

MATANUSKA-SUSITNA BOROUGH Fish & Wildlife Commission

350 E Dahlia Ave., Palmer, Alaska 99645

CHAIRPERSON

Andy Couch

VICE CHAIR

Peter Probasco

MSB STAFF

Maija DiSalvo



BOARD MEMBERS

Howard Delo

Larry Engel

Tim Hale

Gabe Kitter

Bill Gamble

Kendra Zamzow

Ex officio: Jim Sykes

Regular Meeting

March 21, 2024

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Physical Location of Meeting: Assembly Chambers, DSJ Bldg, 350 E. Dahlia Ave., Palmer

Remote Participation: See attached agenda on p. 1

Planning and Land Use Department - Planning Division

<http://www.matsugov.us> • planning@matsugov.us

**MATANUSKA-SUSITNA BOROUGH
MSB Fish and Wildlife Commission
AGENDA**

Edna Devries, Mayor

Andy Couch – Chair
Peter Probasco – Vice Chair
Gabriel Kitter
Howard Delo
Larry Engel
Tim Hale
Bill Gamble
Kendra Zamzow
Jim Sykes – Ex officio member

Maija DiSalvo – Staff



Michael Brown, Borough Manager

PLANNING & LAND USE DEPARTMENT
Alex Strawn, Planning & Land Use Director
Kim Sollien, Planning Services Manager
Jason Ortiz, Development Services Manager
Fred Wagner, Platting Officer

*Assembly Chambers
Dorothy Swanda Jones Building
350 E. Dahlia Avenue, Palmer*

**March 21, 2024
REGULAR MEETING
4:00 p.m.**

Ways to participate in MSB Fish and Wildlife Commission meetings:

IN-PERSON: Assembly Chambers, DSJ Building

REMOTE PARTICIPATION VIA MICROSOFT TEAMS:

Join on your computer:

[Click here to join the meeting](#)

Meeting ID: 277 431 773 619

Passcode: f7EJHv

Or call in (audio only):

1-907-290-7880

Phone Conference ID: 197 471 227#

- I. CALL TO ORDER
- II. ROLL CALL – DETERMINATION OF QUORUM
- III. LAND ACKNOWLEDGEMENT

"We acknowledge that we are meeting on traditional lands of the Dena'ina and Ahtna Dene people, and we are grateful for their continued stewardship of the land, fish, and wildlife throughout time immemorial."
- IV. PLEDGE OF ALLEGIANCE
- V. APPROVAL OF AGENDA
- VI. APPROVAL OF MINUTES

- A. January 11, 2024, Regular Meeting Minutes
- B. January 30, 2024, Special Meeting Minutes
- C. February 5, 2024, Special Meeting Minutes

VII. AUDIENCE PARTICIPATION (*three minutes per person*)

VIII. STAFF/AGENCY REPORTS & PRESENTATIONS

- A. Staff Report
- B. Chair's Report
- C. Waterbody Setback Advisory Board
- D. Pike in Upper Cook Inlet – Parker Bradley, ADF&G

IX. UNFINISHED BUSINESS

- A. Board of Fisheries Meeting Recap
- B. State Legislative Support for Weir/Scientific Study Funding
- C. NOAA/NPFMC Updates
- D. ADF&G Game Season Summary Special Meeting
- E. NOAA Fish Habitat & Recreational Fisheries Grant
- F. [Susitna Basin Recreational Rivers Plan Update](#)
- G. Beaver Meadows Subdivision

X. NEW BUSINESS

- A. Mat-Su Salmon Habitat Partnership – MSB FWC Seat
- B. Seldon Corridor Moose Safety Lights
- C. Board of Fisheries Appointment Recommendations
- D. 2025 Board of Game
- E. MSB Resolution 24-031
- F. [Alaska House Bill 169](#)

XI. MEMBER COMMENTS

XII. NEXT MEETING DATE: Thursday, April 11, 2024 @ 4:00 pm – Assembly Chambers

XIII. ADJOURNMENT

Disabled persons needing reasonable accommodation in order to participate at a MSB Fish and Wildlife Commission Meeting should contact the borough ADA Coordinator at 861-8432 at least one week in advance of the meeting.

**MATANUSKA-SUSITNA BOROUGH
MSB Fish and Wildlife Commission
Regular Meeting: January 11, 2024
MINUTES**

I. CALL TO ORDER

Chair Andy Couch called the meeting to order at 4:00 pm.

II. ROLL CALL – DETERMINATION OF QUORUM

Present:

Andy Couch (AC)
Peter Probasco (PP)
Gabe Kitter (GK)
Howard Delo (HD)
Bill Gamble (BG)
Kendra Zamzow (KZ)
Jim Sykes (JS)
Larry Engel (LE) – Arrived at 4:04 pm

Absent:

Tim Hale

A quorum was established.

III. LAND ACKNOWLEDGEMENT

Land acknowledgement was read by Andy Couch:

"We acknowledge that we are meeting on traditional lands of the Dene people, and we are grateful for their continued stewardship of the land, fish, and wildlife throughout time immemorial."

IV. APPROVAL OF AGENDA

**HD moved to approve the agenda, seconded by BG
Motion passed unanimously.**

V. PLEDGE OF ALLEGIANCE

VI. APPROVAL OF MINUTES

A. November 16, 2023, Regular Meeting

**HD moved to approve the November 16th minutes, seconded by PP
Amendment: p. 6 – added text, "while opening up time for drifters"
Motion passed unanimously as amended.**

- B. December 7, 2023, Special Meeting
HD moved to approve the December 7th minutes, seconded by PP
Amendment: p. 12 added text: “go away”
Amendment: p. 13 “they” listen instead of “you”
Motion passed unanimously as amended.
- C. December 14, 2023, Regular Meeting
KZ moved to approve the December 14th minutes, seconded by HD
Amendment: p 16 “Eklutna continues to fight”
Motion passed unanimously as amended.

VII. AUDIENCE PARTICIPATION

Dan Suprak – guide with AK Charters
Stefan Hinman – MSB Public Affairs
Chennery Fife – Trout Unlimited
Marc Lamoreaux – Native Village of Eklutna
Neil DeWitt – member of the public
Stephen Braund – Northern District Setnetters

VIII. STAFF/AGENCY REPORTS & PRESENTATIONS

- A. Staff Report – Maija DiSalvo
B. Chair’s Report – AC

- Little Su Sport Harvests
Declines in sport harvest over 20 years look like stock of concern levels; LE had also mentioned entire susitna drainage could be listed for chinook, hardly any yield in last 5 years
- BOF Processes – Traditional Knowledge
BOF having review, will be a virtual meeting; Kodiak was the first time had this opportunity; written report online
- DeLena Johnson re: Weir funding
Discussion on priority funding projects and timeline on making requests to legislators; BG identified early March as an ideal time, and the importance of having specific projects and costs outlined; will be added to Feb 8th agenda.

- C. Waterbody Setback Advisory Board - KZ
KZ reported on the first three meetings and discussions thus far; will follow up to commission as needed.

IX. UNFINISHED BUSINESS

A. Board of Fisheries Planning

Comment Deadline is February 8th and 2024 It Takes Fish to Make Fish booklets are in

i. Outreach/Communications

Stefan Hinman reported on current outreach strategy for BOF. Request was made for staff to contact Art Nelson regarding livestreaming and online public comment. KZ requested utilizing Big Cabbage radio, Stefan will follow up.

ii. Partner Organizations

Discussion about sharing It Takes Fish to Make Fish booklet with local organizations and also what groups the FWC may work with during BOF. Discussion about developing a work group to tackle outreach and conversations with those organization, recognizing that the FWC would need to finalize positions first.

iii. Priority UCI Proposals

**PP moved to form a work group of three to develop the planning process to address management concerns to support and oppose, which would include PP, GK and LE, seconded by GK
Motion passed unanimously.**

iv. Emergency Petition – Stocks of Concern

Requested to add to a future agenda, not adequate time to address before this BOF meeting

B. Eklutna Hydro Project

GK and PP have attended public meetings; will revise original FWC letter and have ready for FWC to review and approve at the next meeting.

C. NOAA Fisheries

i. Alaska Salmon Research Task Force

ii. NPFMC: Science & Statistical Committee

Waiting on release of draft Cook Inlet Salmon SAFE Report, staff will share with FWC once posted; FWC can use info from upcoming virtual meeting to advise next steps

iii. NPFMC: Council – Feb 8-12/Advisory Panel – Feb 6-9

JS and PP will listen to Jan 19th virtual meeting and will report back

JS moves to send a commission member to Seattle for NPFMC meeting, seconded by HD

Motion passed unanimously.

- D. Beaver Meadows Subdivision
No updates from DNR at this time

X. NEW BUSINESS

- A. 2024 Elections – Chair and Vice Chair

**GK nominates AC for Chair, seconded by PP
PP moved for unanimous consent, seconded by JS
Motion passed unanimously.**

**LE nominated PP as Vice Chair, seconded by KZ
JS moved for unanimous consent, seconded by PP
Motion passed unanimously.**

- B. ADF&G Game Season Summary Meeting Planning

**PP moves to hold an ADF&G Game Season Summary meeting the first week of June, seconded by HD
Motion passed unanimously.**

- C. Susitna Basin Rec Rivers Management Plan

Comment period on public review draft is open until March 5; public meetings between Jan 29-Feb 1. TU is working on summary of changes. Requested to add to next agenda.

XI. MEMBER COMMENTS

Peter Probasco – thank you to Gabe and Andy for stepping up

Gabe Kitter – excited for BOF

Howard Delo – compliment to Maija and Stefan in booklet preparations

Larry Engel – No comment

Bill Gamble – send copies of booklets to cc's and get out to public

Kendra Zamzow – Chickaloon loved the booklet

Jim Sykes – thanks to group for stepping up; GK for reading proposals; BG for stepping up, good time to get involved

Andy Couch – name on proposal to rearrange palmer Wasilla zone to allow pike fishing in spring down to big lake; ADFG suggested working together to readjust amended language

XII. NEXT MEETING DATE:

February 8, 2024 @ 4:00 pm – Regular Meeting

Jim Sykes moved to schedule a special meeting on January 30th at 2:30 pm to discuss

**Board of Fisheries UCI Proposals, NPFMC, and Susitna Rec Rivers Plan Update,
seconded by BG
Motion passed unanimously.**

XIII. ADJOURNMENT

**HD moved to adjourn, seconded by JS
Motion passed unanimously.**

Meeting stands adjourned at 6:23 pm

DRAFT

MATANUSKA-SUSITNA BOROUGH
MSB Fish and Wildlife Commission
Special Meeting: January 30, 2024
DSJ Building, Conference room 203/TEAMS
MINUTES

I. CALL TO ORDER

Chair Andy Couch called the meeting to order at 2:35 p.m.

II. ROLL CALL – DETERMINATION OF QUORUM

Present:

- Andy Couch (AC)
- Howard Delo (HD) – arrived at 2:35
- Larry Engel (LE)
- Peter Probasco (PP)
- Gabe Kitter (GK)
- Kendra Zamzow (KZ)
- Jim Sykes (JS)
- Bill Gamble (BG) – arrived at 2:35

Absent:

- Tim Hale (TH)

Quorum established.

III. LAND ACKNOWLEDGEMENT

Chairman Andy Couch read the land acknowledgment:

"We acknowledge that we are meeting on traditional lands of the Dene people, and we are grateful for their continued stewardship of the land, fish, and wildlife throughout time immemorial."

IV. APPROVAL OF AGENDA

Moved by PP; seconded by LE
No objections, Motion passed unanimously

V. PLEDGE OF ALLEGIANCE

VI. AUDIENCE PARTICIPATION

- Jason Solsvig, Island Lake resident
- Dan Hall, Island Lake resident concerned about float plane slips

Chennery Fife, Trout unlimited interested in Rec rivers
Mac Minard, fisheries advisor
Melissa Heur, Susitna River Coalition calling about Rec rivers
Neil D, public interested in Rec rivers
Stephen Braund
Jessica O, Island lake resident
Dan Page, going to board of fish meeting has proposals to go over
Bill S.
Lane R.
Samantha Oslund, Department of Fish and Game
Camden Yehle
Don
Gene Sandone

VII. STAFF/AGENCY REPORTS & PRESENTATIONS

A. Staff Report – Kim Sollien

B. Chair’s Report - AC

VIII. UNFINISHED BUSINESS

A. Board of Fisheries Planning

i. Priority Proposals -

**LE moved to approve letter as written to John Wood; Seconded by HD
No objections, motion passed unanimously**

ii. UCI Finfish Meeting Feb 23-Mar 6 –

**PP Moved to table until next meeting LE seconded, No objections motion
approved**

B. North Pacific Fishery Management Council

i. Cook Inlet Stock Assessment and Fishery Eval. (SAFE) Report –

Kendra wrote a letter to the council regarding EEZ, discussion about the
letter ensued

**PP moved to approve letter with suggested changes; LE seconded
No objections, motion passed unanimously**

ii. SSC, AP, and Council Meetings – Seattle, WA – Feb 5-12

Jim and Kendra will be attending these meetings on a split schedule

1. Comment Deadline – Feb 2/Oral Testimony during meetings
**PP moved to approve Kendra’s letter with suggested changes;
LE seconded
No objections, motion passed unanimously**

C. Susitna Basin Recreational Rivers Plan Update

i. Executive Order 134

Dunleavy requested to remove the Susitna Rec Rivers Advisory Board. Waiting to see if the legislators agree. The legislators have 60 days to submit a letter to oppose the executive order. Executive order does not go into effect until June. B.G. is working on getting more info. No action, Keep on Agenda for next meeting

IX. NEW BUSINESS

A. Island Lake Float Plane Development

**KZ moved to write a letter opposing the float plane development, BG Seconds.
No objection, motion approved**

X. MEMBER COMMENTS

Jim thanks everyone, Kendra and Pete have been incredible
Gabe enjoys working with Larry, Pete, and Mac and he appreciates the efforts

XI. NEXT MEETING DATE: Thursday, February 8 @ 4:00 pm – Assembly Chambers

XII. ADJOURNMENT

**KZ moved to Adjourn PP seconds
No objections, motion approved**

We stand adjourned at 5:01 pm

MATANUSKA-SUSITNA BOROUGH
MSB Fish and Wildlife Commission
Special Meeting: February 5, 2024
MINUTES

I. CALL TO ORDER

Chair Andy Couch called meeting to order at 2:03 PM

II. ROLL CALL – DETERMINATION OF QUORUM

Present:

- Andy Couch
- Peter Probasco
- Gabe Kitter
- Bill Gamble
- Larry Engel
- Jim Sykes – arrived at 2:10 pm
- Howard Delo – arrived at 2:24 pm

Absent:

- Kendra Zamzow
- Tim Hale

Quorum was established

III. LAND ACKNOWLEDGEMENT

Andy Couch read land acknowledgement:

"We acknowledge that we are meeting on traditional lands of the Dene people, and we are grateful for their continued stewardship of the land, fish, and wildlife throughout time immemorial."

IV. APPROVAL OF AGENDA

LE moved to approve the agenda, seconded by PP

No objections, motion approved unanimously

V. PLEDGE OF ALLEGIANCE

VI. AUDIENCE PARTICIPATION

- Mac Minard – BOF consultant
- Alex Pfoff – N Dist Setnetters
- Stephen Braund – N Dist Setnetters
- Gary Swan – Aquaculture Cook Inlet – N Dist Setnetters and Wasilla resident
- Pete Imhoff – Sportfisherman, lifelong fisherman

Bill Stoltz – MSB
Stefan Hinman – MSB Public Affairs
Lacie Olivieri – MSB staff

VII. UNFINISHED BUSINESS

A. Board of Fisheries Planning

Mac Minard presented final draft of FWC comments on proposals for review; draft incorporated comments from commission members

LE Moved to approve final draft comments on BOF proposals, seconded by PP

Amendment: Proposal 210 – strike last paragraph

Main motion: No objections as amended, motion passes unanimously

B. ADF&G Legislative Project Funding

There was discussion on priority projects to be funded and the importance of gathering additional details and cost estimates from ADF&G. BG will continue discussions with the MSB Manager.

VIII. MEMBER COMMENTS

PP – thanks for the meeting, appreciate the work

JS – thank committee on all of their work, barely dipped toes in, but team dove deep; thanks to Mac, thanks to Andy as chair; happy to be plugged in anywhere during BOF HD – looking at comments, shows a tremendous amount of time – insights from Larry and Pete and Gabe’s new insight; Mac has been doing this longer than most, brings a lot of knowledge, appreciate the strategizing; meeting will be fun, want to protect and not lose anything on the corridor, if so it will be a successful meeting

GK – thanks for the hard work

LE – thanks to Mac for the heavy duty work; thanks for sharing Ray’s information – hits on basic concepts on how to manage a mixed stock fishery like ours in Cook Inlet; this is the issue the fed government is ignoring

Mac Minard – expect additional communications; next thing to consider, waiting on response from John Wood regarding agenda lineup; have to consider signup/participation at the board meeting (who is coming, who is talking, etc.)

BG – starting to understand a little bit of what is going on, hoping it will come along

AC – thanks to Pete, Larry and Gabe for work group support; didn’t participate as much, but doing other things; might want to approve funding that was mentioned previously

LE moved for full funding of proposed projects as identified (all weirs in Susitna drainage, coho genetic testing, mark recapture, and staffing), seconded by PP

No objections, motion passed unanimously

IX. NEXT MEETING DATE: Thursday, February 8, 2024 @ 4:00 pm – Assembly Chambers

X. ADJOURNMENT

HD moved to adjourn, seconded by LE
No objections, motion passes unanimously

Meeting stands adjourned at 3:48 pm

DRAFT

From: [Jessica Speed](#)
To: peprob@mtaonline.net
Cc: [Maija DiSalvo](#)
Subject: A few items for FWC awareness
Date: Thursday, March 14, 2024 4:09:53 PM
Attachments: [image001.png](#)

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Pete,

Thank you for sharing updates as you see appropriate for MSB FWC awareness. In case helpful, here are a few items I have on my list:

- **Steering Committee seat:** Call for letters of interest to serve on the local government seat will get announced ASAP and likely close very end of April. Terms are two years, estimated regular Steering Committee meetings with two short additional meetings. I do hope someone from the MSB FWC can serve. [More information here.](#) Anticipated Time Commitment: 32 -50 hours/year.
- FYI, **Kenai Borough Mayor Peter Micciche is now seated on the National Fish Habitat Partnership Board.**
- The **National Fish Habitat Partnership Board will be meeting in Anchorage** July 31 and August 1st, with a possibly field trip August 2nd. NFHP is soliciting ideas for the site tour now. Planning is just occurring for that, but it is an opportunity for partner input and highlighting the regional efforts – including those of MSB. NFHP is leading the planning, but we will definitely keep the MSB FWC posted in terms of activity and potential areas for engaging. Input is very welcome.
- We are just beginning planning for this year's **summer site tour for community leaders (likely 3rd or 4th week of August)**. Please do keep this on your radar and we will send out a save-the-date in June. I did receive some ideas from Kendra, but if there are specific topics or locations that the FWC would suggest we highlight, again please do feel welcome to pass along.
- Funding: NOAA's Increasing Recreational Fisheries Engagement through the Fish Habitat Partnerships (FY24) [Call for Proposals](#) due April 15th, 2024. Just an FYI.

Thank you again for your service on the Mat-Su Basin Salmon Habitat Partnership Steering Committee, and all the great work the FWC is doing for Mat-Su Salmon and the communities that depend on them!

Jessica

Jessica Speed (she/her)

Mat-Su Basin Project Manager, Trout Unlimited
Coordinator, Mat-Su Basin Salmon Habitat Partnership
(907)575-7818

jessica.speed@tu.org

I live and work on the traditional lands of the Dena'ina and Ahtna people.

**Matanuska Susitna Borough
Fish and Wildlife Commission**

**Alaska Board of Fisheries
After Action Report**

February 23 – March 6, 2024

*Submitted by
Mac Minard
Northwestern Natural Resource Consultants*

I. Meeting Outcome Goals

There were six Matanuska Susitna Borough Fish Wildlife Commission (MSBFWC) outcome goals identified for the 2024 Board of Fish Meeting:

- 1) Long-term salmon conservation and protection of salmon habitat.**
- 2) Maintain and enhance the Conservation Corridor in the drift gillnet fishery management plan.**
- 3) Clarify or strengthen conservative management practices which provide protection for current and formerly identified Stocks of Concern.**
- 4) Increase inriver returns of coho and sockeye salmon to Northern Cook Inlet systems.**
- 5) Adjust existing king salmon management plan and strategies to more adequately address conservation concerns for king salmon returning to Northern Cook Inlet drainages.**
- 6) Maintain or extend Personal Use fishing opportunity for Alaskan residents fishing Northern Cook Inlet drainages.**

II. Preparations and Coordination

In the months prior to the Board of Fish meeting the nine-member Mat/Su Borough Fish and Wildlife Commission (MSBFWC) met frequently to produce the central document *It Takes Fish to Make Fish*. This 30-page publication effectively communicated the Borough concerns, priorities and prior accomplishments. Many positive comments were received from Board of Fish members and staff as to the utility of this publication.

