

Missoula Board of County Commissioners

PUBLIC MEETING MINUTES COVER SHEET



THURSDAY, SEPTEMBER 12, 2024 – 2 PM

Hybrid meeting – Missoula County Courthouse Annex Sophie Moiese
Room/Microsoft Teams

[Click here to view the meeting recording.](#)

Time stamps (in green) correspond to meeting recording above. Please click to
the time stamps listed to view a particular item in the meeting.

ATTENDANCE:

Commissioners Present:

(Acting) Chair Josh Slotnick
Commissioner Juanita Vero

Staff Present:

Christina Dewar, Administrative Assistant, Commissioners' Office
Tim Worley, Senior Planner, Planning, Development, and Sustainability
Mattie Scott, Administrative Assistant, Commissioners' Office
Patricia Spotted Wolf, Administrative Support Specialist, Commissioners' Office
Kathryn Reeder, Planner, Planning, Development, and Sustainability
Carey Powers, Communications Coordinator, Communications
Shane Stack, Director, Public Works
Melissa Fisher, Strategic Initiatives Manager, Commissioners' Office
Patrick Swart, Planner, Planning, Development, and Sustainability
Matt Heimel, Planner, Planning, Development, and Sustainability
Chris Lounsbury, Chief Administrative Officer, Missoula County

1. **CALL TO ORDER** *[Time stamp – 0:05]*
2. **PLEDGE OF ALLEGIANCE** *[Time stamp – 0:23]*
3. **LAND ACKNOWLEDGEMENT** *[Time stamp – 0:45]*
Missoula County acknowledges that this event takes place in the aboriginal territories of the Salish and Kalispel people.
4. **PUBLIC ANNOUNCEMENTS** *[Time stamp – 6:52]*
 - a. Closed Captioning
 - b. Proclamation: Climate Solutions Week
 - c. Proclamation: Hispanic/Latin X Heritage Month

5. PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA *[Time stamp – 1:52]*

6. CURRENT CLAIMS LIST *[Time stamp – 2:02]*

Claims received as of August 27, 2024 through September 03, 2024 by the Commissioners' Office total \$1,405,599.66.

7. HEARINGS

a. Creighton Subdivision with Two Variances *[Time stamp – 2:18]*

Tim Worley, Senior Planner, Planning, Development, and Sustainability

[Opened hearing-due to deliberations and new conditions proposed a final decision was postponed to public meeting on October 24, 2024]

8. OTHER BUSINESS

[None]

9. ADJOURN

(Acting) Chair Slotnick – Called the meeting to adjourn at 4:11 p.m.

BCC Public Meeting September 12, 2024 – Transcription

This transcription was produced by transcription software. There may be discrepancies between this transcription and meeting dialogue. You can view the recording of the meeting on the county's YouTube channel: <https://www.youtube.com/c/missoulacounty> or contact the commissioners' office to obtain a copy.

Dialogue in the transcription attributed to "Sophie Moiese Room" is for all speakers that attended the meeting in person. Attendees that participated virtually are labeled individually.

BCC-Commissioners' Public Meeting-20240912_140221-Meeting Recording

1:06

In person we will have closed captioning on all the screens here in the Sophie Moise room.

1:12

There will be an opportunity to speak during the meeting for public comment, virtually and in person.

1:18

We ask that all speakers today speak slowly and clearly.

1:21

This helps with the accuracy of the closed captioning if you are on Microsoft Teams.

1:26

If you would like to speak when discussion has been opened for public comment, we ask that you use the Raise Hand feature.

1:33

This is a small hand button.

1:35

If you are calling in on the phone, you need to hit *5 to raise your hand.

1:39

Once called upon, you will need to hit *6 to unmute.

1:42

If you have any questions, please find me during the meeting and let me know.

1:46

Thank you.

1:47

Right, Thanks a lot, Christina.

1:51

OK.

1:52

Do we have any public comment on items not on the agenda?

1:55

Anybody's welcome to speak on anything.

2:00

OK, then we will jump right to it.

2:02

Our current claims list, claims received as of August 27th, 2024 through September 3rd, 2024 by the Commissioner's Office total \$1,405,599.66.

2:16

Well, today we only have one hearing.

2:18

It's on the Creighton subdivision with two variances.

2:23

This will be, I think, our second time hearing about this and Tim Worley will present.

2:28

Take it away, Tim.

2:29

Oh, shoot, tell I'm I'm out of practice.

2:32

Dave is our chair this year.

2:33

In a minute.

2:35
Yeah.

2:35
We have two proclamations.

2:36
So one will do one, I'll do one, and then we'll jump right to Creighton.

2:42
Whereas human caused climate change is resulting in more extreme weather patterns, wildfire smoke and extreme temperatures.

2:50
And scientists are urging us all to rapidly decrease pollution to keep our environment safe and healthy.

2:56
And whereas, we are more aware than ever of achieving solutions to mitigate the climate crisis and become more resilient to its impact, such as electrifying our buildings, investing in clean energy, and choosing sustainable transportation.

3:09
And WHEREAS, Missoula County and the City of Missoula have committed to implementing the Climate Ready Missoula plan to use 100% clean electricity in the urban area by 20-30 into a joint Electrify Missoula campaign in collaboration with Climate Smart Missoula.

3:23
And WHEREAS, we all have a part in playing in addressing this unprecedented climate crisis, from renters and homeowners to contractors, businesses and nonprofits.

3:32
And that we must all address it together with urgency if we are to succeed.

