, all associated facilities, and land use conversions, etc. (Be specific, including access roads, caretaker facilities, waste disposal sites, etc.); • a project timeline for completion of all major activities; • a site plan depicting project boundary with all proposed actions; • other supporting documentation to facilitate project review. Note: If the project is a modification, identify existing facilities and proposed changes on the site plan.

■ PROJECT LOCATION

1. Attach a copy of the topographical and vicinity map clearly indicating the location of the project. Please include a map title and scale.

2. The project is located in which region (see attached map): ☐ Northern ☐ Southcentral ☒ Southeast ☐ Southwest ☐ within or associated with the Trans-Alaska Pipeline corridor

3. Location of project (Include the name of the nearest land feature or body of water.)GEORGE INLET

   Township 76S Range 91E Section 2 Meridian CR Latitude/Longitude 55.300N / 131.533W

   USGS Quad Map KETCHIKAN B-5

4. Is the project located in a coastal district? Yes ☒ No ☐ If yes, identify: KETCHIKAN

   (Coastal districts are a municipality or borough, home rule or first class city, second class with planning, or coastal resource service area.) Note: A coastal district is a participant in the State's consistency review process. It is possible for the State review to be adjusted to accommodate a local permitting public hearing. Early interaction with the district is important; ***please contact the district representative listed on the attached contact list.***

5. Identify the communities closest to your project location: KETCHIKAN, SAXMAN

6. The project is on: ☒ State land or water* ☐ Federal land ☒ Private land ☐ Municipal land ☐ Mental Health Trust land

   **State land can be uplands, tidelands, or submerged lands to 3 miles offshore. See Question #1 in DNR section.*

   Contact the applicable landowner(s) to obtain necessary authorizations.

■ DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) APPROVALS

	Yes	No
1. Will a discharge of wastewater from industrial or commercial operations occur?	☐	☒
Will the discharge be connected to an approved sewer system?	☐	☒
Will the project include a stormwater collection/discharge system?	☐	☒
2. Do you intend to construct, install, modify, or use any part of a wastewater (sewage or greywater) disposal system?	☐	☒
a) If the answer is yes, will the discharge be 500 gallons per day or greater?	☐	☒
b) If constructing a domestic wastewater treatment or disposal system, will the system be located within fill material requiring a COE permit?	☐	☒

If you answered yes to a) or b), answer the following:

1) What is the distance from the bottom of the system to the top of the subsurface water table? _____
2) How far is any part of the wastewater disposal system from the nearest surface water? _____
3) Is the surrounding area inundated with water at any time of the year? ☐ ☒
4) How big is the fill area to be used for the absorption system? _____

(Questions 1 & 2 will be used by DEC to determine whether separation distances are being met; Questions 3 & 4 relate to the required size of the fill if wetlands are involved.)

	Yes	No
3. Will your project require a mixing zone?	☐	☒

(If your wastewater discharge will exceed Alaska water quality standards, you may apply for a mixing zone. If so, please contact DEC to discuss information required under 18 AAC 70.032.)

4. a) Will your project result in construction, operation, or closure of a facility for solid waste disposal?	☐	☒
(Note: Solid waste means drilling wastes, household garbage, refuse, sludge, construction or demolition wastes, industrial solid waste, asbestos, and other discarded, abandoned, or unwanted solid or semi-solid material, whether or not subject to decomposition, originating from any source. Disposal means placement of solid waste on land.)		
b) Will your project result in treatment of solid waste at the site?	☐	☒
(Examples of treatment methods include, but are not limited to: incineration, open burning, baling, and composting.)		
c) Will your project result in storage or transfer of solid waste at the site?	☐	☒
d) Will the project result in storage of more than 50 tons of materials for reuse, recycling, or resource recovery?	☐	☒
e) Will any sewage solids or biosolids be disposed of or land-applied to the site?	☐	☒
(Sewage solids include wastes that have been removed from a wastewater treatment plant system, such as a septic tank, lagoon dredge, or wastewater treatment sludge that contain no free liquids. Biosolids are the solid, semi-solid, or liquid residues produced during the treatment of domestic septage in a treatment works which are land applied for beneficial use.)		
5. Will your project require application of oil, pesticides, and/or any other broadcast chemicals?	☐	☒
6. a) Will you have a facility with industrial processes that are designed to process no less than *five tons per hour* and needs air pollution controls to comply with State emission standards?	☐	☒
b) Will you have stationary or transportable fuel burning equipment, including flares, with a total fuel consumption capacity no less than 50 million Btu/hour?	☐	☒
c) Will you have a facility with incinerators having a total charging capacity of no less than 1,000 pounds per hour?	☐	☒
d) Will you have a facility with equipment or processes that are subject to Federal New Source Performance Standards or National Emission Standards for hazardous air pollutants?	☐	☒
i) Will you propose exhaust stack injection?	☐	☒
e) Will you have a facility with the potential to emit no less than 100 tons per year of any regulated air contaminant?	☐	☒

f) Will you have a facility with the potential to emit no less than 10 tons per year of any hazardous air contaminant or 25 tons per year of all hazardous air contaminants? ☐ ☒

g) Will you construct or add stationary or transportable fuel burning equipment of no less than 10 million Btu/hour in the City of Unalaska or the City of St. Paul? ☐ ☒

h) Will you construct or modify in the Port of Anchorage a volatile liquid storage tank with a volume no less than 9,000 barrels, or a volatile liquid loading rack with a design throughput no less than 15 million gallons? ☐ ☒

i) Will you be requesting operational or physical limits designed to reduce emissions from an existing facility in an air quality nonattainment area to offset an emission increase from another new of modified facility? ☐ ☒

7. Do you plan to develop, construct, install, or alter a public water system? ☒ ☐

8. a) Will your project involve the operation of waterborne tank vessels or oil barges that carry crude or non-crude oil as bulk cargo, or the transfer of oil or other petroleum products to or from such a vessel or a pipeline system? ☐ ☒

b) Will your project require or include onshore or offshore oil facilities with an effective aggregate storage capacity of greater than 5,000 barrels of crude oil or greater than 10,000 barrels of non-crude oil? ☐ ☒

Yes **No**

c) Will you operate facilities on land or water for exploration or production of hydrocarbons? ☐ ☒

If you answered "No" to ALL questions in this section, continue to next section.
If you answered "Yes" to ANY of these questions, contact the DEC office nearest you for information and application forms. Please be advised that all new DEC permits and approvals require a 30-day public notice period. DEC Pesticide permits take effect no sooner than 40 days after the permit is issued.

Based on your discussion with DEC, please complete the following:

Types of project approvals or permits needed and name of individual you contacted.	Date application submitted
Spoke with Greg Drzewiecki. Project will require ADEC plan review and Storm Water Pollution Prevention Plan to obtain a "letter of non-objection."	
Spoke with Carrie McMullen. She needs a drinking water plan review.	

9. Does your project qualify for a general permit for wastewater or solid waste? ☐ ☒
Note: A general permit is an approval issued by DEC for certain types of routine activities.

If you answered "Yes" to any questions in this section and are not applying for DEC permits, indicate reason:

☐ **_____ (DEC contact) told me on _____ that no DEC approvals are required on this project because**

_____

☐ **Other: _____**

■ DEPARTMENT OF FISH AND GAME (DFG) APPROVALS

Yes **No**

1. Is your project located in a designated State Game Refuge, Critical Habitat Area or State Game Sanctuary? ☐ ☒

2. Does your project include construction/operation of a salmon hatchery? ☐ ☒

3. Does your project affect, or is it related to, a previously permitted salmon hatchery? ..... ☐ ☒

4. Does your project include construction of an aquatic farm? ..... ☐ ☒

If you answered "No" to ALL questions in this section, continue to next section.
If you answered "Yes" to ANY questions under 1-4, contact the ADF&G Commercial Fisheries Division headquarters for information and application forms

Based on your discussion with ADF&G, please complete the following:

Types of project approvals or permits needed.	Date application submitted

If you answered "YES" to any questions in this section and are not applying for ADF&G permits, indicate reason:

☐ _____ **(ADF&G contact) told me on** _____ **that no ADF&G approvals are required on this project because** _____

☐ **Other:** _____

■ DEPARTMENT OF NATURAL RESOURCES (DNR) APPROVALS

	Yes	No
1. Is the proposed project on State-owned land or water or will you need to cross State-owned land for access? ("Access" includes temporary access for construction purposes. *Note: In addition to State-owned uplands, the State owns almost all land below the ordinary high water line of navigable streams, rivers and lakes, and below the mean high tide line seaward for three miles.)*	☒	☐
a) Is this project for a commercial activity?	☐	☒
2. Is the project on Alaska Mental Health Trust land (AMHT) or will you need to cross AMHT land? *Note: Alaska Mental Health Trust land is not considered State land for the purpose of ACMP reviews.*	☐	☒
3. Do you plan to dredge or otherwise excavate/remove materials on State-owned land?	☐	☒
4. Do you plan to place fill or dredged material on State-owned land?	☐	☒
5. Do you plan to use any of the following State-owned resources:	☐	☒

Location of dredging site if different than the project site: _____

Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____

Location of fill disposal site if other than the project site: _____

Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____

Source is on: ☐ State Land ☐ Federal Land ☐ Private Land ☐ Municipal Land

☐ ***Timber***: Will you harvest timber? Amount: _____

☐ ***Materials such as rock, sand or gravel, peat, soil, overburden, etc.:***

Which material? _____ Amount: _____

Location of source: ☐ Project site ☐ Other, describe: _____

Township _____ Range _____ Section _____ Meridian _____ USGS Quad Map _____

6. Do you plan to divert, impound, withdraw, or use any fresh water, except from an existing public water system or roof rain catchment system (regardless of land ownership)? ☒ ☐

   Amount (maximum daily, not average, in gallons per day): _____

   Source: Whitman Lake Intended Use: Potable Water

   If yes, will your project affect the availability of water to anyone holding water rights to that water? ☐ ☒

7. Do you plan to build or alter a dam (regardless of land ownership)? ☐ ☒

8. Do you plan to drill a geothermal well (regardless of land ownership)? ☐ ☒

9. At any one site (regardless of land ownership), do you plan any of the following? ☐ ☒

   ☐ Mine five or more acres over a year's time
   ☐ Mine 50,000 cubic yards or more of materials (rock, sand or gravel, soil, peat, overburden, etc.) over a year's time
   ☐ Have a cumulative unreclaimed mined area of five or more acres

   If yes to any of the above, contact DNR about a reclamation plan.

	Yes	No
If you plan to mine less than the acreage/amount stated above and have a cumulative unreclaimed mined area of less than five acres, do you intend to file a voluntary reclamation plan for approval?	☐	☒

10. Do you plan to explore for or extract coal? ☐ ☒

11. a) Will you explore for or produce oil and/or gas? ☐ ☒
    b) Will you conduct surface use activities on an oil and/or gas lease or within an oil and/or gas unit? ☐ ☒

12. Will you investigate, remove, or impact historical or archaeological or paleontological resources (anything over 50 years old) on State-owned land? ☐ ☒

13. Is the proposed project located within a known geophysical hazard area? ☐ ☒
    Note: 6 AAC 80.900(9) defines geophysical hazard areas as "those areas which present a threat to life or property from geophysical or geological hazards, including flooding, tsunami run-up, storm surge run-up, landslides, snowslides, faults, ice hazards, erosion, and littoral beach process." "known geophysical hazard area" means any area identified in a report or map published by a federal, state, or local agency, or by a geological or engineering consulting firm, or generally known by local knowledge, as having known or potential hazards from geologic, seismic, or hydrologic processes.