Additionally, the fisheries work group and Commission reviewed and developed positions for proposals affecting fisheries within the Mat Su. Leadership was provided by the Commission members, included several former ADF&G biologists and managers, two former Board of Fisheries members, professional fishing guides and individuals with local expertise. Coordination with Department staff was included to the extent we were able and open discussions with Board of Fisheries members and Kenai River Sportfishing Association (KRSA) helped to inform the preparations by the MSBFWC. These position statements were sent in as part of the on time written comments to the Board.

Planning and Communications

- 1) On July 28, 2023 Stefen Hinman produced a Facebook post [Fish Creek Personal Use](#).

This post reached an extraordinary number of folks (79k) and elevated the important results of the MSBFWC in the Board process. Follow up reporting such as this makes the actions at prior Board of Fish meetings relevant and elevates the importance of coming meetings.

- 2) A report titled *It Takes Fish to Make Fish 2024* was developed as a supporting document for the Mat Su by Commission members and staff members Maija DiSalvo and Stefan Hinman.

The graphics, maps and easy to use format made the material highly effective and was used extensively in preparing Board members and Commission members concerning the issues and priorities. This report tells a compelling story that established a level of understanding and credibility necessary to gain Board of Fish member's confidence. Planning and Public Affairs staff deserve a great deal of credit for their work. This booklet was distributed as part of the on-time comments and as PC 138.

- 3) MSBFWC members Larry Engel, Pete Probasco and chairman Andy Couch all participated in several separate radio programs informing the public about the upcoming Board of Fisheries meeting and issues.
- 4) Three members of the MSBFWC along with borough staff hosted a public workshop on participation in the Board of Fisheries process days prior to the state of the Upper Cook Inlet Board of Fish meeting.
- 5) Commission members Howard Delo and Andy Couch also published informative newspaper columns prior to the start of the Upper Cook Inlet Board of Fish meeting.
- 6) On social media, prior to the Board of Fisheries Meeting, Public Affairs staff posted an explanation characterizing why residents should go and participate. A copy of the Mat Su fish booklet was posted drawing in 11k people (That's high).
- 7) A letter from the MSBFWC was drafted and sent to Board chairman John Wood requesting the order of the Group work be arranged in such a manner as to allow

- big issues like the Federal EEZ and Central District Drift Fishery could be discussed and deliberated on prior to moving into the Northern District issues. That letter, although sent, never reached the chairman, and no action or response on his part was taken.
- 8) Report detailing the Matanuska Susitna positions on Board of Fisheries proposals. This 17-page report (Comments on 2024 Upper Cook Inlet Finfish Proposals) was submitted as part of the on time public comments and was entered as [RC025](#) and [RC026](#).
 - 9) Andy Couch, Mat-Su Anglers Column for Friday February 23, 2024 Frontiersman.
 - 10) Mac Minard participated in a radio interview on 650am Kenai Radio with Amy Demboski on 2.26.24 at 7:30 am.
 - 11) Mac Minard briefed the Alaskan Legislative Sportsmen's Caucus via zoom at the request of the caucus advisory council on 2.28.24 at 5:15 pm.
 - 12) Stefan Hinman worked diligently to document the Board meeting with video snippets which were posted to the Borough Facebook page. His included seven different posts on BOF, including a link to our Booklet for people to thumb through virtually. In addition all the testimony given by the FWC was posted to the social media platform.
 - 13) Submission of Record Copies (RCs). The MSBFWC submitted thirteen RCs that supported positions and informed the Board on issues. These were generally prepared by Mac Minard and submitted on behalf of the Commission. We also supported the Matanuska Valley AC when the positions were aligned with the Commission. RCs may be viewed in Appendix A.

All documents for the meeting may be viewed here:

<https://www.adfg.alaska.gov/index.cfm?adfg=fisheriesboard.meetinginfo&date=02-23-2024&meeting=anchorage>

III. Logistics: Work Room and Equipment:

MSBFWC combined logistical efforts with KRSA. Access to internet, copy machine, and office space made for an optimal mix of support and coordinated interaction. This coordinated effort reduced costs for both organizations and increased our overall effectiveness.

Housing the Commission and Borough members and Advisory Committee representatives at both the Captain Cook and Hilton was also a strong tactical decision.

Board of Fish members stay in both locations and we had reasonable access to Board members in the mornings and evenings. Regular contact provided for effective communications.

The combined effort produced an organized and coordinated approach that proved to be a formidable coalition and served the interests of the in-river users of the Mat/Su Borough very well.

Kenai River Sportfishing Association (KRSA) covered all of Mac Minard’s lodging and incidentals at the Captain Cook Hotel and saved the Borough significantly.

IV. Live Streaming and Email Updates

While the Board was in session, visitors were able to [stream live audio](#) from the Board of Fisheries home page. This afforded real time opportunity to remain up to date while operating in a remote location.

<https://www.youtube.com/watch?v=oEb1p1JBPh8>

At the close of each day, Mac Minard, Maija DiSalvo, and/or members of the Mat Su Committee would outline the content of a daily email summary sent to members of the Borough Assembly and members of the Mat Su FWC as well as interested parties. These updates kept those who were unable to attend the meeting informed and up to date. Approximately 11 Commission Updates were issued throughout the run up to and during the meeting.

V. Staff Reports

ADF&G presented two written reports and seven oral reports. Presentations were made in timely manner. Some published products were available only after the cut off for public comment making the timeframe for us to incorporate into our comments impossible. Reports can be viewed here:

<https://www.adfg.alaska.gov/index.cfm?adfg=fisheriesboard.meetinginfo&date=02-23-2024&meeting=anchorage>

VI. Public Testimony Saturday - Sunday

Approximately 106 people (153 testified in 2020) testified before the Board of Fisheries. Matanuska Susitna Borough coordinated nine presentations/testimonies and submitted 14 RCs as supporting documentation during this phase of the meeting. When coupled with KRSA testimony we produced a very concise and coordinated effort. Several Board members commented on the effectiveness of our team. RCs are listed in Appendix A.

ORDER	WHO	WHAT	Related Goal(s)	BOOKLET PAGES	RC
1	Maija DiSalvo	Introduce the Mat-Su Borough Fish & Wildlife Commission, Booklet, Topics	All	All	RC054

2	Andy Couch	The Conservation Corridor	2	5	RC065
3	Larry Engel	History and Efficacy of the Conservation Corridor	2	6 - 8	RC056
5	Pete Probasco	Mixed Stock Fishery Complexity	1, 3	9 - 13	RC049
4	Howard Delo	Stocks of Concern		19	RC047
6	Kendra Zamzow	Federal Fisheries Management	3	14 - 17	RC055
7	Gabe Kitter	Habitat in the Mat Su	1	23 - 24	RC046
8	Jim Sykes	Fish Habitat Improvements in the Mat Su	1	25 - 26	RC048
9	Mac Minard	Wrap Up/ Takeaways	All	27 - 28	

VII. Committee Work

The Board established a Committee of the Whole with eight Groups. We detailed a Public Testimony schedule involving key representatives from the Mat SU Borough. Each testifier was armed/briefed with relevant materials and supporting RCs and Commission positions. Support material was very helpful and allowed full and complete participation by assigned committee members. In the future, MSBFWC must continue to develop this work product.

Committee work was conducted in a New England Town Hall format and was civil and provided an opportunity to get key information on the record. MSBFWC representation was excellent and there was an obvious coordination with most AC testimony as well.

Highlighted below are [Board Actions](#) concerning proposals that the MSBFWC commented on or had an interest.

Committee of the Whole – Group 1: Kenai River Late-Run King Salmon Action Plan
This committee and topic took up a lot of the meeting energy. MSBFWC did not participate directly in this committee. The following summary is for information only.

Public Testimony

- The Board took 7 hours of public testimony regarding the late run Kenai King Salmon management plan.

Board Deliberations on the Action Plan

- A draft action plan was brought to consideration by Marit Carlson-Van Dort. Her plan established rebuilding goals based on the current Optimum Escapement Goal

(OEG) and equitable sharing of the conservation burden among all fisheries consistent with a plan proposed by KRSA.

- Board chair John Wood and members Mike Wood and Gerad Godfrey led the effort to reduce escapement goals in order to increase opportunities in the set gillnet fishery at low run sizes. This effort ignored clear direction from the Commissioner that managing for a lower goal would reduce the likelihood of recovery.
- An amendment from Mike Wood to reduce 15,000 to 13,500 failed 3-4 (Carpenter, Carlson-Van Dort, Zuray, Svendsen opposed). A subsequent amendment to change 15,000 to 14,250 passed 4-3 (Wood, Wood, Carpenter, Godfrey in favor). Carlson-Van Dort, Zuray, and Svendsen opposed plan adoption due to reduction in goal.

Assessment of Action

- The Board of Fisheries adopted a stock-of-concern action plan for Kenai late-run kings that reduced fishery impacts to low levels until such time as the stock is delisted. This is one of the most conservative action plans ever adopted for a stock-of-concern in Alaska. The action plan will remain in effect for a minimum of three years until the next in-cycle Upper Cook Inlet (UCI) Board of Fish meeting.
- The Kenai River sport fishery for kings was closed by regulation.
- The commercial set gillnet fishery was closed when escapement is not projected to achieve minimum goals. Up to eight, 8-hour fishing periods may be allowed when the minimum goal is projected to be achieved. There is no opportunity for liberalization beyond eight periods for the duration of this plan unless the commissioner chooses to exercise his authority to go outside the plan.
- The limited setnet fishery also included a series of innovations focused on units of gear allowed, as well as net length and depth intended to increase selectivity for sockeye and reduce interception of kings.
- The Board reduced the escapement goal from the current OEG of 15,000 to 30,000 to a recovery goal of 14,250-30,000.
- The setnet fishery will fish even when the sport fishery for kings is closed.
- The Board also created a provision for a NEW commercial gear type to include dip nets in leu of set gillnets in an effort to test the concept and reduce king bycatch. This fishery could be used in the 2024 season.

- It is difficult to reconcile a reduction in the escapement targets in order to increase commercial fishing opportunity with the stock of concern listing and critical low levels of abundance and productivity of Kenai kings.

Committee of the Whole – Group 2: Northern Cook Inlet Subsistence, Northern District Commercial, Smelt, and Susitna River Sport and Personal Use Fisheries (29 proposals). MSBWFC members Pete Probasco, Andy Couch, Larry Engel, Howard Delo, Kendra Zamzow Maija DiSalvo and Mac Minard participated.

Committee met on 2.28.24. Mat Su Borough developed [RC 151](#) to amend Proposal 207 to clarify king salmon management targets and establish a historically appropriate king salmon target of 1,500 in the Northern District Set net fishery.

On Thursday 2.29.24 the Board deliberated Group 2: Northern Cook Inlet Subsistence, Northern District Commercial, Smelt, and Susitna River Sport and Personal Use Fisheries. Outcomes on all deliberated proposals are listed below.

Assessment of Actions

- The MSBFWC submitted an amendment to Proposal 207, suggesting changes to the Northern District King Salmon Management Plan that was not considered due to procedural issues with the board member submitting the amendment.
- On Proposal 206, the Board voted to lower the Northern District Setnet king salmon cap from 12,500 to 4,000 king salmon. MSBFWC recommended a cap of 1,500 based on evaluation of 30-year and recent 10-year average harvests. The 4,000 fish cap, selected by the Board, had no basis in prior performance and will be applicable between May 25 through June 24.
- For the 2024 season the Susitna River drainage sport king salmon fishery, Little Susitna River sport king salmon fishery, and the northern District commercial king salmon seasons will all likely be closed before the season starts, because of a poor projected 2024 king salmon return.

Committee of the Whole – Group 3: Cook Inlet Areawide Sport Fisheries, Knik River Area Sport Fisheries, and Anchorage Area Sport and Personal Use Fisheries (24 Proposals).

Committee met on Monday 2.26.24 and Mat Su Commission members and Mac Minard participated based on the submitted comments.

Deliberation on Proposals for the Committee of the Whole Group 3. Cook Inlet Areawide Sport fisheries took place on Tuesday 2.27.24.

Assessment of Actions

The Board of Fish made decisions concerning 23 of the approximately 186 fishing regulation proposals. Highlighted below are actions concerning proposals that the MSBFWC commented on or had an interest.

- Proposal 237 - Bow Fishing for Northern Pike in Palmer - Wasilla Zone flowing waters. This allows bow and arrow and spear fishing for northern pike and blackfish year-round in Palmer - Wasilla Zone flowing waters.
- Proposal 245 - Additional Days of Fish Creek Salmon Fishing. The portion of Fish Creek near Knik Goose-Bay Road, and open to sport salmon fishing, will now be open 7 days per week starting June 15 — July 14, and from the second Saturday in August - December 31.
- Proposal 234 - With substitute language, updated the boundaries of the Palmer - Wasilla Zone and allows northern pike fishing year-round in flowing waters between the Little Susitna River and Susitna River.
- Proposal 236 — Adds six lakes to the stocked lakes list where anglers may harvest larger limits of stocked fish.
- Proposal 246 — Will expand the list of waters where anglers may use 5 lines when ice fishing for northern pike.
- Proposal 250 — Sport fishing for king salmon will now be allowed year-round in the portion of Ship Creek open to salmon fishing.
- Proposal 251 - Closes Eklutna River drainage to coho and sockeye salmon fishing until populations can rebound to sustainable levels.
- Proposal 247 - Will prohibit the practice of chumming in Big, Mirror, and Flat Lakes from November 1 - April 30.
- Proposal 248 - Restricts Big Lake Arctic char to catch-and-release year-round in the Fish Creek drainage.
- Proposal 244 - Redefined Fish Creek near Knik Goose-Bay Road to include all waters within 1/4-mile radius of its confluence with Knik Arm.
- Proposal 249 — by ADF&G removed outdated regulation language.

Committee of the Whole – Group 4: Stock of Concern – Kenai River Late Run King Salmon Management Plan, Kenai River King Salmon, Upper Cook Inlet Salt Water King Salmon Sport Fishery Plan (46 Proposals)

- The MSBFWC elected to not address this group of proposals.

Committee of the Whole – Group 5: Sockeye Salmon Management Plans (8 Proposals)

- The MSBFWC elected to not address this group of proposals.

Committee of the Whole - Group 6: Central District Drift Gillnet Fishery Management Plan, Fishing Districts and Gillnet Specifications and Operations, Pink Salmon Management Plan, Hatchery Production, Upper Cook Inlet Management Plan, West Cook Inlet Salmon (25 Proposals) – Pete Probasco, Andy Couch, Larry Engel, Howard Delo, Kendra Zamzow and Mac Minard participated.

The Board deliberated Group 6 on Monday March 4, 2024. The Mat Su effort to bring forward a super exclusive registration area [RC200](#) and remand the drift gillnet fishery to the expanded harvest corridors stimulated some very good discussions.

Assessment of Actions

- No repeal of intent language placing sport and guided sport as priority fisheries for king and coho salmon. (Proposals 121, 125).
- No loss in the 1% rule and affirmation by the Commissioner to use harvest number from the EEZ in calculating the application of the 1% rule. (Proposals 122, 123, 124).
- No increase in drift fishing opportunity in drift area 1 or 2, all proposals to do so were defeated. Oddly, it was chairman Wood and Board Member Wood who opposed the Mat Su effort to close portions of Area 1 and 2 to assist in the movement and protection of Northern District fisheries. We are thankful to Commission Vincent-Lang for his assurance that he will not allow commercial fishing in those areas at least for the next two years. This assurance on the record effectively guarantees the utility of the Conservation Corridor at least for the next two or three years, this can be considered a temporary “win”.
- Proposal 125 was amended by Board Chair John Wood, to allow additional fishing time and area in Drift Area 3 (west side) for coho. MSBFWC opposed this action.
- Proposal 136 closed areas to commercial fishing by prohibiting commercial drift fishing within 1 mile of mouth of Silver Salmon and Shelter creeks. MSBFWC supported this proposal.

Committee of the Whole – Group 7: Kasilof King Salmon Sport Fisheries, Vessel and Habitat Restrictions, and Guides (15 Proposals)

The Committee of the whole met on March 3, 2024 and was deliberated on March 4, 2024.

- The MSB Fish and Wildlife Commission elected to not address this group of proposals.

Committee of the Whole- Group 8: Kenai, Kasilof, and Russian River – Sport and Personal Use (39 Proposals)

The Committee of the whole met on March 3, 2024 and was deliberated on March 4, 2024.

- The MSB Fish and Wildlife Commission elected to not address this group of proposals.

VIII. Evaluation of Goals

The MSBFWC team went into the Board meeting with six goals that guided their policy and involvement. The overarching goal was to protect all previous gains that had been achieved in the past and particularly those related to passage of fish to the Northern District.

The looming and unknown impacts of the Federally managed Exclusive Economic Zone (EEZ) are real and informed the MSBFWC comments and involvement.

The following is an assessment of those goals.

1) Long-term salmon conservation and protection of salmon habitat.

The MSBFWC were the leaders in the discussion of the threat that the EEZ presents to state managed fisheries. Having Commission member Kendra Zamzow attending the Council meetings, and bringing her knowledge to the topic, was cornerstone in our communication on this issue. The MSBFWC members wove the uncertainty and call for conservative management due to the threats posed by federal management of the EEZ into all the positions the MSBFWC took. With the exception of late-run Kenai River king salmon action plan, there were no changes in regulations that would have a negative affect on long term salmon conservation and protection of salmon habitat.

2) Maintain and enhance the Conservation Corridor in the drift gillnet fishery management plan.

This Goal was Fully Met. There were 17 proposals that sought to diminish or eliminate the conservation corridor in one form or another and the MSBFWC defeated them all. Our in-meeting ([RC228](#)) efforts to confine the Drift Gillnet fleet to the expanded Kenai and Kasilof terminal harvest areas did not pass, however, the assurances from the Commissioner to not fish outside those areas effectively protects the Conservation Corridor for the next several seasons. Overall, we protected the important gains made in previous Board of Fisheries meetings and by so doing continued the process of elevating the Northern District fishery issues.

3) Clarify or strengthen conservative management practices which provide protection for current and formerly identified Stocks of Concern.

This Goal was Met. We defeated several proposals that would have increased exploitation on Northern District king, coho, and sockeye salmon. Additionally, the

MSBFWC elevated awareness that king and coho salmon depressed and ought to be listed as stocks of concern. This clearly informed Board member decisions.

4) Increase inriver returns of coho and sockeye salmon to Northern Cook Inlet systems.

There were no vehicles (proposals) proposed by the MSBFWC that would have accomplished this goal. However, through the use of the amendment process we sought to close portions of drift area 1 and 2 that constitute the conservation corridor.

Although the MSBFWC proposed closures of drift area 1 and 2 did not pass, the Commissioner committed to not fishing in these areas for the next two or more years. Additionally, the MSBFWC effectively argued against any increases in commercial fishing time that would have impacted Northern bound salmon.

5) Adjust existing king salmon management plan and strategies to more adequately address conservation concerns for king salmon returning to Northern Cook Inlet drainages.

The only proposals addressing the Northern District Salmon Management plan, that would have affected king salmon were ones to remove/repeal management plan language that affirms the need to provide for sport and guided sport uses and allow additional fishing time in the Northern District setnet fishery. The MSBFWC found these proposals to be in contradiction with sound management practices and opposed them. Ultimately the Board voted each of them down and in doing so acknowledged the depressed condition of Northern District king salmon stocks.

6) Maintain or extend Personal Use fishing opportunity for Alaskan residents fishing Northern Cook Inlet drainages.

This Goal was Met. There was no loss in personal use opportunity. MSBFWC had submitted proposal 231 would have shifted dates of the Susitna PU fishery and afforded additional PU opportunity. This proposal failed 0-6 and given the conservative posture the Mat Su had taken on other proposals we did not press this issue.

A full summary of Board of Fish action can be found at:
https://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2023-2024/uci/soa_uci-2024.pdf

IX. Summary and Recommendations

Summary

The Mat Su was well represented by the members of the MSBFWC and others who made the time to attend. On numerous occasions, Alaska Board of Fisheries members and ADFG staff, commented positively on the informed quality of your collective

involvement. You maintained open and honest communications with Board members, staff, stakeholders and members of the public.