3:36
And whereas we know that it is not too late to act, that we can and must eliminate fossil fuel use in our transportation, buildings, operations and lives, and that we can build a better future not based on the premise of sacrifice, but based on our ability to transform.

3:51
Therefore be it resolved, we Missoula County and the City of Missoula do hereby proclaim September 28th through October 6th, 2024 as Climate Solutions Week, which will kick off the 6th annual Climate and Clean Energy Expo in Caris Park, all to inform, educate and energize into action Missoula County and city residents so we can meet this moment capably with urgency together.

4:13

Dated this 12th day of September, 2024 City of Missoula, Andrea Davis, Mayor and your board of county commissioners, Dave Strohmeier, Josh Slotnick and Juanny Devero.

4:22

Thanks Juan.

4:24

All right, I have another proclamation.

4:27

Whereas September 15th marks the independence from Spain for a number of Latin American countries including Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica, followed by Mexico on September 16th, Chile on September 18th and Belize on September 21st.

4:42

And whereas Hispanic Latino Latina Latina Latin X are pan ethnic terms used to encompass people of South America Central America or other Spanish cultural origin of honor Spanish cultural origin regardless of race.

4:56

And whereas National Hispanic Heritage Month began in 1968 as Hispanic Heritage Week and grew to a 30 day observance in 1988 to recognize and honor the diverse peoples and rich histories cultures and legacies that have Hispanic and Latin roots.

5:12

And WHEREAS, between 2010 and 2020, the Hispanic, Latino, Latina, Latina, and Latin X population accounted for 51% of the United States population growth of 22.7 million.

5:25

And WHEREAS, the national growth of the United States Hispanic, Latino, Latina, Latina, Latina, and Latin X population is reflected in Missoula County, with 2.6% of Missoula County residents identifying as Hispanic, Latino, Latina, Latina, or Latin X representing Missoula County's largest racial and ethnic demographic.

5:45

Keeping in mind that people of Hispanic and Latin ancestry can be racially white and or black.

5:50

And whereas more than 20 million people who identify as Hispanic, Latino, Latina, Latina, or Latin X represent multiple ethno, racial, geographic, and other intersecting social identities.

6:03

And WHEREAS, Missoula County celebrates the culture, life experiences, and perspectives that this diverse population brings to our community while also acknowledging the inequities that exist.

6:13

And whereas in the words of revolutionary Mexican painter Frida Kahlo, at the end of the day we can endure much more than we think we can.

6:22

Now.

6:22

Therefore be it resolved, we, the Missoula Board of County Commissioners, do hereby proclaim September 15th through October 15th as Hispanic Latin X Heritage Month to celebrate the freedoms won by people in many Latin American countries and to honor the rich Hispanic, Latino, Latina, Latinae, Latinx cultures and histories that have shaped our country and community.

6:44

Dated this 12th day of September, 2024, signed by the Board of County Commissioners Dave Strohmeyer, Juanita Barrow and Josh Slotnick.

6:52

All right, Tim, it's all yours, right?

7:04

For the record, Tim Worley with planning, development and sustainability here to present Creighton Subdivision, which is a proposal from Creighton Appraisal PC represented by Ken Jenkins of Montana Northwest.

7:18

48 residential lots and one utility lot.

7:25

Just a little bit of history here.

7:26

This subdivision went to Planning Board and the Board of County commissioners all the way back in the summer of 2022 and the record has been kept open to gather new information and I'll deal detail that here shortly.

7:40

The project is located near the curve in 3rd St.

7:45

and Clements in Target Range Orchard homes.

7:50

This is zooming in a little bit and you can see the three radio towers which have since been removed from the property.

7:58

Again, the proposals for eight residential lots and one utility lot served by a single cul-de-sac Rd.

8:04

coming in from Clements.

8:12

A 4.56 acre common area is proposed on the northwesterly portion of the property.

8:21

The growth policy recommends 2 homes per acre.

8:24

That's the 2019 land use element.

8:27

The 2010 Target range plan recommends one home per acre, and the gross density of this project ends up being 1.2 or excuse me, one dwelling per 1.2 acres.

8:39

The zoning when this came in for review was CRR.

8:44

Two or two dwelling units per acre.

8:46

The application was submitted before the new zoning regulations.

8:51

If the new zoning regulations were applied, a 450 foot riparian set back would impact the project.

8:58

But again, we feel that this is a grandfathered project.

9:01

And just to illustrate, this is what the riparian set back would look like if the the new zoning were applied.

9:08

Again, Creighton Ave.

9:09

is the cul-de-sac Rd.

9:11

that's proposed to serve the subdivision lots.

9:15

There's a variance required because the access is from Clements, which is not the road of lesser classification.

9:22

That would be Walker Drive to the South.

9:25

We do support the Clement St.

9:27

access because County Public Works supports this access point.

9:35

There's a second variance to not connect through to Walker Drive to the South.

9:41

Again, that connection is right here.

9:47

We recommend denial of this variance because the connection should be required to provide a comprehensive connection throughout the neighborhood.

9:58

And just to illustrate, this is the Walker Dr.

10:00

connection looking N to the property, and you can see the radio towers on the property there that have since been removed.

10:10

All right, the big issue with this subdivision is channel migration of the Clark Fork River.

10:19

Now, the channel migration study was basically sponsored by the Water Quality District in the year 2021.

10:27

This is the cover of the channel migration study.

10:31

The river portion of this subdivision is in what's known as the Historic Migration Zone, or the HMS.

10:39

Much of the landward portion of the property is in the erosion hazard area or the EHA.

