

# DESK PACKET

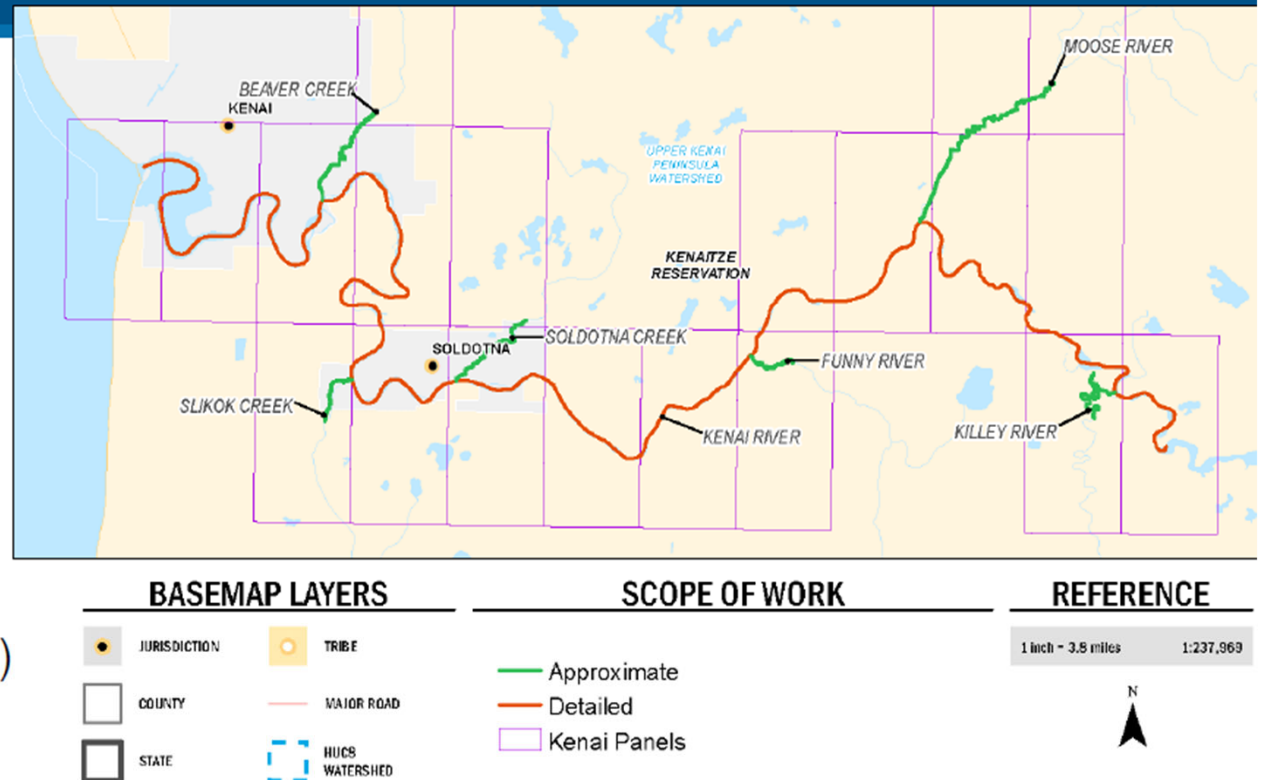
**(MATERIALS SUBMITTED AFTER MEETING PACKET PUBLICATION)**

- 1. Ordinance 2024-35: Amending KPB 21.06.030 General Provisions, to adopt the most recent FEMA Flood Insurance Study and associated flood insurance rate maps for the Kenai Peninsula Borough.**