This was a particularly difficult meeting given the challenges of sick or absent Board of Fisheries members. An erratic agenda that presented small items first and addressing the larger issues (EEZ) and Central District Drift Gillnet Plans later, made for a challenging and dynamic schedule. Additionally, the public involvement process involving the submission of Record Copies (RC) was new and turned out to be untimely and cumbersome for the public and Board members alike.

The lack of detailed discussion and strategic planning for the issue of Federal management within the EEZ was surprising. The Board adopted a wait and see attitude that was not shared by the MSBFWC. The uncertainty that combined management (Federal and State) presents was central to the Mat Su message.

A positive outcome of this meeting was the Commissioner's pledge that the commercial drift gillnet fishery will be confined to the terminal harvest areas is very significant. This means that the Conservation Corridor will remain an open pipeline for Northern bound salmon, which was a top tier priority for the MSBFWC.

Maintaining the orderly termination of the sockeye fishery driven by the one-percent rule in the drift fisheries along with the use of the Conservation corridor will permit more coho salmon to reach the Northern district waters.

Recommendations

There are three principal areas of execution that make for successful Board of Fisheries outcomes. These are:

Policy – you must have a solid statement of the problem and the policy outcomes to attain them. The MSBFWC is very good at developing policy that is both necessary and sufficient to attain their stated goals and based on decades of fisheries experience.

Politics – it is essential that the “right” Board members are appointed to the Board. These would be people who are interested in addressing the Borough residents' concerns and willing to work with the MSBFWC to attain stated policy goals. Oddly we did not see this in action at this meeting, there was no clear champion among Board members, for the policy the MSBFWC was advocating. This area also includes political leaders that represent the Borough and fully embrace the policy positions being advocated.

Public Relations (PR) – it is essential that a consistent drip of information be released in a well-planned and executed PR program. This effort generally begins long before the meeting and continues throughout the meeting. Establishing support for the desired policy outcomes and being recognized as

the subject matter experts helps drive the media narrative and gain support. This is an essential part of a successful campaign.

1) Policy

- a. Begin preparations for the next Board meeting now. The focus must be to advance conservation and management efforts that lead to viable and robust fisheries in the Northern District waters, sufficient that all users may enjoy historical levels of participation.
- b. Seek stock of concern status for king and coho salmon status for the Northern District where appropriate. This action is governed by the Policy for the Management of Sustainable Fisheries (5 AAC 39.222) and requires the Department to provide the status of salmon stocks and identify any salmon stock that present a concern. Currently there are four king salmon stocks listed as stocks of management concern and no coho stocks listed. It can be argued that while they are not stocks of management concern, multiple coho stocks in the Northern District would qualify as stocks of yield concern. Gaining designations for stock of concern status will require a focused effort with the Department and getting them to advance a recommendation to the Board. If this can be done off-cycle (Statewide finfish meeting) that would open the door to address the Stock of Concern Action Plan (this is where the gains can be made) at the next UCI Board meeting.
- c. Prepare Action Plan Recommendations. The MSBFWC is experienced in this area having successfully navigated the sockeye stock of concern in the past. The Action Plan is the vehicle to institutionalize the conservative measures in fisheries directly impacting Northern bound stocks and to identify key assessment tools that need to be developed or better supported.
- d. Remain focused and involved in the Federal Management program of the EEZ. It cannot be overstated how dangerous this new element can be to the sustainability of Northern district stocks. Maintaining involvement and seeking to influence policy decisions by the Feds and the State remains vitally important.
- e. Develop proposals that advance the Northern District interests in getting fish into the watershed with the overarching goal of rebuilding sustainable fisheries at historical levels and accompanying opportunity for personal use and sport fisheries.

2) Politics

- a. Actively work for Board of Fisheries appointments that will be sensitive and supportive of the Borough policy positions. This requires engagement in the process early and working with policy makers and people of

influence to accomplish the task. Success at the Board of Fisheries requires four votes and it is important to actively cultivate that level of support.

- b. Engage with local leaders and legislators to make them aware of and supportive of the policy positions of the MSBFWC. Developing the fairness and economic arguments would be logical topics to build from.
- c. Seek out partnerships with others to grow the political support needed to advance policy. For example, maintain/increase the frequency of communications with KRSA and the Mat Su AC over the interim to ensure that policies and proposals are in sync with each other. A mutually supportive coalition is critical to maintaining the gains in salmon conservation and advancing new policy.

3) Public Relations

- a. Continue to budget for and commit resources to a “right-sized” Public Relations (PR) effort. This effort continues to address the lead up to the meeting, coverage during the meeting, and the follow up to the meeting. This effort would logically start six to nine months in advance and be used to garner support for the policy direction the MSBFWC seeks to advance.
- b. A strategic PR campaign that positions MSBFWC as the subject matter and policy experts will allow you to manage the messaging and gain public support. This campaign should cover all outlets of media coverage.
- c. Cultivate relations with leaders of the business community. Businesses within the Borough will benefit from the goals of the Commission and would logically support the Mat Su positions relative to the fisheries. Having representatives of the business community as part of the team going forward will demonstrate the broad positive impacts that additional fish in the Northern district provide.
- d. Develop stories of locals satisfying their food budgets without having to travel long distances. These are powerful and link the importance of the MSBFWC efforts to real outcomes and people. An example is the coverage that was given to the Susitna dipnet fishery last summer. Positive examples linked back to the MSBFWC successful efforts before the Board of Fisheries.
- e. Continue to report out Borough efforts to protect, enhance and improve habitat. Habitat preservation and restoration is a hallmark of the Mat Su Borough. It is powerful testimony to a long-term commitment to healthy fisheries and sets the MSBFWC apart from other advocacy groups in a very positive manner.

- f. Consider another field trip to the Susitna hosted by the Borough. This can be incredibly important in laying a foundation for Board members to understand the area the issues and the people and to develop personal relationships with MSBFWC members. I believe this was done prior to the 2020 meeting and paid dividends. Perhaps a forum with affected business owners (guides, hotels, restaurants, sporting goods) could be worked in to such a trip.

Appendix A
RCs Submitted on Behalf of Mat Su Fish and Wildlife Commission

RC Number	Submitted By	Subject
PC 138	Mat Su	It Takes Fish to Make Fish
RC 25 & 26	Mat Su	Proposal Comments
RC065	Andy Couch	Public Testimony
RC046	Gabe Kitter	Public Testimony
RC047	Howard Delo	Public Testimony
RC048	Jim Sykes	Public Testimony
RC055	Kendra Zamzow	Public Testimony
RC056	Larry Engle	Public Testimony
RC054	Maija DiSalvo	Public Testimony
RC049	Pete Probasco	Public Testimony
RC 144		Cook Inlet North District June King
	Andy Couch	Fishery Policy
RC200	Mat Su	Mat Su Borough Proposed Amendment to Central District Drift Gillnet Management Plan
RC228	Mat Su	Mat Su Borough Amendment to Proposal 127

MATANUSKA-SUSITNA BOROUGH

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CHAIRPERSON

Andy Couch

VICE CHAIR

Peter Probasco

MSB STAFF

Maija DiSalvo

**BOARD MEMBERS**

Howard Delo

Larry Engel

Tim Hale

Gabe Kitter

Bill Gamble

Kendra Zamzow

Ex officio: Jim Sykes**MATANUSKA-SUSITNA BOROUGH FISH AND WILDLIFE COMMISSION**

February 16, 2024

RE: Funding scientific data gathering for in-season assessment and fishery management to maintain Northern Cook Inlet salmon stocks and harvest opportunities

In January 2023, at a special joint MSB Assembly/State Legislative Delegation meeting, two Matanuska-Susitna Borough (MSB) Fish and Wildlife Commissioners (FWC), Mike Wood and Andy Couch, discussed a priority to fully fund Alaska Department of Fish and Game (ADF&G) salmon counting weir projects. Over three years our MSB area weir projects had only been partially funded, or in a couple cases, not funded at all. At that time the FWC also mentioned the need for restarting a coho salmon genetic testing program to better understand commercial harvests of Northern Cook Inlet bound coho salmon. We are grateful for the Mat-Su state legislative delegation's efforts to supplementally fund all except one of those established weir projects during the 2023 fishing season.

With the recent announcement of an extremely low 2024 forecasted Deshka River Chinook (king) salmon return, and likely soon-to-be-announced emergency king salmon restrictions and closures to commercial and sport fisheries, we need to continue monitoring king salmon stocks in efforts to help their populations rebuild.

From an economic standpoint, for both commercial and sport fisheries, solid monitoring and in-season management of MSB sockeye salmon and coho becomes even more of a priority. Given these needs, we would request consideration of the following funding needs from the State of Alaska:

Coho Salmon Genetic Testing/Salmon Counting Weir/1-year Abundance Estimate — listed in order of priority:

Costs provided by ADF&G in January 2023 — so, exact costs may need updating:

Coho Salmon Genetic Testing of Upper Cook Inlet Commercial Harvest — This project was first established using money the legislature provided the MSB for salmon project funding in Upper Cook Inlet. The project has already established Upper Cook Inlet coho salmon genetic baselines, and provided four years of commercial harvest sampling results, but has been unfunded since 2016. Similar to current sockeye salmon genetic testing, coho salmon genetic testing allows the department to determine total run size, harvests rates, productivity of specific coho salmon stocks, and temporal harvest patterns for different gear groups within Upper Cook Inlet, thereby providing for better scientific management of these economically important salmon stocks. Genetic testing of the Upper Cook Inlet commercial coho salmon harvest, in state waters, may provide even more critical data with the uncertainty created by federal salmon fishery management of Cook Inlet EEZ waters during 2024. Upper Cook Inlet Coho Salmon Genetic Testing Cost — **\$300,000.**

Chelatna Lake Weir — At the head of Lake Creek, this weir counts a sockeye salmon population with the largest spawning escapement goal in the Susitna River drainage. In 2020, the Alaska Board of Fisheries adopted a conservative lower Susitna River personal use salmon fishery, for which the season may only extend into August — if ADF&G projects sockeye escapements over the top of all three Susitna Drainage sockeye salmon spawning escapement goals (Judd, Chelatna, and Larson Lakes) and also projects coho salmon escapement over the top of each Susitna River drainage coho salmon spawning escapement goal (Deshka River). Without operation of all four Susitna River drainage weirs there has been no adequate evaluation for total ADF&G established Susitna River sockeye/coho goals for the past four years. Measuring salmon escapements throughout time to adequately determine if established goals are annually being attained is the base Alaska salmon management is built on and should return to on the Susitna River drainage. Cost to add Chelatna Lake Weir for the full 2024 sockeye salmon run — **\$60,000.***

**ADF&G has confirmed full funding for weirs at Judd and Larson Lakes, Deshka and Little Susitna River, Fish and Jim Creek throughout the 2024 season.*

Susitna River Sockeye Salmon Mark/Recapture Abundance Estimate – ADF&G identified his study as necessary to gain an updated estimate of sockeye salmon abundance returning to portions of the Susitna River drainage other than Judd, Chelatna, and Larson Lakes. - **\$380,000.***

**Full cost for this study and the operation of Judd, Chelatna, and Larson Weirs was estimated by ADF&G to be \$500,000, so the above figure is a conservative estimate with the removal of associated weir costs.*

Three Project Total: \$740,000

Adequately funding these projects will improve salmon management for fisheries impacting the MSB, the fastest growing region of Alaska. With the new federal fishery management in the Exclusive Economic Zone (EEZ), adequate science and data are even more essential to effectively manage Upper Cook Inlet fisheries. Economic studies completed in 2007 and 2017 show significant positive impacts of fisheries on the Mat-Su economy. These projects matter to the citizens of MSB, Alaskan businesses, and to the MSB Tourism Industry.

Please feel welcome to reach out if you have questions about these priority projects or need further discussion of their utility. Thank you.

Andy Couch, Chair
Matanuska-Susitna Borough Fish & Wildlife Commission
907-982-7036
fishing@fish4salmon.com

CC: MSB Planning Division Manager Kim Sollien

MSB Planning Department Manager Alex Strawn

MSB Manager Mike Brown

MSB Assembly via MSB Clerk

ADF&G Commissioner Doug Vincent-Lang

John Harris, MSB

Bill Stoltze, MSB

Project Title: Matanuska-Susitna Borough - Fishery Protection**TPS Number:** 66660**Priority:** 10**Agency:** Commerce, Community and Economic Development
Grants to Municipalities (AS 37.05.315)**Grant Recipient:** Matanuska-Susitna Borough**FY2025 State Funding Request:** \$2,500,000

One-Time Need

Brief Project Description:

Fund Borough fisheries projects that help maintain and enhance local fisheries, especially of anadromous fish.

Funding Plan:

Total Project Cost: \$2,500,000

Funding Already Secured: (\$0)

FY2025 State Funding Request: (\$2,500,000)

Project Deficit: \$0

Explanation of Other Funds:

N/A

Detailed Project Description and Justification:

A strategic research, monitoring, and evaluation plan for the Upper Cook Inlet (completed in 2015) identified several informational gaps in local fisheries management. Many of the identified gaps resulted in funded projects. These studies have resulted in better resource management and illustrate the need for additional funding of genetic stock analysis, economic impact studies of sport fishing, fishery management weirs, and control of aquatic invasive species. These monies would be utilized to continue funding critical projects identified in the 2015 Gap Analysis, as well as continued support of the Matanuska-Susitna Borough fish passage culvert replacement program that has opened significant habitat to anadromous fish over the last 20 years.

Project Timeline:

2024 through 2027.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Matanuska-Susitna Borough

Grant Recipient Contact Information:**Name:** Mike Brown**Address:** 350 E. Dahlia Avenue

Palmer, AK 99645

Phone Number: (907)861-8689**Email:** mike.brown@matsugov.us**This project has been through a public review process at the local level and it is a community priority.**

ADF&G QUESTIONS FOR 2023 GAME HARVEST SUMMARY

Gabe Kitter

1. How many low-income hunting license were sold in the past ten years?
2. How has the average size of brown bear taken in GMU 14A and 14B changed over the past five years? (Sealing Data)
3. How has the number of registered bear baits changed over the past five years in GMU's 14A, 14B, 16A, 16B and 13?
4. Does Bear bait success and harvest account for the majority of bear harvest in GMU's 14A, 14B, 16A, 16B and 13?
5. What is the main means of transport to registered bear baits in GMU's 14A, 14B, 16A, 16B and 13?
6. How many bear baits are registered by guides or outfitters in GMU's 14A, 14B, 16A, 16B and 13 compared to resident registered bait stations in the last 5 years.
7. What is the percentage of draw and tier tags that are proxied in the GMU's 14A, 14B, 16A, 16B and 13 last year?
8. What is the harvest data for sheep in the GMU's 14A, 14B, 16A, 16B and 13 when comparing resident vs nonresidents?
9. What is the participation difference between resident and nonresidents for sheep in GMU's 14A, 14B, 16A, 16B and 13?
10. Are there any hunter education programs that have been created or are being implemented within the mat su school district? If not, is this a program that the department feels would be possible to utilize working collaboratively with our Mat Su School District?
11. How many sub-legal sheep were taken from GMU's 14A, 14B, 16A, 16B and 13 over 5 years?
12. What is the difference in harvest for wolves taken under the intensive management plan vs other means of harvest in GMU 13 since the intensive management was implemented?
13. How many brown bears were harvested from 13A and how does that harvest amount compare to the estimated population of brown bear in 13A? (Last five years)
14. Would a controlled burn program implemented in the next couple years in GMU's 16A and 16B help the rebound of the declining moose populations?
15. What is the leading contributing factor for moose calf mortality in GMU's 14A, 14B, 16A, 16B and 13? If it is predators, which predator accounts for the highest calf mortality?
16. If implemented, could the estimated brown bear population in GMU's 14A and 14B support a liberalized season like GMU 16 (No closed Season)?
17. How has draw tag participation trended over the past five year? If possible, break down the number of draw tags purchased comparing resident vs nonresident over the past five years? (Statewide)
18. What major projects would the department like to do to be able to better manage game populations in GMU's 14A, 14B, 16A, 16B and 13 but lack the funding to do so?
19. What is the latest harvest data for wolves in unit 16 under the recent implementation of predator control?
20. Does the department feel that the moose population in GMU 16B could sustain a general season (Harvest Ticket) hunting opportunity if the access to the area was increased by the proposed

ADF&G QUESTIONS FOR 2023 GAME HARVEST SUMMARY

West Susitna Access Road? If not, what management steps would the department likely need to take to ensure a healthy moose population was sustained?

Howard Delo

1. Given the heavy snowfalls for the past two consecutive years, how well have the moose populations fared going into the spring/summer of 2024?
2. What is the status of the Unit 13 Caribou population?
3. Where are we in the snowshoe hare population cycle?
4. How are the grouse and ptarmigan populations faring?
5. How are the Dall sheep populations doing?

Larry Engel

1. Did this winter's heavy snow fall have a significant impact on the survival of Mat Su Bor. moose? If so, please explain.
2. Is ADFG considering any significant changes to the Mat Su Bor. Moose hunting regulations for 2024?
3. How did this winter's Mat Su Borough moose road/train kill numbers compare to those of the past decade?

Pete Probasco

1. Dall Sheep Population Surveys - Talkeetna and Chugach Mtns
 - How frequent
 - Population status
 - Trends
 - Harvest history by drawing area
2. Moose population surveys - Units 13, 14, 16
 - Overall population seems to be very low - please comment
 - Current survey results
 - Methods of surveying, when conducted, etc. compared to prior methodology
3. Unit 13 Nelchina caribou
 - Status
 - Population trend
 - Is this herd following the same track as the decline in the Mulchatna herd?
4. Predator Control - Units 16 and 13 (wolves and bears)
 - Status
 - overall impact on predator population
 - future plans

Increasing Recreational Fisheries Engagement through the Fish Habitat Partnerships (FY24) Call for Proposals

The NOAA Fisheries Office of Habitat Conservation and Recreational Fisheries Initiative are seeking to identify and support projects within coastal Fish Habitat Partnerships (FHPs) that protect or restore habitat **AND** engage recreational fishing partners.

Background: The goals of this funding opportunity are to enhance collaboration with recreational, subsistence, cultural, and non-commercial fishing communities, and to protect and restore habitat. Healthy habitat leads to more fishing opportunities and increased climate resilience, and there are numerous opportunities to advance habitat conservation by working together. [The National Fish Habitat Partnership](#) (NFHP) and individual FHPs provide strategic opportunities to advance priority habitat conservation projects while also engaging recreational, subsistence, cultural, and non-commercial anglers. NFHP aims to protect, restore and enhance the nation's fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the American people. An existing network of [20 Fish Habitat Partnerships](#) all across the nation develops and implements on-the-ground projects at local and regional scales. There are 10 Fish Habitat Partnerships in coastal, estuarine, and marine habitats:

Fish Habitat Partnership	Coordinator Name	Coordinator Email
Atlantic Coastal Fish Habitat Partnership	Simen Kaalstad	skaalstad@asmfc.org
Southeast Aquatic Resources Partnership	Todd Ewing	todd@southeastaquatics.net
California Fish Passage Forum	Holly Steindorf	hsteindorf@nrccorp.com
Pacific Lamprey Conservation Initiative	Max Calloway	mcalloway@pacificlamprey.org
Pacific Marine and Estuarine Partnership	Joan Drinkwin	jdrinkwin@nrccorp.com
Hawaii Fish Habitat Partnership	Gordon Smith	gordon_smith@fws.gov
Southeast Alaska Fish Habitat Partnership	Debbie Hart	coordinator@sealaskafishhabitat.org
Southwest Alaska Salmon Habitat Partnership	Tim Troll	nmwlandtrust@hotmail.com
Kenai Peninsula Fish Habitat Partnership	Ben Meyer	fishhabitat@kenaiwatershed.org
Matanuska Susitna Basin Salmon Habitat Partnership	Jessica Speed	jessica.speed@tu.org
Western Native Trout Initiative	Therese Thompson	tthompson@westernnativetrout.org
Eastern Brook Trout Joint Venture	Lori Maloney	lori.maloney@canaanvi.org

Funding Available: Approximately **\$150,000** is available, and will be used to support several FHP projects (up to ~\$75,000 per project).

Time Frame: Projects may take place over the course of more than one year, but funds must be obligated by 09/30/24. Funds do not need to be spent by 9/30/24.

Who Can Apply: Any coastal FHP or their partner(s) is eligible to apply for this funding opportunity. Organizations that are not already partners in a coastal FHP are also welcome to apply, provided that they coordinate with the relevant FHP coordinator on their application.