10:44

That's the orange color.

10:47

Just so we get our definition straight for erosion hazard area.

10:52

The erosion buffer area is the distance between an active stream bank where a river is likely to erode based on historic rates of movement.

11:01

The erosion hazard area of the CMZ is generated by applying the erosion buffer with to the active channel bank line.

11:11

Just a comment from the Water Quality District at the time of the original submittal.

11:17

They commented that seven of the 10 lots are anticipated to be subject to extensive erosion.

11:23

Some of the lots could be fully lost to channel migration.

11:25

And I should note that Lot 10 actually has been eliminated with this application.

11:33

Some downstream examples of erosion particularly would include 719 Walker, where roughly we estimate 10,000 square feet of land was lost between 2014 and 2022.

11:50

That's about the size of a suburban lot.

11:57

OK so on to mitigation impacts.

11:59

The applicant acknowledges that hardening solutions for the eroding riverbank, such as RIP rap will have a negative impact on other properties.

12:09

And since 2000, the year 2000, the floodplain regulations have prohibited RIP rap.

12:16

The presence of existing homes in the erosion hazard area could present a comprehensive solution.

12:22

For instance, the government coming in to protect these homes from channel migration hazards, but we're not aware of any comprehensive solution at this time.

12:33

So the options could include protective setbacks or notification to future home buyers.

12:41

Commissioners, your state law obligation is to review for potentially significant adverse impacts on public health and safety as well as the other review criteria.

12:52

In this case, our conclusion was that the impacts haven't been mitigated and on our original recommendation in 2022 was for subdivision denial.

13:04

The applicant request that the original hearing was for a 2 month delay as time was needed to gather information about the specific erosion hazard on this property.

13:13

So what you did is you, this is 2 years ago now, but you took public comment and you continued the hearing to October 6th of 2022 and beyond that you continued it to the December 2022 and then April of 2023.

13:28

Finally, in June, you reviewed a completed geotechnical analysis produced by all West and commissioners.

13:38

At this time you deemed this information to be relevant and credible information to include as part of the record, which is something with new information.

13:47

That's your state law obligation.

13:50

So next steps from there.

13:52

Staff at Montana Northwest Company agreed to return to the public hearing process, including both planning board and the county commissioners.

14:00

That's today, obviously with the geotechnical analysis, which can inform your decision about channel migration and its impact on the subdivision.

14:11

In particular, can the erosion hazard area be reduced from 580 feet to 200 feet?

14:18

That's the big question today and I would encourage looking at the staff memo that we recently produced for updates as well as the geotech documents themselves, including the all W Geotech that was produced.

14:36

So what's being discussed is a potential reduction of the erosion hazard area from that 580 foot limit that you see in orange to the dashed line.

14:48

Here's the dashed line right here.

14:54

So just some quick conclusions that came out of the all W study.

14:58

Mature terrace materials characterize the subdivision property.

15:03

These materials are less erodible than more recently deposited alluvial materials.

15:09

Grantsdale soils on the property corroborate the mature terrace conclusion, and the mature terrace argues for a reduced erosion hazard area width down to that 200 feet.

15:22

That's what all W would assert.

15:25

So again, that's that dashed line that you see on the map right here.

15:35

So zooming into the scale of the property itself, you can see the 580 foot boundary here being reduced to 200 feet here on the edge of into the common area and into the edge of Lot 7.

15:53

So staff concluded that an independent verification of the geotech was appropriate and that is attached to our memo that was produced by Tetra Tech Matt Barnes was the engineer involved.

16:09

He agreed with the alluvial terrace conclusion of the original geotech, but he did say that riverbank erodibility and channel hydraulics need to be considered.

16:22

His conclusion was essentially lacking riverbank erodibility and channel hydraulics information the conservative yet prudent approaches to retain the 580 foot erosion hazard area.

16:38

So we would continue to recommend subdivision denial and I'm going to just go through agency comment here briefly before I wrap up starting with water quality district.

16:49

This is recent comment from these departments and agencies.

16:53

Water quality district agrees with Tetra text conclusions that reducing the EHA buffer is too risk, buffer width is too risky.

17:03

Health department stated the sanitation review may continue without a new application.

17:08

They did also note that shallow groundwater and channel migration present a development risk and uncertainty and public works, as I noted before, support supports the proposed access location off of Clements Conservation District also commented and noted that even a 200 foot channel migration results in no riparian set back for Lot 7 and that this lot remains vulnerable to channel migration.

17:37

So the public did comment on the subdivision and some of these are updated comments.

17:41

There was concern over the blind curve between 3rd and Clements that in the winter in particular, cars tend to slide off the road and take out fences and end up in people's yards.

17:54

That Walker Drive to the South is the better access.

17:58

And by the way, Walker accesses 7th St.

18:00

W over to Clements and that the cul-de-sac being proposed might conflict with the Clements non motorized path.

18:11

Shallow groundwater potentially impacts crawl spaces.

18:15

This subdivision will impact wildlife and the local bird population.

18:20

And will herbicides be used on the common area and will the public have access to that common area?

18:27

So back to recommendations.

18:29

Planning Board's recommendation was for subdivision denial.

18:34

One of the statements made by one of the members was that planning for mitigation isn't really a plan.

18:40

They felt that more river hydrology information was needed.

18:47

That the curve at 3rd and Clement should be re evaluated by county public works.

18:52

And one of the planning board members did ask is there any way to get this subdivision across the finish line?

18:58

Tim, Tim, yes, remember the the vote numbers at Planning Board?