14. Is the proposed project located in a unit of the Alaska State Park System? ☐ ☒

15. Will you work in, remove water or material from, or place anything in, a stream, river or lake? (This includes work or activities below the ordinary high water mark or on ice, in the active flood plain, on islands, in or on the face of the banks, or, for streams entering or flowing through tidelands, above the level of mean lower low tide.)
    Note: If the proposed project is located within a special flood hazard area, a floodplain development permit may be required. Contact the affected city or borough planning department for additional information and a floodplain determination.) ☒ ☐

    Name of waterbody: Whitman Lake

16. Will you do any of the following: ☒ ☐
    Please indicate below:
    ☐ Build a dam, river training structure, other instream impoundment, or weir
    ☒ Use water

- ☒ Pump water into or out of stream or lake (including dry channels)
- ☒ Divert or alter a natural stream channel
- ☐ Change water flow or the stream channel
- ☒ Introduce silt, gravel, rock, petroleum products, debris, brush, trees, chemicals, or other organic/inorganic material, including waste of any type, into water
- ☒ Alter, stabilize or restore banks of a river, stream or lake (provide number of linear feet affected along the bank(s)
- ☒ Mine, dig in, or remove material, including woody debris, from beds or banks of a waterbody
- ☐ Use explosives in or near a waterbody
- ☐ Build a bridge (including an ice bridge)
- ☒ Use a stream, lake or waterbody as a road (even when frozen), or cross a stream with tracked or wheeled vehicles, log-dragging or excavation equipment (backhoes, bulldozers, etc.)
- ☒ Install a culvert or other drainage structure
- ☒ Construct, place, excavate, dispose or remove any material below the ordinary high water of a waterbody
- ☐ Construct a storm water discharge or drain into a waterbody
- ☐ Place pilings or anchors
- ☐ Construct a dock
- ☒ Construct a utility line crossing
- ☐ Maintain or repair an existing structure
- ☐ Use an instream in-water structure not mentioned here

If you answered "No" to ALL questions in this section, continue to next section.
If you answered "Yes" to ANY questions under 1-16, contact the Area DNR, office for information and application forms.

Based on your discussion with DNR, please complete the following:

Types of project approvals or permits needed.	Date application submitted
Spoke with Mark Minillo. He needs a Fish Habitat for Water Withdrawal Permit. He mentioned the KGB's need for a Water Rights application from the Division of Mining, Land, and Water. He suggested submitting the first permit with the plan review packet to the State.	2-16-07 1-25-07
Spoke with Jim Anderson. He said we do not need a reclamation plan, but we may need an easement with either DNR or DOT to place the utility line within the South Tongass Highway ROW.	
Spoke with Fred Thorsteinson. He needs an ADOT Utility Permit, and an easement is not necessary.	11-10-2006

If you answered "Yes" to any questions in this section and are not applying for DNR permits, indicate reason:

☐ _____ **(DNR contact) told me on** _____ **that no DNR approvals are required on this project because**

_____

■ FEDERAL APPROVALS

	Yes	No
U.S. Army Corps of Engineers (COE)		
1. Will you dredge or place structures or fills in any of the following: tidal (ocean) waters? streams? lakes? wetlands*?	☐	☒
If yes, have you applied for a COE permit?	☐	☒

Date of submittal: _____

Name of COE contact: _____

(Note: Your application for this activity to the COE also serves as application for DEC Water Quality Certification.)

**If you are not certain whether your proposed project is in a wetlands (wetlands include muskegs), contact the COE, Regulatory Branch at 907-753-2712 for a wetlands determination (outside the Anchorage area call toll free 1-800-478-2712)*

Bureau of Land Management (BLM)

2. Is the proposed project located on BLM land, or will you need to cross BLM land for access? ..... ☐ ☒
   If yes, have you applied for a BLM permit or approval? ..... ☐ ☒

   Date of submittal: _____

   Name of BLM contact: _____

U.S. Coast Guard (USCG)

3. a) Do you plan to construct a bridge or causeway over tidal (ocean) waters, or navigable rivers, streams or lakes? ..... ☐ ☒
   b) Does your project involve building an access to an island? ..... ☐ ☒
   c) Do you plan to site, construct, or operate a deepwater port? ..... ☐ ☒
   If yes, have you applied for a USCG permit? ..... ☐ ☒

   Date of submittal: _____

   Name of USCG contact: _____

U.S. Environmental Protection Agency (EPA)

4. a) Will the proposed project have a discharge to any waters? ..... ☐ ☒
   b) Will you dispose of sewage sludge (contact EPA at 206-553-1941)? ..... ☐ ☒
   If you answered yes to a) or b), have you applied for an EPA National Pollution Discharge Elimination System (NPDES) permit? ..... ☐ ☒

   Date of submittal: _____

   Name of EPA contact: _____
   (Note: For information regarding the need for an NPDES permit, contact EPA at 1-800-424-4372)

   c) Will construction of your project expose more than one acre of soil? *(This applies to the total amount of land disturbed, even if disturbance is distributed over more than one season, and also applies to areas that are part of a larger common plan of development or sale.)* ..... **Yes** ☒ **No** ☐
   d) Is your project an industrial facility that will have stormwater discharge directly related to manufacturing, processing, or raw materials storage areas at an industrial plant? ..... ☐ ☒
   If you answered yes to c) or d), your project may require an NPDES Stormwater permit. Contact EPA at 206-553-8399.

Federal Aviation Administration (FAA)

5. a) Is your project located within five miles of any public airport? ..... ☐ ☒
   b) Will you have a waste discharge that is likely to decay within 5,000 feet of any public airport? ..... ☐ ☒
   If yes, please contact the Airports Division of the FAA at 907-271-5438.

Federal Energy Regulatory Commission (FERC)

6. a) Does the project include any of the following:
   1) a non-federal hydroelectric project on any navigable body of water ..... ☐ ☒
   2) a location on federal land (including transmission lines) ..... ☐ ☒
   3) utilization of surplus water from any federal government dam ..... ☐ ☒
   b) Does the project include construction and operation, or abandonment of natural gas pipeline facilities under sections (b) and (c) of the Federal Power Act (FPA)? ..... ☐ ☒

   c) Does the project include construction for physical interconnection of electric transmission

facilities under section 202 (b) of the FPA? ☐ ☒

If you answered yes to any questions under number 6, did you apply for a permit from FERC? ☐ ☒

Date of submittal: _____

Name of FERC contact: _____

(Note: For information, Div. Hydropower-Environment and Engineering contact: Vince Yearek 202-502-6174 or Mike Henry 503-944-6762, 202-502 8700; (for Natural Gas Projects) Division of Pipeline Certificate 202-502-8625; for Alaska projects contact Richard Foley – 202-502-8955)

U.S. Forest Service (USFS)

7. a) Does the proposed project involve construction on USFS land? ☐ ☒

   b) Does the proposed project involve the crossing of USFS land with a water line? ☐ ☒

   If the answer to either question is yes, did you apply for a USFS permit or approval? ☐ ☒

   Date of submittal: _____

   Name of USFS contact: _____

8. Have you applied for any other federal permits or authorizations? ☒ ☐

AGENCY	APPROVAL TYPE	DATE SUBMITTED
Dept. of Natural Resources	General Waterway/Water body Application	7-14-2006
Dept. of Natural Resources	Application for Water Rights	1-25-07
EPA	NPDES Permit	

Please be advised that the CPQ identifies permits subject to a consistency review. You may need additional permits from other agencies or the affected city and/or borough government to proceed with your activity.

Certification Statement

The information contained herein is true and complete to the best of my knowledge. I certify that the proposed activity complies with, and will be conducted in a manner consistent with, the Alaska Coastal Management Program.

Signature of Applicant or Agent

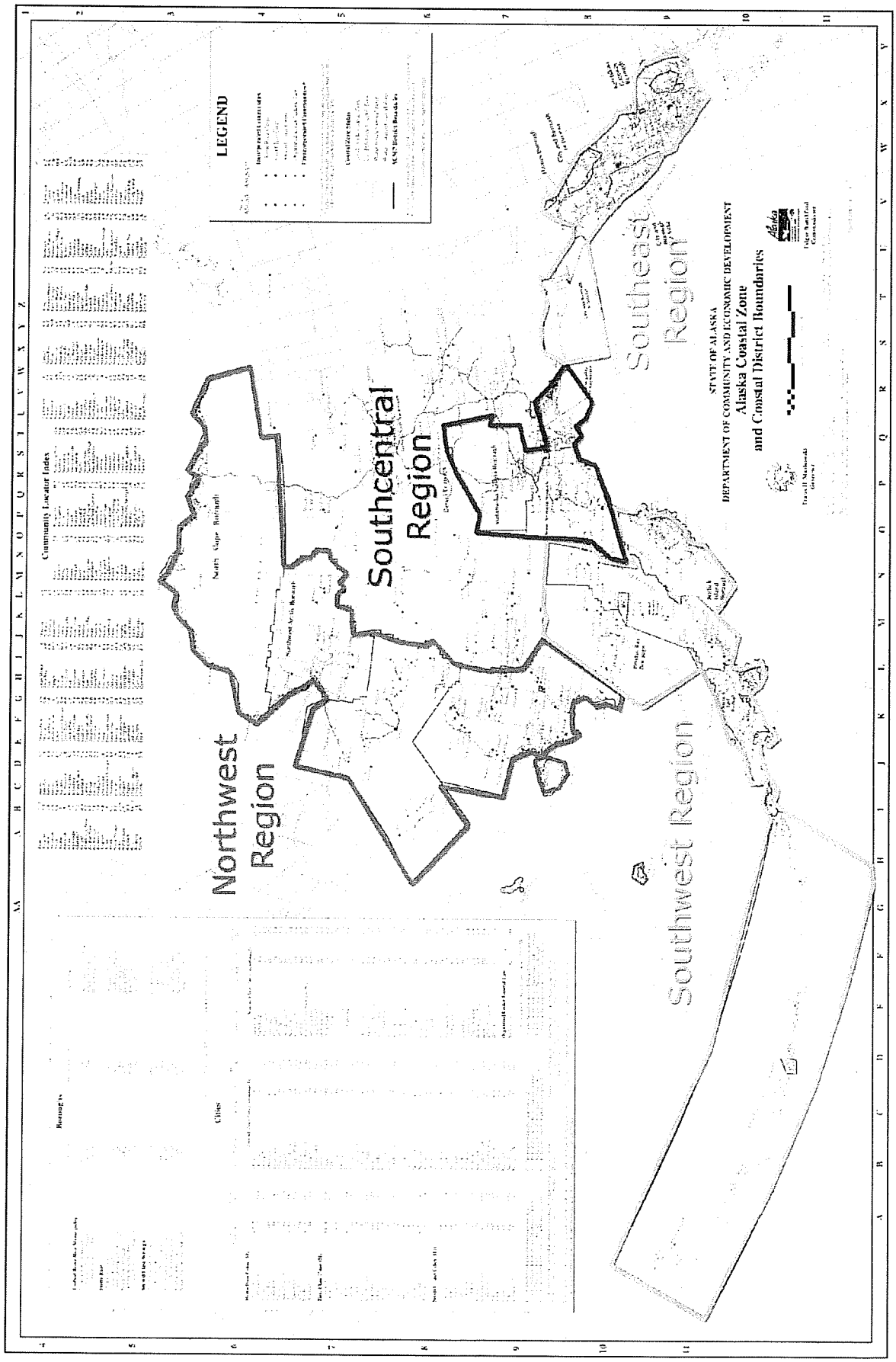
4/19/07
Date

Note: Federal agencies conducting an activity that will affect the coastal zone are required to submit a federal consistency determination, per 15 CFR 930, Subpart C, rather than this certification statement. ACMP has developed a guide to assist federal agencies with this requirement. Contact ACMP to obtain a copy.