Program Priorities:

Projects must have all of the following:

1. Be located in **and** coordinated with a Fish Habitat Partnership.
2. Actively engage recreational fishing partners in habitat protection or restoration. This may include, but is not limited to:
 - a. Direct participation of recreational anglers in FHP habitat projects, including research, monitoring, and on-the-ground restoration
 - b. Education and outreach with, by, or for anglers on habitat conservation topics
 - c. Hosting of an event focused on habitat and recreational fishing opportunity that engages the recreational fishing community and partners
3. Focus on habitat restoration or protection (*see FAQ for more details*) for recreationally important saltwater or diadromous species.
4. Be achievable within the provided timeline and budget and provide project updates to NOAA when requested.

Priority will be given to projects that

1. Demonstrate coordination between an FHP and recreational fishing partners
2. Have the potential to develop longer-term relationships with recreational fishing community/partners
3. Actively engage groups underserved or underrepresented (including Tribes or Tribal entities) in the recreational fishing community (*applicants must demonstrate in their application how groups are underserved or underrepresented in the recreational fishing community*)
4. Result in improved fish habitat availability, quality, or understanding, particularly for species with high recreational or socioeconomic significance

Call for Proposals: Please send any project proposals (up to 6 pages, not including budget) to alex.mcowen@noaa.gov and tim.sartwell@noaa.gov and copy your coastal FHP coordinator (*listed above*) by Monday, **April 15, 2024**.

Include the following sections in your proposal:

- Project title
- Project location and FHP
- Brief project description
- Explanation of how the project engages recreational anglers or partners;
- Project timeline
- Project budget (broken down into cost categories)

Evaluation Criteria

Reviewers will assign scores to applications ranging from 0-100 based on the following evaluation criteria. We encourage applicants to make explicit connections to the evaluation criterion in their applications.

Relevance to program goals (40 points)

- Is the project located in **and** coordinated with a Fish Habitat Partnership?
- Are recreational, cultural, subsistence, or non-commercial fishing partners actively engaged?
- Does the project focus on habitat conservation, restoration, or protection for recreationally important saltwater or diadromous species?
- Will the project result in improved fish habitat availability, quality, or understanding for future restoration or protection?
- Does the project involve partners from groups underrepresented in the recreational fishing community?

Clear objectives and activities (20 points)

- Are the project activities aligned with the objectives of the proposed project?
- Are the project objectives and activities clearly described?
- Is there information about how project success will be evaluated?

Collaboration (20 points)

- Does the project demonstrate coordination with the relevant FHP and recreational, cultural, subsistence, or non-commercial fishing partners?
- Does the project have the potential to build long-term relationships with recreational, cultural, subsistence, or non-commercial fishing community/partners?

Budget (20 points)

- Is the project budget clear and specific as to how funds will be spent?
- Is a large proportion of funds (relative to salaries, overhead, etc.) directed toward the implementation of on-the-ground habitat restoration, protection, or engagement activities?
- Is the budget reasonable and is the project achievable within the provided budget and timeline?

Frequently Asked Questions

1. What types of projects or activities are considered “habitat restoration or protection”?

Habitat restoration and/or protection takes many forms depending on the geography and the fish species of focus. This funding opportunity will support projects that directly result in habitat restoration or protection (e.g., oyster reef, living shoreline, or woody debris installation, etc.) for recreationally important fish species or indirectly result in protection (e.g., habitat mapping for protection, research, etc.). Projects that are purely research focused (i.e., without a direct connection to restoration or protection) are not best suited for this funding opportunity.

2. Who can submit proposals?

Any coastal FHP or its partner is eligible to apply for this funding opportunity. Organizations that are not already partners in a coastal FHP are also welcome to apply, provided that they coordinate with the relevant FHP coordinator on their application. A brief acknowledgement of support from the corresponding FHP coordinator can help to demonstrate this coordination.

3. How will funds be distributed? Does there need to be a funding mechanism already in place for the project?

Typically, the interstate fisheries commissions are simple mechanisms NOAA Fisheries can utilize to disburse money. NOAA Fisheries has existing agreements with every commission. Proposals do not need to budget for any overhead associated with the funding mechanism (e.g., transfer through a commission). FHPs and partners do not need to have a funding mechanism in place to submit a proposal. If there is not a funding mechanism identified in the proposal, we will work to identify whether a mechanism exists.

4. Will funds need to go through NOAA Fisheries regional offices?

The path of the funds depends on the funding mechanism, but funds will not have to pass through the regional offices to go to the recipient, unless deemed appropriate or necessary.

5. Can funds be distributed through the non-profit arm of NFHP (Beyond the Pond) to get to the FHP to implement the project?

We are not able to move money through the non-profit arm of NFHP (Beyond the Pond).

6. When do the funds need to be spent?

Funds must be obligated by the end of FY24 (September 30, 2024) but do not need to be spent by that date.

7. What does it mean for funds to be obligated?

In order for funds to be obligated, they must be processed onto a contract, grant, cooperative agreement, etc. (whatever funding mechanism that is used to move the money from

NOAA/OHC to the awardee, or to the entity transferring the funding to the awardee). Processing of funds must happen by September 30, 2024, but the performance period of the project may be longer.

8. Over what time frame can the projects take place?

The funding opportunity is for the FY24 fiscal year. However, projects can take place over the course of more than one year. Please include a project timeline with your application.

9. Can projects focus on diadromous species?

Yes, projects can focus on diadromous species. Priority may be given to projects that focus on federally-managed species (which include several diadromous species).

10. What are the reporting requirements?

There are no formal reporting requirements for this funding opportunity, but the NOAA Fisheries Office of Habitat Conservation will ask for brief project updates and photos, and will write a web story about the funded projects when selected and approximately a year later to describe progress.

Historically, funds have been transferred to FHP partners through the interstate fisheries commissions, which may have their own reporting requirements for funded projects.




National Fish Habitat Partnership Projects to Engage Recreational Fishing Communities and Restore Habitat

June 02, 2023

Nearly \$180,000 will support habitat restoration and angler engagement in Florida, Hawai'i, and Alaska.



Left: Kuleana Coral Restoration staff with coral fragment modules ready to outplant onto a reef. Right: Coral fragment modules in situ. Credit: Kuleana Coral Restoration

NOAA Fisheries is funding four projects in 2023 to restore habitat through the coastal [National Fish Habitat Partnerships](#) . These projects will actively engage local communities, including anglers, who

make critical contributions to fish habitat conservation nationwide. The projects demonstrate NOAA's commitment to restoring fish habitat and supporting access to sustainable saltwater recreational fishing, a popular pastime that boosts the U.S. economy.

Florida Keys Seagrass Restoration

Sponsoring Partnership: Atlantic Coastal Fish Habitat Partnership



Over the next year, [Coastal Conservation Association Florida](#) and [Sea & Shoreline, LLC](#), will work with volunteers to restore damaged [seagrass](#) beds in John Pennekamp Coral Reef State Park. The park borders the [Florida Keys National Marine Sanctuary](#). From 1995 to 2015, the amount of damaged seagrass habitat in the sanctuary nearly doubled. This was mainly due to scarring from propellers and vessel groundings on seagrass beds. This project is sponsored by the [Atlantic Coastal Fish Habitat Partnership](#) and made possible by an agreement with the [Atlantic States Marine Fisheries Commission](#).

Seagrass beds in the Florida Keys. Credit: Sea & Shoreline, LLC.

Local boat captains will bring young students to the project site to learn about the benefits of seagrass and the threats it faces. Sea & Shoreline staff will work with the student and captain volunteers to help recolonize seagrass through [sediment tube](#) installations. Trained biologists will monitor the site for 3 years post-restoration to assess seagrass recovery.

Community-Based Coral Restoration in West Oahu, Hawai'i

Sponsoring Partnership: Hawai'i Fish Habitat Partnership

[Kuleana Coral Restoration](#)  will pilot a community-based coral restoration project at Pokai Bay in West O'ahu, Hawai'i. It will build upon the success of last year's NOAA-funded project through the [Hawai'i Fish Habitat Partnership](#) . The bay is an important subsistence and recreational fishing area for the local community. Using input from community members to inform the project design, Kuleana Coral Restoration will work with local anglers and other community partners. They will restore degraded reefs and educate the public on reef restoration. These reefs are critical habitat for many target fish species and uphold the community's way of life in the bay.


Assembling a module with coral fragments. Credit: Kuleana Coral Restoration

Reef restoration will be focused on *Porites compressa*, also known as finger



coral. Anglers will learn how to create finger coral fragment modules during interactive restoration demonstrations. These modules will then be outplanted back onto reefs. The funding for this project is made possible by an agreement with the [Pacific States Marine Fisheries Commission](#) .

Restoring Stream Banks with Anglers near Anchorage, Alaska

Sponsoring Partnerships: Kenai Peninsula Fish Habitat Partnership and Matanuska Susitna Basin Salmon Habitat Partnership



Next spring, [Trout Unlimited](#)  will work with partners on two projects to stabilize stream banks on popular trout and salmon-fishing rivers near Anchorage, Alaska. They will focus on the lower Kenai River and Montana Creek (a tributary of the Susitna River). Local anglers, recreational fishing business staff, and tribal members will plant vegetation along nearly 600 feet of stream bank. This will improve rearing habitat for [pink](#), [chum](#), and [coho salmon](#), as well as trout, and Dolly Varden.

Revegetating banks along Montana Creek near Anchorage, Alaska to improve salmon habitat. Credit: Trout Unlimited


The restoration work and following outreach efforts will increase community awareness of the importance of caring for the rivers, on which local fisheries depend. This project is supported by [Kenai Peninsula Fish Habitat Partnership](#)  and [Matanuska Susitna Basin Salmon Habitat Partnership](#)  and made possible by an agreement with the Pacific States Marine Fisheries Commission.

Restoration and Angler Outreach near Juneau, Alaska

Sponsoring Partnership: Southeast Alaska Fish Habitat Partnership

[Trout Unlimited](#)  (Tongass chapter) will work in close partnership with the [City and Borough of Juneau](#) , local anglers, and local fishing businesses. They will restore eroded stream banks on Montana Creek (a tributary of the Mendenhall River), near Juneau, Alaska. The creek is a popular area for fishing and other forms of recreation. It has been experiencing high rates of erosion due to heavy use of [social trails](#) along its banks. This project will improve water quality conditions for important native trout and salmon species and enhance fishing opportunities in the watershed.

A pair of spawning pink salmon. Credit: NOAA Fisheries

Partners will engage the local community by holding volunteer planting days to revegetate the stream banks. Additionally, they will launch a post-restoration outreach campaign aimed at preventing further erosion. This includes posting signage to encourage community and angler stewardship of the creek. This project is sponsored by the [Southeast Alaska Fish Habitat Partnership](#)  and made possible by an agreement with the Pacific States Marine Fisheries Commission.

*Last updated by
[Office of Habitat Conservation](#)
on June 23, 2023*

5 March 2024

To: recreationrivers@alaska.gov

Re: Susitna Basin Recreational Rivers Management Plan 2024

I have lived in the Matanuska Valley since 2007, and lived in the Susitna Valley from 1987-1989, when I lived in and ran sled dogs in Trapper Creek around Moose Creek and Kroto Creek, which were designated Recreational Rivers in 1988. My primary connection to the recreational rivers currently is that they provide essential habitat for the salmon I get each year from the Susitna River and jar up for the winter. I am glad to see that Alaska will continue to maintain a Susitna Basin Recreational Rivers management plan, and I hope that it continues to be informed by a citizen-stakeholder Advisory Board. Although I am a member of the MSB Fish & Wildlife Commission, I am submitting these comments as a private citizen.

First, please extend the comment period. It has been difficult to determine specifically where there are changes in the revised plan relative to the initial plan, and only general changes were provided in the DNR webinars. I would like to see a review of the plan by the Advisory Board, as the subject matter experts, before I submit comments, and that does not appear to be possible with the review schedule.

I object to the sentence that “However, fisheries have declined, and with them many of the recreational uses that occurred within the corridors have also been reduced.” The Mat-Su Borough (MSB) continues to grow in population, and unfortunately off-road vehicle (ORV) traffic has exploded across the MSB. There is also the very real possibility of road and development expansion, particularly into the western MSB where the Recreational Rivers are located. The plan should acknowledge that these are reasons why the Recreational Rivers Management Plan must anticipate increased use and control it to the degree that rivers continue to sustain fish, wildlife, migratory birds, and the wilderness experience. Additionally, the MSB has put tremendous effort into opening up habitat through culvert replacement and riparian restoration, and the MSB Fish & Wildlife Commission, which I am a member of, continues to work hard on the policy side to reduce barriers to fish returns. The Susitna sockeye were listed as a “stock of concern” in 2008, but were de-listed in 2020 due to all the work to reduce intercepts of MSB salmon stocks in Cook Inlet and improve stream habitat. Please see the Fish Hub at <https://matsugov.us/fishhub> and the storymap of “It Takes Fish...To Make Fish” booklet developed by the Fish & Wildlife Commission (<https://storymaps.arcgis.com/stories/84041e4a34654a00bc380bafbc403957/>).

There is a lot of good detail in the draft Rec Rivers Management Plan, and I am particularly pleased to see that mile-wide corridors are retained, that additional area is being considered for addition to the Recreational Rivers category (land classification?), and that the Plan continues to prohibit dam construction.

Perhaps I missed it, but I did not see the following:

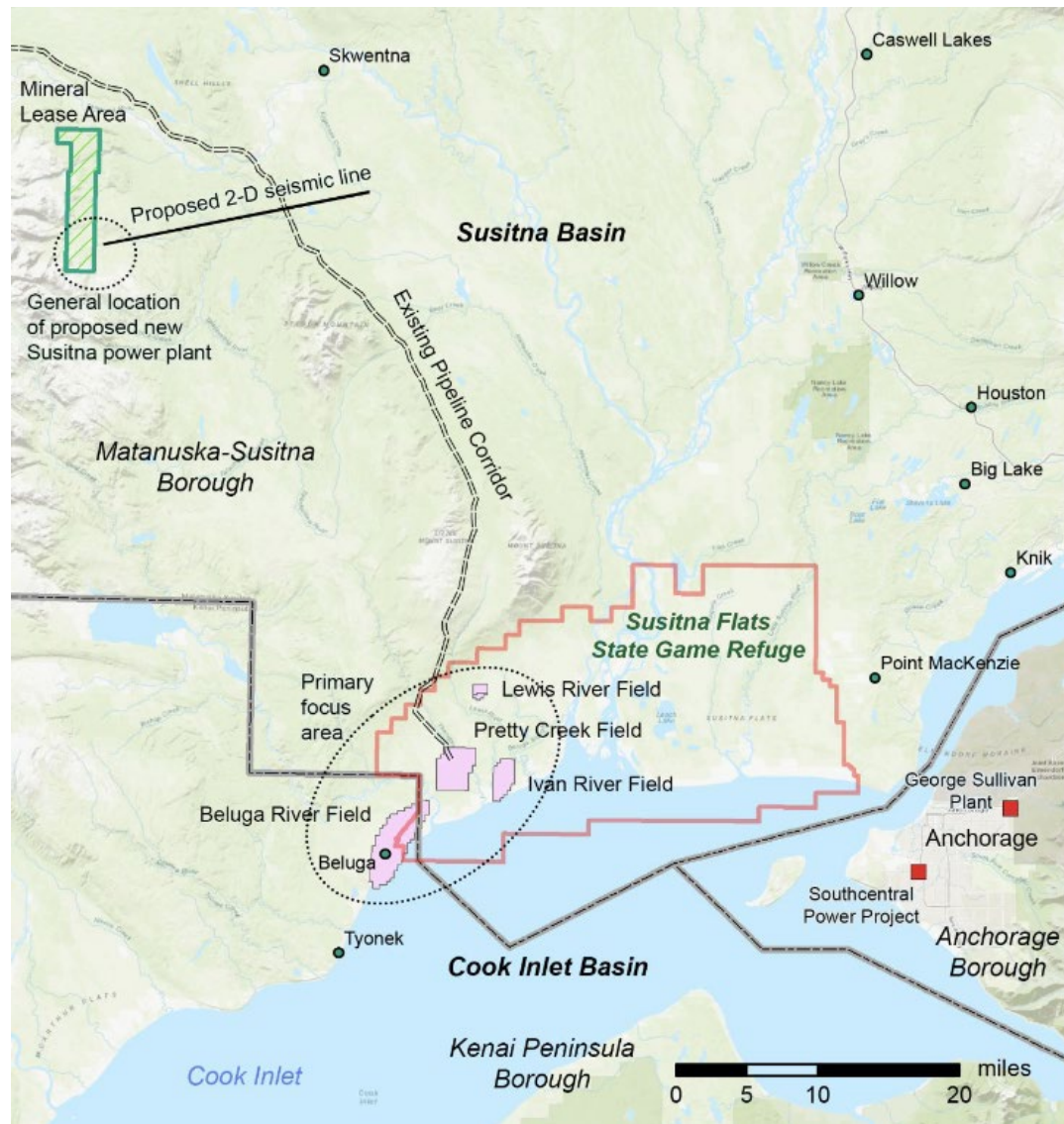
- Is the term “Recreational Rivers” a land use classification?
- Although only the legislature can designate state-owned land as a recreational river or recreational river corridor (AS 41.23.490) and the DNR commissioner “may acquire” additional state land (AS 41.23.460), and criteria for designation are listed on pages 2-78 and 2-79, I did not see mention of a process in which the public, an agency, or the state legislature could nominate a river or river corridor for Recreational River status.

General comments

- In chapter 2, it would be helpful to provide a summary of changes in each of the subsections that discusses an activity (Public Use Sites, Special and Riparian Management Areas, Upland Development, Shoreline Development, Recreation, Fish & Wildlife Habitat, Commercial Use, General and Upland Access, Air and Boat Access, Forestry, Water and Solid Waste, Subsurface and Material Resource development, Heritage Resources, Education, Enforcement). This would be particularly helpful in the lengthy Shoreline Development section.
- Please describe as a summary in Chapter 4 (Implementation) specifically whether there are changes to how land managers are to use the plan, and what those changes are.
- A summary of unit and subunit characteristics, such as acreage, stream miles, stream flow, and aquatic life within the stream would be helpful. Some of this is provided within Chapter 3, but I did not find it as a summary.
- On page 2-79, a criteria for acquiring land to be part of the Recreational Rivers is “the parcel provides needed access to other state land or water”. This should be removed as a criteria, unless the parcel provides access to Recreational River corridors. Or the criteria should be changed to “the parcel provides needed access to state land or water within a current Recreational River or associated river corridor”.

Maps

- In all Management Unit and subunit maps (e.g. Deshka River Management Unit, Talkeetna River Management Unit), please show the anadromous waters on each map, and include the points where specific anadromous species (salmon, lamprey, and others) or life stages (spawning, rearing, presence) have been documented. This is particularly important in areas around trails, stream crossings, and use areas.
- Please provide maps of important wildlife areas within units, including areas used by moose and migratory birds (for migration or nesting).
- On Map 2.2, I don’t see any indication of the area around Skwentna as open to mineral entry, but this is an area for proposed coal mining and a large new coal-fired power plant (see image below from MSB Resolution RS24-031). Please add that in. If “mineral entry” is not the correct classification, please add the correct classification to the map.



Heritage Resources

On page 2-81, the document says that “Historic and pre-historic resources should be identified by...surveys conducted by ADNR archaeologists or historians in compliance with the Alaska Historic Preservation Act”. Please include Tribal Historic Preservation Officers to the list of people that may conduct surveys.

Habitat

- In Chapter 4 it mentions that the DNR Division of Geological and Geophysical Surveys (DGGs) may monitor stream flow on some of the Recreational Rivers, and ADFG will supply fishery information for in-stream flow (ISF) reservations, there is extremely limited information (p4-10, 4-11) on this topic. A summary table of which streams have in-stream flow reservations, the date these were put in place, the permit holder, whether

the permit has been “reviewed” by DNR recently (and the result – whether flow volume was maintained or reduced and why), and specific reach(es) to which the ISF reservation applies.

- It should be a priority to ensure that all reaches of all Recreational Rivers have ISF reservations.
- It should be a priority to ensure that all Recreational Rivers have temperature data loggers along important habitat reaches to monitor whether-where streams are warming and whether-where there are cold pools. This work may be conducted by state agencies, federal agencies, Tribal governments, non-profits, or citizens. The AKTEMP site currently hosts information from data loggers and grab samples from multiple groups (<https://aktemp.uaa.alaska.edu/#/>). This, along with flow and other habitat information could inform the Advisory Board whether streams are changing in ways that affect fish, wildlife, and recreation.
- Only recreational (not industrial) mining should be allowed within the Recreational Rivers and their corridors, and that should have a limited footprint (e.g. no large dredges). It is good to see that the Rec Rivers Management Plan says that zero discharge of wastewater will be allowed (p2-71), however, at the proposed Wishbone Hill coal mine in Sutton, they proposed to use a “coal wash pond” where contaminated wastewater would slowly “infiltrate” into the ground and into Moose Creek – therefore they could say they were a zero discharge facility. There was no hydrology or environmental chemistry to substantiate claims that the infiltration would be clean when it reached Moose Creek. (To date the mine has not been built). This same scenario could occur within the Recreational Rivers corridors, and additional language may be needed in the Management Plan to ensure this situation does not occur.
- The MSB currently requires “fish passage culverts” for new subdivisions. This should be a requirement for all stream crossings in the area of Recreational Rivers and their corridors that contain habitat that currently, or likely could in the future, support anadromous fish (including lamprey) and resident fish that tend to move up- and down-stream. The culverts should follow the US Fish & Wildlife Service guidelines for fish passage culverts, not the state of Alaska guidelines.