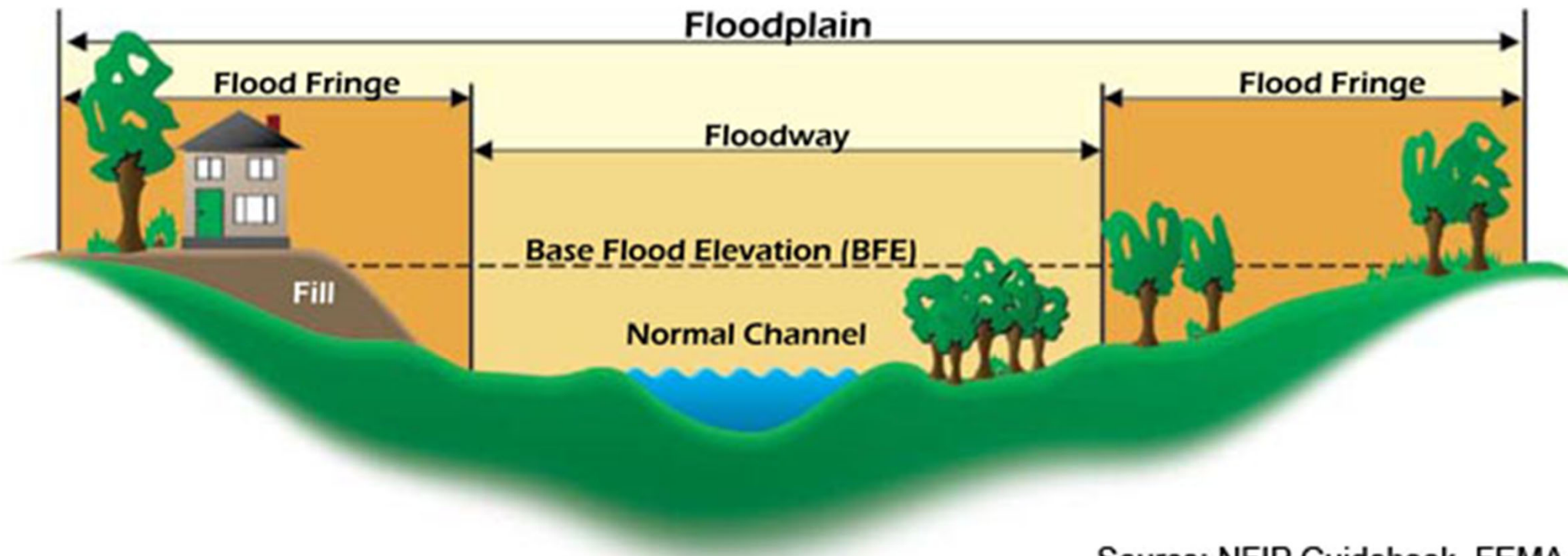
# SCOPE OF WORK

## This study covered:

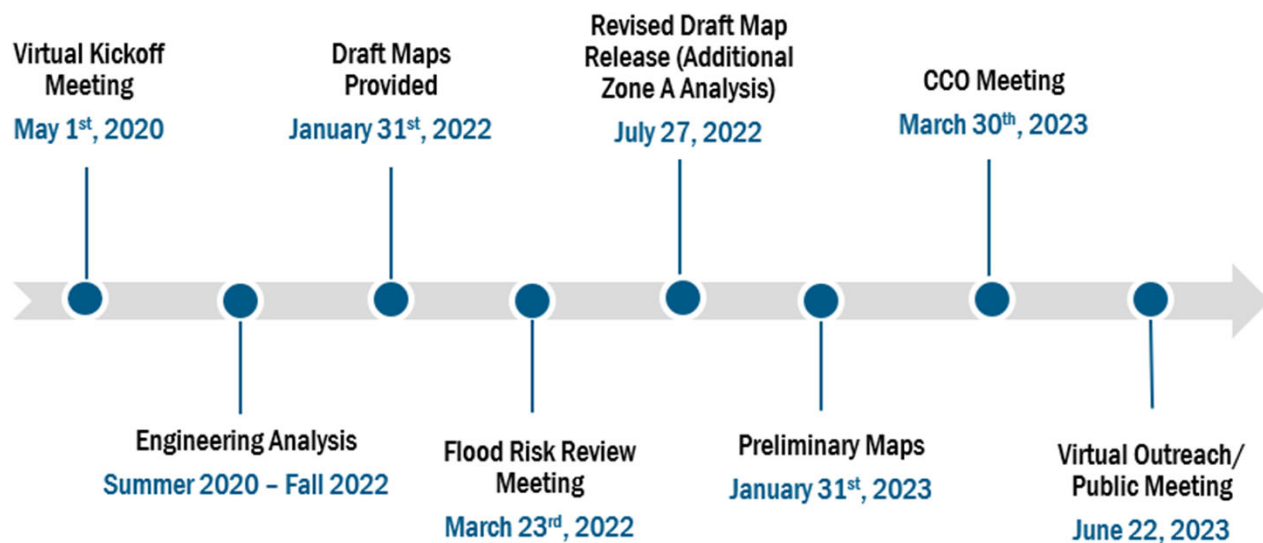
- Detailed streams.
  - Kenai River (47.3 mi.)
- Approximate streams.
  - Beaver Creek (3.3 mi.)
  - Funny River (1.7 mi.)
  - Killey River (2.7 mi.)
  - Moose River (6.0 mi.)
  - Slikok Creek (1.8 mi.)
  - Soldotna Creek (3.1 mi.)



## Characteristics of a Floodplain

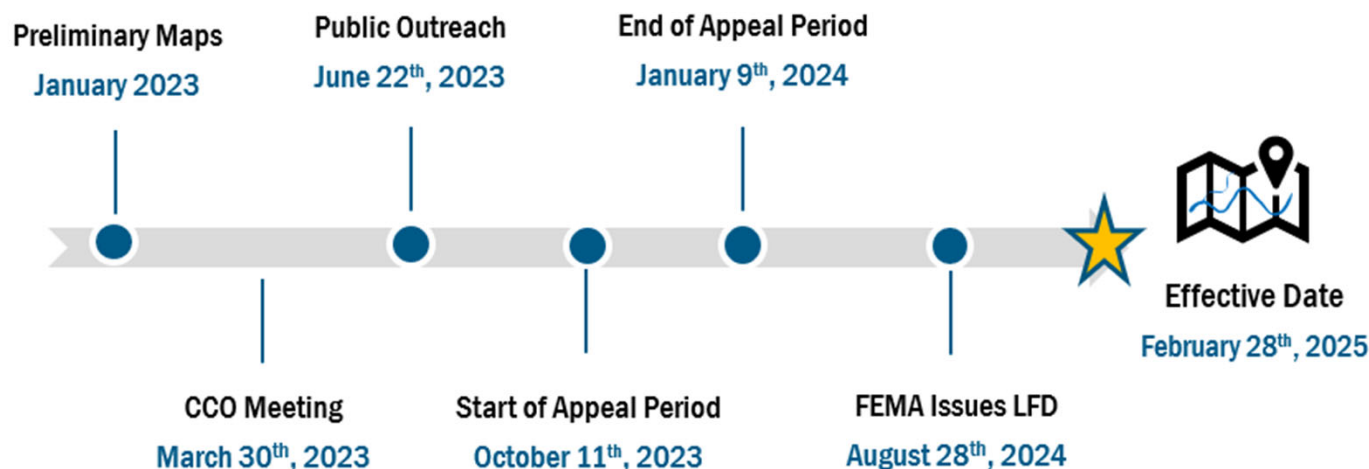


Source: NFIP Guidebook, FEMA



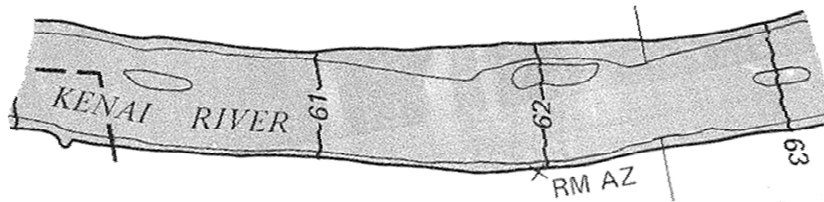
### “Letter of Final Determination” (LFD)

- Sent to communities and publishes the BFEs in the Federal Register
- Communities have 6 months to adopt the study before the data becomes “effective”
- **Failure to adopt results in suspension from the NFIP**



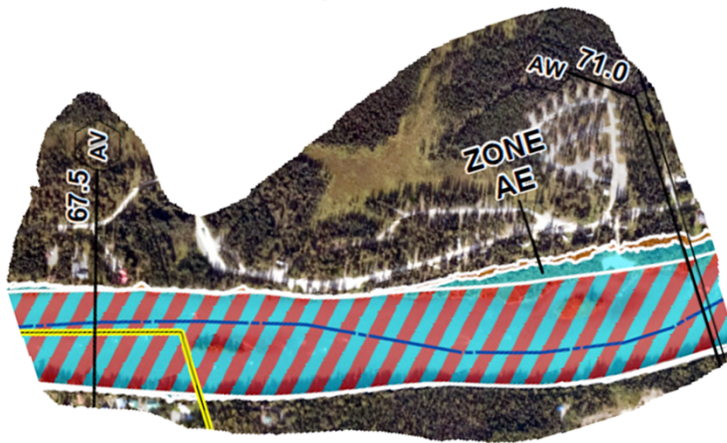
## DIGITAL FLOOD INSURANCE RATE MAPS – ELEVATION DATUMS

- Effective maps relative to National Geodetic Vertical Datum – NGVD 29
  - Based on a mean sea level from 21 tidal stations in the US & 5 stations in Canada



\*\*Reference to the National Geodetic Vertical Datum of 1929

- Preliminary maps relative to North American Vertical Datum – NAVD 88
  - Based on the density of the lead of varying values of sea heights



Western Hemisphere; Vertical Datum: NAVD 88

Big Eddy  
Kenai River Flood  
September 12, 2023



Castaway Cove Island  
Kenai River Flood  
September 13, 2023



Big Eddy  
Kenai River Flood  
September 13, 2023



Kenai Keys  
Kenai River Flood  
September 13, 2023



Dow Island  
Kenai River Flood  
September 13, 2023



Kenai Keys  
Kenai River Flood  
September 13, 2023



Kenai Keys  
Kenai River Flood  
September 13, 2023



Big Eddy Area  
Kenai River Flood  
September 26, 1995





## Hindman, Julie

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**From:** Kenai River Center  
**Sent:** Friday, December 6, 2024 12:39 PM  
**To:** Hindman, Julie  
**Subject:** FW: Comments pertaining to ordinance to amend KPB 21.06