This certification statement will not be complete until all required State and federal authorization requests have been submitted to the appropriate agencies.

- **To complete your packet, please attach your State permit applications and copies of your federal permit applications to this questionnaire.**

Attachment:
Regional
Map



STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT AND PERMITTING
ALASKA COASTAL MANAGEMENT PROGRAM

☐ SOUTHCENTRAL REGIONAL OFFICE
550 W 7th AVENUE SUITE 1660
ANCHORAGE, ALASKA 99501
PH: (907) 269-7470 FAX: (907) 269-3891

× CENTRAL OFFICE
PO BOX 111030
JUNEAU, ALASKA 99811-1030
PH: (907) 465-3562 FAX: (907) 465-3075

☐ PIPELINE COORDINATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501
PH: (907) 257-1351 FAX: (907) 272-3829

www.alaskacoast.state.ak.us

October 4, 2006

Ms. Kara R. Jurczak
R&M Engineering
355 Carlanna Lake Road
Ketchikan, Alaska 99901

Dear Ms. Jurczak:

Subject: **South Tongass Water Main – Mountain Point to Herring Bay**
State I.D. No.: ID2006-0802J

The Office of Project Management and Permitting (OPMP) received your project description, coastal project questionnaire, and design materials you submitted for the Ketchikan Gateway Borough's proposed plan to expand water service from the Mountain Point Water Treatment Plant to the Whitman Lake penstocks at Herring Bay. The location of the proposed project is within Township 76 S., Range 91 E., Section 2, Copper River Meridian; 55.300N Latitude, 131.533W Longitude, south of Ketchikan, Alaska.

The proposed project would stretch from approximately 6 miles to 8 miles south of the City of Ketchikan. The project consists of installing 2.2 miles of buried water lines from the Mountain Point Water Treatment Plant to the Whitman Lake penstocks at Herring Bay. The two pipes run along an existing logging road for 2400 feet, then are located near future roads and easements within the proposed Morning Star Subdivision for approximately 4100 feet before converging with South Tongass Highway, which hosts the buried water lines for the remaining 5200 feet to the Herring Bay Hatchery.

A significant portion of the funding for this proposed project will be requested of the federal Department of Housing and Urban Development (HUD). As a part of the application process, the federal lending agencies require the applicant to provide documentation that Coastal Zone Management Act (CZMA) issues related to projects developed within the coastal zone have been given CZMA scrutiny.

Ms. Kara R. Jurczak – R&M Engineering
Whitman Lake Water Service
ID No. 2006-0802J

October 4, 2006

Under authority of the Coastal Zone Management Act (CZMA), the State of Alaska reviews proposed projects that will affect uses and resources of the coastal zone for consistency with the standards of the Alaska Coastal Management Program (ACMP) and coastal district enforceable policies. The State does not review federal assistance requests either under the A-95 process or for consistency with the ACMP. However, under Title 24 Part 58, HUD requires notification from the State of Alaska regarding CZMA requirements before awarding funding.

Based on the information you provided in your CPQ, OPMP has determined that your proposed project will require federal permits subject to ACMP review, and that it will affect uses and resources of the coastal zone. Therefore, a 50-day ACMP review of your proposed project will be necessary in the future at such time as the construction plans have attained the level of completion and detail that will allow the State to ascertain the project's consistency with the ACMP.

This decision includes reference to specific laws and regulations, but in no way precludes your responsibility to comply with all other applicable State, federal and local laws and regulations.

If you have any questions regarding this letter, please contact me at (907) 465-2142 or email claire_batac@dnr.state.ak.us. Thank you for your cooperation with the ACMP.

Sincerely,

Claire Batac
ACMP Project Assistant

cc: William Ashton, ADEC, Anchorage
Carrie McMullen, ADEC, Juneau
Mark Fink, ADFG, Anchorage
Marcus Gho, ADNR/DMLW, Juneau
Alex Dugaqua, ADNR/DMLW, Juneau
John Dunker, ADNR/DMLW, Juneau
Valerie DeLaune, ADNR/DMLW, Juneau
Mark Minnillo, ADNR/OHMP, Craig
Joe Donohue, ADNR/OPMP, Juneau
Margie Goatley, ADNR/SHPO, Anchorage
Erin Reeve, Coastal Contact, Ketchikan
Karl Amylon, Administrator, City of Ketchikan
Terri Stinnett-Herczeg, USACE, Anchorage
Chris Meade, USEPA, Juneau
Mary Goode, NMFS, Juneau

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT/PERMITTING
ALASKA COASTAL MANAGEMENT PROGRAM

☐ SOUTHCENTRAL REGIONAL OFFICE
550 W 7th AVENUE SUITE 1660
ANCHORAGE, ALASKA 99501
PH: (907) 269-7470 FAX: (907) 269-3891

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411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501
PH: (907) 257-1351 FAX: (907) 272-3829

May 22, 2007

Ms. Kara Jurzcak
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road
Ketchikan, Alaska 99901-5614

Dear Ms. Jurzcak:

Subject: **Proposed Consistency Determination – Concurrence**
George Inlet (KGB Water Service)
State I.D. No. AK 0702-06J

The Office of Project Management and Permitting (OPMP) is currently coordinating the State's review of the Ketchikan Gateway Borough's proposed placement of 2.4 miles of new, buried water main from Herring Cove to Mountain Point, approximately 6 miles to 8.2 miles south of Ketchikan, Alaska, for consistency with the Alaska Coastal Management Program (ACMP).

Based upon review by the Department of Natural Resources, and the Ketchikan Coastal District, OPMP has developed the enclosed proposed consistency determination in which the State concurs with your certification that the project is consistent with the ACMP and the Ketchikan coastal district's enforceable policies.

By copy of this letter, I am informing the U.S. Army Corps of Engineers and State review participants of OPMP's proposed finding. If you have any questions, please contact me at 907-465-8791 or email sadie_wright@dnr.state.ak.us.

Sincerely,

Sadie Wright
ACMP Project Specialist

Enclosure

cc: Fran Roche – ADEC, Juneau *
Mark Fink - ADFG, Anchorage *
Alex Dugaqua - ADNR/DMLW, Juneau *
Jim Anderson – ADNR/DMLW, Juneau *
Mark Minnillo - ADNR/OHMP, Craig *
Rhonda Ren-Kingery – ADNR/OHMP, Craig *
Claire Batac – ADNR/OPMP, Juneau *
Joe Donohue – ADNR/OPMP, Juneau *
Margie Goatley - ADNR/SHPO, Anchorage *
Andy Hughes - ADOT/PF, Juneau *
Fred Thorsteinson – ADOT/PF, Juneau *
Bob Plumb – ADPS, Juneau *
Leslie Real - Coastal District Coordinator, Ketchikan *
Serena Sweet - USACE, Regulatory, Anchorage *
Chris Meade – USEPA, Juneau *
John Hudson – NMFS, Juneau *

* = Emailed

ALASKA COASTAL MANAGEMENT PROGRAM
PROPOSED CONSISTENCY DETERMINATION
CONCURRENCE

DATE ISSUED: May 22, 2007

PROJECT TITLE: George Inlet (KGB Water Service)

STATE ID. NO.: AK 0702-06J

AFFECTED COASTAL RESOURCE DISTRICT: Ketchikan

APPLICANT / AGENT: Ketchikan Gateway Borough / Ms. Kara Jurzcak

DESCRIPTION OF PROJECT SUBJECT TO ACMP REVIEW:

LOCATION: The proposed project is located within section 2, T. 75 & 76 S., R. 91 E., Copper River Meridian; Latitude 55.300° N., Longitude 131.533° W,; from Herring Bay to Mountain Point, along George Inlet, approximately 6 to 8 miles south of Ketchikan, Alaska.

PURPOSE: The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek which will be treated and piped back to the Herring Cove Service area for consumption. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

WORK: The project consists of installing 2.2 miles of buried water lines from the Mountain Point Water Treatment Plant to the Whitman Lake penstocks at Herring Bay. Two pipes will be buried (one 12-inch diameter raw water pipe and one 8-inch diameter potable water pipe) within a 4-foot wide by approximately 12,420-foot long trench. The pipes run along an existing logging road for 2,400 feet, then are located near future roads and easements within the proposed Morningstar Subdivision for approximately 4,100 feet before converging with South Tongass Highway, which hosts the buried lines for the remaining 6,200 feet to the Whitman Creek dam.

Additional Information: OPMP was informed by the Alaska Department of Transportation that approximately one mile of the proposed water line will be buried in the ADOT right of way next to South Tongass Highway. A Utility Permit is required for this work, and the applicant is advised to acquire this permit from ADOT prior to construction.

To achieve consistency with the standards and policies of the ACMP [11 AAC 112.300], on May 14, 2007 the applicant agreed (see attached Project Amendment form) to incorporate the following State-recommended alternative measures into the final project description:

1. Upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation.

2. Stream banks shall be seeded with a native seed mix containing no fertilizer.

Rationale: Per 11 AAC 112.300(a)(8), these alternative measures are necessary to mitigate significant adverse impacts to (A) natural water flow and (C) natural vegetation within riparian management areas.

SCOPE OF PROJECT TO BE REVIEWED:
The scope of the project subject to this consistency review includes State applications and supporting documents submitted to gain authorizations for this proposed water main installation activity (Fish Habitat Permit and Water Right).

The U.S. Army Corps of Engineers (USACE) issued a letter on January 29, 2007 stating that this project can be authorized by that agency under Nationwide Permit #12 (Project No. POA-2006-1333-D). The Nationwide Permit 12 has previously been reviewed for consistency with the standards of the ACMP. As a result of that prior review the Nationwide Permit 12 was found to be consistent. Therefore, the activities covered under this Department of the Army Nationwide Permit 12 (and described in (i) Utility Lines of this permit as follows: "*The construction, maintenance or repair of utility lines, including outfall and intake structures and the associated excavation, backfill, or bedding for the utility lines, in all waters of the U.S., provided there is no changes in preconstruction contours.*") will be excluded from the scope of this ACMP consistency review.

AUTHORIZATIONS:
The project must be found consistent with the ACMP before the following State authorizations may be issued:

- Department of Natural Resources/Office of Habitat Management and Permitting
  Fish Habitat Permit

- Department of Natural Resources/Division of Mining, Land, and Water
  Water Right LAS# 24055

CONSISTENCY STATEMENT:
Based on an evaluation of your project by the Alaska Department of Natural Resources' Division of Mining, Land and Water and Office of Habitat Management, and the Ketchikan Coastal District, the State of Alaska concurs with the consistency certification submitted and signed by Ms. Kara Jurzcak.

ELEVATION:
Pursuant to 11 AAC 110.600, the project applicant, a state resource agency, or an affected coastal resource district with an approved coastal district plan that does not concur with this

proposed consistency response may request an elevation of the response to the Department of Natural Resources Commissioner within five days of receiving the proposed response. A request for elevation must

(1) be in writing;
(2) be received by the coordinating agency by 5:00 p.m. within five calendar days after the requestor receives the proposed consistency response; and
(3) explain the requestor's concern, including any addition of or modification to an alternative measure identified that would achieve consistency with the enforceable policies of the ACMP.

The applicant, within the five days, also may request an extension of time to consider the alternative measures or additional modifications. If the applicant or other review participants with elevation rights do not request an elevation or extension within the specified five days, the State will issue a final consistency response.

ADVISORIES:
On April 24, 2007 OPMP received the following advisory from the Division of Mining, Land and Water:

"A consistency determination does not obligate the Department of Natural Resources to issue authorization pursuant to Alaska Statute 38, nor does it supersede statutory obligations thereunder. The applicant may not proceed with any site specific land use activity on the subject State lands until so authorized by the Division of Mining, Land and Water. Authorities outside 11 Alaska Administrative Code 112 may result in additional permit conditions not contained in the consistency decision."