Access

- Typo on page 3-161, “Judd Land” should be “Judd Lake”.
- If further development occurs – due to construction of the West Su Industrial Access Road or other major routes that facilitate ORV access to back-country – bridges for ORVs will be absolutely necessary to prevent them from crossing through anadromous waters or through intermittent streams and wetlands that feed anadromous waters. The Advisory Board should be called on to inform the process of where and how to place crossings, and the cost of this should be considered long before any actual development occurs.

Recreation

I did not see any mention of heli-skiing, an important activity in the Talachulitna area.

Implementation

- In Chapter 4 Introduction, it says that the “implementation actions will be used as a basis for budget preparations, requests for legislative funding ..., data collection, and other actions...”. However, there is no list of priorities provided.
 - Why were appendices in the 1991 plan describing a draft list of priorities for implementation removed rather than updated? This seems a critical part of the draft Management Plan for the public to be able to comment on.
 - There is some really good potential future work in the section on “Agency Implementation Responsibilities”. It would be great to see some of this in a prioritized list.
- The Management Plan intends to delete 350 acres from the Middle Little Su River area because there is dual designation with the Nancy Lakes State Recreation Area. How might this deletion affect on-the-ground management?
- What is required for a Plan Amendment, particularly if the Advisory Board is disbanded? Would amendments require public comment? Could they be put in by executive order, or would they require going through the state legislature?
- There is a discussion that public participation requirements makes it difficult to make small changes to the Plan (p4-5). While I am sympathetic to this, there is also the risk that DNR could make changes to “non-controversial” topics that the public would most definitely like to weigh in on. This again highlights the need for an Advisory Board. I would feel much more comfortable with an Advisory Board deciding what is or is not a small change or “non-controversial” than with DNR making that decision.
- For the Trails Action Plan, could the trails plan in the Jonesville-Moose Range Management Plan be used as a template?
- For the Trails Action Plan – public discussion around trails too often is dominated by ORV groups. Please ensure that other user groups – particularly non-motorized groups – are not drowned out. Non-motorized groups include those that use trails for cross-country skiing, backcountry skiing, snowshoeing, horseback riding, bike and fat bike riding, backpacking, camping, hunting, and potentially even heli-skiing operations. That is, the diversity is extensive relative to playing on or with some engine-driven machine. Trails discussions should also focus on how to separate motorized from non-motorized use areas – many of the trails they have taken over or created are un-usable by other user groups due to extensive mudholes and braiding.
- When funding is discussed for Trails, please include discussion of funding Enforcement. Funding one or two enforcement officers could be less cost than having to put in multiple stream crossings.

Advisory Board

Much of the Plan, particularly in Chapter 4, mentions the Recreational Rivers Advisory Board for modifying the plan. The Advisory Board appears to be enshrined in state law (AS 41.23.430), but is currently under threat of being eliminated by executive order. This Advisory Board brings expertise, experience, and multiple opportunities for the public to participate in changes to future plans. This Management Plan should find a way to institutionalize the Advisory Board as a

requirement for future management plan changes. It would be helpful, given continued increases in population as well as ongoing and potentially increasing impacts from climate change, for the Advisory Board to meet on a regular schedule, at least every 5 years and potentially more often.

On page 4-7, it says that the commissioner “shall consult with the Advisory Board...”. Please make sure an Advisory Board remains in place!

Thanks to everyone that put so much time into this.

Kendra Zamzow
PO Box 1250
Chickaloon, AK 99674

From: [Gabe Kitter](#)
To: [Maija DSabo](#); [Lacie Olivier](#)
Subject: Fw: Mitigation considerations for reducing wildlife vehicle collisions
Date: Tuesday, March 5, 2024 1:13:58 PM
Attachments: [image001.png](#)

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

Maija,

I just wanted to get this information to you as it might be pertinent enough to add to the agenda. I'd at least like to get the commissions thoughts on if this is something we would like to devote a little energy too.

After speaking with Manny, it sounds like he is attempting to revive an old working group that used to include key players in the goal of mitigating MVC's (Moose Vehicle Collisions). The working group consisted of DOT project Managers and Special engineers with DOT to try to implement some of the MVC mitigation into the design process of road construction. I told Manny to keep me in the loop on his attempt of revitalizing the working group as it might be something that the borough could be interested in.

If it is possible, I would like to get more information regarding the federal funding opportunities for these road design changes that you mentioned. I'm just curious if I am looking in the right direction as far as what qualifies for the finding and what the MSB is interested in.

Also included in this email are some links to educational material that ADF&G is using in regard to MVC mitigation and have asked if the MSB had any ideas for helping to spread the message with this material. [Driving in Moose Country, Alaska Department of Fish and Game](#)

I will also forward an email that Manny with Fish and Game sent to Brad Swartz with the MSB in regard to MVC mitigation on a certain Borough road project but has yet to be able to contact Brad. Wasn't sure if you had any thoughts on this.

Thank you,
Gabe Kitter
907-232-5870

----- Forwarded Message -----

From: Eichholz, Manny L (DFG) <manny.eichholz@alaska.gov>
To: gabe.kitter@yahoo.com <gabe.kitter@yahoo.com>
Cc: Dickman, Burl A (DFG) <burl.dickman@alaska.gov>
Sent: Tuesday, March 5, 2024 at 11:47:13 AM AKST
Subject: Mitigation considerations for reducing wildlife vehicle collisions

Great talking with you yesterday Gabe. I appreciate your interest in wildlife issues and taking the initiative to connect with us at ADFG! Here is a list of considerations to make in road construction and development projects. This is not a comprehensive list and I have no doubt that items will be added or removed in the future as I will learn more as an individual and the wildlife community learns more as a body. When I can think of new items I will be sure to let you know.

- The most effective means of mitigating wildlife collisions would be to collaborate with wildlife experts during the project's initial phases. This kind of collaboration is far more effective than attempting to influence the project during commenting periods or later.
- Avoid road construction that dissects moose habitat and known movement corridors.
- Install and maintain lighting.
- Reduce the number of turns and corners to increase driver visibility.
- Smooth hills that run perpendicular to the road within the right-of-way. These hills may hide moose just prior to when they enter the road.
- Remove vegetation from the right-of-way and medians that may hide moose just prior to them entering the road.
- Remove attractants such as food sources (e.g., birch and alder) from the right-of-way and impede their growth. Effective techniques such as "grubbing" should be promoted over "clearing".
- Do not use barrier medians that would cause a moose to pause in the middle of the road. Medians may also separate small calves from cows which will stress both animals and may cause one or both to remain in the road longer than necessary. Instead of barrier medians use a depressed median.
- Do not build barriers, especially not close to the road, that would force moose to walk alongside the road or return the way they came.
- Fencing should be 10 ft or taller. Grown moose can easily leap shorter fencing, especially in the winter.
- Signs should be placed in areas of high rates collisions, crossings, or the potential for either. Signs should be dynamic or seasonal (winter) otherwise these warnings will fall to the back of people's minds as they grow accustomed to them.
- Support the Fish & Game Miles the Moose campaign. This can come in the form of funding, spreading of educational material, etc. This campaign promotes awareness to new and out of state drivers and educates people to flash their hazards when they see moose in or alongside the road to warn other drivers.



Manny Eichholz

Wildlife Biologist III Assistant Regional Management Coordinator

Alaska Department of Fish and Game

Division of Wildlife Conservation Region IV

Phone (907) 861-2103

Seldon Road Extension Project

Phase II Alignment



Matanuska-Susitna Borough



Temporal variation of moose–vehicle collisions in Alaska

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Abstract: Collisions between vehicles and wildlife have long been recognized to pose threats to motorists and wildlife populations. In addition to the risk of injury or mortality faced by the motorists involved in wildlife–vehicle collisions (WVCs), other drivers are also put at risk due to road obstructions and traffic congestions associated with WVCs. Most WVCs in Alaska involve moose (*Alces alces*), an animal that is sufficiently large to pose a threat to property and human life when involved in collisions. We analyzed the temporal variation in the number of moose–vehicle collisions (MVCs) reported in the 4 most populous boroughs of Alaska, USA from 2000–2012. We examined daily and annual trends in MVC rates and compared them to moose and human behavioral patterns to better understand possible mitigation strategies. The distribution of MVCs was skewed toward winter and hours of the day with less visibility. Fifty percent of the MVCs reported from 2000–2012 occurred where the commuter rush hours overlapped with dusk and dawn in winter. Knowledge of these temporal patterns can provide managers with practical mitigation options, such as the use of seasonal speed reduction, improved lighting strategies, dynamic signage, or partnerships with mobile mapping services.

Key words: Alaska, *Alces alces*, deer–vehicle collision, human–wildlife conflict, mitigation, moose, moose–vehicle collision, ungulate, urbanization, wildlife–vehicle collision

WILDLIFE–VEHICLE COLLISIONS (WVCs) are a consequence of human population growth and urbanization. Although WVCs have occurred since the introduction of motorized vehicles, the WVC rate has increased geometrically with increasing traffic volumes and speeds (Conover et al. 1995). Contemporary WVCs place motorists and wildlife at increased risk of mortalities and injuries. If WVCs are not sufficiently mitigated, we should expect the risks to motorists to increase as urbanization continues. These increased risks subsequently reduce the cultural carrying capacity of the wildlife population (Kilpatrick and LaBonte 2003, Siemer et al. 2013).

Studies in Canada and the northeastern United States have documented seasonal variation in WVCs involving moose (*Alces alces*; Joyce and Mahoney 2001, Danks and Porter 2010). In Norway and Canada, the seasonal change in snow depth and temperature predicted fluctuations in moose–train collision (MTC) and moose–vehicle collision (MVC) patterns (Gunderson and Andreassen 1998,

Dussault et al. 2006, Rolandsen et al. 2011). Krauze-Gryz et al. (2017) and Niemi et al. (2013) linked the life-cycle strategies of moose to the seasonal variation in MTCs in Poland and MVCs in Finland.

Temporal patterns of MVC reports likely reflect the seasonal constriction of the distribution of moose to areas where roads are more common, but little empirical evidence of such a trend exists to support this assumption in Alaska, USA. For example, in Alaska, more MVCs occur between November and February than in all other months combined (Del Frate and Spraker 1991). In south-central Alaska, moose typically cluster at lower elevations during the winter months as the snow depth in the mountains increases, thereby increasing moose population density in valleys (Ballard and Whitman 1988, Prichard et al. 2013). Because valleys are also areas of urban sprawl, this seasonal variation in moose population density near roads should be reflected in the pattern of MVCs throughout the year (U.S. Census Bureau 2010). In a 31-year study in Norway, Rolandsen et al. (2011) found



Figure 1. Female moose (*Alces alces*) staring at oncoming traffic after successfully crossing Palmer-Fishhook Road with her calf on September 30, 2016 near Fishhook, Alaska, USA.

the density of moose populations to be the most important factor explaining the variation in MVCs, and Dussault et al. (2006) and Seiler (2005) used moose population density to explain the variation in MVCs in Canada and Sweden.

Both traffic flow and moose activity peak daily in a bimodal crepuscular pattern, so the daily pattern of MVCs should reflect this difference, especially during the darkest months of the year (Steiner et al. 2014). Dussault et al. (2006) found that probability of MVCs in Canada increased 2–3 times higher at night. Similarly, Gunderson and Andreassen (1998) in Norway and Joyce and Mahoney (2001) in Newfoundland reported MTC and MVC frequency to be highest between dusk and dawn.

Based on Alaska Department of Transportation and Public Facilities (ADOTPF) unpublished data, moose are the most common species involved in reported WVCs in Alaska (Figure 1). Between 2000 and 2012, ADOTPF documented 9,949 MVCs in the state (ADOTPF, unpublished data). These MVCs resulted in 23 human fatalities, 118 incapacitating injuries, and approximately 1,400 minor injuries (ADOTPF, unpublished data). The ADOTPF estimated that \$33,000 is lost every time an MVC occurs in the state.

The objective of our research was to delineate temporal trends in MVCs across Alaska to assist managers in developing potential MVC

mitigation strategies. We expected past MVC reports to be clustered at times of the day or year when moose were expected to be more active (i.e., during dusk and dawn) or be in closer proximity to roads (i.e., winter) and vehicular traffic was expected to be high (i.e., during commuter rush hours and during summer). Due to the overlap of commuter traffic intensity and crepuscular moose activity during winter, we expected MVC reports to be temporally clustered in the mornings and evenings of winter.

Study area

We conducted our study within 4 Alaskan boroughs: the Municipality of Anchorage (ANC), the Fairbanks-North Star Borough (FNB), the Kenai Peninsula Borough (KPB), and the Matanuska-Susitna Borough (MSB). The ANC, KPB, and MSB are situated within south-central Alaska within 58.6–63.5°N latitude and 146.4–154.7°W longitude. Topography within the ANC, KPB, and MSB ranges from sea level to a respective peak of 2,441, 3,480, and 4,443 m above sea level. The FNB is situated within interior Alaska between 64.2–65.5°N latitude and 143.8–148.7°W longitude and encompasses a range of elevations between 83 and 1788 m above sea level.

Between 2000 and 2012, the mean annual temperature was 3°C in south-central Alaska where the temperature oscillated from -26°C in winter to 24°C in summer (National Oceanic and Atmospheric Administration [NOAA] 2012). Mean annual precipitation ranged from 32–55 cm between 2000 and 2012, while mean annual snowfall ranged from 93–342 cm. The mean annual temperature was -2°C in interior Alaska where the temperature ranged from -42°C in winter to 24°C in summer (NOAA 2012). Mean annual precipitation ranged from 21–35 cm between 2000 and 2012, while mean annual snowfall ranged from 63–197 cm.

These boroughs were chosen because they represent the majority of the human population (82%) and the majority of the MVCs (88%) reported in Alaska during the study period between 2000 and 2012. As of the 2010 census, the most populous area of the state was the ANC, which accounted for 41% of the 700,000 residents of Alaska. In the FNB, KPB, and MSB, the human populations were

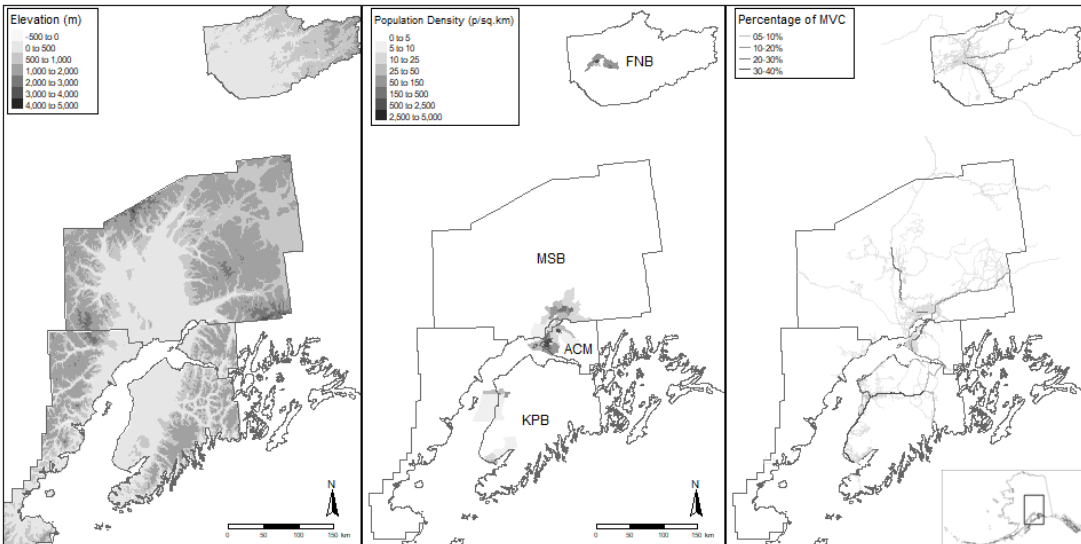


Figure 2. Map of study areas including elevation, population density, and percent of moose–vehicle collisions (*Alces alces*; MVC) on the road system within 4 Alaskan boroughs: the Municipality of Anchorage (ANC), the Fairbanks-North Star Borough (FNB), the Kenai Peninsula Borough (KPB), and the Matanuska-Susitna Borough (MSB), Alaska, USA, 2000–2012.



Figure 3. A patchwork of houses and mixed coniferous-deciduous wooded areas, which is a typical view from above in semi-urban areas of the Matanuska-Susitna borough. Photograph taken on July 9, 2016 from a biplane above the Fishhook community near Palmer, Alaska, USA.

highly concentrated into a small portion of their respective borough (Figures 2 and 3). The proportion of human population, change in population between the 2000 and 2010 census, area of the borough, reported moose density, and average artificial light reflectance on the road system are listed alongside the proportion of MVCs reported for each borough in Table 1. Within each borough, a large share of the reported MVCs in each borough occurred on a state highway, and only 6 local roads accounted for >5% of the MVCs in a given borough (Figure 2). Because the boroughs accounted for large areas of the state, ambient light conditions could differ among boroughs depending upon the time of year. The KPB is at much lower latitude than the FNB, so the hours of sunlight per day differ by as much as 2 hours in the winter.

Methods

Each time an MVC was reported by a driver within the state of Alaska, a law enforcement officer filed a report on the incident, which included information on the date, time, and location, by referencing the nearest intersection, as well as descriptive variables such as the number and type of injuries, number of animals, and number of vehicles involved. To facilitate this research, we accessed the statewide database of MVC reports compiled

Table 1. Summary table comparing the population, area, moose (*Alces alces*) density, artificial light reflectance on the road system, and daily vehicle miles traveled (DVMT) on the interstate highways in 4 Alaskan boroughs: the Municipality of Anchorage (ANC), the Fairbanks-North Star Borough (FNB), the Kenai Peninsula Borough (KPB), and the Matanuska-Susitna Borough (MSB), Alaska, USA, 2000–2012.

Borough	Proportion of Alaskan population (%)	Change in population between 2000 and 2010 (%)	Area (km ²)	Moose density (moose/km ²)	Artificial light reflectance on road system ⁶ (%)	DVMT (in thousands)	Proportion of reported MVCs (%)
ANC	41	+0.12	5,083	0.35±0.00 ^{1,2}	62.4	2,082	21
FNB	14	+0.18	19,280	0.53±0.07 ³	15.5	550	14
KPB	13	+0.19	64,107	0.34±0.08 ⁴	4.4	898	27
MSB	13	+0.50	65,418	0.62±0.08 ⁵	4.4	481	27

¹ This estimate was reported throughout the time frame of this study. Deviation reflects change in upper and lower bounds of estimated moose density between management reports.

² Game Management Unit (GMU) 14C (Alaska Department of Fish and Game [ADFG] 2002–2014)

³ GMU 20C (ADFG 2002–2014)

⁴ GMU 15 (ADFG 2002–2014)

⁵ GMU 14A/14B (ADFG 2002–2014)

⁶ Extracted from 2012 VIIRS image to geospatial dataset representing the Alaskan road system and averaged based on borough (Elvidge et al. 2017)

from 2000 to 2012 by ADOTPF (2012). We filtered the MVC report data using Program R (R Core Team 2018), with the package Tidyverse (Wickham 2017), to only include the ANC, FNB, KPB, and MSB observations without missing accident date/time information and removed variables that were not relevant to the analysis. The resulting data table consisted of 8,794 observations described by accident date/time and borough.

Using the accident date/time variable, we created variables classifying each observation by the hour of the day, day of the week, ordinal day of the year, year, and a seasonal factor representing a period of the annual life cycle outlined for moose by Ballard and Whitman (1988). We also used the accident date/time and the centroid of each borough to classify each observation with the approximate sunrise, sunset, and sun altitude, the position of the sun in relation to the horizon, using Program R with the package Suncalc (Agafonkin and Thieurmél 2018).