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**From:** Khai Harbut <khai.harbut@gmail.com>  
**Sent:** Friday, December 6, 2024 12:24 PM  
**To:** Kenai River Center <kenairivcenter@kpb.us>; G\_Notify\_AssemblyClerk <G\_Notify\_AssemblyClerk@kpb.us>  
**Subject:** <EXTERNAL-SENDER>Comments pertaining to ordinance to amend KPB 21.06

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Honorable KPB assembly members,

My name is Khai Harbut. Thank you for the opportunity to submit my comments pertaining to the ordinance to amend KPB 21.06. I own two parcels under KPB jurisdiction. One property is parcel ID 06533014, and its flood hazard status is left unchanged by the proposed amendment. I believe this is fair therefore I have no issue with the proposed changes WRT that property. However, I own another property parcel ID 06619002 that is directly impacted by the proposed amendment. Currently my property parcel ID 06619002 is affected to a small extent (see exhibit A) by the current effective flood hazard zoning that was established in 1981. The proposed changes place that entire property under zone A1 (see exhibit B) and unfairly imposes restrictions regarding potential future uses of this property. I am not well versed in how the study was performed and how the changes being proposed were determined. I believe the decision to include more of my property parcel ID 06619002 to be rather arbitrary. I respectfully request that you leave the flood hazard zoning unchanged with respect to my property parcel ID 06619002.

Sincerely,

Khai Harbut

Exhibit A:



Exhibit B:



Kenai River Keys Property Owners Association  
PO Box 1073  
Sterling, AK 99772

December 10, 2024

Kenai Peninsula Borough  
Donald E. Gilman River Center  
514 Funny River Road  
Soldotna, Alaska 99669

By Email to [KenaiRivCenter@KPB.us](mailto:KenaiRivCenter@KPB.us)

Subject: Written Comments for Planning Commission Meeting December 16, 2024  
Ordinance 2024-35 to Amend KPB 21.06, Floodplain Management

These comments are in response to the Notice of Public Hearings dated November 15, 2024, regarding adoption of changes to the regulatory floodplain of the Kenai River, and specifically a segment of river downstream from the newly-formed mouth of the Killey River (now known as the Middle Killey). My comments are submitted both as a property owner in Kenai Keys at 34505 Chinook Run Drive and as President of Kenai River Keys Property Owners Association, representing 130 lot owners in Kenai River Keys and Stephenkie No. 2 subdivisions.

My residence is directly across from where the Killey River now flows into the Kenai River. It's where muddy water begins and Wally's Hole once was.

I am asking for revision to proposed Ordinance 2024-35, which the Assembly is scheduled to adopt in January. The ordinance incorporates a new FEMA-prepared Flood Insurance Study and Rate Maps as the basis for the Borough's Floodplain Management. Unfortunately, the proposed ordinance does not recognize recent and ongoing changes occurring in the Kenai River.

The new FEMA study and maps unreasonably impact lot owners in our subdivisions and will restrict future improvements and property maintenance. Base flood elevations are to be raised more than 2-feet and the floodway designation expanded to include nearly all of both subdivisions. This considerably increases the cost of preparing permit applications, with no assurance that an application can be approved. By limiting development, rebuilding and maintenance, our property values will erode and drive us to become an RV park.

The Property Owners Association represents 130 lot owners. We have a mix of year-round and seasonal residents, and all of us are very conscious of periodic flooding.

Over the 52 years since our subdivision was approved by the Borough, the record flood event occurred in 1995 and flooded some homes and garages. This record event became our hundred-year flood and has not been exceeded since. Houses in the subdivision have been raised or rebuilt above this base flood elevation. Our most recent flood event occurred in September 2022, and flood water did not reach the floor level of any house in our subdivisions.

The new FEMA Flood Study and Revised Insurance Maps did not recognize the changing nature of the Kenai River. It's a snapshot in time, taken while the Killey River was carving out a new course. This deposited an enormous amount of sand, gravel and debris into the Kenai River, shrinking the volume of the floodplain. But we now observe this sediment migrating downstream – with effects extending nearly to Bing's Landing. The new FEMA Flood Study is not representative of the river's recovery.

We submitted comments to FEMA but were dismissed because we had no technical data. All we had were photographs and history, but FEMA wanted data which they could insert into their hydrologic model. That is beyond our capability.

As you consider Ordinance 2024-35, we ask you to defer adoption of the new FEMA Flood Study and Rate Maps for a segment of the Kenai River downstream from the Middle Killey. We propose revised wording in the attached, which still leaves us subject to regulation by KPB 21.06.

We are also concerned that the Borough's Notice of Public Hearings is misleading. It states that the new Flood Insurance Study and maps can be found at a specified FEMA website: <https://msc.fema.gov/portal/home>. For our residence addresses, the only flood map shown is the current FEMA map 0200122090A, effective 5-19-81. The flood map to become effective with Ordinance 2024-35 is not shown. Ironically, the website does include relatively current aerial photography showing sediment-laden water entering the Kenai River from the Middle Killey, and then mixing into the Kenai River adjacent to Kenai Keys Subdivision. This photography shows that sediment-laden water from the Middle Killey is being conveyed downriver, which is precisely the reason our attached amendment should be adopted.

The Notice of Public Hearing provides a second website for additional information, at: (<https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update>). This website contains a before and after comparison of "Effective (1981)" and "Preliminary (2023.02.01)", but without identification of base flood elevations. Clicking on PRELIMINARY FIRM AND FIS REPORT brings up a FEMA webpage, but the search feature for Alaska is limited to Ketchikan Gateway Borough. That webpage says to contact the FEMA Map Information Exchange (FMIX) if not seeing a community's preliminary data. Following such contact, an "FMIX Specialist" provided a website for 250 pending documents for the Kenai Peninsula Borough, including 24 FIRM maps to be effective 2/28/25. The new maps for Kenai River could then be opened, and these contained contours for base flood elevations. But the contours are in a NAVD 88 vertical datum, which is different from the NGVD 29 datum that the Borough previously required. No conversion formula or factor was provided, leaving property owners without means to review proposed BFE changes on their properties. Separately, the Flood Insurance Study was composed of approximately 120 separate files, requiring specialized apps to open, and rendering it not possible for property owners to review.

We assume the difficulty in reviewing the proposed flood study and maps was intended. Given the lack of diligence to provide lot owners an opportunity to review these documents, the hearing dates contained in the Notice of Public Hearings, should be extended until such time as the FEMA documents can be reviewed.