19:03

I'll produce those in just a minute.

19:05

It was there was one vote in the affirmative to support the subdivision and five votes to recommend denial of the subdivision.

19:15

But I'll show a summary here in just a minute.

19:21

So Commissioners, as far as your decision space regarding particularly this issue of the CMZ, lacking sufficient information about the mature terrace, the CMZ study concludes that it's conservative yet prudent to reference the 580 foot buffer and that's where the new information comes in with the geotech and responses to it.

19:44

This is information you can consider as to whether it's wise to narrow up that buffer.

19:53

I should note that the study itself, the CMZ study does not prescribe a specific methodology for confirming an EHA buffer reduction from 580 feet to 200 feet.

20:05

It simply says that the original CMZ study didn't have much information about the mature terrace.

20:13

So, Commissioners, our conclusion is that you have discretion based on the evidence presented.

20:19

As far as this issue of reducing the buffer width, so, and here's the vote totals for the three.

20:26

There were two variances obviously and then the main main motion and planning board essentially voted with staff on the two variances and then they recommended denial of the subdivision.

20:42

There was one vote in the affirmative to support the subdivision.

20:48

I think this concludes my presentation.

20:49

I'll be available if you have questions.

20:53

Thanks a lot.

20:54

Would you guys like to speak to this?

20:57

Just come on up Brian Throckmorton with four O 6 engineering, then Ken will hop up when I'm done.

21:11

I just I wanted to talk more on the CMZ and then Ken can talk a little more on the the generalities of of the subdivision.

21:20

I can share my screen maybe.

21:39

Do you guys got to allow access for it, Brian.

21:59

All right, perfect.

22:05

OK, So why don't we go through, I guess let's actually pop this up.

22:12

This will be easier to see.

22:25

So one of the first things I want and I think I talked to you guys about this earlier in committee, but as far as the variance for the cul-de-sac, we've definitely already gone through and redrawn.

22:37

We can leave the lot lines exactly where they're at.

22:39

We're perfectly fine with the variance.

22:42

I think the subdivision still works extremely well.

22:44

If we connect to Walker, we just handed really before because we talked about Walker needing quite a bit of upgrade.

22:51

There's actually a big section of gravel, but it does make a nice connectivity and Walker I think was supposed to connect anyhow through.

22:58

So this shows what that would look like.

23:01

We didn't adjust, but even actually in reducing that cul-de-sac and lot 7, we actually have a lot more building room even set back from the 200 feet.

23:10

So we could take the house that you guys see that's right up against.

23:14

So we were going to do no build basically within the 200 foot, but we can even make that a little bit bigger and have some more buffer in there if we take and we can move that house closer to the road.

23:25

Now without the cul-de-sac, it actually makes a little more room.

23:28

So it so the design works pretty well this way.

23:33

So I just wanted to point out this subdivision doesn't sit, you know, we're going to talk about the CMZ and, and, and mitigation and what that really means.

23:43

But you know that the mitigation for this and this, the channel migration study is, is a bigger issue than just the subdivision.

23:51

And I guess I wanted to kind of point that out.

23:53

As you look at the space that we're looking to fill, there are houses all around it.

23:59

I mean, this is more of an infill project than a house that sits on a peninsula or an island by itself.

24:05

So you know this, this is where there are already existing houses, infrastructure, roads to connect to all that.

24:15

So a little on the channel migration study.

24:17

So when you read the channel migration study itself, they they break down the Bitterroot and the Clark Fork into what they consider reaches.

24:27

So this is actually reach 6, which is 4.9 miles long.

24:33

So that that's a pretty big section of river to just have a generality placed on it.

24:39

There's a lot of site specific items that happen in a five mile stretch of river and actually 10 miles because you have both sides of the river that you're putting 580 mile or 580 foot set back on.

24:51

So the study does realize this because this this is a big thing.

24:56

So when you look on page 6 in the study, it says the CMZ mapping developed in this study was developed without any explicit intent of either providing regulatory boundaries or overriding site specific assessments.

25:12

Any feature uses of the maps as a regulatory tool should be careful to review the mapping criteria to ensure that the approach is used appropriate for that application.

25:21

So in essence, they know we recognize site specific is more important than these big reach areas.

25:29

So and, and, and I think, you know, the county recognized this exact note because this isn't in zoning, right?

25:36

I mean, this, this right here is not part of zoning.

25:40

It's not used as regulation because it's there's too broad of a swath that you paint.

25:47

It's more for informational purposes only.

25:50

And in a prime example of this, I think you know, you guys have probably seen this a little bit, but we recently worked on the subdivision in East Missoula that actually has a 300 foot set back from the river there.

26:01

But when you look at the photo from 1985 to the photo of 2022, the river hasn't even moved a foot.

26:09

And and that's where these this is the same idea here where on site specific because this is locked in between two bridges in a straight line, it will never move.

26:18

But the 300 feet doesn't make sense because that stretch is actually a nine mile stretch.

26:24

So these site specific items are listed and accounted for within the study.

26:29

And that's what we're here to present today is that information not the broad stroke that is the 580 foot set back even more into that the study goes in and and very few places in it does it actually go into this much detail on on an area.

26:47

The this study recognized that the 580 feet in this area actually might be too much and talks about adding 200 feet.

26:57

So this is page 64.

26:58

I just wanted to show you guys that this is actually the page kind of blown up what everything says on there.

27:04

But I think the thing to highlight in this is talking about, you know, more mature terraces erode slower than the rest of the area.