Please note that, in addition to their consistency review, State agencies with permitting responsibilities will evaluate this water main installation project according to their specific permitting authorities. Agencies will issue permits and authorizations only if they find the proposed project complies with their statutes and regulations in addition to being consistent with the coastal program. Applicants may not use any State land or water without ADNR authorization.

This consistency response may include reference to specific laws and regulations, but this in no way precludes an applicant's responsibility to comply with all other applicable State and federal laws and regulations.

This consistency response is only for the project as described and amended. If, after issuance of a final consistency response, the applicant proposes any changes to the approved project, including its intended use, prior to or during its siting, construction, or operation, the applicant must contact this office immediately to determine if further review and approval of the modifications to the project is necessary. Changes may require amendments to the State authorizations listed in this response, or may require additional authorizations.

If the proposed activities reveal cultural or paleontological resources, the applicant is to stop any work that would disturb such resources and immediately contact the State Historic Preservation Office (907-269-8720) and the U.S. Army Corps of Engineers (907-753-2712) so that consultation per section 106 of the National Historic Preservation Act may proceed.

PROPOSED CONSISTENCY DETERMINATION PREPARED BY:

Sadie Wright – ACMP Project Specialist
Department of Natural Resources
Alaska Coastal Management Program
PO Box 111030
Juneau, Alaska 99811-1030
(907) 465-8791

Sadie Wright

ACMP CONSISTENCY EVALUATION
George Inlet (KGB Water Service) – AK 0702-06J

Pursuant to the following evaluation, the project as proposed is consistent with applicable ACMP statewide and affected coastal resource district enforceable policies (copies of the policies are available on the ACMP web site at http://www.alaskacoast.state.ak.us).

STATEWIDE STANDARDS
11 AAC 112.200 Coastal Development
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.210 Natural Hazard Areas
Evaluation: The State and coastal district did not identify any natural hazard areas at this site. This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.220 Coastal Access
Evaluation: This project does not prevent coastal access therefore the project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.230 Energy Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.240 Utility Routes and Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.250 Timber Harvest and Processing
Evaluation: This standard does <u>not</u> apply to the project as proposed.
11 AAC 112.260 Sand and Gravel Extraction
Evaluation: This project as proposed, described, and amended meets the intent of this standard
11 AAC 112.270 Subsistence
Evaluation: The State and coastal district did not identify any subsistence areas at this site. This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.280 Transportation Routes and Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.300 Habitats
Evaluation: Pursuant to 11 AAC 112.300(1), OHMP objects to the consistency certification with the ACMP as proposed. Contrary to the Rivers, Streams and Lakes Habitat Standard, excavation of the streambed of Herring Cove Creek and the installation of the rock dam and culvert will change the natural water flow of the stream. In addition, natural vegetation will be removed from within 100 feet of either side of the stream. However, OHMP would agree with the applicant's certification that this project is consistent with the ACMP if the following alternative measures are incorporated into the project description: 1. Upon completion of the project, all materials associated with the diversion and culvert shall be

removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation.

2. Stream banks will be seeded with a native seed mix containing no fertilizer.

The applicant has agreed to these alternative measures (see attached Project Amendment Form), so the project as proposed, described, and amended meets the intent of this standard.

11 AAC 112.310 Air, Land & Water Quality

Evaluation: The ADEC statutes and regulations with respect to air, land and water quality are no longer incorporated into the coordinated ACMP consistency reviews. The issuance of an ADEC authorization constitutes consistency with the ACMP for the authorized activity and this standard. Consistency with this standard will be established when the ADEC issues or waives the required authorizations.

11 AAC 112.320 Historic, Prehistoric, and Archaeological Resources

Evaluation: The District and the State did not identify the proposed project location as an area which is important to the study, understanding, or illustration of national, state, or local history or prehistory. The consistency determination advises the applicant to contact ADNR/SHPO and the U.S. Army Corps of Engineers and the Alaska State Troopers should a site of cultural or historical significance be suspected or revealed and to stop any work that would disturb any resources. Therefore this project, as proposed, described, and amended meets the intent of this standard.

AFFECTED COASTAL RESOURCE DISTRICT ENFORCEABLE POLICIES

Ketchikan Coastal District:

On April 27, 2007 OPMP received the following evaluation from the Ketchikan Gateway Borough Coastal District coordinator:

Evaluation:

"**Purpose:** The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek which will be treated and piped back to the Herring Cove Service area for consumption. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

Overall Findings: The Ketchikan Coastal District finds this project consistent with its enforceable policies, applicable Statewide Standards, as well as the Borough Code of Ordinances.

The following Ketchikan Coastal District Policies were used to review the Ketchikan Gateway Borough's waterline proposal.

Objective D.1. *To protect the quantity and quality of existing and future community water supplies and to provide for adequate sewage disposal systems.*

Policy D.1.b. *The Borough and the Alaska Department of Environmental Conservation shall develop short and long-range water supply and sewage disposal alternatives for the Ketchikan area.

Ketchikan Gateway Borough will defer to ADF&G to make the determination if anadromous streams, sport and subsistence areas will be adversely affected by the installation and operation of a water main."

Post-it® Fax Note 7671	Date 5/14	# of pages ▶ 1
To Sadie	From Kara	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

PROJECT AMENDMENT

I have reviewed the proposed State comments and recommendations for the project identified as **"George Inlet (KGB Water Service)"**, State ID No. **AK 0702-06J**, to achieve consistency with the standards and policies of the ACMP and agree to amend my project description to (check one):

X fully incorporate all of the alternative measures described therein;
___ propose additional modifications to achieve consistency with the enforceable policies of the ACMP; or to
___ incorporate some of the alternative measures and also propose additional modifications. Any additional modifications are described in a separate document. I understand that the option of proposing additional modifications may result in additional state review.

[signature] (Applicant/Agent name)

5/14/07 (Date)

Please fax the signed and dated form to Sadie Wright at OPMP at 465-3075 as soon as possible to enable OPMP/ACMP to issue your project's proposed and final ACMP consistency determinations.

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT/PERMITTING
ALASKA COASTAL MANAGEMENT PROGRAM

☐ SOUTHCENTRAL REGIONAL OFFICE
550 W 7th AVENUE SUITE 1660
ANCHORAGE, ALASKA 99501
PH: (907) 269-7470 FAX: (907) 269-3891

☒ CENTRAL OFFICE
P.O. BOX 111030
JUNEAU, ALASKA 99811-1030
PH: (907) 465-3562 FAX: (907) 465-3075

☐ PIPELINE COORDINATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501
PH: (907) 257-1351 FAX: (907) 272-3829

May 29, 2007

Ms. Kara Jurzcak
R&M Engineering-Ketchikan, Inc.
355 Carlanna Lake Road
Ketchikan, Alaska 99901-5614

Dear Ms. Jurzcak:

Subject: **Final Consistency Determination – Concurrence**
George Inlet (KGB Water Service)
State I.D. No. AK 0702-06J

The Office of Project Management and Permitting (OPMP) has completed coordinating the State's review of the Ketchikan Gateway Borough's proposed placement of 2.4 miles of new, buried water main from Herring Cove to Mountain Point, approximately 6 miles to 8.2 miles south of Ketchikan, Alaska for consistency with the Alaska Coastal Management Program (ACMP).

Based upon review by the Alaska Department of Natural Resources and the Ketchikan Coastal District, OPMP has developed the enclosed consistency determination, in which the State concurs with your certification that the project is consistent with the ACMP and the Ketchikan Coastal District's enforceable policies. This will be the final ACMP decision on this project, as proposed and amended.

By copy of this letter, I am informing the U.S. Army Corps of Engineers and State review participants of OPMP's finding. If you have any questions, please contact me at (907) 465-8791 or email sadie_wright@dnr.state.ak.us.

Sincerely,

Sadie Wright
ACMP Project Specialist

Enclosure

cc: Fran Roche – ADEC, Juneau*
Mark Fink - ADFG, Anchorage*
Jim Anderson – ADNR/DMLW, Juneau*
Alex Dugaqua – ADNR/DMLW, Juneau*
Mark Minnillo – ADNR/DMLW, Craig*
Rhonda Ren-Kingery – ADNR/OHMP, Craig*
Joe Donohue – ADNR/OPMP, Juneau*
Claire Batac – ADNR/OPMP, Juneau*
Margie Goatley - ADNR/SHPO, Anchorage*
Andy Hughes – ADOT/PF, Juneau*
Fred Thorsteinson – ADOT/PF, Juneau*
Bob Plumb – ADPS, Juneau*
Leslie Real – Coastal District Coordinator, Ketchikan*
John Hudson – NMFS, Juneau*
Serena Sweet – USACE, Regulatory, Elmendorf AFB/Anchorage*
Chris Meade – USEPA, Juneau*

* = emailed

ALASKA COASTAL MANAGEMENT PROGRAM
FINAL CONSISTENCY DETERMINATION
CONCURRENCE

DATE ISSUED: May 29, 2007

PROJECT TITLE: George Inlet (KGB Water Service)

STATE ID. NO.: AK 0702-06J

NEAREST COASTAL RESOURCE DISTRICT: Ketchikan

APPLICANT/AGENT: Ketchikan Gateway Borough / Ms. Kara Jurzcak

DESCRIPTION PROJECT SUBJECT TO REVIEW:
LOCATION: The proposed project is located within section 2, T. 75 & 76 S., R. 91 E., Copper River Meridian; Latitude 55.300° N., Longitude 131.533° W,; from Herring Bay to Mountain Point, along George Inlet, approximately 6 to 8 miles south of Ketchikan, Alaska.

PURPOSE: The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek which will be treated and piped back to the Herring Cove Service area for consumption. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

WORK: The project consists of installing 2.2 miles of buried water lines from the Mountain Point Water Treatment Plant to the Whitman Lake penstocks at Herring Bay. Two pipes will be buried (one 12-inch diameter raw water pipe and one 8-inch diameter potable water pipe) within a 4-foot wide by approximately 12,420-foot long trench. The pipes run along an existing logging road for 2,400 feet, then are located near future roads and easements within the proposed Morningstar Subdivision for approximately 4,100 feet before converging with South Tongass Highway, which hosts the buried lines for the remaining 6,200 feet to the Whitman Creek dam.

Additional Information: OPMP was informed by the Alaska Department of Transportation that approximately one mile of the proposed water line will be buried in the ADOT right of way next to South Tongass Highway. A Utility Permit is required for this work, and the applicant is advised to acquire this permit from ADOT prior to construction.

To achieve consistency with the standards and policies of the ACMP [11 AAC 112.300], on May 14, 2007 the applicant agreed (see attached Project Amendment form) to incorporate the following State-recommended alternative measures into the final project description:

1. Upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation.

2. Stream banks shall be seeded with a native seed mix containing no fertilizer.

Rationale: Per 11 AAC 112.300(a)(8), these alternative measures are necessary to mitigate significant adverse impacts to (A) natural water flow and (C) natural vegetation within riparian management areas.

SCOPE OF PROJECT TO BE REVIEWED:
The scope of the project subject to this consistency review includes State applications and supporting documents submitted to gain authorizations for this proposed water main installation activity (Fish Habitat Permit and Water Right).

The U.S. Army Corps of Engineers (USACE) issued a letter on January 29, 2007 stating that this project can be authorized by that agency under Nationwide Permit #12 (Project No. POA-2006-1333-D). The Nationwide Permit 12 has previously been reviewed for consistency with the standards of the ACMP. As a result of that prior review the Nationwide Permit 12 was found to be consistent. Therefore, the activities covered under this Department of the Army Nationwide Permit 12 (and described in (i) Utility Lines of this permit as follows: "*The construction, maintenance or repair of utility lines, including outfall and intake structures and the associated excavation, backfill, or bedding for the utility lines, in all waters of the U.S., provided there is no changes in preconstruction contours.*") will be excluded from the scope of this ACMP consistency review.