FEMA's recent snapshot of flood risk unduly harms our lot owners. The Borough's adoption of these flood maps – without compensation to affected property owners – unreasonably diminishes use and enjoyment of these properties. Over the years we have worked with the Borough cooperatively to apply reasonable regulation of habitat and floodplain. Adoption of FEMA mandates does not serve our best interest and over the long run will undermine our property values.

Please adopt the revised Ordinance 2024-35 as attached.

Very truly yours,

Frank Turpin  
34505 Chinook Run Drive, Sterling AK 99672, and  
President, Kenai River Keys Property Owners Association  
Email: [fgturpin@gmail.com](mailto:fgturpin@gmail.com) cell 703-579-7593

Attachment: PROPOSED AMENDMENT TO ORDINANCE 2024-35 AMENDING KPB 21.06

cc: Samantha Lopez, by email: [slopez@kpb.us](mailto:slopez@kpb.us)  
Peter Micciche, by email: [pmicciche@kpb.us](mailto:pmicciche@kpb.us)

## PROPOSED AMENDMENT TO ORDINANCE 2024-35 AMENDING KPB 21.06

By the areas of special flood hazard identified by the Federal Insurance Administration in the scientific and engineering report entitled "Flood Insurance Study" (FIS) for the Kenai Peninsula Borough, Alaska dated May 19, 1981, revised on July 5, 1983, December 6, 1999, September 27, 2013, [AND ]October 20, 2016[.], and February 28, 2025, excepting that portion of the February 28, 2025 revisions for the Kenai River downstream of its confluence with the Killey River as shown on FIRM Maps 02122C1060F and 02122C1080F. This segment of the Kenai River at the present time is undergoing change due to rapid sediment transport from the Killey River, and until such time as sediments migrate downstream and this change stabilizes, flood elevations for this portion of the Kenai River will remain as those identified on FIRM Maps dated May 19, 1981. These areas are depicted on the effective Flood Insurance Rate Map (FIRM) and Digital Flood Insurance Rate Map (DFIRM) Panels. The map panels numbered 020012- 1350 and 1700 have been deleted and the areas depicted by these panels are not subject to the terms of this chapter. Excluding these panels, the FIRMs are adopted by reference and declared to be a part of this chapter. The FIRMs are on file at the planning department. The best available information for flood hazard as outlined in KPB 21.06.040(C)(3) shall be the basis for regulation until a new FIRM or DFIRM is issued which incorporates the base flood plain data obtained pursuant to that section.

December 11, 2024

Kenai Peninsula Borough  
Donald E. River Center  
514 Funny River Road  
Soldotna, AK 99669

By Email to KenaiRivCenter@KPB.us

Re: Written Comments for Planning Commission Meeting, December 16, 2024  
Ordinance 2024-35 to Amend KPB 21.06, Floodplain Management.

These comments respond to the Notice of Public Hearing dated November 15, 2024 regarding adoption of changes to the regulatory floodplain of the Kenai River near the Kenai Keys Subdivision and Stephenkie Subdivision No. 2. Although I serve as Vice President of the Kenai River Keys Property Owners Association, these comments are offered in my personal capacity. Please note that Frank Turpin's comments represent the position of the Kenai River Keys Property Owners Association.

As more fully explained below, I seriously doubt the long-term accuracy of the new FEMA floodplain elevations and I fully endorse the proposal for revised language attached to Mr. Turpin's comments.

My wife Cynthia Wellman and I have been the owners of Lot 9C of Stephenkie Subdivision No. 2 since 1983 with first a cabin on the property in 1985 and then a permanent residence since 2013. The residence is our retirement home with a current tax evaluation of \$519,400 and we are year-round residents. Most of my time during the summer is spent on the river and I am aware of the annual shifts in sandbars and river channels.

When we built our cabin and home on the property, we did so in compliance with the FEMA floodplain elevations then in effect. Our neighbors likewise built homes to that approved elevation. Since 1985 the Kenai River has flooded several times, including the 1995 flood generally regarded as a 100-year flood. Significantly, none of the homes in Stephenkie Subdivision No. 2 suffered any meaningful flood damage in the 1995 flood or any other subsequent floods. In our case, the gravel pad on which our house is built is a foot above the 100-year flood and has not been underwater in any flood. In addition, the area now proposed by FEMA to be within the floodway, was covered by large white spruce which seems inconsistent with designation as a "floodway". In other words, we have forty plus years of anecdotal data suggesting the current flood plain elevation is correct and the proposal overstates the flood potential.

It is not reasonable or practical for the public to perform alternative studies to disprove the new FEMA study and dispute the conclusions of FEMA regarding land use in the Kenai Keys and Stephenkie No. 2.

I request the Borough delay implementation of the proposed FEMA plan until the temporary sediment migration from the Killey River ends and the area can be reevaluated. By classifying all property as a "floodway" by raising the FEMA elevations by two feet, you have effectively eliminated future building or development on very valuable property. Moreover, it is unreasonable to require a detailed engineering study at \$40,000 to build a shed or add to an existing structure. By adopting language to keep the old elevations until the sediment migration is over preserves the beneficial use of the affected properties

Thanks for your consideration.

***Ted Wellman***  
***34593 Cranberry Circle***  
***Sterling AK 99672***

[tedwellman1@outlook.com](mailto:tedwellman1@outlook.com)

(907) 444-3785

## Hindman, Julie

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**From:** Kenai River Center  
**Sent:** Friday, December 13, 2024 8:00 AM  
**To:** Hindman, Julie; Lopez, Samantha  
**Subject:** FW: <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Ammendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** Michael Agin <festus12358@gmail.com>  
**Sent:** Friday, December 13, 2024 5:32 AM  
**To:** G\_Notify\_AssemblyClerk <G\_Notify\_AssemblyClerk@kpb.us>; Kenai River Center <kenairivcenter@kpb.us>  
**Subject:** <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Ammendment

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I respectfully submit the attached questions about KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS). We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base.

We realize that some of these questions should have been asked last year, but the record clearly shows most of the property owners only received a single post card with minimal details and inaccurate links to KPB and FEMA websites. We have also documented that FEMA did not follow their required process published in public law. Additionally, our attempts to gather additional information were thwarted with confusion. Not to mention it has taken hundreds of manhours over past month to get smart on the FEMA process and HECRAS modeling tool used during the process. Attached are our question with rationale why we need additional information to determine this is a logical course of action and best for our community

Michael "Festus" Agin  
34860 Chinook Run Drive  
702-806-3152  
Festus12358@gmail.com