27:14

But since the study lacks the sufficient measurements into the terrace material, So if we can go get these measurements and understand what that material is.

27:25

And then also we went in and looked at the actual rate of erosion over a longer period.

27:30

You can definitely take a year.

27:32

There's good years and bad years.

27:34

But when we take the average over a big chunk and see what that rate is, then you can look at the 200 foot buffer.

27:41

So we did both of those.

27:42

We followed the guide that we're currently using, or I mean not supposed to be, but the regulatory in essence that's deciding whether we're going to go or not go on this subdivision.

27:53

This is these are the rules that we've, we've we've been asked to look at those in the hydraulic study.

27:58

We came back and focused on these.

28:01

So in doing so, we reached out to all W for this.

28:05

This isn't a four O 6 engineering, not our expertise.

28:08

So we reached out to all W to produce, you know, this information and see what they would say.

28:13

And I think James with all Wes is on the line and if I can turn over my screen to him, he'll go through their what they came up with on their conclusion.

28:26

Yeah, thanks.

28:27

Brian, can you hear me OK?

28:29

Yep, I gotcha.

28:30

I stopped.

28:30

Sharon, see if I can tee up mine here.

28:47

Of course it's not going to.

28:48

Let me.

28:49

Let's see.

28:49

Let's present.

28:58

OK.

28:58

Yeah.

28:58

Thanks everyone for having me.

29:00

I'm here at Brian's request.

29:02

Four O 6 Engineering is our client.

29:05

My name is James Thomas and I'm the CEO and principal engineer, geotechnical engineer over at All West.

29:14

What I wanted to do briefly today, I, I don't think the, the nature of the deposits in the area of the evaluation are much in question at this point, but I wanted to get some slides in front of you that it, it, it does benefit you to get some eyeballs on the, the type of geology we're dealing with at the site.

29:33

But also I felt it wise to tell you a little bit about the CV of the, the gentleman who prepared this was Scott Marsh or he was the one who, if you care to reference the previous iteration of this presentation he gave that was at the Consolidated Planning Board back on August 20th, 2024.

29:57

I think about the, the two hour and 59 minute mark he, he gives this similar presentation.

30:02

I'm going to do my best to, to replicate that.

30:06

But Scott's, he's holding a 35 year plus resume on all things geology.

30:15

When we have anything that is, you know, touches on the geomorphology, rhythm mechanics and whatnot, he is my, he's my go to guy.

30:25

He's got vastly more experience than I have in that realm and, and he is one of our, our key personnel for this.

30:32

So that's why we got him out to the site and I'll briefly move through this as to his findings.

30:39

So you'll see some of the same slides here, you know where we're looking at the same slide that has the original overlay on the historic migration zone and the erosion hazard area, which is in that yellowish colour and the terrace buffer, which is the the prime point of discussion.

30:58

So this shows where we excavated the seven borings test pits that Brian was referencing.

31:06

And what I wanted to show you is just some, I'll flip through the the type of materials that we were experiencing.

31:15

These are the dense older terrace gravels that are pretty predominant through some of the areas of Missoula.

31:22

I'll just flick through these.

31:33

So what the indications were the older mature terrace deposits from the test pits.

31:37

We also did nuclear densometer testing of the in situ soil in the test pits indicating in situ compaction of around 80 to 85, which for newer deposits you you never really get that high.

31:51

And some of the soils exhibited localised caliche deposits or cementing.

31:56

And the side walls, you know, pretty much held a vertical wall, which indicates the, the dense nature of the material.

32:04

And the USDANRCS mapping, which was actually in in Tim's conclusions was already corroborating the, the, the, the nature of the, the predominant soils below this site.

32:22

So one of the things that Scott did a little differently was to go back a little further.

32:30

I think the 2002 was the the furthest back that we looked at for the the river channel migration over that.

32:39

And compared it against the 2023.

32:42

The finding was that the the rates of erosion measurement between the years of 2002 and 2023 was actually 36 feet.

32:52

That's averaging out to a rate of 1.7 feet per year.

32:56

Of course that's not all happening, you know, 1.7 feet year over year, but extrapolating that average rate would give us a 1.7 foot per year erosion rate over 100 years, which results in an estimated 170 feet of stream bank erosion, which is well under the requested 200 feet set back.

33:20

And furthermore, it was the conclusion that All West has presented definitive data, observations, arguments and conclusions that the proposed Creighton subdivision would be sited on mature terrace deposit and land form erosion rates determined at the closest active stream bank support the adoption of a 200 feet set back.

33:39

These data fulfil the suggested 200 foot buffer for each 6 terrace EHA buffer as indicated in Figure 45 and discussed in section 4.7.

33:51

Geologic controls on migration rate of the CMZ 2021 report.

33:58

So that is the information that is you know mostly available on the.

34:02

Let me see how I unshare this stop sharing there we go.

34:17

So as, as Tim alluded to, the, the data is available in the, the, the note, the, I'm sorry, the, the memo, as are the, the review from Tetra Tech and the response, the rebuttal from All West.

34:35

But as I said, I, I don't think the, the, the nature of the materials are much up for debate.

34:43

I think that the, the, the reduction of the, the, the, the set back to 200 is appropriate.

34:51

But also I understand that obviously from a geotechnical standpoint, the the fears that that people have about the the massive unknowns of of river hydraulics.

35:01

So I'd like to just offer that information and myself for any questions that folks may have.

35:12

Thanks, James.

35:13

So going back to what the slides, so you know, in reaching out to all West on this, you know, we took the same hydraulic hydraulic study that sets 580 feet, also outlines the use of the 200 feet.