Because moose activity was expected to increase during dusk and dawn, we used the sun altitude variable to categorize each observation as night, dawn, day, or dusk. Based on the astronomical definition of twilight, we defined night as a sun altitude below -18 degrees and day as a sun altitude above zero degrees. We defined dusk and dawn as a sun altitude

between -18 and zero degrees and separated dawn and dusk based on the hour of the day. To evaluate whether the mean frequency of MVCs per hour was greater during dawn and dusk than day and night and whether the seasonal difference in lighting affects these differences, we performed Welch 2-sample *t*-tests on 8 subsets of the data. We filtered the observations to only include dusk or dawn, night or day, and winter or summer observations and compared the mean frequency of MVCs per hour between the 2 pairs of time groupings (e.g., winter, dusk > day or summer, dusk > day).

Finally, we used the accident date/time variable from the original 8,794 observations to create a time of the day variable standardized by hour (i.e., 0830 would be 8.5). This hour of the day variable was then plotted against the day of the year following the same procedure typically used to compute a kernel density surface of spatial data using Program R, with the package Ks (Krauze-Gryz et al. 2017, Duong 2018). We computed contours representing the smallest area that represented each quantile of the data to quantify the temporal clustering of reported MVCs in each borough. By plotting these contours, we were able to visualize the intersection between peaks in MVCs per day and peaks in MVCs per hour throughout the year and compare them to the life cycle periods of moose in Alaska (Ballard and Whitman 1988).

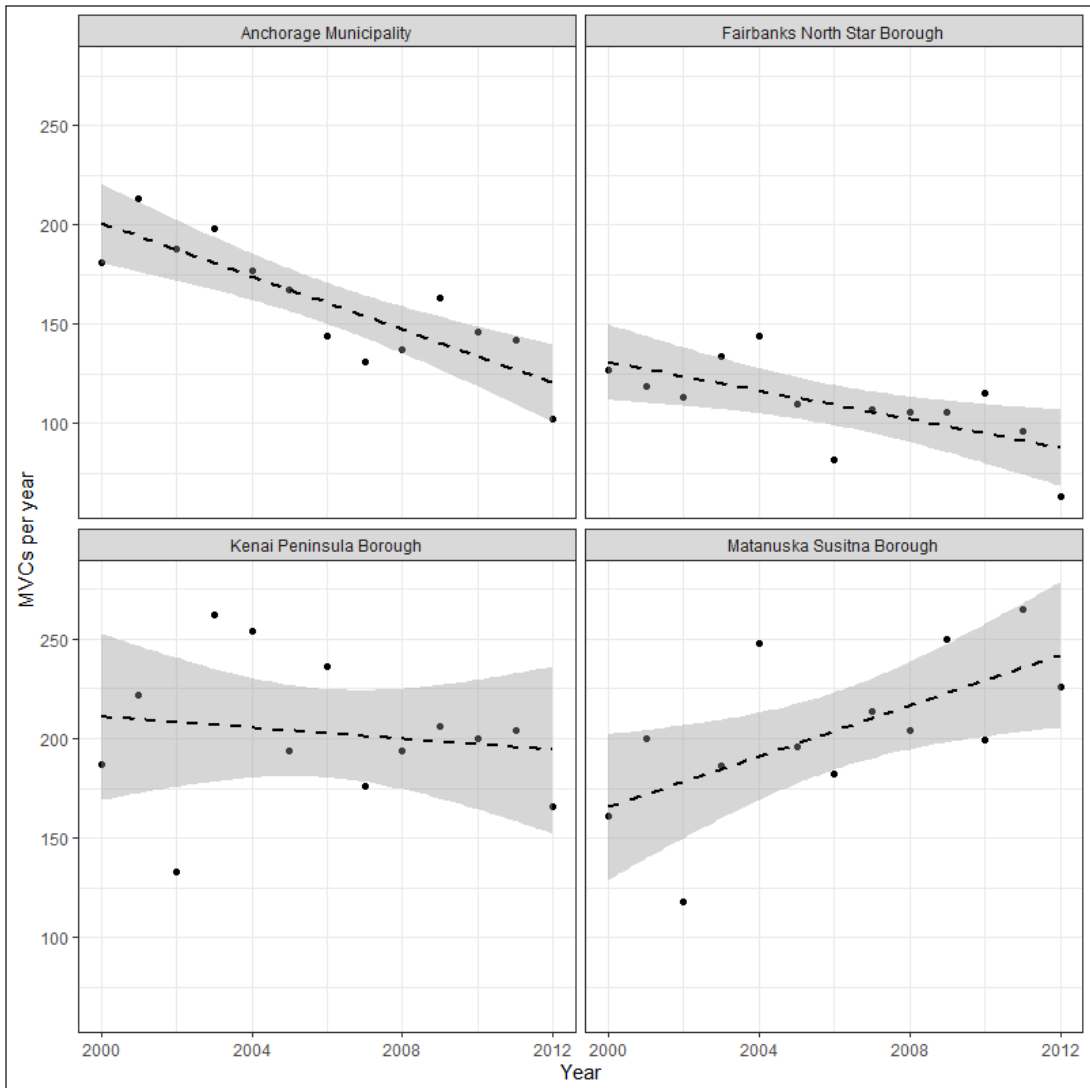


Figure 4. Moose–vehicle collision (*Alces alces*; MVC) report counts (represented by points) and trends (represented by dotted lines) between 2000 and 2012 in the 4 most populated areas of Alaska, USA. The shaded area indicates a 95% confidence interval.

Results

Within our study areas, 48.2% of MVCs were reported when moose were expected to be in their winter range, and 58.1% of MVCs were reported between 1700 hours and midnight. Further, only 30% of MVCs were reported on weekends or holidays, and only 19% of MVCs were reported during daylight hours. The KPB and MSB accounted for most of the reported MVCs in the state, followed by the ANC and FNB (Table 1). Between 2000 and 2012, annual MVC counts trended downward in the ANC and FNB while trending upward

in the MSB, but counts of MVCs were highly variable among years in the KPB (Figure 4). The distribution of MVCs throughout the day skewed away from noon, and half of all MVCs in the state occurred between the hours of 1700 and midnight (Figure 5). Daily reports of MVCs were highest during fall and winter in the KPB and MSB, while the number of daily MVC reports in the ANC and FNB were nearly the same year-round (Figure 6).

During winter, the mean frequency of MVCs per hour was greater at dusk than at day ($t = 8.020$, $df = 104.1$, $P < 0.001$) and at night ($t =$

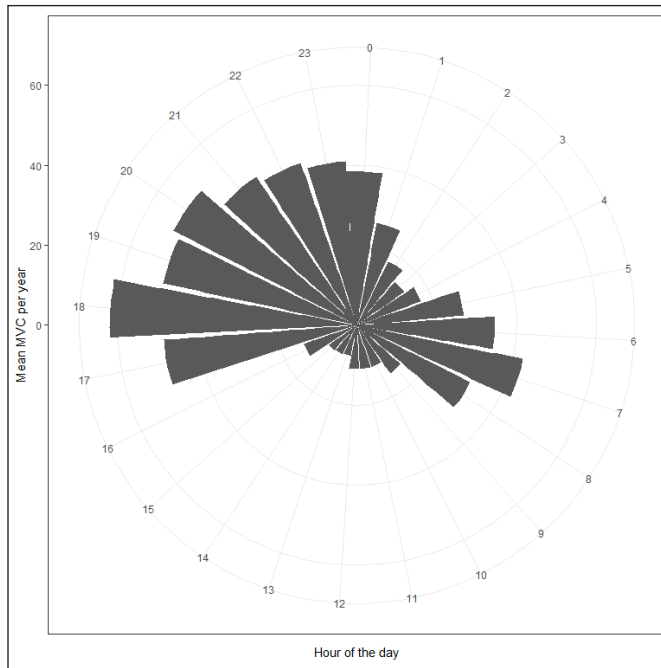


Figure 5. The distribution of moose–vehicle collisions (*Alces alces*; MVC) reported between 2000 and 2012 in 4 boroughs of Alaska, USA. The MVC frequency is categorized by the hour of the day from midnight (0) to 2300 hours (23), the year, and the average count of MVC per hour is presented.

2.097, $df = 121.9$, $P = 0.019$) and greater at dawn than at day ($t = 6.677$, $df = 89.6$, $P < 0.001$), but the mean frequency of MVCs per hour was less at dawn than at night ($t = -2.480$, $df = 129.63$, $P = 0.007$). During summer, the mean frequency of MVCs per hour was greater at dusk than at day ($t = 8.245$, $df = 41.9$, $P < 0.001$) and at night ($t = 10.080$, $df = 41.7$, $P < 0.001$), and greater at dawn than at day ($t = 7.388$, $df = 117.8$, $P < 0.001$) and at night ($t = 11.363$, $df = 112.2$, $P < 0.001$).

Using kernel density estimation, we were able to quantify the intersection between daily and annual peaks in MVC frequency using a point pattern of time of the day plotted against day of the year for each observation. Fifty percent of all MVC observations were isolated to 20.3% of the temporal density surface within the ANC, 17.8% of the temporal density surface in the FNB, 13.3% of the temporal density surface in the KPB, and 13.6% of the temporal density surface in the MSB (Figure 7). These concentrations are represented by contours that demonstrated that MVC observations were densely clustered near dawn and dusk during fall and winter (Figure 8).

Discussion

The temporal distribution of MVCs in our study areas reflected daily and seasonal fluctuations in expected moose behavior and traffic flow. As moose migrated to lower elevations in winter, they became more likely to encounter highly trafficked roads. The concentration of wintering moose corresponded with decreased visibility due to increasingly dark days, especially during the commuter rush hours near dusk and dawn. Krauze-Gryz et al. (2017) reported similar seasonal peaks in wildlife–train collisions near dusk and dawn, which is a commonly reported phenomenon among animal–vehicle collision studies (Haikonen and Summala 2001, Smith and Dodd 2003, Danks and Porter 2010, Chen and Wu 2014, Bartonicka et al. 2018). Delineating the specific corridors used for this seasonal movement will be crucial to further the study of MVCs in these areas of Alaska.

During the winter solstice in Alaska, sunrise is between 1000 and 1100 hours and sunset is between 1500 and 1600 hours, depending upon the latitude, yet sunlight is available past midnight during the summer solstice. These changing light conditions throughout the year cause dusk and dawn to overlap the morning and evening commuter rush hours during winter, but keep the commuter rush hours during summer completely lit by ambient light. Concurrently, these populations of moose are expected to constrict their range to lower elevations, increasing the likelihood that motorists come into contact with moose during the winter (Ballard and Whitman 1988, McDonald 1991). During winter, the rate of MVCs per hour was greater at dusk than at night, but the rate of MVCs per hour was less at dawn than at night. In a study focused on the general timing of traffic accidents, Akerstedt et al. (2001) reported that late afternoon and nighttime accidents have a more pronounced peak than early morning accidents due to a variety of factors including visibility, intoxication, impatience that leads to speeding, and drowsiness. Additionally, the

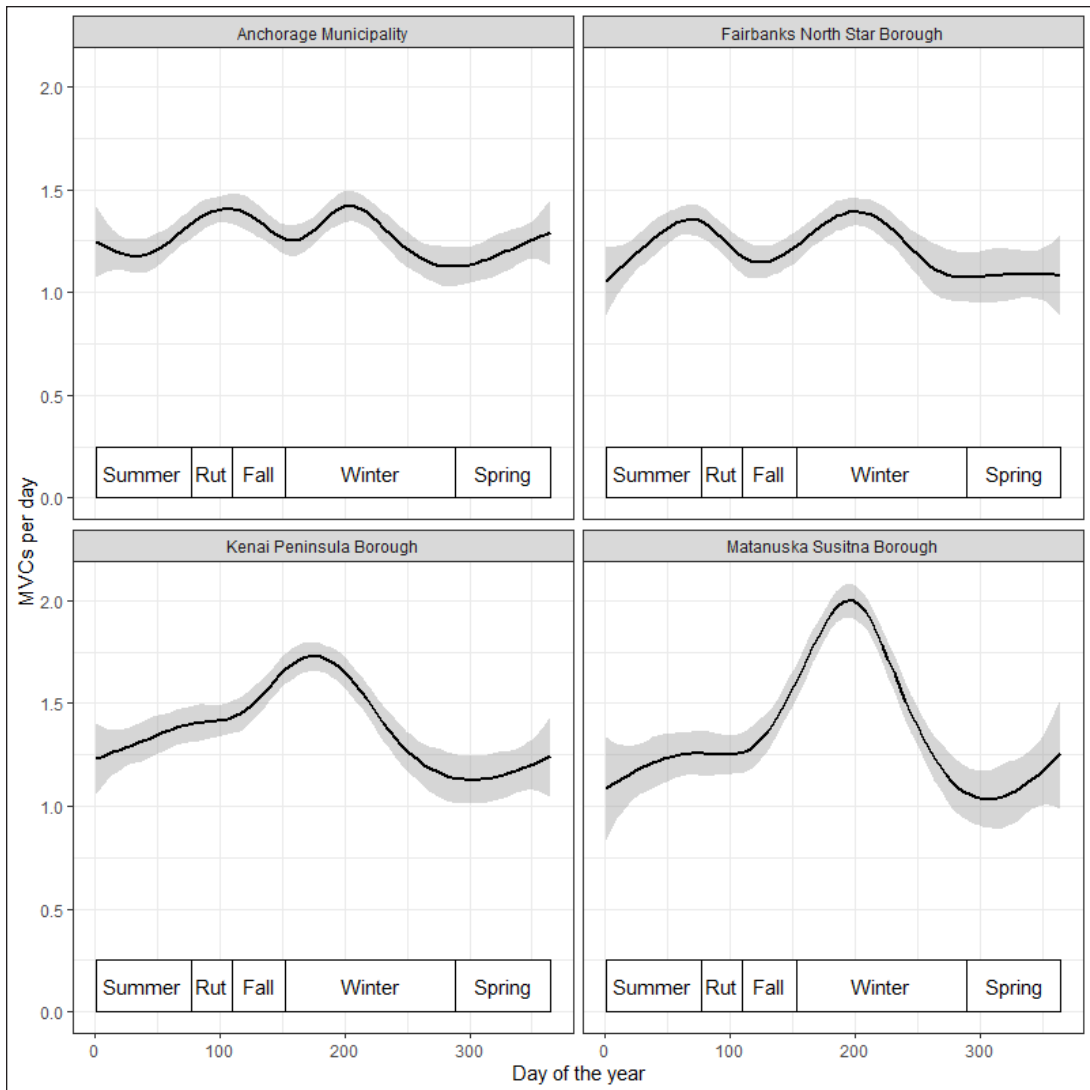


Figure 6. Reported moose–vehicle collisions (*Alces alces*; MVC) per day smoothed by ordinal day of the year, Alaska, USA, 2000–2012. The x-axis is scaled to start the year at July 1 to emphasize the winter peak in MVC rates. The moose life history periods documented by Ballard and Whitman (1988) are labeled below each trend line. The shaded area indicates a 95% confidence interval.

increased prevalence of high-intensity halogen headlights may lead to lower visibility when traffic flow is high and ambient light is low. As nighttime in winter is especially hazardous due to weather and light conditions, the increase in moose activity at dawn may be overshadowed by the lack of visibility at night. The greater rate of MVCs per hour at dawn as opposed to at night in the summer may be more attributed to increased moose activity at dawn than visibility.

As seen from the kernel density contours (Figure 8), half of all reported MVCs in each borough occurred during the winter either just before sunrise or just after sunset. This temporal

clustering may be attributed to artificial lighting. The ANC, being the most populous area, had the most artificial light reflectance measured on its road system, and simultaneously had the lowest MVC rate as a function of traffic among the 4 boroughs in this study. The FNB, which had the second highest amount of artificial light on its road system, was equal in population to the KPB and MSB, yet had far fewer MVCs as a function of traffic.

The relationship between the proportional size and the proportion of observations within each kernel density contour also reflects this difference (Figure 7). The contours of ANC

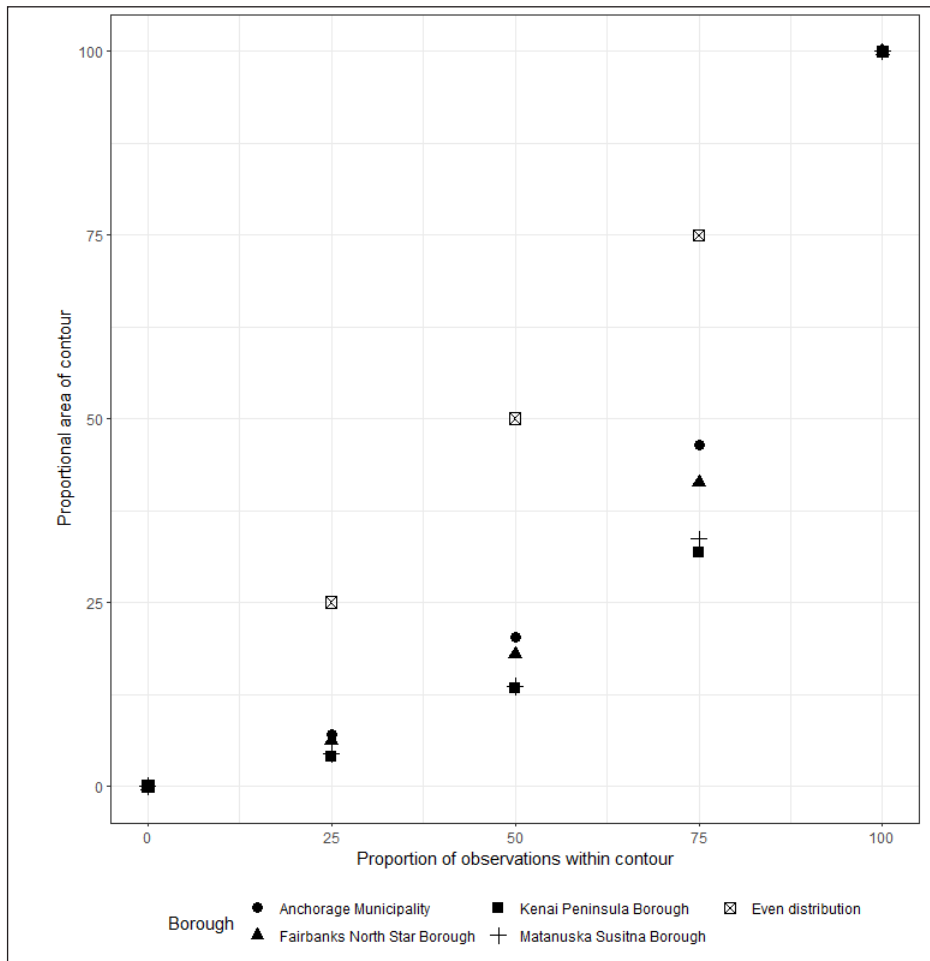


Figure 7. Proportional area of temporal kernel density surface contours for each borough at various levels compared to the expected proportional area of an evenly distributed surface. As the proportional area of the observations diverges from the proportion of observations associated with the contour, the observations within the kernel density surface are more clustered. The associated temporal density surfaces represent the intersection of the reported day of the year and time of day of moose–vehicle (*Alces alces*) collisions in Alaska, USA, 2000–2012.

and FNB show slightly less winter clustering than those constructed from the KPB and MSB observations. Conflicting results have been reported regarding the effects of artificial lighting on mitigating WVCs. Reed and Woodard (1981) found no evidence to support using artificial lighting to reduce deer–vehicle collisions in Colorado, USA, but McDonald (1991) found that artificial lighting led to a 65% decrease in MVCs on Alaska Highway 1. As a way to reduce overall light pollution and save costs, lighting structures can be strategically placed within areas of concentrated MVC risk and lit only during the winter rush hour when traffic levels and moose activity peak (Rolandsen et al. 2011, Gaston et al. 2014).