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base

1	Legal	<p>Question: What visibility does KPB and State of Alaska have on numerous ongoing Class Action Lawsuits?</p> <p>Rationale: Wouldn't it be prudent for Alaska and the KPB to request FEMA delay further action until these other cases are settled?</p>
2	Legal	<p>Question: How does the Supreme Court ruling on June 28, 2024, striking down the Chevron Doctrine change impact the process and expansion of the proposed rule changes?</p> <p>Rationale: The Supreme Court cut back sharply on the power of federal agencies to interpret the laws they administer. The Supreme Court struck down the Chevron deference ruling of 40 years ago. This rulemaking process started before the June 2024 ruling. Since the federal government is now more limited on their actions the local and state governments should be similarly limited.</p>
3	Notice 1	<p>Question: Why wasn't the information error checked in the Borough's Notice of Public Hearings verified before sending?</p> <p>Rationale 1: The Borough's Notice of Public Hearings is not accurate. It states that the new Flood Insurance Study and maps can be found at a specified FEMA website: <a href="https://msc.fema.gov/portal/home">https://msc.fema.gov/portal/home</a> For residences addresses on the upper river above Bing's Landing, the only flood map shown is the current FEMA map 0200122090A, effective 5-19-81. The flood map to become effective with Ordinance 2024-35 is not shown.</p> <p>Ironically, the website does include relatively current aerial photography showing sediment-laden water entering the Kenai River from the Middle Killey and then mixing into the Kenai River adjacent to Kenai Keys Subdivision. This photography shows that sediment-laden water from the Middle Killey is being conveyed downriver, which is precisely another reason our KRK HOA amendment should be adopted</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>Rationale 2: The Notice of Public Hearing provides a second website for additional information, at: (<a href="https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update">https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update</a>). This website contains a before and after comparison of “Effective (1981)” and “Preliminary (2023.02.01)”, but without identification of base flood elevations. Clicking on PRELIMINARY FIRM AND FIS REPORT brings up a FEMA webpage, but the search feature for Alaska is limited to Ketchikan Gateway Borough. That webpage says to contact the FEMA Map Information Exchange (FMIX) if not seeing a community’s preliminary data. Following such contact, an “FMIX Specialist” provided a website for 250 pending documents for the Kenai Peninsula Borough, including 24 FIRM maps to be effective 2/28/25. The new maps for the Kenai River could then be opened, and these contained contours for base flood elevations. But the contours are in a NAVD 88 vertical datum, which is different from the NGVD 29 datum that the Borough previously required. No conversion formula or factor was provided, leaving property owners without means to review proposed BFE changes on their properties.</p> <p>Rationale 3: Separately, the Flood Insurance Study was composed of approximately 120 separate files, requiring specialized apps to open, and rendering it not possible for property owners to review.</p>
4	Notice 2	<p>Question: Why did FEMA and KPB decide they did not have to follow the procedures published in the Federal Register</p> <p>Rationale 1: The report mentions several meetings were conducted. Why was it that the public was not invited to these meetings in Kenai?</p> <p>Rationale 2: FEMA did not use its own past or new public notice procedures.</p>
5	Notice 3	<p>Question: Why did FEMA not update its study design and analysis based on newly published 44 CFR Part 9?</p> <p>Rationale: Rationale: On October 2, 2023, the Federal Emergency Management Agency (FEMA) published a notice of proposed rulemaking (NPRM) and supplementary policy that proposed to implement the Federal Flood Risk Management Standard (FFRMS) and update the agency's 8-step decision-making process for floodplain reviews by changing how FEMA defines a floodplain with respect to certain actions and how FEMA uses natural systems, ecosystem processes, and nature-based approaches when developing alternatives to locating a proposed action in the floodplain. After a careful review of the public comments</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		received, FEMA is now issuing a final rule that implements the proposed rule, with some minor amendments. This rule is effective September 9, 2024.
6	Notice 4	<p>Question: Why didn't FEMA and KPB use KB alerts and their Facebook site to facilitate open communication with the public?</p> <p>Rationale: All we got was a confusing post card in the mail. Confusing in that when people looked on online there were scant details on the process and what would be the impact to property owners.</p> <p>The only post card KPB sent invited residents to a winter meeting to roll out the FEMA's final decision without any public comments in the prior build-up to the process. It was a take-it-and-leave approach with FEMA's decisions already made.</p>
7	Problem Statement	<p>Question: Why did the FIS problem statement only include one flood scenario and not include a listing of top 10 historical flood crests with a description of root cause of each flood?</p> <p>Rationale 1: The problem described glacier dam break in middle of winter has only happen once in 30 years whereas the river experiences high water events every 2.5 years for other root causes. We believe the problem stated statement as written doesn't cover all the sources of flood water, does not address the problems that are experienced on the river. As residence near the river, we are aware of the impacts of high water, events and frequencies.</p> <p>Rationale 2: The problem statement also misses property owner's biggest concern - the state and federal government's, inability or unwillingness to close the river to boat traffic during high water events.</p> <p>Rationale 3: On the upper river, we have different flood conditions, and we are not aware in recorded history that there has been any flood damage in the winter due to a glacier dam break. We are not saying the event has not happened in the late fall. However, what we are saying is because the river level was low the impact of that event was minimal</p>
8	Method	<p>Question: What independent and dependent variables were used in the FIS analysis? How far back did you model the historical data for rainfall, snow previous winter, spring and summer temperatures, timing and size of glacier dam breaks on elevated river levels and</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>economic impact? What were the flood insurance claims that corresponded with these high-water events?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
9	Method	<p>Question: What real-world scenarios were used to validate the model?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
10	Method	<p>Question: How many model runs were accomplished to arrive at the new Base Flood Elevation?</p> <p>Rationale: Unless there are statistically significant model runs it is impossible to have confidence in the result</p>
11	Method	<p>Question: What sensitivity analysis was accomplished and what did analysts learn about original assumption that improved the quality or confidence in FIS findings?</p> <p>Rationale: Without sensitivity analysis it is again impossible to have confidence in the results. We have consulted with the USACOE on proper use of the model</p>
12	Method	<p>Question: What business case analysis was accomplished to compare / contrast the impacts of these changes on insurance claims, property values, tax base, etc.</p> <p>Rationale: As you may be aware, the federal government has wrecked the crab fishery, King salmon fishery, halibut fishery, and all the habitat that goes along with it. Now they want to come in and wreck our rivers for what reason? Does FEMA feel like it has a mandate to arbitrarily come in and raise the base flood elevation based on a poorly conducted study that contains no clear problem statement doesn't have measures of merit, doesn't list independent variables, or describe key features of its study design. The academic rigor of the study is frankly laughable at best.</p>
13	Method	<p>Question: Please provide accuracy/precision metrics for data sources in Table 22. Also please explain how FEMA is confident the result is actual river rise or error/noise in the data. Our experience is this is normally accomplished as part of sensitivity analysis and model validation.</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>Rationale: Realistically all geospatial data has some form of error associated with the data collection, and the use of multiple sources compounds and sums together into a single Root Mean Squared Error (RMSE) value. Additionally, looking at the projected water surface elevation rise for an annual 1% chance flood in table 23, a lot of the values are within the error of those elevation datasets (table 22). This means that it's hard to truly say if that's rise in water surface elevation, or just error of the data. Plus, realistically the compound RMSE would be larger, making those results even less significant. So clarity needs to be provided in terms of why they are so confident in their results, based on what is in the report.</p>
14	Method	<p>Question: What criterion or rationale was used to establish the new BFE? Was the BFE field verified within neighborhoods? Was it a scale that reflects the changing river dynamics?</p> <p>Rationale: Based on our calculations the error in the FEMA analysis exceeds the average BFE increase. It would be wise to have FEMA prove their academic rigor</p>
15	Method	<p>Question: What datum conversion error checking did KPB or FEMA accomplish when NGVD 29 to NAVD 88 vertical datums?</p> <p>Rationale: In Geographic Information Service application, conversion from one datum to another it is a well-known but complex problem. Using two different unconverted datums on a map results in erroneous locations.</p> <p>If KPB and FEMA understand this problem, it would know it is more pronounced at northern latitudes. They would have validated elevations and Lat Long coordinates using industry's advanced conversion tools. Showing us how conversion was accomplished and field verification of the resulting model would provide confidence in the data.</p>