35:31

You know, did a pretty extensive study site specific study to come up and confirm what's which is already in the study, the 200 foot.

35:40

So it's not like we just picked 200 feet out of you know, midair.

35:43

That was something that is in the hydraulic study already that sets the 580 feet.

35:49

So again, we're just, you know, following through with the same study.

35:54

Some other things to kind of look at that I wanted to share.

35:58

Looking at this, you know, we kind of are Tim already showed what the effects of the subdivision is.

36:04

I do think that, you know, we could, if we needed to do even to have a bigger set back of 250 feet, maybe have some buffer when we rearrange things, we could definitely put a no, no, build an extra 50 feet if that makes anybody feel better.

36:17

But I do feel pretty comfortable with the 200 feet.

36:20

And here's another reason why.

36:22

So I went back and pulled the old 1972 imagery.

36:26

So if you look in, in Missoula, you know, they, they have all the old imagery that goes back and we can geolocate all that.

36:32

So when you look at this photo, behind is the 1972 image of that area.

36:42

The blue line that I have highlighted is actually the 2019 active river channel that is in the CMZ study.

36:51

So in the red line, since it's kind of hard to see, it's a black and white photo I followed with the red line is actually the 1972 riverbank, just so you guys can kind of see what that looks like in a little more broader terms.

37:02

So from 1972 to 2019, the river at the very edge of the property moved 87 feet.

37:11

So right in there, you know, even looking back a much longer time frame, 30 more years than when all W did, we're right there about the same about 1.7 feet a year.

37:21

So you know, over this half of what the study says, a time period of 100 years is what the study has set.

37:29

We're looking, you know, pretty we're pretty safe.

37:32

We're like right there, what everything is confirmed.

37:35

One thing I also want to point out, this darker black line right here is really interesting because if you look at even in 1972, this was the same way.

37:46

When you look at the blue, you can see the light blue.

37:48

This right here is actually the active river channel.

37:53

This channel as it goes up here, that is just dead ends.

37:57

This is just dead water right here, even in 1972 is exactly the same.

38:02

So so this channel really hardly has any water running down at most years.

38:09

The big thing to point out with that is since 1972, the riverbank has moved 12 feet everything on the side of this black line.

38:18

So most of the subdivision has had 12 feet of erosion in almost 50 years, which is a huge thing to look at because the 580 feet is basing itself on thinking this is an act of river channel when it's not.

38:33

So again, the 200 foot based on those numbers seems really conservative actually at that point for the majority of the subdivision, kind of the last thing to look at.

38:49

And this shows a big general picture of what the channel migration study would touch on for the whole neighborhood.

38:57

So currently there's 12 existing homes closer than 200 feet to the river.

39:03

There's 39 total homes within the 580 feet.

39:07

We did talk earlier and we agree with Tim.

39:09

The one thing you can't do is Hard Rock one house because what it does is it actually erodes your neighbor's property faster.

39:16

So if there's if we're gonna not let houses go into the river, this has to be mitigation for the entire area.

39:24

Because if we leave it to individual homeowners, some people are gonna have the money, some are not.

39:29

The ones that have the money all of a sudden become a peninsula and their neighbors get washed away.

39:33

And in all honesty, we can't have it.

39:35

But one thing that we would be willing to do or the Creightons are willing to do is to at least deny any Rs IDs.

39:42

So put on the plat that they wouldn't, it wouldn't protest any Rs IDs to help fund anything that went on in the area.

39:48

So since the subdivision is in that neighborhood, if money needs to be raised, there's additional money there through them to help with that.

39:58

But I mean, this does show that is one reason why it'd be pretty easy in all honesty, for the Creightons to not have the river washed.

40:05

They only have a little section that even arose.

40:07

I showed you the active channel.

40:09

So if we went out and put root balls.

40:11

If we stabilized that portion of the river, that actually would be pretty fine because it showed where the active channel really isn't washing away.

40:19

But we recognize we don't want to affect the neighbors downstream.

40:22

So it has to be an all or none type mentality in this.

40:29

So I think now I'll stop Sharon.

40:32

If you guys have questions, I'll be happy to answer them either now or after Ken talks, but kind of up to you guys.

40:39

We'll just bring Ken up and we'll we'll keep.

40:40

OK.

40:41

Thanks.

40:42

Thanks Brian.

40:51

Good afternoon.

40:52

For the record, Ken Jenkins with Montana Northwest Company.

40:57

I want to just talk a little bit about the process here.

41:02

And I would like to thank the commissioners, planning office, the county for accommodating this unusual situation where probably 3/4 of the way through a very standard nice subdivision process.

41:19

The channel migration got dropped in our laps and threw the whole thing into a spin.

41:24

So I appreciate you working with us to extend the time for two or three years or whatever it's been here.

41:34

But the process that I would like to talk about has to do with even more recent activities, agency comments that have come in prior to this recent planning board and and this particular meeting.

41:54

And I want to talk about sort of the blurring of the edges when we do these subdivisions.

42:02

There are dozens of hoops we have to jump through, dozens of tests we have to do, things that we have to prove.

42:15

It goes to the planning office in the form of agency comments.

42:19

Many of the agencies that comment are other county departments.

42:25

And I have a problem, to be honest, with sort of the negative blurring of the lines of the information that has come in that feeds the planning office to help them develop their recommendations, which is then in turn the information the planning board has to make their recommendation to you.

42:54

And what I'm going to get at here is this is kind of the first and last part of this process that is required to be based on findings of fact, not recommendations and opinions like the whole process has been up till this point.