AUTHORIZATIONS:
The project must be found consistent with the ACMP before the following State authorizations may be issued:

- Department of Natural Resources/Office of Habitat Management and Permitting
  Fish Habitat Permit

- Department of Natural Resources/Division of Mining, Land, and Water
  Water Right LAS# 24055

CONSISTENCY STATEMENT:
Based on an evaluation of your project by the Alaska Department of Natural Resources' Division of Mining, Land and Water and Office of Habitat Management, and the Ketchikan Coastal District, the State of Alaska concurs with the consistency certification submitted and signed by Ms. Kara Jurzcak.

ADVISORIES:
On April 24, 2007 OPMP received the following advisory from the Division of Mining, Land and Water:

"A consistency determination does not obligate the Department of Natural Resources to issue authorization pursuant to Alaska Statute 38, nor does it supersede statutory obligations thereunder. The applicant may not proceed with any site specific land use activity on the subject State lands until so authorized by the Division of Mining, Land and Water. Authorities outside 11 Alaska Administrative Code 112 may result in additional permit conditions not contained in the consistency decision."

State permits. State agencies shall issue permits within five days after OPMP issues the final consistency determination that concurs with the applicant's consistency certification, unless the resource agency considers additional time necessary to fulfill its statutory or regulatory authority.

Please note that, in addition to their consistency review, State agencies with permitting responsibilities will evaluate this proposed project according to their specific permitting authorities. Agencies will issue permits and authorizations only if they find the proposed project complies with their statutes and regulations in addition to being consistent with the coastal program. An agency permit of authorization may be denied even though the State concurs with the ACMP. Authorities outside the ACMP may result in additional permit/lease conditions. If a requirement set out in the project description (per 11 AAC 110.260(f)) is more or less restrictive that a similar requirement in a resource agency authorization, the applicant shall comply with the more restrictive requirement. Applicants may not use any State land or water without ADNR authorization.

This consistency determination is only for the project as described and amended. If, after issuance of this final consistency determination, the applicant proposes any changes to the approved project, including its intended use, prior to or during its siting, construction, or operation, the applicant must contact this office immediately to determine if further review and approval of the modifications to the project is necessary. Changes may require amendments to the State authorizations listed in this determination, or may require additional authorizations.

This final consistency determination represents a consensus between you as the project applicant and the reviewing agencies listed above; regarding the conditions necessary to ensure the proposed project is consistent with the ACMP. We are informing the federal agency responsible for approving a federal authorization for your project that your original proposal has been modified subject to the conditions in this consistency determination.

This final consistency determination is a final order and decision under the ACMP for purposes of Alaska Appellate Rules 601-612. Any appeal from this decision to the superior court of Alaska must be made within 30 days of the date this determination is issued.

If the proposed activities reveal cultural or paleontological resources, the applicant is to stop any work that would disturb such resources and immediately contact the State Historic Preservation Office (907-269-8720) and the U.S. Army Corps of Engineers (907-753-2712) so that consultation per section 106 of the National Historic Preservation Act may proceed.

FINAL CONSISTENCY DETERMINATION PREPARED BY:

Sadie Wright – ACMP Project Specialist
Department of Natural Resources
Alaska Coastal Management Program
P.O. Box 111030, Juneau, Alaska 99811-1030
(907) 465-8791

Sadie Wright

ACMP CONSISTENCY EVALUATION
George Inlet (KGB Water Service) – AK 0702-06J

Pursuant to the following evaluation, the project as proposed is consistent with applicable ACMP statewide and affected coastal resource district enforceable policies (copies of the policies are available on the ACMP web site at http://www.alaskacoast.state.ak.us).

STATEWIDE STANDARDS
11 AAC 112.200 Coastal Development
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.210 Natural Hazard Areas
Evaluation: The State and coastal district did not identify any natural hazard areas at this site. This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.220 Coastal Access
Evaluation: This project does not prevent coastal access therefore the project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.230 Energy Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.240 Utility Routes and Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.250 Timber Harvest and Processing
Evaluation: This standard does not apply to the project as proposed.
11 AAC 112.260 Sand and Gravel Extraction
Evaluation: This project as proposed, described, and amended meets the intent of this standard
11 AAC 112.270 Subsistence
Evaluation: The State and coastal district did not identify any subsistence areas at this site. This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.280 Transportation Routes and Facilities
Evaluation: This project as proposed, described, and amended meets the intent of this standard.
11 AAC 112.300 Habitats
Evaluation: Pursuant to 11 AAC 112.300(1), OHMP objects to the consistency certification with the ACMP as proposed. Contrary to the Rivers, Streams and Lakes Habitat Standard, excavation of the streambed of Herring Cove Creek and the installation of the rock dam and culvert will change the natural water flow of the stream. In addition, natural vegetation will be removed from within 100 feet of either side of the stream. However, OHMP would agree with the applicant's certification that this project is consistent with the ACMP if the following alternative measures are incorporated into the project description: 1. Upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient

and elevation.

2. Stream banks will be seeded with a native seed mix containing no fertilizer.

The applicant has agreed to these alternative measures (see attached Project Amendment Form), so the project as proposed, described, and amended meets the intent of this standard.

11 AAC 112.310 Air, Land & Water Quality

Evaluation: The ADEC statutes and regulations with respect to air, land and water quality are no longer incorporated into the coordinated ACMP consistency reviews. The issuance of an ADEC authorization constitutes consistency with the ACMP for the authorized activity and this standard. Consistency with this standard will be established when the ADEC issues or waives the required authorizations.

11 AAC 112.320 Historic, Prehistoric, and Archaeological Resources

Evaluation: The District and the State did not identify the proposed project location as an area which is important to the study, understanding, or illustration of national, state, or local history or prehistory. The consistency determination advises the applicant to contact ADNR/SHPO and the U.S. Army Corps of Engineers and the Alaska State Troopers should a site of cultural or historical significance be suspected or revealed and to stop any work that would disturb any resources. Therefore this project, as proposed, described, and amended meets the intent of this standard.

AFFECTED COASTAL RESOURCE DISTRICT ENFORCEABLE POLICIES

Ketchikan Coastal District:

On April 27, 2007 OPMP received the following evaluation from the Ketchikan Gateway Borough Coastal District coordinator:

Evaluation:

"**Purpose**: The purpose of the pipelines is to supply supplemental water to the Mountain Point Water Treatment Plant with raw water from Whitman Creek which will be treated and piped back to the Herring Cove Service area for consumption. Herring Cove currently has a notice of violation and a continual boil water notice as they currently do not have a water treatment plant.

Overall Findings: The Ketchikan Coastal District finds this project consistent with its enforceable policies, applicable Statewide Standards, as well as the Borough Code of Ordinances.

The following Ketchikan Coastal District Policies were used to review the Ketchikan Gateway Borough's waterline proposal.

Objective D.1. *To protect the quantity and quality of existing and future community water supplies and to provide for adequate sewage disposal systems.*

Policy D.1.b. *The Borough and the Alaska Department of Environmental Conservation shall develop short and long-range water supply and sewage disposal alternatives for the Ketchikan area.

Ketchikan Gateway Borough will defer to ADF&G to make the determination if anadromous streams, sport and subsistence areas will be adversely affected by the installation and operation of a water main."

Post-it® Fax Note 7671	Date 5/14	# of pages ▶ 1
To Sadie	From Kara	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

PROJECT AMENDMENT

I have reviewed the proposed State comments and recommendations for the project identified as **"George Inlet (KGB Water Service)"**, State ID No. **AK 0702-06J**, to achieve consistency with the standards and policies of the ACMP and agree to amend my project description to (check one):

X fully incorporate all of the alternative measures described therein;

___ propose additional modifications to achieve consistency with the enforceable policies of the ACMP; or to

___ incorporate some of the alternative measures and also propose additional modifications. Any additional modifications are described in a separate document. I understand that the option of proposing additional modifications may result in additional state review.

[signature] (Applicant/Agent name)

5/14/07 (Date)

Please fax the signed and dated form to Sadie Wright at OPMP at 465-3075 as soon as possible to enable OPMP/ACMP to issue your project's proposed and final ACMP consistency determinations.

Alaska Department of Fish & Game

ADFG no longer issues permits for civil projects. The duties of permitting have been shifted to the Department of Natural Resources.

Point of contact:

Brian Glynn
Management Biologist
Alaska Department of Fish and Game
1255 West 8th Street
P.O. Box 115525
Juneau, Alaska 99811-5526
(907) 465-4320

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

July 24, 2007

Joe Donohue
Project Review Supervisor
Office of Project Management and Permitting
Alaska Coastal Management Program
Alaska Dept. of Natural Resources
PO Box 111030
Juneau, Alaska 99801-0030

Subject: Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Mr. Donohue:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Per the letter dated June 1, 2007 regarding Fish Habitat Permit FH07-VII-0017, the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. To avoid sensitive fish life stages, all work conducted below ordinary high water in Herring cove Creek shall occur only between November 1 and June 1.

2. Upon completion of the project, all materials associated with the diversion and culvert shall be removed from below the ordinary high water, and the streambed recontoured to its natural gradient and elevation.

Per the ACMP Proposed Consistency Determination Concurrence dated May 22, 2007 the following mitigation efforts shall be written into the contract and subsequently employed by the contractor:

1. If the proposed activities reveal cultural or paleontological resources, the applicant is to stop any work that would disturb such resources and immediately contact the State

Historic Preservation Office and the US Army Corps of Engineers so that consultation per section 106 of the National Historic Preservation Act may proceed.

Sincerely,

R&M ENGINEERING-KETCHIKAN, INC.

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com
907-225-7917 x312

APPENDIX H

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF ENVIRONMENTAL HEALTH
Drinking Water Program
410 Willoughby, Suite 303
P.O. Box 111800
Juneau, AK 99811-1800
http://www.dec.state.ak.us

Telephone: **(907) 465-5333**
Fax: **(907) 465-5362**

carrie_mcmullen@dec.state.ak.us

July 25, 2006

Kara Jurczak
R&M Engineering
355 Carlanna Lake Road, Suite 200
Ketchikan, AK 99901

Dear Ms. Jurczak,

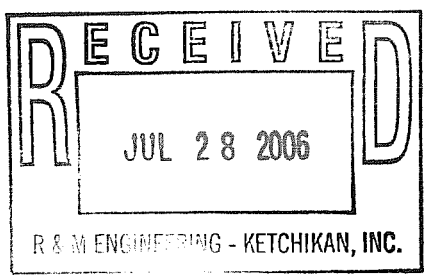
This letter is in response to your request for contact information for the ADEC Drinking Water Program. As the Environmental Program Specialist in the Southeast Office, I am responsible for overseeing the compliance of public water systems in Southeast. David Khan, PE, is the Environmental Engineer in our office and is responsible for conducting plan review for all new water systems, as well as modifications and extension to existing systems. I am currently working with the Ketchikan Gateway Borough regarding compliance issues related to the Herring Bay and Mountain Point Water Systems which will be addressed by the new waterline project. Please feel free to use me as your point of contact for any questions regarding this project in relation to drinking water. You may also contact David Khan to discuss plan review issues, at 465-5317.

Please do not hesitate to contact me at any time.