## Hindman, Julie

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**From:** Kenai River Center  
**Sent:** Friday, December 13, 2024 8:01 AM  
**To:** Hindman, Julie; Lopez, Samantha  
**Subject:** FW: <EXTERNAL-SENDER>Fwd: Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** Khai Harbut <khai.harbut@gmail.com>  
**Sent:** Friday, December 13, 2024 5:44 AM  
**To:** Kenai River Center <kenairivcenter@kpb.us>  
**Subject:** <EXTERNAL-SENDER>Fwd: Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment

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Honorable Assembly members,

I respectfully submit the attached questions about KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS). We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base.

We realize that some of these questions should have been asked last year, but the record clearly shows most of the property owners only received a single post card with minimal details and inaccurate links to KPB and FEMA websites. We have also documented that FEMA did not follow their required process published in public law. Additionally, our attempts to gather additional information were thwarted with confusion. Not to mention it has taken hundreds of manhours over past month to get smart on the FEMA process and HECRAS modeling tool used during the process.

Attached are our question with rationale why we need additional information to determine this is a logical course of action and best for our community

Sincerely,

Khai Harbut

214-385-7047

35664 Snag Circle, Sterling AK, 99672

35446 Slack Water Dr. Soldotna AK, 99669

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base

1	Legal	<p>Question: What visibility does KPB and State of Alaska have on numerous ongoing Class Action Lawsuits?</p> <p>Rationale: Wouldn't it be prudent for Alaska and the KPB to request FEMA delay further action until these other cases are settled?</p>
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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>Rationale 2: The Notice of Public Hearing provides a second website for additional information, at: (<a href="https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update">https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update</a>). This website contains a before and after comparison of “Effective (1981)” and “Preliminary (2023.02.01)”, but without identification of base flood elevations. Clicking on PRELIMINARY FIRM AND FIS REPORT brings up a FEMA webpage, but the search feature for Alaska is limited to Ketchikan Gateway Borough. That webpage says to contact the FEMA Map Information Exchange (FMIX) if not seeing a community’s preliminary data. Following such contact, an “FMIX Specialist” provided a website for 250 pending documents for the Kenai Peninsula Borough, including 24 FIRM maps to be effective 2/28/25. The new maps for the Kenai River could then be opened, and these contained contours for base flood elevations. But the contours are in a NAVD 88 vertical datum, which is different from the NGVD 29 datum that the Borough previously required. No conversion formula or factor was provided, leaving property owners without means to review proposed BFE changes on their properties.</p> <p>Rationale 3: Separately, the Flood Insurance Study was composed of approximately 120 separate files, requiring specialized apps to open, and rendering it not possible for property owners to review.</p>
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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		received, FEMA is now issuing a final rule that implements the proposed rule, with some minor amendments. This rule is effective September 9, 2024.
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7	Problem Statement	<p>Question: Why did the FIS problem statement only include one flood scenario and not include a listing of top 10 historical flood crests with a description of root cause of each flood?</p> <p>Rationale 1: The problem described glacier dam break in middle of winter has only happen once in 30 years whereas the river experiences high water events every 2.5 years for other root causes. We believe the problem stated statement as written doesn't cover all the sources of flood water, does not address the problems that are experienced on the river. As residence near the river, we are aware of the impacts of high water, events and frequencies.</p> <p>Rationale 2: The problem statement also misses property owner's biggest concern - the state and federal government's, inability or unwillingness to close the river to boat traffic during high water events.</p> <p>Rationale 3: On the upper river, we have different flood conditions, and we are not aware in recorded history that there has been any flood damage in the winter due to a glacier dam break. We are not saying the event has not happened in the late fall. However, what we are saying is because the river level was low the impact of that event was minimal</p>
8	Method	<p>Question: What independent and dependent variables were used in the FIS analysis? How far back did you model the historical data for rainfall, snow previous winter, spring and summer temperatures, timing and size of glacier dam breaks on elevated river levels and</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>economic impact? What were the flood insurance claims that corresponded with these high-water events?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
9	Method	<p>Question: What real-world scenarios were used to validate the model?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
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13	Method	<p>Question: Please provide accuracy/precision metrics for data sources in Table 22. Also please explain how FEMA is confident the result is actual river rise or error/noise in the data. Our experience is this is normally accomplished as part of sensitivity analysis and model validation.</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>Rationale: Realistically all geospatial data has some form of error associated with the data collection, and the use of multiple sources compounds and sums together into a single Root Mean Squared Error (RMSE) value. Additionally, looking at the projected water surface elevation rise for an annual 1% chance flood in table 23, a lot of the values are within the error of those elevation datasets (table 22). This means that it's hard to truly say if that's rise in water surface elevation, or just error of the data. Plus, realistically the compound RMSE would be larger, making those results even less significant. So clarity needs to be provided in terms of why they are so confident in their results, based on what is in the report.</p>
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## Hindman, Julie

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**From:** Janet Bounds <janet.bounds@gmail.com>  
**Sent:** Friday, December 13, 2024 9:15 AM  
**To:** Kenai River Center; G\_Notify\_AssemblyClerk  
**Cc:** Michael Agin  
**Subject:** <EXTERNAL-SENDER> Re: Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**CAUTION:** This email originated from outside of the KPB system. Please use caution when responding or providing information. Do not click on links or open attachments unless you recognize the sender, know the content is safe and were expecting the communication.

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Questions and concerns on the proposed amendment to the KPB 21.06 and Flood Insurance Study.

I respectfully submit the attached questions about KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS). We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base.

Additional time is needed for the affected public as well as the regulators. Expecting the public to evaluate modeling is not reasonable. The public does not have access to the software nor the knowledge. The modeling needs to be re-evaluated. Data problems, datum irregularities, process inconsistencies compound to result in erroneous outputs. Garbage in is garbage out.

Please see the attached questions and concerns from neighbors.