43:13

As an example, I would like to just give you some feedback about the type of agency comments I'm talking about.

43:29

This is recent from the health department.

43:32

If a positive element could be found in the previous plans, the homes would likely have been lost to river migration or flooding before the sanitary facilities, meaning there would hopefully not be families living in viable homes without a way to access water or proper really dispose of wastewater.

43:54

In that same letter of comment, when we think about areas that are preferable for development with on site water and wastewater facilities, this is not one of them.

44:06

We had several concerns with the project including high groundwater and significant portions in the channel migration zone and or floodplain.

44:18

So these are the comments that the planning office has to build their recommendations on.

44:26

The floodplain was measured and mapped.

44:31

There's a new floodplain now that has not been adopted yet in this particular area.

44:35

It has not changed at all.

44:38

It's the same place.

44:40

It's on the bank that drops down into that old dry Slough high groundwater we put, I don't even remember a bunch of pipes on this property.

44:56

Missoula County themselves do the monitoring.

44:59

They measure the water.

45:01

There was a large area that doesn't have high groundwater, a large enough area for us to design and get approved, a sewer system.

45:10

And yet in the comments here, one would believe that there's an issue with high groundwater.

45:18

In the comments here, you would believe that there's an issue with the floodplain and it just is not the case.

45:28

When we're engineering and designing subdivisions, there are always things that we have to look at and mitigate and there's a black and white line.

45:39

You're either in or you're out.

45:40

We can't operate or you know, I feel bad with that.

45:47

We're this far into a subdivision to the decision point when if all of this stuff was so wrong with it, we should have never started.

45:58

That's not how we operate.

46:01

Another example, water quality district comments applying.

46:14

There's almost as if there's some agreement that maybe the 200 foot is legit.

46:20

Applying the 200 foot buffer as recommended in the All W report would result in a 0 foot riparian set back for home site planned on lot 7 once the Clark Fork River channel migrates as predicted.

46:37

So we already have a 65 foot riparian buffer up against the channel.

46:48

That house right now, the way it's drafted, would sit 225 feet from the river, and it's just an illustration.

46:59

That doesn't mean that's where the house has to go.

47:02

We can move it further away, certainly.

47:13

It goes on to talk about how the proposed homes can meet the current riparian resource protection zoning.

47:27

We predate the zoning while accounting for future migration of the river channel to the full migration extent indicated by the 200 foot buffer as shown in the All W.

47:39

Once again, our clients paid All West to do a lot of work.

47:45

They found the type of terrace soil that does not erode as fast.

47:52

The county hired Tetra Tech to take a look at that work.

47:55

They concurred with the soil type, but Tetrotech then goes on to sort of speculate that the prudent thing to do, I think is how they worded it, would be to stick with the 565 foot.

48:16

The prudent thing to do might be to never approve a subdivision in the Missoula Valley again, because what about the next Ice Age?

48:24

What about the next glacial Lake Missoula?

48:28

I mean, we cannot design subdivisions to comply forever in geologic time.

48:37

And yet what I mean by the blurring of the lines here is a project is either in the floodplain or out of the floodplain.

48:46

Based on the data that we have right now, we can't speculate what the floodplain might be someday.

48:56

The 200 foot buffer, the houses are either in it or out of it.

49:02

We cannot speculate forever in geological time as to what the river might do.

49:09

And the third thing is there's already a city here.

49:15

That's that study was done as if there were no houses, no subdivisions.

49:21

There's other subdivisions that are already in this thing and that intervention by man would never take place.

49:30

If Missoula County wasn't going to solve the problem, probably FEMA and the federal government would.

49:35

This is America, we don't let subdivisions wash down rivers.

49:40

So I would like to, I would just like to say that I think the review process has been a little bit negative in the comments that the planning office has to use to make their recommendation.

50:00

That's fine.

50:02

I mean there's no rules against that.

50:05

But I'm asking for a decision here today that's based in fact.

50:11

And we can only deal in designing a subdivision with what the facts are, not speculation, not what's prudent.

50:20

We have to go with the answers we get.

50:23

We have followed the process that the channel migration study called for.

50:27

We have studied the floodplain, we have measured the groundwater.

50:32

We have done all of the things we're supposed to do and the answers are good.

50:38

We can't speculate outside of what we can actually measure today.

50:46

And that's really about it.

50:47

I Brian mentioned it, but Creighton's willing to waive the right to protest if Missoula ever does have to do anything about this.

50:57

That would be the solution, a global solution that includes that whole outer sweep of the the neighbourhood.

51:05

The other thing I'd say personally, I don't think it's ever going to be a problem.

51:09

I grew up in this neighbourhood, that little slew that's along all of those lots.

51:13

I used to go duck hunting and walk down through their fishing and that hasn't changed at all.

51:18

Not in my lifetime, not since I was a little kid.

51:21

Looks the same now as it did then.

51:24

So I thank you for your time.

51:26

I appreciate you working with us on the time frame and I hope we do the right thing.

51:33

Thanks, Ken.

51:41

Kim, we have Tetra Tech.

51:45

All right.

51:45

I just asked questions of you on Tetra Tech.

51:48

I don't think we have Tetra Tech.

51:50

They were, they could be on by 3:00.

51:54

Matt Barnes from Tetra Tech, I didn't see him on in my most recent perusal here, but you could just ask me questions in the meantime.

52:01

Sure, sure.

52:04

Do you have any questions, Juan, before I jump in, go ahead and I'll interrupt.