Sincerely,

Carrie D McMu

Carrie McMullen
Environmental Program Specialist III



Kara Jurczak

From: Khan, David [David_Khan@dec.state.ak.us]
Sent: Tuesday, January 16, 2007 1:35 PM
To: karajurczak@rmketchikan.com
Cc: Garner, Dan; Khan, David
Subject: RE: KGB South Tongass Water_EA Addendum

Hi Kara-

As I understand Dan Garner is lead on this project because this project would involve government monies. I do not wish to speak for Dan and he can add his own comments; however, my comments are as follows:

1): I have no negative comments for change alignment where two pipelines will not be suspended under the Herring Cove Bridge but instead they will be buried through the Herring Cove Creek. While I do not have any negative comments, I am curious to know why Fish Habitat would prefer two water lines through the creek [disturbing the creek bed] over suspending them under the bridge.

2): I have no negative comments for two pipelines that will not be installed down the Powerhouse Road but will continue southbound to Herring Cove Water association. Please elaborate on the reason(s) for change of alignment here – the reason(s) may be obvious but I wish to hear from you.

Extra comments:

a): Please clarify how many feet of the two pipelines would be buried in one single ditch? I have not seen a copy of the trench profile(s). Just to be clear, Drinking Water Program would not be worrying about any separation distance issues between the raw water line and the treated water line when placed in the same ditch. I understand two pipelines will be spaced 4 feet apart.

b): Please explain whether the treated water line ends at the Herring Cove Water Association or it continues any further?

Thank you,
David

From: McMullen, Carrie
Sent: Tuesday, January 16, 2007 8:00 AM
To: Khan, David
Subject: FW: KGB South Tongass Water_EA Addendum

kara Jurczak

From: Garner, Daniel J (DEC) [dan.garner@alaska.gov]
Sent: Monday, December 10, 2007 11:43 AM
To: kara Jurczak
Subject: FW: KGB South Tongass Water_EA Addendum

From: Kara Jurczak [mailto:karajurczak@rmketchikan.com]
Sent: Tuesday, January 16, 2007 4:04 PM
To: Khan, David
Cc: Garner, Dan
Subject: RE: KGB South Tongass Water_EA Addendum

Hi David,

Thanks for your comments. Please see my response below.

I have a question for you:

I am leaving for a 2.5 week vacation next Wednesday and was hoping to send the ADEC review submittals to Dan Garner prior to my departure. However, a topo survey has not yet been done on the new pipe alignment section, thus there is no pipe profile to draw. Is it okay to submit the plans without a profile on 4 sheets? We would be able to send Dan updated sheets as soon as the survey was complete.

Thanks for your help.

Kara Jurczak, E.I.T.
Civil Engineer Jr.
R&M Engineering-Ketchikan, Inc.
(907) 225-7917 x312

From: Khan, David [mailto:David_Khan@dec.state.ak.us]
Sent: Tuesday, January 16, 2007 1:35 PM
To: karajurczak@rmketchikan.com
Cc: Garner, Dan; Khan, David
Subject: RE: KGB South Tongass Water_EA Addendum

Hi Kara-

As I understand Dan Garner is lead on this project because this project would involve government monies. I do not wish to speak for Dan and he can add his own comments; however, my comments are as follows:

1): I have no negative comments for change alignment where two pipelines will not be suspended under the Herring Cove Bridge but instead they will be buried through the Herring Cove Creek. While I do not have any negative comments, I am curious to know why Fish Habitat would prefer two water lines through the creek [disturbing the creek bed] over

suspending them under the bridge.

DOT will not let us suspend the pipes from the bridge. Fish Habitat is okay with burying the pipes through the creek as long as we adhere to the guidelines they sent us.

2): I have no negative comments for two pipelines that will not be installed down the Powerhouse Road but will continue southbound to Herring Cove Water association. Please elaborate on the reason(s) for change of alignment here – the reason(s) may be obvious but I wish to hear from you.

SSRAA will not let us connect to their penstocks unless the Borough buys and installs a new, larger penstock all the way to Whitman Dam. This option is not cost effective for the Borough, thus the new alignment.

Extra comments:

a): Please clarify how many feet of the two pipelines would be buried in one single ditch? I have not seen a copy of the trench profile(s). Just to be clear, Drinking Water Program would not be worrying about any separation distance issues between the raw water line and the treated water line when placed in the same ditch. I understand two pipelines will be spaced 4 feet apart.

The two pipes will be buried side-by-side in one ditch for approximately 2.4 miles. Some sections of the pipe will be buried 4 feet apart and others will be buried 2.5 feet apart.

b): Please explain whether the treated water line ends at the Herring Cove Water Association or it continues any further?

The treated water line ends at the Old South Tongass Hwy ROW, station 202+65. The raw water line then continues to the Whitman Creek dam, which is the intake for the Herring Bay Water Association.

Thank you,
David

From: McMullen, Carrie
Sent: Tuesday, January 16, 2007 8:00 AM
To: Khan, David
Subject: FW: KGB South Tongass Water_EA Addendum

From: Kara Jurczak [mailto:karajurczak@rmketchikan.com]
Sent: Friday, January 12, 2007 9:03 AM
To: Serena Sweet; Mike Jacobson; John Kurland; Judy_Bittner@dnr.state.ak.us; Claire Batac; McMullen, Carrie
Subject: KGB South Tongass Water_EA Addendum

Good morning,

This email is to notify you of the proposed alignment change for the Ketchikan Gateway Borough's South Tongass Water Mains utility improvement project.

In order to complete our request for a Categorical Exclusion (CE) with the USEPA, we must include this addendum to our existing CE. Attached for your review is a revised project description and project plan sheet that shows the changed alignment.

To aid in a timely review process, the following is a summary of the proposed changes:

> The two pipelines will not be suspended under the Herring Cove Bridge; instead they will continue to be buried through the Herring Cove Creek. This action would be conducted in accordance with the National Marine Fisheries Service's Essential Fish Habitat Conservation Recommendations outlined in their December 7, 2006 letter.
>
> The two pipelines will not be installed down Powerhouse Road to the Whitman Lake Hatchery; instead they will continue southbound along South Tongass Highway to the Whitman Creek Dam where the Herring Cove Water Association currently withdrawals water from an existing dam. A new pump station and water storage tank will be built near the dam.

Please respond via email with your agencies views and concerns regarding the proposed project changes. Your response will be submitted to the USEPA as an addendum to our current request for CE. Thank you for your prompt attention to this material.

Sincerely,
R&M Engineering-Ketchikan, Inc.

Kara Jurczak, E.I.T.
Civil Engineer Jr.
(907) 225-7917 x312
karajurczak@rmketchikan.com

R&M ENGINEERING-KETCHIKAN, INC.
ENGINEERS GEOLOGISTS SURVEYORS

355 CARLANNA LAKE ROAD, SUITE 200, KETCHIKAN, ALASKA 99901
PHONE (907) 225-7917 FAX (907) 225-3441 EMAIL:RNMmain@rmketchikan.com

May 4, 2007

Mr. Dan Garner
ADEC Drinking Water Program
410 Willoughby Avenue, Suite 303
Juneau, Alaska 99801

Subject: Notice of Environmental Review and Analysis: South Tongass Water Main – Mountain Point to Herring Cove, Ketchikan, Alaska

Dear Dan:

This letter is a notice only, no response is required.

Due to the projects effects on wetlands and associated regulations by funding agencies, the level of environmental review has been increased to an Environmental Assessment. This change will not alter the scope of the project in any way. The lead funding agency of the project is the US Environmental Protection Agency with assistance from the US Department of Agriculture, who will be producing a joint FONSI and advertisement. If your office has additional concerns regarding this project please provide them to me in email correspondence by August 3rd, 2007.

Sincerely,

R&M ENGINEERING-KETCHIKAN, INC.

Kara R. Jurczak
Civil Engineer, Jr.
karajurczak@rmketchikan.com
907-225-7917 X312

kara Jurczak

From: Fultz, Robert A (DEC) [bob.fultz@alaska.gov]
Sent: Friday, December 07, 2007 11:23 AM
To: kara Jurczak
Subject: Known contaminated sites from Mt. Point to Whitman Creek-Herring Cove

I checked with Bruce Wanstall in Juneau regarding any CS in the areas you have asked for background information. The things Bruce was aware of are:

Port of Saxman
Shoup Street
Ben Fleenors saw mill at Herring Cove (now Rain Forest Sanctuary)
South Tongass Service Station

You may want to talk with Jerry Cegelski at the Borough or South Tongass Fire Department and see if they are aware of anything. I'll look through my spill log book and double check but nothing comes to mind. Let me know if you have any other questions.

Bob

APPENDIX I

TRIBAL CONSULTATION

Ketchikan Indian Community Housing Authority
2960 Tongass Avenue
Ketchikan, Alaska 99901
Phone (907) 228-5218
Fax (907) 228-5286

R&M Engineering
355 CARLANNA LAKE ROAD, SUITE 200
KETCHIKAN, ALASKA 99901

To Whom It May Concern:

The Ketchikan Indian Community has reviewed the following Project: South Tongass Water Main – Mountain Point to Whitman Creek and finds the project has no significant impact to tribal interests.

Regards,

Richard Jackson

Richard Jackson
KIC Tribal President.

kara Jurczak

From: Kelly Ludwig-Johnson [cityadmin@kpunet.net]
Sent: Friday, December 07, 2007 1:37 PM
To: karajurczak@rmketchikan.com
Subject: Water line project

To: R&M Engineering

From: City of Saxman

Re: Water Line Project

The installation of water lines from Mountain Point to Herring Cove does not cross any tribal lands, therefore the City of Saxman has no objections to this project.

Kelly Ludwig-Johnson
City Administrator

South Tongass Water Main
Mountain Point to Whitman Creek
Environmental Assessment Errata Sheet
1/15/08

Chapter	Page #	Description
3	9	Table 2 should omit invasive species as a Critical Element Dismissed From Discussion. Invasive species are discussed in Section 3.13 and Table 3.

Public Meeting:

South Tongass Phase VI: Ravenwood Booster Station & Storage Tank minutes of public meeting held October 7, 2020 & Attendance log sheet

KETCHIKAN GATEWAY BOROUGH

1900 FIRST AVENUE, SUITE 219, KETCHIKAN, ALASKA 99901
● TELEPHONE: (907) 228-6670 ● FAX (907) 228-6684
PUBLIC WORKS DEPARTMENT

SUBJECT: South Tongass Water Main Phase VI: Ravenwood Tank
Public Meeting
LOCATION: South Tongass Fire Station upstairs – 5690 Roosevelt Drive
DATE/TIME: October 7, 2020, 5:30 pm

STAFF: Morgan K. Barry – Deputy Director of Public Works: Presenter/Project Manager
Steve Rydeen – S. Tongass Fire Chief

Attendee	**Comment**
Lyle Lundberg	Checking on extension of water line along S. Tongass, it's 200' from our house now.
Linda K. Randall	Chair STSA
Jena Arntzen	Board STSA
Roberta Shields	Pump Station Site/Water
Bill Bolling	STSA Member
Dan Christensen	STSA Member
Dennis Spurgeon	STSA
Andy Rauwolf	STSA Board

Meeting Notes:
The presentation consisted of an overview of the project, proposed locations, discussion of project necessity and funding requirements.

Public Comment:
Discussion of elevation in relation to surrounding neighborhood. With top of tank at 368', it was noted that uppermost elevations of Ravenwood would be served by the system, and that the elevation of the tank would be considerably above that at the highest elevations of the lands above the OceansAlaska parcel. [Follow Up: Borough mapping indicates that the approximate max elevation of Ravenwood is at 368' and the approximate max buildable elevation is at 310'; and the max elevation above OceansAlaska is at 244' with the buildable area at lower elevations.]