Janet Bounds  
13028 Chinook Run Drive  
Sterling, Alaska 99672

907-223-3173

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base

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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

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## Hindman, Julie

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**From:** Lopez, Samantha  
**Sent:** Friday, December 13, 2024 11:55 AM  
**To:** Hindman, Julie  
**Cc:** Shirnberg, Ann; Turner, Michele  
**Subject:** FW: <EXTERNAL-SENDER>Fwd: Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** Matthew Fagnani <mattfagnani@gmail.com>  
**Sent:** Friday, December 13, 2024 11:03 AM  
**To:** Kenai River Center <kenairivcenter@kpb.us>  
**Subject:** <EXTERNAL-SENDER>Fwd: Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment

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Kenai Borough Planning Commission Members:

I respectfully submit the attached questions regarding KPB 21.06 Amendment, which aims to adopt the FEMA Flood Insurance Study (FIS). We request that the KPB ask FEMA for a 180-day delay or more. This additional time will allow KPB and us to gather the necessary information to make an informed decision that benefits the people and businesses living and working in KPB.

The questions included in the attachment reflect the concerns of over 200 property owners regarding property values along the river and the potential financial impact on the local economy and the KPB tax base.

We understand that some of these questions should have been raised last year. However, the record indicates that most property owners received only a single postcard containing minimal details and inaccurate links to the KPB and FEMA websites. Furthermore, we have documented instances where FEMA needed to adhere to the required process outlined in public law. Our efforts to obtain additional information have also been improved by clarity. It has taken hundreds of man-hours over the past month to familiarize ourselves with the FEMA process and the HECRAS modeling tool used during this assessment.

I've attached our questions and the reason for our request for additional information, as we believe it is essential to ensure a logical and beneficial course of action for our community.

The attachment contains enough concerns and challenges that the KPB planning commission would want answers to before adopting the recommended FEMA change.

Please consider the delay.

v/r

Matthew Fagnani

Kenai Property  
29087 Coho Ct.  
and  
29089 Coho Ct  
Sterling, AK 99672

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Matthew T. Fagnani  
2559 Loussac Dr.  
Anchorage, Alaska 99517

907-250-2313  
USAF Veteran

[matt.fagnani@gmail.com](mailto:matt.fagnani@gmail.com)

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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

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9	Method	<p>Question: What real-world scenarios were used to validate the model?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
10	Method	<p>Question: How many model runs were accomplished to arrive at the new Base Flood Elevation?</p> <p>Rationale: Unless there are statistically significant model runs it is impossible to have confidence in the result</p>
11	Method	<p>Question: What sensitivity analysis was accomplished and what did analysts learn about original assumption that improved the quality or confidence in FIS findings?</p> <p>Rationale: Without sensitivity analysis it is again impossible to have confidence in the results. We have consulted with the USACOE on proper use of the model</p>
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## Hindman, Julie

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**From:** Kenai River Center  
**Sent:** Friday, December 13, 2024 11:55 AM  
**To:** Hindman, Julie  
**Cc:** Turner, Michele; Shirnberg, Ann  
**Subject:** FW: <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** ecampbellak@gmail.com <ecampbellak@gmail.com>  
**Sent:** Friday, December 13, 2024 11:25 AM  
**To:** Kenai River Center <kenairivcenter@kpb.us>; G\_Notify\_AssemblyClerk <G\_Notify\_AssemblyClerk@kpb.us>  
**Cc:** festus12358@gmail.com  
**Subject:** <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment

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I respectfully submit the attached questions about KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS). We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base.

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Attached are our question with rationale why we need additional information to determine this is a logical course of action and best for our community

Eric Campbell  
34789 Chinook Run Dr.  
907-529-5492

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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

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## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

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## Hindman, Julie

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**From:** Lopez, Samantha  
**Sent:** Friday, December 13, 2024 12:26 PM  
**To:** Hindman, Julie  
**Cc:** Shirnberg, Ann; Turner, Michele  
**Subject:** FW: <EXTERNAL-SENDER>KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** aksctsmn@mtaonline.net <aksctsmn@mtaonline.net>  
**Sent:** Friday, December 13, 2024 12:23 PM  
**To:** Kenai River Center <kenairivcenter@kpb.us>; G\_Notify\_AssemblyClerk <G\_Notify\_AssemblyClerk@kpb.us>  
**Cc:** 'Michael Agin' <festus12358@gmail.com>  
**Subject:** <EXTERNAL-SENDER>KPB 21.06 Amendment

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Michael & Kathy Miller  
PO Box 671453  
Chugiak AK 99567

907-862-0921

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## Hindman, Julie

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**From:** Kenai River Center  
**Sent:** Friday, December 13, 2024 12:28 PM  
**To:** Hindman, Julie  
**Cc:** Turner, Michele; Shirnberg, Ann  
**Subject:** FW: <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment  
**Attachments:** KPB 21.06 Planning Commission Questions v1(MSA)20241213.pdf

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**From:** Matt Tisher <mtisher@ahtna.net>  
**Sent:** Friday, December 13, 2024 12:26 PM  
**To:** Kenai River Center <kenairivcenter@kpb.us>; G\_Notify\_AssemblyClerk <G\_Notify\_AssemblyClerk@kpb.us>  
**Cc:** Mike Agin Agin <festus12358@gmail.com>  
**Subject:** <EXTERNAL-SENDER>Questions/Concerns to KPB Assembly and River Center KPB 21.06 Amendment

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Thank you,

**William Matthew Tisher**  
**907-350-2776**  
**34595 Chinook Run Drive**

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We request the KPB ask FEMA for a 180 day delay. This will allow for KPB and us to gather additional information needed to make a wise decision for the people and businesses living and working in KPB. The questions were from a collaboration of over 200 property owners who are concerned about property values along the river and the financial impact on the local economy and KPB tax base