Permanent “safety corridors,” designated lengths of the road system with reduced speed limits and higher safety fines, have reduced serious motor vehicle accidents within highly trafficked areas by 46% since their introduction to Alaska in 2006 (Kramer et al. 2017). The use of seasonal dynamic signage and seasonally reduced speed limits could provide a similar mitigation option for MVC hotspots throughout the state. Mastro et al. (2010) reported that motorists could not see deer decoys standing at the edge of the road until they were within 50 m of them. When driving >75 kph, this would be an inadequate braking time. The Alaska state highway system, on which 38% of the reported MVCs occurred, has speed limits

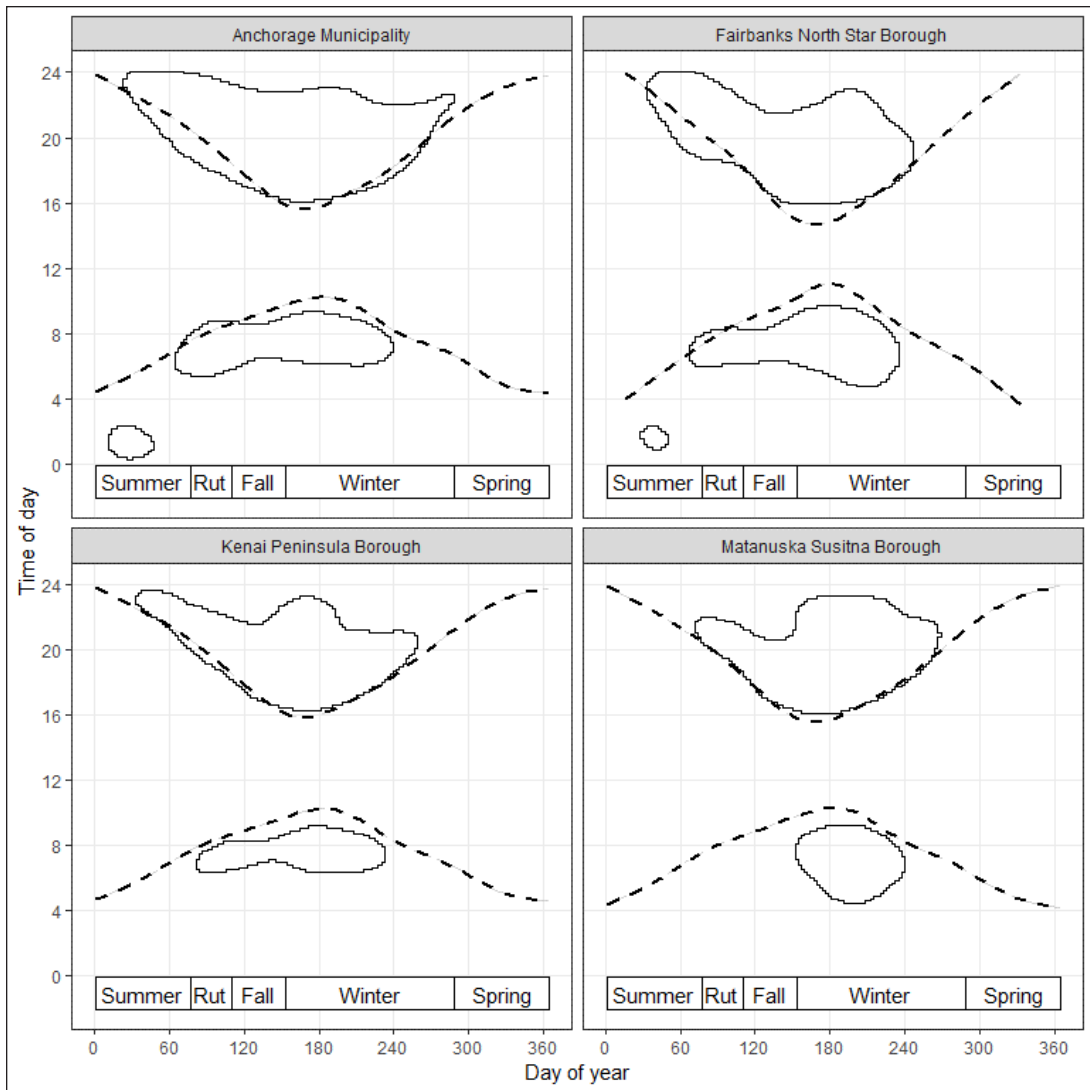


Figure 8. Temporal kernel density surface represented by a contour outlining the smallest possible area that contains 50% of the moose–vehicle collision (*Alces alces*; MVC) observations in each borough, Alaska, USA, 2000–2012. Sunrise and sunset times are demarcated with dashed lines to represent the changing day length and the timing of dusk and dawn.

that range from approximately 80–105 kph. Speeding fatalities accounted for 35–46% of all motor vehicle fatalities between 2005 and 2011, and 66% of surveyed drivers admitted to occasionally driving faster than 113 kph in a 106-kph speed zone (Kramer et al. 2012). A reduction of the speed limit to <75 kph during periods of high MVC threat could increase driver visibility and reduce braking time.

Sullivan et al. (2004) reported a 51% reduction in deer mortality when drivers, influenced by a seasonal signage treatment, followed the speed limit. Within the KPB and the MSB, dynamic signage, which is updated each month to show

the number of MVCs that have occurred since July 1, has been implemented in the KPB and the MSB since the 1990s as part of a public awareness program to reduce MVCs (Del Frate and Spraker 1991). The use of strategically placed warning signs can keep drivers alert to the threat of MVCs, but drivers easily habituate to stationary signage (Figure 9). If new signage is implemented, it should include dynamic messaging or should be removed seasonally based on MVC threat to decrease habituation, and it should be paired with increased enforcement of speed limits (Sullivan et al. 2004, Hardy et al. 2006).



Figure 9. Stationary warning signage indicating moose (*Alces alces*) crossings southbound on the Parks Highway in the Matanuska-Susitna borough. Photograph taken while the authors were investigating a moose–vehicle collision site on October 11, 2018 near Houston, Alaska, USA.

As we have entered the information age, modernized alert systems could be implemented in mobile mapping services, such as Google or Apple maps, with the partnership of local government agencies. If these government agencies were to provide the mapping service with spatial and temporal MVC hotspots, an alert could be sent to drivers using the map application before they enter an area of high MVC probability, similar to the way map services warn drivers about upcoming traffic congestion. Further study is required to isolate the spatial extent of MVC hotspots within the state, but this mitigation option could be a promising alternative as more people adopt smartphones.

Our research provides insight into temporal patterns in MVC rates in Alaska that can be used to inform mitigation efforts. However, it is likely that many other factors influence MVC rates through both space and time. For example, differences in latitude and elevation gradients may lead to different behavioral adaptations than those documented by Ballard and Whitman (1988) for moose in south-central

Alaska, especially in the moose population near FNB. Currently, in south-central Alaska, weather data is difficult to obtain due to the low number of working weather stations in the area. In future studies, weather patterns, especially snow depth patterns, should be explored as an index of moose population density, but this may require investment into increasing the number of weather stations in the area. In conjunction with artificial lighting, factors such as road geography, vegetation height, vegetation type, and weather may influence the driver's visibility as well as the moose's affinity for crossing at the site. Further study of Alaskan MVCs should focus on site-specific factors that lead to spatial and temporal hotspots.

Management implications

We were able to delineate the temporal distribution of MVCs within the state of Alaska and explain the daily and seasonal fluctuations using expected moose behavioral trends and traffic flow. This analysis could be replicated for any management unit that needs a preliminary assessment of possible WVC mitigation. Within the state of Alaska, the winter peaks in MVCs could be mitigated with dynamic or seasonal signage, seasonally decreasing speed limits, or with improved lighting strategies during the winter rush hour. Partnerships with mobile mapping services could become a promising alternative to seasonal mitigation practices.

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LUCIAN R. McDONALD is a Ph.D. student at the Jack H. Berryman Institute at Utah State University. He studies human–wildlife interaction, animal movement, and moose in the Matanuska-Susitna borough of Alaska in partnership with the Alaska Department of Fish and Game.



TERRY A. MESSMER is a professor and extension wildlife specialist in the Department of Wildland Resources at Utah State University (USU). He holds the Quinney Professorship of Wildlife Conflict Management in USU’s Quinney College of Natural Resources, and he is the director of USU’s Utah Community-Based Conservation Program (CBCP) and the Jack H. Berryman Institute for Wildlife Damage Manage-



ment. He received a B.S. degree in fisheries and wildlife management and biology from the University of North Dakota—Grand Forks, an M.S. degree in regional and community planning and a Ph.D. degree in animal and range science from North Dakota State University—Fargo. His research, teaching, and extension activities include identification, implementation, and evaluation of conservation strategies, technologies, and partnerships that can benefit agriculture, wildlife, and resources stakeholders.

MICHAEL R. GUTTERY is a waterfowl biologist with the Alaska Department of Fish and Game (ADFG). At the time this research was conducted, he worked for ADFG as a biometrician and research coordinator. He earned a B.S. degree in natural resources management from the University of Tennessee–Martin (2003), M.S. degree in forestry from Mississippi State University (2006), and Ph.D. degree in wildlife biology from Utah State University (2010).



Associate Editor: Jonathan Mawdsley

Gene J. Sandone
4950 W. Clayton St.
Wasilla, Alaska
907-631-6033
gjsandone@gci.net

Professional Experience

Senior Fisheries Scientist

G. Sandone Consulting, LLC, Wasilla, AK

May 2009 – Present

- Serve as President and Senior Fisheries Scientist for G. Sandone Consulting, LLC, an environmental consulting firm specializing in fish biology and life history studies, fish inventory and stock assessment, fishery management, salmon escapement evaluation, selective harvest methods, and fish and aquatic ecology.
- Write and submit fishery proposals, petitions, and emergency regulatory petitions to the Alaska Board of Fisheries and to the Federal Subsistence Board
- Provided expert testimony to the Alaska Board of Fisheries, the federal Subsistence Board, state Fish and Wildlife Advisory Committees, and federal Regional Advisory Councils.
- Provide expert analysis of Alaska Board of Fisheries and Federal Subsistence Board proposals regarding the fisheries of the Yukon Area and Bristol Bay
- Developed and assessed various commercial harvest techniques that allow the selective harvest of chum salmon while allowing the live release of Chinook salmon in the Yukon River. These techniques, including dip nets and beach seines, have been successfully implemented beginning in 2013. These methods have been transferred to fisheries in the Upper Yukon, Kuskokwim and Bristol Bay Areas.
- Developed and assessed the in-river use of purse seines to selectively harvest chum salmon while allowing the live release of Chinook salmon and other non-target fish species.
- Analyzed Yukon River salmon escapement goals and provided recommendations regarding the sustainable harvest of the Yukon River Bering cisco and Arctic lamprey fish stocks.
- Conducted an escapement goal analysis for the Department of Fisheries and Oceans (DFO), Canada that is the basis for the present Yukon River Chinook salmon Interim Management Escapement Goal (IMEG) for the Canadian Chinook salmon stocks.

Senior Fisheries Scientist

R2 Resource Consultants

Anchorage, AK/Redmond, OR

May 2008 – May 2009

- Supervised Anchorage staff and managed field projects to evaluate fish stocks in the proposed Pebble Mine area.
- These projects included fish habitat mapping, fish abundance and distribution, and salmon escapement.

Regional Supervisor**Alaska Department of Fish and Game****Commercial Fisheries Division****Arctic-Yukon-Kuskokwim (AYK) Region, Anchorage, AK****January 2001 –May 2008**

- Oversaw all research and commercial, subsistence, and personal-use management activities in the Region.
- Represented the Commercial Fisheries Division as a member on the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative (AYK-SSI) Steering Committee; as co-chair of the Yukon River Panel; and on the Commercial Fisheries Policy and Planning Committee.
- Effectively supervised 200 employees through leadership that encouraged personal commitment and individual growth.
- Developed and managed an annual budget that was more than \$9M.
- Served on International teams that directed international research influencing long-term management strategies and restoration needs within the Yukon River drainage.

Regional Research Supervisor**Alaska Department of Fish and Game****Commercial Fisheries Division****Arctic-Yukon-Kuskokwim (AYK) Region, Anchorage, AK****January 2000 –January 2001**

- Provided senior-level leadership and supervision of all commercial and subsistence research activities within the AYK Region.
- Supervised, planned, coordinated, implemented and evaluated the AYK Region salmon, herring, and crab research projects and the U.S./Canada salmon research programs for the Yukon River.
- Served as co-chair of the U.S. Section of the U.S./Canada Yukon River Joint Technical Committee (JTC) and as the primary investigator for the U.S./Canada Salmon Treaty Negotiations Studies and the Norton Sound Initiative Studies.
- Represented the Commercial Fisheries Division on the Norton Sound Initiative Committee, the AYK-SSI Steering Committee and the FOSM technical committee.

Area Research Biologist**Alaska Department of Fish and Game****Sport Fish Division****Northern Cook Inlet Management Area (NCIMA), Palmer, AK****February 1996 –January 2000.**

- Provided senior-level leadership for salmon and resident fish species research programs.
- Supervised research staff, designed and conducted numerous research projects, including adult salmon enumeration projects, wild juvenile salmon coded-wire tagging projects, and a project which established baseline coho salmon information on the Cottonwood Creek watershed
- Authored several biological escapement goal analyses for Chinook and coho salmon stocks using spawner-recruit models and other methodologies.

Gene J. Sandone—Resume

March 2024

Area Research Biologist**Alaska Department of Fish and Game****Commercial Fisheries Division****Arctic-Yukon-Kuskokwim (AYK) Region,****Yukon and Northern Management Area, Anchorage, AK****July 1988 –February 1996**

- Provided leadership and supervision for the research projects associated with Yukon River-origin Chinook and summer chum salmon stocks and Cape Romanzof Pacific herring stocks.
- Conducted stock assessment projects that utilized side-looking sonar and towers.
- Directed the stock biology program that utilized scale-pattern analysis to determine region of origin as well as age, sex and size information for Yukon River Chinook salmon.
- Authored numerous stock assessments and stock biology operational plans.
- Authored a Fishery Research Bulletin that presented an improved procedure to estimate summer chum salmon harvest in the Yukon River District 4 “roe fishery”.
- Devised an ingenious method of indexing the daily spawn deposition by the herring biomass within Kokockik Bay at Cape Romanzof.

Bering Sea Herring Research Biologist**Alaska Department of Fish and Game****Commercial Fisheries Division****Central and Arctic-Yukon-Kuskokwim (AYK) Regions, Anchorage, AK****May 1984 –July 1986;**

- Served as project leader biologist for the Eastern Bering Sea herring research group that included the Central and AYK Regions.

Fishery Biologist**Alaska Department of Fish and Game****Su Hydro Aquatic Studies, Anchorage, AK****June 1982 –May 1984**

- Worked as a biologist to determine the effects of a large-scale dam on the upper Susitna River resident fish and salmon species.

Education**Master of Science - Fishery Science, Virginia Polytechnic Institute and State University****Bachelor of Science - Fishery Resources, University of Idaho****Bachelor of Science - Accounting and Business Administration, St. Joseph’s College**



Märit Carlson-Van Dort - Anchorage

Term expires 6/30/2024

Märit Carlson-Van Dort is Sugpiaq from the village of Chignik Bay. She was born in Alaska and raised in Southeast Alaska and the southern Alaska Peninsula where she commercial fished for nearly fifteen years. Marit has a Bachelor of Science in Conservation Biology from the University of Wisconsin-Madison and graduate work in Fisheries Science and Secondary Education. Märit has spent the past several years working in both the public and private sectors in public and government affairs with an emphasis on state and federal regulation, environmental policy, permitting, resource development, and community outreach and engagement. Currently she is employed as the President & CEO of Far West, Inc. an Alaska Native village corporation formed under the Alaska Native Claims Settlement Act (ANCSA). In addition to her work at Far West, she has served on the board of directors of STAR of Anchorage, a

local non-profit providing advocacy and support services to victims of sexual trauma, and was a proud volunteer at Big Brothers Big Sisters of Alaska.

Märit can be reached [by email](#).



John Wood - Willow

Chair - Term expires 6/30/2024

After earning his Juris Doctorate from LSU in 1971, John immediately moved to Alaska. His first job was working for the Alaska Superior Court as a law clerk and standing master. In 1973 John opened the doors to his law firm and practiced through the mid 90s before retiring. He has served in numerous appointed and elected positions including over 9 years on the Anchorage Assembly. Currently lives in Willow nestled in Hatcher Pass between two salmon streams and can be seen frequently during the summer fishing Southcentral waters either floating, wading or on his riverboat. John became intrigued by the unique approach of the BOF while employed as legislative staff in the 2014 cycle and welcomes the opportunity to help find solutions to some of long standing issues that seem to divide our community year after year. John's highest priority will be to protect and enhance the strength of our stocks both in the numbers

and size of the returns and harvests.

John can be reached [by email](#).

From: [Alaska Department of Fish and Game](#)
To: [Maja DiSalvo](#)
Subject: 2024/2025 ALASKA BOARD OF GAME CALL FOR PROPOSALS
Date: Friday, February 9, 2024 1:14:02 PM

[EXTERNAL EMAIL - CAUTION: Do not open unexpected attachments or links.]

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CALL FOR PROPOSALS

ALASKA BOARD OF GAME

2024/2025 Meeting Cycle

The Alaska Board of Game calls for proposed changes to hunting and trapping regulations for the Central/Southwest Region, Statewide Regulations, and

Areas of Jurisdiction for Antlerless Moose Hunts

PROPOSAL DEADLINE: WEDNESDAY, MAY 1, 2024

Central/Southwest Region

The Alaska Board of Game (board) is accepting proposed changes for hunting and trapping regulations for the Central/Southwest Region (Game Management Units 9, 10, 11, 13, 14A, 14B, 16,

and 17) including the following topics:

Hunting seasons and bag limits including subsistence and general hunts for all species; trapping seasons and bag limits; big game prey populations and objectives for intensive management; predation control areas implementation plans; community subsistence harvest areas; restricted areas including controlled use areas, management areas, closed areas, and closures in state game refuges.

Proposed changes to 5 AAC Chapter 92, Statewide Provisions, specific to Game Management Units (GMUs) within the Central/Southwest Region will also be accepted, excluding changes to Game Management Unit Boundaries. This includes regulations under the categories of general provisions, permits, permit conditions and provisions, methods and means, possession and transportation, and the use of game. Proposed changes to these provisions must specify the applicable Game Management Units in order to be accepted for the region meeting.

Additional topics: Proposals addressing the Mulchatna caribou herd will be accepted for the entire range, including Units 9B, 17, 18, 19A and 19B.

Statewide Provisions

The board is also accepting proposed changes to specific regulations having statewide applicability under 5 AAC Chapter 92, Statewide Provisions, and 5 AAC 98.005, Areas of jurisdiction for antlerless moose seasons. The regulations open on the Call for Proposals are listed on pages 2 and 3, and do not include trapping and hunting seasons and bag limits under 5 AAC Chapters 84 and 85. Proposed changes must be for statewide applicability; proposals specific to regions or Game Management Units will not be accepted unless submitted for the Central/Southwest Region Call for Proposals described above.

The following topics will be considered for all Game Management Units:

Brown Bear Tag Fee Exemptions

Reauthorization of Antlerless Moose Hunts (*State statute requires all antlerless moose hunts be reauthorized annually.*)

Statewide Regulations Open on the 2024/2025 Call for Proposals

General Provisions and Definitions:

- 92.001 Application of this Chapter
- 92.002 Liability for Violations
- 92.003 Hunter Education and Orientation Requirements
- 92.004 Policy for Off-Road Vehicle Use for Hunting and Transporting Game
- 92.005 Policy for Changing Board Agenda
- 92.008 Harvest Guideline Levels
- 92.009 Obstruction or Hindrance of Lawful Hunting or Trapping
- 92.990 Definitions

Licenses, Harvest Tickets, Harvest Reports, Tags, and Fees:

- 92.010 Harvest Tickets and Reports
- 92.011 Taking of Game by Proxy

- 92.012 Licenses and Tags
- 92.013 Migratory bird hunting guide services
- 92.018 Waterfowl Conservation Tag
- 92.019 Taking of Big Game for Certain Religious Ceremonies

Permits:

- 92.020 Application of Permit Regulations and Permit Reports
- 92.028 Aviculture Permits
- 92.029 Permit for Possessing Live Game
- 92.030 Possession of Wolf Hybrid and Wild Cat Hybrids Prohibited
- 92.031 Permit for Selling Skins, Skulls, and Trophies
- 92.033 Permit for Science, Education, Propagative, or Public Safety Purposes
- 92.034 Permit to Take Game for Cultural Purposes
- 92.035 Permit for Temporary Commercial Use of Live Game
- 92.039 Permit for Taking Wolves Using Aircraft
- 92.040 Permit for Taking of Furbearers with Game Meat
- 92.041 Permit to Take Beavers to Control Damage to Property
- 92.042 Permit to Take Foxes for Protection of Migratory Birds
- 92.043 Permit for Capturing Wild Furbearers for Fur Farming
- 92.044 Permit for Hunting Bear w/the Use of Bait or Scent Lures
- 92.047 Permit for Using Radio Telemetry Equipment
- 92.049 Permits, Permit Procedures, and Permit Conditions
- 92.050 Required Permit Hunt Conditions and Procedures
- 92.051 Discretionary Trapping Permit Conditions & Procedures
- 92.052 Discretionary Permit Hunt Conditions and Procedures
- 92.057 Special Provisions for Dall Sheep and Mountain Goat Drawing Permit Hunts
- 92.061 Special Provisions for Brown Bear Drawing Permit Hunts
- 92.062 Priority for Subsistence Hunting; Tier II Permits
- 92.068 Permit Conditions for Hunting Black Bear with Dogs
- 92.069 Special Provisions for Moose Drawing Permit Hunts
- 92.070 Tier II Subsistence Hunting Permit Point System
- 92.071 Tier I Subsistence Permits
- 92.072 Community subsistence harvest hunt area and permit conditions

Methods & Means:

- 92.075 Lawful Methods of Taking Game
- 92.080 Unlawful Methods of Taking Game; Exceptions
- 92.085 Unlawful Methods of Taking Big Game; Exceptions
- 92.090 Unlawful Methods of Taking Fur Animals
- 92.095 Unlawful Methods of Taking Furbearers; Exceptions
- 92.100 Unlawful Methods of Hunting Waterfowl, Snipe, Crane
- 92.104 Authorization for Methods and Means Disability Exemptions

Intensive Management and Predator Control:

- 92.106 Intensive Management of Identified Big Game Prey Populations
- 92.110 Control of Predation by Wolves
 - 1. Control of Predation by Bears
 - 2. Special Provisions in Predation Control Areas

Possession and Transportation:

- 92.130 Restrictions to Bag Limit
- 92.135 Transfer of Possession
 - 1. Unlawful Possession or Transportation of Game
 - 2. Transport, Harboring, or Release of Live Muridae Rodents Prohibited
- 92.150 Evidence of Sex and Identity
- 92.160 Marked or Tagged Game
- 92.165 Sealing of Bear Skins and Skulls
 - 1. Sealing of Marten, Lynx, Beaver, Otter, Wolf, and Wolverine
 - 2. Sealing of Dall Sheep Horns

Use of Game:

- 92.200 Purchase and Sale of Game
- 92.210 Game as Animal Food or Bait
- 92.220 Salvage of Game Meat, Furs, and Hides
- 92.230 Feeding of Game
- 92.250 Transfer of Musk oxen for Science and Education Purposes
- 92.260 Taking Cub Bears & Female Bears with Cubs Prohibited

Emergency Taking of Game:

- 92.400 Emergency Taking of Game
- 92.410 Taking Game in Defense of Life or Property

92.420 Taking Nuisance Wildlife

Game Management Units:

92.450 Description of Game Management Units

Antlerless Moose Reauthorization:

98.005 Areas of Jurisdiction for Antlerless Moose Seasons

Proposals may be submitted by mail, fax, or online:

Online: www.boardofgame.adfg.alaska.gov

Mail: ADF&G, Boards Support Section

P.O. Box 115526

Juneau, AK 99811-5526

Fax: (907) 465-6094

Proposals must be received by Wednesday, May 1, 2024, at the Boards Support Section office in Juneau. (A postmark is NOT sufficient for timely receipt).