Discussion of property ownership and project intent at the time the mains were being proposed and how they were constructed, relative to the intent to use the property in Ravenwood for the water storage tank. Further, that the developer should have been required to install the water mains in the first place, should have to provide the water tank, and if water availability is an issue, new construction should be restricted.
Staff explained that, in relation to the needed elevations, the proposed location met the Borough's needs, in that it was a high enough elevation to in close proximity to existing water mains and valves. Relative to restricting construction, it was noted that remaining lots are

KETCHIKAN GATEWAY BOROUGH
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PUBLIC WORKS DEPARTMENT

largely located below the elevation of the existing construction throughout Ravenwood, and, even then, it would be a question whether that was legally enforceable.

Discussion on main extensions into other areas (e.g. South Tongass near Hole-in-the-Wall). Staff explained that this project is for the water tank and not for any additional projects. With the exception of a possible loop down to Romine Drive, any project from here on out would need to be coordinated with other capital needs and would be determined through capital programming processes. Staff further explained the fashion in which mains extensions are performed, and how utility hookup permits are issued.

Discussion on the booster station and the extent to which it will make noise in relation to the surrounding properties. Staff to review with engineers.

A recommendation was made to secure easements for each water service installed in Phases I-II for the properties along South Tongass Highway. It was acknowledged that services were installed to support those properties. Staff to review.

MEETING SIGN-IN SHEET

Project:	S Tongass Phase VI – Ravenwood Tank	**Meeting Date:**	October 7, 2020
Facilitator:	Morgan K. Barry	**Place/Room:**	S. Tongass Fire Station - Upstairs

Name	COMMENTS
Lyle Lundberg	Checking on extension of the waterline along S. Tongass- It's 200' ft from my house 1040-
LK Randall	Chair STSA
Jeni Arntzen	Board STSA
Roberta Shields	Pump Station Site / Water
Bill Belling	STSA Member
Dan Christensen	STSA MEMBER.
Dennis Spurgeon	STSA
Andy Rauwolf	STSA BOARD

azardous radiation l

At the end of the process, the entire creation will be one whole piece.

Orozco hopes that patrons of the Main Street Gallery recognize all the time that goes into creating a piece.

"When people look at it, they see, 'Wow, there's a lot of patience, you have to have a lot of patience to sit and cut and cut and cut,'" Orozco said.

She added, "I think just the intricacy, the delicacy of it, will be really

PUBLIC NOTICE

South Tongass Water Phase VI

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Kuwait's Sheikh Sabah dies at 91

By JON GAMBRELL
and ADAM SCHRECK
Associated Press

DUBAI, United Arab Emirates — Sheikh Sabah Al Ahmad Al Sabah, the ruler of Kuwait who drew on his decades as the oil-rich nation's top diplomat to push for closer ties to Iraq after the 1990 Gulf War and solutions to other regional crises, died Tuesday. He was 91.

In a Middle East replete with elderly rulers, Sheikh Sabah stood out for his efforts at pushing for diplomacy to resolve a bitter dispute between Qatar and other Arab nations that continues to this day.

His 2006 ascension in Kuwait, a staunch U.S. ally since the American-led war that expelled occupying Iraqi troops, came after parliament voted unanimously to oust his predecessor, the ailing Sheikh Saad Al Abdullah Al Sabah, just nine days into his rule.

Yet as Kuwait's ruling emir, he struggled with internal political disputes, the fallout of the 2011 Arab Spring protests and seesawing crude oil prices that chewed into a national budget providing cradle-to-grave subsidies.

"He represents the older generation of Gulf leaders who valued discretion and moderation and the importance of personal ties amongst fellow monarchs," said Kristin Diwan, a senior resident scholar at the Arab Gulf States Institute in Washington who studies Kuwait. "No question he has suffered from the lack of deference and respect shown by the younger and more brash young princes holding power today."

State television announced his death after playing Quranic prayers, with Royal Court Minister Sheikh Ali Jarrah Al Sabah reading a brief statement, his hands shaking.

"With great sadness and sorrow, the Kuwaiti people, the Arab and Islamic nations, and the friendly peoples of the world mourn the death of the late His Highness Sheikh Sabah Al Ahmad Al Jaber Al Sabah, emir of the state of Kuwait who moved to the realm of the Lord," the sheikh said, without offering a cause of death.

Kuwait's Cabinet later announced that Sheikh Sabah had been succeeded by his half brother, the crown prince Sheikh Nawaf Al Ahmad Al Sabah.

The high regard for Sheikh Sabah could be seen in the outpouring of support for him across the Mideast as he suddenly fell ill in July 2020, leading to a quick hospitalization and surgery in Kuwait City amid the ongoing coronavirus pandemic. Authorities did not say what ailed him.

Prince named Kuwait's ruling emir

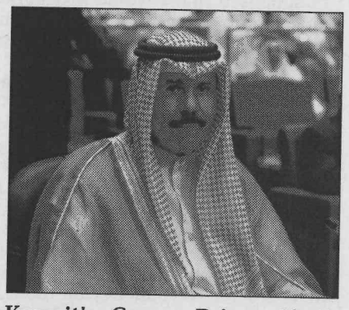
By JON GAMBRELL
Associated Press

DUBAI, United Arab Emirates — Kuwait's Crown Prince Sheikh Nawaf Al Ahmad Al Sabah became the oil-rich nation's new ruling emir Tuesday night, reaching the highest post in the country after decades in its security services.

Sheikh Nawaf, 83, had served as the crown prince since 2006, jumping a traditional order of alternating rule between the Al Jaber and the Al Salim branches of the country's ruling family.

While his taking of the throne came as prescribed by Kuwait's constitution, there likely will be negotiations behind the scenes in the weeks ahead over who will become the country's next crown prince.

Those discussions likely will take time as Kuwait mourns its late ruler, Sheikh Sabah Al Ahmad Al Sabah, who died Tuesday at the age of 91, and weighs who best represents a country that had carefully positioned itself amid regional rivalries.



Kuwait's Crown Prince Sheik Nawaf Al-Ahmad Al-Jaber Al-Sabah attends the closing session of the 25th Arab Summit in Bayan Palace on March 26, 2014, in Kuwait City.

AP Photo/Nasser Waggi, File

Sheikh Nawaf "may provide a welcome respite of unity in transition," wrote Kristin Smith Diwan, a scholar at the Arab Gulf States Institute in Washington. "Yet, 83 years old and without any clear national program, his reign is unlikely to deter the sharp competition already underway to claim the title of his successor."

State television carried an address by Anas Khalid al-Saleh, Kuwait's interior minister and deputy prime minister, announcing Sheikh Nawaf had taken the position just hours after Sheikh Sabah's death.

Sheikh Nawaf, like his half-brother Sheikh Sabah, was born before Kuwait discovered the oil that would make this small nation among the richest in the world. Born June 25, 1937, Sheikh Nawaf became a governor of Kuwait's Hawalli region and later the country's interior minister, a position he held for nearly a decade.

As interior minister, Sheikh Nawaf negotiated in 1980 with two Jordanians who hijacked a Boeing 727 heading from Beirut to Kuwait City. The hijackers ultimately gave up the plane without harming any passengers on board. Sheikh Nawaf negotiated in other hijackings as well.

Kuwait separately faced militant bombings during his time as interior minister, which authorities blamed on Iran.

Sheikh Nawaf served as Kuwait's defense minister beginning in 1988. He'd be in the role in 1990, when Iraqi dictator Saddam Hussein invaded Kuwait and occupied the nation for seven months.

"Our citizens inside Kuwait are disobeying orders and not following instructions and they are being mistreated," Sheikh Nawaf said at the time.

On Feb. 24, 1991, U.S. troops and their allies stormed into Kuwait. It ended 100 hours later. America suffered only 148 combat deaths during the whole campaign, while over 20,000 Iraqi soldiers were killed.

Sheikh Nawaf briefly served as social affairs and labor minister after the war, then as the deputy chief of Kuwait's National Guard and again as interior minister. He became the crown prince under Sheikh Sabah in February 2006.

UN, women: Still too low on agenda

UNITED NATIONS (AP) — Addressing the U.N. General Assembly last week, Bangladeshi Prime Minister Sheikh Hasina noted a milestone: the 25th anniversary of the Beijing women's conference that produced a global roadmap for gender equality and a ringing rallying cry that became part of the

female empowerment plan, women's rights were a steady thread but hardly a top theme of leaders' remarks at the world body's signature assembly.

Some leaders took time to recall the 1995 conference, detail domestic initiatives or lament that progress toward female equality is lagging or even

"If the General Assembly statements are a kind of snapshot into what the world is prioritizing at the moment ... this is too low down on the agenda," says Rachel Vogelstein, who runs the Council on Foreign Relations' Women and Foreign Policy Pro-

PUBLIC NOTICE

South Tongass Water Phase VI

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CA nears 4 million burned acres

By OLGA R. RODRIGUEZ
Associated Press

SAN FRANCISCO — California is poised to hit a fearsome milestone: 4 million acres (1.6 million hectares) burned this year by wildfires that have killed 31 people and incinerated hundreds of homes in what is already the worst fire season on record.

Flames have scorched an area larger than Connecticut. Fire crews at a blaze in the wine country north of San Francisco were on high alert Friday as forecasters warned of extreme fire danger into Saturday.

Powerful winds didn't materialize early Friday, allowing fire crews a chance to make gains. But winds up to 30 mph (48 kph) were forecast to push through the hills of Napa and Sonoma counties as the Glass Fire, which exploded in size earlier in the week, threatens more than 28,000 homes and other buildings.

"So far we have not seen the velocity of the winds that we were expecting," Cal Fire Battalion Chief Mark Brunton said. "But there will be gusts and ... we do have hot embers and it won't take much to take that and blow it into a very dry receptive fuel bed. That gives us cause for concern."

Winds were blowing at higher elevations on the western side of the fire. Crews expected a long battle to keep flames from jumping containment lines and to prevent spot fires from leaping ahead to spark new blazes.

A firefighter battles the Glass Fire burning in a Calistoga, Calif., vineyard Thursday.
AP Photo/Noah Berger

More crews and equipment were deployed in and around Calistoga, a town of 5,000 people known for hot springs, mud baths and wineries in the hills of Napa County about 70 miles (110 kilometers) north of San Francisco.

The area was also experiencing high temperatures and thick smoke that fouled the air throughout the San Francisco Bay Area.

Numerous studies have linked bigger wildfires in America to climate change from the burning of coal, oil and gas. Scientists say climate change has made California much drier, meaning trees and other plants are more flammable.

The Glass Fire is the fourth major blaze in the region in three years and comes ahead of the third anniversary of an Oct. 8, 2017, wildfire that killed 22 people.

Around the state, 17,000 firefighters were battling nearly two dozen major blazes.

Virtually all the damage has occurred since mid-August, when five of the six largest fires in state history erupted. Lightning strikes caused some of the most devastating blazes.

Cal Fire Deputy Chief Jonathan Cox said wildfires have scorched 3.9 million acres in California since Aug. 15. That figure, which works out to more than 6,000 square miles (15,500 square kilometers), is astonishing even in a state that has had its fair share of fires.

"We're at a historic moment where we are going to cross the 4 million acres burned mark in California this year," Cox said. "And unfortunately, we're just getting into some of the most critical fire months in California."

The death toll increased to 31 people after a person burned in the LNU Lightning Complex died from their injuries, Cal Fire said in a statement. That cluster of fires sparked by lightning in mid-August in the San Francisco Bay Area was fully contained Thursday.

Sexual harassment cases increase

Inspector general cites 63% jump at State Department

By MATTHEW LEE
AP Diplomatic Writer

WASHINGTON — The State Department's internal watchdog says there was a 63% surge in sexual harassment complaints at the agency between 2014 and 2017 but that the frequency of incidents is likely higher.