1	Legal	<p>Question: What visibility does KPB and State of Alaska have on numerous ongoing Class Action Lawsuits?</p> <p>Rationale: Wouldn't it be prudent for Alaska and the KPB to request FEMA delay further action until these other cases are settled?</p>
2	Legal	<p>Question: How does the Supreme Court ruling on June 28, 2024, striking down the Chevron Doctrine change impact the process and expansion of the proposed rule changes?</p> <p>Rationale: The Supreme Court cut back sharply on the power of federal agencies to interpret the laws they administer. The Supreme Court struck down the Chevron deference ruling of 40 years ago. This rulemaking process started before the June 2024 ruling. Since the federal government is now more limited on their actions the local and state governments should be similarly limited.</p>
3	Notice 1	<p>Question: Why wasn't the information error checked in the Borough's Notice of Public Hearings verified before sending?</p> <p>Rationale 1: The Borough's Notice of Public Hearings is not accurate. It states that the new Flood Insurance Study and maps can be found at a specified FEMA website: <a href="https://msc.fema.gov/portal/home">https://msc.fema.gov/portal/home</a> For residences addresses on the upper river above Bing's Landing, the only flood map shown is the current FEMA map 0200122090A, effective 5-19-81. The flood map to become effective with Ordinance 2024-35 is not shown.</p> <p>Ironically, the website does include relatively current aerial photography showing sediment-laden water entering the Kenai River from the Middle Killey and then mixing into the Kenai River adjacent to Kenai Keys Subdivision. This photography shows that sediment-laden water from the Middle Killey is being conveyed downriver, which is precisely another reason our KRK HOA amendment should be adopted</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>Rationale 2: The Notice of Public Hearing provides a second website for additional information, at: (<a href="https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update">https://www.kpb.us/river-center/agencies/kenai-river-flood-map-update</a>). This website contains a before and after comparison of “Effective (1981)” and “Preliminary (2023.02.01)”, but without identification of base flood elevations. Clicking on PRELIMINARY FIRM AND FIS REPORT brings up a FEMA webpage, but the search feature for Alaska is limited to Ketchikan Gateway Borough. That webpage says to contact the FEMA Map Information Exchange (FMIX) if not seeing a community’s preliminary data. Following such contact, an “FMIX Specialist” provided a website for 250 pending documents for the Kenai Peninsula Borough, including 24 FIRM maps to be effective 2/28/25. The new maps for the Kenai River could then be opened, and these contained contours for base flood elevations. But the contours are in a NAVD 88 vertical datum, which is different from the NGVD 29 datum that the Borough previously required. No conversion formula or factor was provided, leaving property owners without means to review proposed BFE changes on their properties.</p> <p>Rationale 3: Separately, the Flood Insurance Study was composed of approximately 120 separate files, requiring specialized apps to open, and rendering it not possible for property owners to review.</p>
4	Notice 2	<p>Question: Why did FEMA and KPB decide they did not have to follow the procedures published in the Federal Register</p> <p>Rationale 1: The report mentions several meetings were conducted. Why was it that the public was not invited to these meetings in Kenai?</p> <p>Rationale 2: FEMA did not use its own past or new public notice procedures.</p>
5	Notice 3	<p>Question: Why did FEMA not update its study design and analysis based on newly published 44 CFR Part 9?</p> <p>Rationale: Rationale: On October 2, 2023, the Federal Emergency Management Agency (FEMA) published a notice of proposed rulemaking (NPRM) and supplementary policy that proposed to implement the Federal Flood Risk Management Standard (FFRMS) and update the agency's 8-step decision-making process for floodplain reviews by changing how FEMA defines a floodplain with respect to certain actions and how FEMA uses natural systems, ecosystem processes, and nature-based approaches when developing alternatives to locating a proposed action in the floodplain. After a careful review of the public comments</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		received, FEMA is now issuing a final rule that implements the proposed rule, with some minor amendments. This rule is effective September 9, 2024.
6	Notice 4	<p>Question: Why didn't FEMA and KPB use KB alerts and their Facebook site to facilitate open communication with the public?</p> <p>Rationale: All we got was a confusing post card in the mail. Confusing in that when people looked on online there were scant details on the process and what would be the impact to property owners.</p> <p>The only post card KPB sent invited residents to a winter meeting to roll out the FEMA's final decision without any public comments in the prior build-up to the process. It was a take-it-and-leave approach with FEMA's decisions already made.</p>
7	Problem Statement	<p>Question: Why did the FIS problem statement only include one flood scenario and not include a listing of top 10 historical flood crests with a description of root cause of each flood?</p> <p>Rationale 1: The problem described glacier dam break in middle of winter has only happen once in 30 years whereas the river experiences high water events every 2.5 years for other root causes. We believe the problem stated statement as written doesn't cover all the sources of flood water, does not address the problems that are experienced on the river. As residence near the river, we are aware of the impacts of high water, events and frequencies.</p> <p>Rationale 2: The problem statement also misses property owner's biggest concern - the state and federal government's, inability or unwillingness to close the river to boat traffic during high water events.</p> <p>Rationale 3: On the upper river, we have different flood conditions, and we are not aware in recorded history that there has been any flood damage in the winter due to a glacier dam break. We are not saying the event has not happened in the late fall. However, what we are saying is because the river level was low the impact of that event was minimal</p>
8	Method	<p>Question: What independent and dependent variables were used in the FIS analysis? How far back did you model the historical data for rainfall, snow previous winter, spring and summer temperatures, timing and size of glacier dam breaks on elevated river levels and</p>

## Questions regarding KPB 21.06 Amendment to adopt the FEMA Flood Insurance Study (FIS)

		<p>economic impact? What were the flood insurance claims that corresponded with these high-water events?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
9	Method	<p>Question: What real-world scenarios were used to validate the model?</p> <p>Rationale: Knowing this information would provide confidence in model results</p>
10	Method	<p>Question: How many model runs were accomplished to arrive at the new Base Flood Elevation?</p> <p>Rationale: Unless there are statistically significant model runs it is impossible to have confidence in the result</p>
11	Method	<p>Question: What sensitivity analysis was accomplished and what did analysts learn about original assumption that improved the quality or confidence in FIS findings?</p> <p>Rationale: Without sensitivity analysis it is again impossible to have confidence in the results. We have consulted with the USACOE on proper use of the model</p>
12	Method	<p>Question: What business case analysis was accomplished to compare / contrast the impacts of these changes on insurance claims, property values, tax base, etc.</p> <p>Rationale: As you may be aware, the federal government has wrecked the crab fishery, King salmon fishery, halibut fishery, and all the habitat that goes along with it. Now they want to come in and wreck our rivers for what reason? Does FEMA feel like it has a mandate to arbitrarily come in and raise the base flood elevation based on a poorly conducted study that contains no clear problem statement doesn't have measures of merit, doesn't list independent variables, or describe key features of its study design. The academic rigor of the study is frankly laughable at best.</p>
13	Method	<p>Question: Please provide accuracy/precision metrics for data sources in Table 22. Also please explain how FEMA is confident the result is actual river rise or error/noise in the data. Our experience is this is normally accomplished as part of sensitivity analysis and model validation.</p>

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		<p>Rationale: Realistically all geospatial data has some form of error associated with the data collection, and the use of multiple sources compounds and sums together into a single Root Mean Squared Error (RMSE) value. Additionally, looking at the projected water surface elevation rise for an annual 1% chance flood in table 23, a lot of the values are within the error of those elevation datasets (table 22). This means that it's hard to truly say if that's rise in water surface elevation, or just error of the data. Plus, realistically the compound RMSE would be larger, making those results even less significant. So clarity needs to be provided in terms of why they are so confident in their results, based on what is in the report.</p>
14	Method	<p>Question: What criterion or rationale was used to establish the new BFE? Was the BFE field verified within neighborhoods? Was it a scale that reflects the changing river dynamics?</p> <p>Rationale: Based on our calculations the error in the FEMA analysis exceeds the average BFE increase. It would be wise to have FEMA prove their academic rigor</p>
15	Method	<p>Question: What datum conversion error checking did KPB or FEMA accomplish when NGVD 29 to NAVD 88 vertical datums?</p> <p>Rationale: In Geographic Information Service application, conversion from one datum to another it is a well-known but complex problem. Using two different unconverted datums on a map results in erroneous locations.</p> <p>If KPB and FEMA understand this problem, it would know it is more pronounced at northern latitudes. They would have validated elevations and Lat Long coordinates using industry's advanced conversion tools. Showing us how conversion was accomplished and field verification of the resulting model would provide confidence in the data.</p>