You are encouraged to submit proposals at the earliest possible date on Board of Game proposal forms available from the Boards Support Section regional offices and on the website at: www.boardofgame.adfg.alaska.gov. All proposals must contain an individual's first and last name and an organizational name if appropriate, contact telephone number, and address. Regional proposals must specify the applicable region or Game Management Unit.

The board encourages individuals or organizations to communicate and coordinate with others in the development of proposals. Local fish and game advisory committees (AC) are an excellent resource and the collective knowledge and experience within ACs may help improve proposals. Information about the 84 local fish and game advisory committees around the state is available at https://www.adfg.alaska.gov/index.cfm?adfg=process_advisory. You can also work with area staff from the Department of Fish and Game to better understand the current regulations, and what the effect(s) of your proposed change may be. Area staff contact information can be found on the ADF&G website at www.adfg.alaska.gov/index.cfm?adfg=contacts.main.

Providing clarity on the proposal form helps the board, advisory committees, and the public more fully understand the proposed regulatory changes. Proposals that are incomplete or unclear may be omitted from the proposal book. You are encouraged to contact the Boards Support Section staff if you have questions or need assistance with completing the proposal form. *Proposals published in the proposal book will be referenced with the appropriate Alaska Administrative Code citation and include a brief description of the action requested. Proposals with emotionally charged language will be rejected or redacted as they detract from the substance of the proposal, may draw opposition not germane to the element(s) of the proposal, and may elicit nonresponsive charges from the public/board members. Proposals not meeting this call or submitted late will not be published.*

Proposal books will be available to the advisory committees, agencies, and the public at www.boardofgame.adfg.alaska.gov for review and comment.

Proposals received per the above "Call for Proposals" deadline will be considered by the Board of Game at their Central/Southwest meeting scheduled for January 10-17, 2025 in Wasilla and Statewide Regulations scheduled for March 21 – 28, 2025 in Anchorage. For more information, please contact

Sponsored By: Assemblymember Yundt
Amended: 03/05/24
Adopted: 03/05/24

**MATANUSKA-SUSITNA BOROUGH
RESOLUTION SERIAL NO. 24-031**

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY SUPPORTING THE DEVELOPMENT OF COAL-FIRED POWER GENERATION AND RELATED INFRASTRUCTURE USING TECHNOLOGIES TO REDUCE EMISSIONS AND PROVIDE AFFORDABLE, RELIABLE, CLEAN ELECTRICITY.

WHEREAS Matanuska Susitna Borough ("MSB") has one of the highest cost electricity rates in the country; and

WHEREAS, the Railbelt of Alaska is facing an imminent shortage of natural gas and electricity supply; and

WHEREAS, Southcentral Alaska is in need of affordable, reliable and clean energy; and

WHEREAS, the primary fuel for electricity in Southcentral Alaska and the Matanuska-Susitna Borough, natural gas from Cook Inlet, is rapidly depleting and has been forecast by the Alaska State Department of Natural Resources ("DNR") to be insufficient for southcentral Alaska's future electricity and heating needs (DNR, 2022 Cook Inlet Gas Forecast, July 2023); and

WHEREAS, Hilcorp Energy Company, which supplies 85 percent of the natural gas to Southcentral Alaska, recently gave notice that depleting Cook Inlet gas reserves prevent renewal of utility supply agreements beginning in 2025; and

WHEREAS, in February 2024 Hilcorp advised the Joint Resources Committee of the Alaska Legislature that gas under its leasehold "cannot meet all of the regions' gas demand"; and

WHEREAS, a report by BRG Energy and Cornerstone Energy Services commissioned by the region's utilities to assess alternatives to Cook Inlet gas supply found the cost of alternative gas supply options to be significantly higher than current supply costs, with the likelihood of materially increasing electricity costs to consumers (Phase 1 Assessment, Cook Inlet Gas Supply Project, June 2023); and

WHEREAS, there may soon be a need to import liquified natural gas to provide fuel for power generation in Alaska; and

WHEREAS, on February 2024 Enstar, among others, encouraged the Joint Resources Committee of the state legislature to "consider a diversified portfolio for power generation" and informed the legislature that "diversified coal is important"; and

WHEREAS, the University of Alaska-Fairbanks ("UAF") has evaluated feasibility (the UAF Feasibility Study) of a coal power plant at DNR lease #553937 and reported to the Regulatory Commission of Alaska that the cost of electricity from a coal power plant can be materially lower cost than other power alternatives and potentially lower than current power costs; and

WHEREAS, the UAF Feasibility Study was released to the Borough on February 29, 2024; and

WHEREAS, coal-fired power generation presents a compelling alternative to imported liquified natural gas; and

WHEREAS, abundant local coal reserves provide low-cost fuel for power generation (\$4/MMBtu) at one-half to one-quarter the cost of natural gas (~\$10/MMBtu) or diesel and naphtha (\$20/MMBtu) per the Alaska Energy Authority forecast; and

WHEREAS, according to the University of Alaska Fairbanks, the price for natural gas will be \$16/MMBtu or higher, even possibly into the range exceeding \$20/MMBtu which further highlights the enormous expense the residents of the Borough are facing; and

NOW, THEREFORE, BE IT RESOLVED, the Assembly:

1. Supports and recognizes the need for the development of a coal power plant, both for power generation to ensure the safety and security of its constituents and for economic development of the region including power to support industrial developments in the Borough.

2. Supports and recognizes the need for the development of infrastructure, including the West Susitna Access Road currently in process under State direction, both for public and industrial access to support recreational use and industrial development in the West Susitna region.

3. Directs that the Borough Manager take such steps as may be advisable or directed to implement the foregoing objectives, including communicating with Alaska State legislative and administrative officials and bodies to encourage the state of Alaska to proceed expeditiously with the foregoing initiatives.

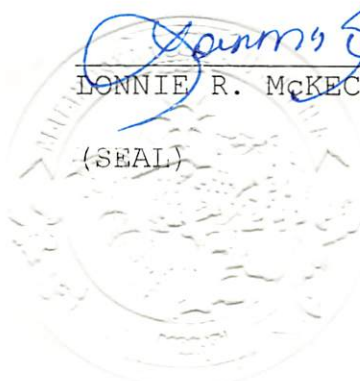
ADOPTED by the Matanuska-Susitna Borough Assembly this 5 day of March, 2024.

Edna DeVries
EDNA DeVRIES, Borough Mayor

ATTEST:

Lonnie R. McKechnie
LONNIE R. McKECHNIE, CMC, Borough Clerk

(SEAL)



YES: McKee, Yundt, Gamble, Fonov, and Bernier

NO: Hale and Nowers

in urban areas, benefit rural communities across the state by lowering their electricity costs through the PCE program.

1.0 COOK INLET CARBON STORAGE SCENARIO ANALYSIS

1.1 Probability of Storing 50 Million Metric Tons of CO₂ in a 30-Year Period

The ARCCS project in the Cook Inlet region of Southcentral Alaska evaluates storing CO₂ captured from a new 400-megawatt gross (~300-megawatt net with carbon capture plant load) dual-fuel capable power generation plant and two natural gas-processing plants (Figure 1). This feasibility study will evaluate the aggregation of CO₂ captured from these sources for injection into a geologic storage complex on the northern shore of Cook Inlet Basin. This ambitious effort will support the pursuit of a low-carbon, economically affordable, reliable energy supply option to address the pending shortage of natural gas and electricity supply in the Railbelt of Alaska, which contains 75% of Alaska’s population and extends from Fairbanks to Anchorage and the Kenai Peninsula.

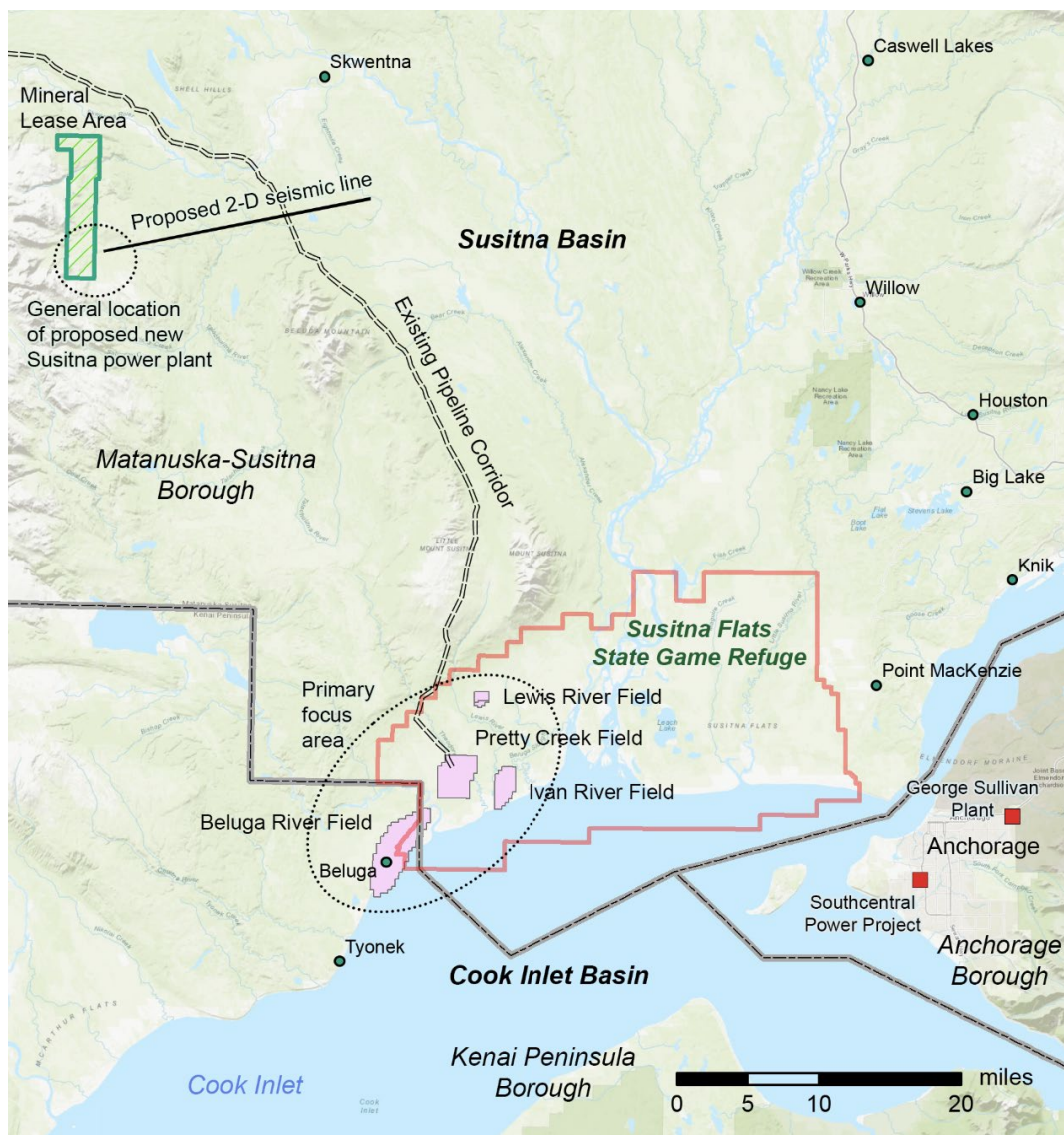


Figure 1. Map of proposed CO₂ storage location and proximity to CO₂ sources. Existing sources are shown as red squares. The location of the proposed Susitna power plant is indicated in the northwest map area.

CSHB 169(FSH): "An Act relating to certain fish; and establishing a fisheries rehabilitation permit."

00 CS FOR HOUSE BILL NO. 169(FSH)
01 "An Act relating to certain fish; and establishing a fisheries
02 rehabilitation permit."
03 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:
04 * **Section 1.** AS 16.05 is amended by adding a new section to read:
05 **Sec. 16.05.855. Fisheries rehabilitation permit.** (a) Subject
06 to restrictions
07 imposed under this section, the department may issue a fisheries
08 rehabilitation permit
09 that allows a qualified person to
10 (1) remove anadromous or freshwater finfish from water
11 of the state,
12 collect gametes and fertilize and incubate eggs taken from the
13 fish, and place the
14 fertilized or incubated eggs, larvae, or unfed fry in the same
15 water of the state; and
16 (2) enhance habitat in water of the state to aid the
17 survival of the fish.
18 (b) An applicant for a permit under this section shall apply on a form
19 prescribed by the department. The department shall make the application
20 form
21 available on the department's Internet website and at the department's
22 regional and
23 local offices. The department shall charge a fee for printing an
24 application form
25 provided by the department's offices. An application for a permit
26 must include
27 (1) the name of the applicant;
28 (2) a statement of the reasons for and feasibility of
29 the proposed
30 project using historical and current data relating to habitat,
31 the food web, and fish
32 populations in the project area;
33 (3) documentation of
34 (A) the conditions justifying the project;
35 (B) any communication, or plan for continued
36 communication,
37 from the applicant with affected persons, relevant
38 organizations with
39 applicable expertise, and stakeholders in the project area;
40 and
41 (C) any state, local, or federal permits required
42 for the project;
43 (4) the location of the water from which the applicant will take fish
44 and place fish eggs;
45 (5) the species and number of fish to be taken and, if applicable, the
46 number to be taken for brood stock;
47 (6) a management plan that demonstrates the ability of the applicant
48 to
49 carry out and sustain the proposed project, including the applicant's
50 plan for fish
51 propagation or repopulation in permitted water;

18 (7) the applicant's goals, schedule, planned duration, performance
19 measures, scope of work, budget, means of collecting data, plan for
genetics
20 management, and watershed habitat rehabilitation plan, if applicable,
for the project;

21 and

22 (8) an application fee of \$100.

23 (c) The department may issue a permit under this section if the
commissioner

24 determines that the project

25 (1) may restore or increase a population of fish in a body of water in
26 which

27 (A) subsistence and escapement goals have not
been met;

28 (B) there are no established escapement goals and local

29 stakeholders have identified a decline in the number of the
species of fish; or

30 (C) the population of the species of fish is
limited;

31 (2) will result in public benefits;

01 (3) will not harm local wild fish stocks;

02 (4) will not place eggs, larvae, or unfed fry in a
body of water in which

03 there are sufficient numbers of the same species of fish for
natural propagation of the

04 species to occur;

05 (5) will not introduce live fertilized eggs, larvae,
or fry of

06 nonindigenous fish in violation of [AS 16.35.210](#).

07 (d) In reviewing an application submitted under (b) of this
section and

08 determining whether the department will issue a permit for a
proposed project, the

09 commissioner shall consider

10 (1) the department's assessment of the proposed
project;

11 (2) the capabilities of the applicant;

12 (3) the degree to which the applicant has reasonably communicated

13 with affected persons, including relevant organizations with applicable
expertise, and

14 stakeholders in the project area;

15 (4) if the proposed project is a salmon rehabilitation project,
relevant

16 and applicable comments relating to the proposed project submitted by a
regional

17 planning team established under [AS 16.10.375](#) for the region that
encompasses the

18 project area;

19 (5) the consistency of the proposed project with the comprehensive

20 salmon plan developed under [AS 16.10.375](#) for the region that
encompasses the

21 project area and with constitutional and statutory requirements and
duties imposed on

22 the department; and

23 (6) whether the proposed project will increase scientific knowledge

24 and understanding of natural resources affected by the project.

25 (e) A permittee shall
26 (1) collect and provide project data and reports reasonably requested
27 by the department;
28 (2) reasonably communicate with affected persons, including relevant
29 organizations with applicable expertise, and stakeholders in the
project area.
30 (f) Within 15 days after the department receives an application for a
fisheries
31 rehabilitation permit, the commissioner shall notify an applicant that
the application is

01 complete or incomplete. The commissioner may reject an application that
is not
02 completed within 30 days after the commissioner notifies the applicant
that the
03 application is incomplete. Within 90 days after the date the
commissioner notifies an
04 applicant that an application is complete, the commissioner shall
approve or reject the
05 application.
06 (g) The department shall require a permittee under this
section to
07 (1) collect not more than 500,000 eggs for
fertilization under a single
08 permit;
09 (2) implement appropriate controls to avoid the
introduction of
10 nonindigenous or invasive pathogens or the increase of indigenous
pathogens beyond
11 levels acceptable to the department.
12 (h) Fish released into the water of the state under a permit issued
under this
13 section are available to the people for common use and are subject to
applicable law in
14 the same way as fish occurring in their natural state.
15 (i) A permit issued under this section is valid for five years from
the date of
16 issuance and, upon application by the permittee, may be extended by the
17 commissioner.
18 (j) The commissioner may modify, suspend, or revoke a permit issued
under
19 this section for cause. If a permittee violates this section, the
commissioner may, after
20 providing the permittee notice and an opportunity to be heard, suspend
or revoke a
21 permit issued under this section.
22 (k) In this section,
23 (1) "person" means an individual, corporation, business trust, estate,
24 trust, partnership, limited liability company, association, joint
venture, tribe, or
25 government; governmental subdivision, agency, or instrumentality;
public corporation;
26 or another legal or commercial entity;
27 (2) "qualified person" means a state resident under [AS 43.23.295](#) or a
28 corporation organized under laws of this state;
29 (3) "reasonably communicate" means communicating significant

30 information by a mode of communication likely to provide notice to
persons a
31 reasonable person would know are affected by a project or
proposed project.

01 * **Sec. 2.** AS 16.05.871 is amended by adding a new subsection to
read:

02 (e) In making a finding that the plans and specifications for a
proposed
03 construction, work, or use sufficiently protect fish and game under (d)
of this section,
04 the commissioner shall consider related fisheries rehabilitation
projects under

05 AS 16.05.855.

06 * **Sec. 3.** AS 16.10.375 is amended to read:

07 **Sec. 16.10.375. Regional salmon plans.** The commissioner shall designate
08 regions of the state for the purpose of salmon production and have
developed and

09 amend as necessary a comprehensive salmon plan for each region,
including

10 provisions for salmon rehabilitation projects conducted under AS
16.05.855 and

11 both public and private nonprofit hatchery systems. Subject to plan
approval by the

12 commissioner, comprehensive salmon plans shall be developed by regional
planning

13 teams consisting of department personnel and representatives of the
appropriate

14 qualified regional associations formed under AS 16.10.380.