In a report released on Friday, the department's inspector general said there had been 636 reports of sexual harassment over that period, encompassing the end of the Obama administration and the beginning of the Trump administration, but that the number is almost certainly low due to alleged victims' unwillingness to report all cases.

The finding comes amid more general concerns and complaints of poor morale at the department is likely still underreported at the department," it said. A random survey of employees found that 47% of those who said they had experienced or observed workplace sexual harassment within the past two years had not reported it, according to the report.

The report said that a lack of confidence among employees that their complaints would be taken seriously or acted upon was most likely to blame for such underreporting despite efforts to improve the situation.

"Reasons for this include a lack of confidence in the department's ability to resolve sexual harassment complaints, fear of retaliation, reluctance to discuss the harassment, lack of understanding of the reporting process, and, in some cases, specific ad-

world," the department said.

The report said State Department officials had taken some steps to address the problem, including mandating that employees take a course on sexual harassment awareness, they had yet to require supervisors to report incidents to higher-ups, something the inspector general had recommended in a previous report in 2014.

It also faulted the lack until recently of a timeliness standard for handling complaints. A review of 20 complaints found that the average time to complete an investigation was 21 months, with one case taking more than four years, possibly contributing to the problem.

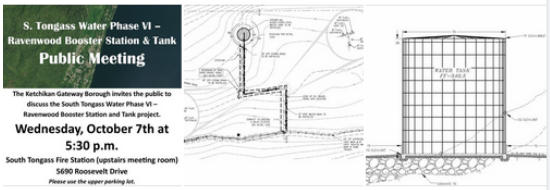
In addition, inconsistency in the disciplinary process for offenders may contribute to the prob-

Ketchikan Gateway Borough
23h ·

The Ketchikan Gateway Borough is inviting the public to discuss the South Tongass Water Phase VI – Ravenwood Booster Station and Tank project at the next regular meeting of the South Tongass Service Area at 5:30 pm, Wednesday, October 7, 2020, in the upstairs meeting room at the South Tongass Fire Station, 5690 Roosevelt Drive. Please use the upper parking lot.

The Ketchikan Gateway Borough – South Tongass Water Utility, in cooperation with the Alaska Department of Environmental Conservation, is proposing to construct a booster station and 100,000 gallon water tank in the Ravenwood subdivision to provide improve operating pressures and fire flow throughout the Ravenwood and Herring Cove areas. Funding is proposed to be from the U.S. Department of Commerce Economic Development Agency matched by loan funding through the Alaska Drinking Water Fund.

The public meeting will consist of a brief presentation and overview on the proposed project, design, and environmental planning. Opportunity will be provided for public comment. The regular meeting of the South Tongass Service Area Board will convene thereafter.
The public is encouraged to submit scoping comments and information by Friday, November 6, 2020.
To submit comments or for more information: contact the Public Works Department for the Ketchikan Gateway Borough at publicworks@kgbak.us, or at (907) 228-6670.
The State of Alaska, Department of Environmental Conservation requires compliance with Title II of the Americans with Disabilities Act of 1990. Individuals experiencing disabilities who may need a special accommodation to participate in the public process may contact the Public Works Department by Monday, October 5, 2020 to make arrangements.



1 2 Shares

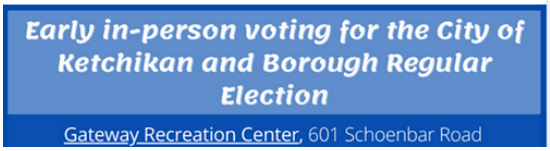
Like Comment Share

Write a comment...

Ketchikan Gateway Borough
Yesterday at 7:02 AM ·

Early in-person voting for the October 6, 2020, City of Ketchikan and Borough Regular Election is open September 21st – October 5th at the Gateway Recreation Center, 601 Schoenbar Road, Monday – Friday, 8:00 a.m. – 5:00 p.m.

Please note that this is a change from prior years. Previously, absentee-in-person voting has been available at the Borough and City Clerks' offices. This year, for the convenience of the voters and to allow for additional social distancing during the CO... See More



Snapshot taken September 29, 2020 at 9:19 am

U.S. Fish and Wildlife Service:

Correspondence regarding presence of Eagle Trees in proximity to project area.

Morgan Barry

From: Boldenow, Megan L <megan_boldenow@fws.gov>
Sent: Tuesday, December 08, 2020 11:57 AM
To: Morgan Barry
Cc: Cooper, Douglass
Subject: RE: [EXTERNAL] USFWS - Eagle Tree Locations

Hi, Morgan.

Looks like I had a copy error too! For your records, please note peak eagle nesting season in Alaska is March 1- August 31, and blasting within a ½ mile of any eagle nest should be restricted to outside this window.

Please let me know if we need to recheck our nest catalogue with your corrected site 2 coordinates, as I have not compared the distance between the coordinates you first provided and these. We do suggest having the project area surveyed well in advance of your work, to prevent any surprises related to eagles nesting. The permitting process for eagle nest take and eagle take does not have a fast turnaround, and I am guessing you won't have a lot of alternate locations to choose from. I'm not sure what the timeframe for the work is. Typically we would recommend surveying in the spring before the work takes place, so that nest status (in-use/active versus alternate) can be determined.

Thanks, Morgan! Please let me know if you have any questions or need further guidance.

Best,

Megan

From: Morgan Barry <morganb@kgbak.us>
Sent: Tuesday, December 8, 2020 11:41 AM
To: Boldenow, Megan L <megan_boldenow@fws.gov>
Cc: Cooper, Douglass <douglass_cooper@fws.gov>
Subject: RE: [EXTERNAL] USFWS - Eagle Tree Locations

Dear Ms. Boldenow,

Thank you for the response. I believe I had an error in exporting the location of our work:
Per Google Earth, Site 2 appears to be at 55.313735, -131.526501.

Given the accuracy of Site 1, I can only attribute this as a mistake on my part.

The distance to Eagle Trees 076 and 119 appear to be approximately 3,828-feet distant, or in excess of one half mile.

Nonetheless, your point remains that any blasting within ½-mile of a nesting tree – whether identified herein or at a later date – is restricted to performance outside the dates March 31 – August 30, along with all other mitigation measures contained herein.

Morgan

Morgan K. Barry
Deputy Director
Public Works Department

Ketchikan Gateway Borough
Office: (907) 228-6664
morganb@kgbak.us
1900 First Ave. Ste. 219
Ketchikan, AK 99901

From: Boldenow, Megan L <megan_boldenow@fws.gov>
Sent: Friday, November 20, 2020 12:43 PM
To: Morgan Barry <morganb@kgbak.us>
Cc: Cooper, Douglass <douglass_cooper@fws.gov>
Subject: RE: [EXTERNAL] USFWS - Eagle Tree Locations

Dear Mr. Barry,

Thank you for reaching out to us regarding known, historic locations of bald eagle nests near your proposed project in the South Tongass. One of our eagle experts took a look at the coordinates you provided and gave me an updated list, based on nest surveys conducted in 2016 (coordinates below).

It is important to note the Bald and Golden Eagle Protection Act (or BGEPA) applies to **any** nest in the area, regardless of whether it is currently documented in the eagle nest catalogue. The BGEPA prevents take of eagles, their parts, nests, and eggs either directly (such as by removing a nest) or indirectly (such as by disturbance of nesting eagles without a permit). Therefore, to prevent unlawful take under the BGEPA, the U.S. Fish and Wildlife Service typically recommends project proponents conduct eagle nest surveys in advance of project activities, using a qualified biologist. These surveys typically take place in early spring, when both nest location and nest status (i.e. in-use versus alternate) can be determined.

Nests (lat, long, WGS84) identified during 2016 survey:

02.13725.021 (55.297520, -131.533480)
02.13725.076 (55.323550, -131.527370)
02.13725.119 (55.323660, -131.527630)

Nest 02.13725.077 was not found during these surveys, although it may still be present.

I have attached a Google Earth image that our eagle biologist also provided, showing your project sites and the 3 nests identified above. Please be aware that your proposed Site 2 is within 0.5 miles of known nests 076 and 119.

- As you noted, the Service does not recommend blasting within 0.5 miles of eagle nests during the breeding season. In Alaska, the peak nesting season for eagles is March 31 – August 30, although nest building can take place as early as January and young can fledge into September. We therefore recommend that you plan for blasting before March 1 or after August 31, when eagles are less likely to be nesting.

In addition, we suggest you consider the following voluntary measures as you plan for your project. These measures would confer benefits to eagles, including by minimizing the potential for visual and noise disturbance to nesting pairs.

- At a minimum, establish a landscape buffer that provides 330 feet (100 meters) of natural, forested vegetation or other shielding, topographic features between the project activity and eagle nest sites. This recommendation applies to both in-use nests and any alternate nests.
- Maintain the landscape buffer. Do not clear or construct within this buffer, and minimize other activities that could cause habitat degradation within the buffer, regardless of whether eagles are present at the time of the activity.
- Limit human activity near the nest site during the nesting season, including motorized and non-motorized entry. We recommend maintaining a distance buffer of at least 660 feet (200 meters) between all your activities and the nest. This applies to both in-use and alternate nests.
- In particular, if clearing, external construction, and other landscape altering activities must take place within 660 feet (200 meters) of a bald eagle nest, we suggest restricting these activities to outside the nesting season.

If you are unable to conduct your work outside the eagle nesting season or implement the recommended spatial buffers around eagles nests, or if you become aware of a roosting or foraging site that may be affected by your project, you may need an incidental Eagle Take Permit. Please visit our eagle permits page for more information on permits and permit applications, and feel free to reach out to us for technical assistance regarding project-specific measures to avoid and minimize impacts to eagles.

If you have further questions or need additional information, please contact Ms. Megan Boldenow at (907) 271-3063 or megan_boldenow@fws.gov.

Kind regards,

Megan Boldenow
Fish and Wildlife Biologist
(she, her, hers)

Anchorage Fish and Wildlife Conservation Office
U.S. Fish and Wildlife Service
907.271.3063

From: Morgan Barry <morganb@kgbak.us>
Sent: Thursday, October 29, 2020 12:15 PM
To: Fisheries Comment, FW7 <ak_fisheries@fws.gov>
Cc: Cooper, Douglass <douglass_cooper@fws.gov>; bob_henzey@fws.gov
Subject: [EXTERNAL] USFWS - Eagle Tree Locations

Good afternoon,

I am working on a project in the South Tongass region of the Ketchikan Gateway Borough, and I am trying to verify the location of identified eagle nesting and roosting trees.

The project will take place on two sites:
Site 1: 55.305611, -131.531087
Site 2: 55.31852, -131.527289

(Coordinates drawn from Google Maps, so they may be subject to inaccuracies)

I am aware of eagle nests # 21, 77, 76 and 119 in proximity to the project areas as of 2009, but the nearest nest (#77) is 1,387-lf from Site 1, and 1,800-lf from Site 2. Only Site 2 will include blasting: Site 1 is already leveled.

Also, per the Eagle Permits site at https://www.fws.gov/alaska/pages/migratory-birds/eagles-other-raptors/eagle-permits, it appears that activities within 660 feet of an active nest should be avoided, and avoid blasting within a half-mile.

Can you please confirm whether there are any other identified eagle nests in the area, or if the local eagle nests have changed? Thank you,

Morgan
Morgan K. Barry
Deputy Director
Public Works Department
Ketchikan Gateway Borough
Office: (907) 228-6664
morganb@kgbak.us
1900 First Ave. Ste. 219
Ketchikan, AK 99901

Ktn Area Bald Eagle Nests

Write a description for your map.

Legend

- BAEA Nests
- Site

02.13725.076

02.13725.119

Site 2

Site 1

02.13725.021

Google Earth

Image © 2020 CNES / Airbus

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Image © 2020 Maxar Technologies

N

5000 ft