52:07

OK, great.

52:08

Great.

52:09

So if I if I understand it right, all West and Tetra Tech are in agreement that the soils in question are not highly erodible.

52:19

They're different than the soils along the bank.

52:21

They're mature.

52:25

Where do these two geotech firms diverge?

52:30

I would say they diverge at the point of dealing with channel hydraulics, the working of the water.

52:36

I mean, you can measure a certain amount of this by looking at historic aerial photos.

52:40

But then there's perhaps an additional step of comparing, and Matt Barnes can explain this much better, but comparing the South Bank of the Clark Fork, the southernmost channel, with the kind of erosion that's going on on the North End of the channel to see if there's any sort of differences there.

53:03

But it's basically sort of a channel hydraulics, erosion engineering sort of thing that he thinks might enhance what we already know.

53:13

He said he could be on at 3:00 or is that a could be or will be.

53:18

He's going to try.

53:19

He's sandwiched between meetings basically, and he's three to four is his open window and he's he has the meeting information.

53:26

He'll try to join.

53:29

OK.

53:29

So I think it'd be great to have and then thank you for the summary.

53:34

But it would be great to maybe hear from him if we could and then hear from you guys again to hear really clearly your differing opinions on channel hydraulics and how that would affect us.

53:43

Because it sounds like we're in agreement on the soils piece a bit, but not on the hydraulics, river hydraulics piece.

53:49

So it'd be great to hear from both entities so we could have something to work with.

53:57

You think, Juan?

53:58

I mean, do we wait 5 minutes?

54:00

I mean, I'm OK, you guys.

54:02

Yeah.

54:02

Great.

54:03

Thank you.

54:03

Thanks.

54:05

Anybody have anything to say?

54:07

We got 5 minutes from Mr.

54:08

Barnes.

54:08

Anybody.

54:09

Paul, you're here.

54:10

Is this about this or something else?

54:15

Hi.

54:15

How are you doing knee wise?

54:17

No, you Grace.

54:18

I'm.

54:18

I'm without today.

54:20

Thank you for having me up here.

54:21

But commissioners and Paul Finley, for the record for Missoula Fire.

54:24

I have no comment regarding this item, assuming that our community risk reduction did back in the day.

54:30

So I I'm not here about this.

54:31

OK, Thank you.

54:34

Oh, please, Bruce, you know, I, I live out here and, and this is a very complex issue.

54:46

I, I must agree that the gentleman that previously spoke that slew is fairly stable and, and it's actually a great brown trout Slough and and that provides a large flood buffer for, for a lot of that area.

55:06

The, the, the unknown is, is will that Channel that will that Channel ever open up to become a larger channel?

55:14

And, and, and I would discourage any RIP ***** along any bank there.

55:22

Well, one home that is right, right next to the river did some, I think he was able to do it because they RIP rapped the Spurgeon Rd.

55:32

fishing access.

55:33

So he, he was able to do it his home.

55:36

But that will change the flow dynamics.

55:42

I, I, I, I think the soils are going to erode if the channel ever runs straight into it like a hose.

55:49

And that's the question right now.

55:51

It does not because it's protected by that, you know, So I'm disappointed that the new riparian zone requirements aren't going to be required because that's an amazing riparian area.

56:06

However, the rules are the rules, as the gentleman said.

56:10

So I don't think you can tell what this river is going to do.

56:15

that Channel has changed and about 8-10 years ago, the southern channel, that portion became a higher flow area because the, because it broke through above there and it affected that spring Creek there.

56:31

So you just don't know.

56:34

So I, I, I don't know how to advise you and your expertise.

56:38

It's a beautiful location.

56:39

I can see why they want to develop it, but I am concerned about the riparian area and the use of herbicides affecting the the insect life and things.

56:52

But as the gentleman said, the rules are the rules.

56:55

Thank you.

56:56

Thanks, Bruce.

56:56

I have a question for Bruce.

56:59

Just for clarification.

57:00

I don't know if Bruce, can you hear me?

57:04

Yes, I can.

57:06

Where did you say that it broke through to enter into that southern channel or into the Slough you said, You said north or Yeah, so north of from the east, just just below Tower Tower St.

57:23

So that whole, that whole back channel used to be a spring Creek and and it never went dry because of the springs there sometime about 8 or 10 years ago.

57:34

Very high water.

57:39

It broke through between Tower St.

57:41

and that curve and I can't tell you exactly where, but because of that it flows constantly and the flow in that S channel has increased dramatically because of that.

57:52

OK.

57:54

I think still the majority of the flow is in the North Channel, but that river changes dramatically depending upon whatever high water occurs.

58:03

And there's also a **** on 3rd 3rd Ave.

58:07

that it's not talked about much and but it's it's a very interesting area back there.

58:17

The way the main channel comes in is the gentleman's right.

58:20

It's protected by that slew.

58:24

It's it's really the area, you know, right at the, the southwestern border there that's at risk.

58:35

And, and there there's also a constant Beaver Dam there where that Slough is that makes that Slough too.

58:44

And then and really that, that upper area there is sort of a, a constant lake that has insects life that's more consistent with a pond because that's, it's not flowing as much.

58:56

But that river does change a lot.

58:58

I've been impressed with how much it has changed over time.

59:02

But you know, I must admit with the gentleman, I mean, I live in a 500 year floodplain, which I didn't quite know what that meant.

59:11

But you know, most of this development is, is not at risk.

59:16

It's that SW portion there, you know, and actually most of it's, it's unclear to me from this map is, is it just the green dots?

59:35

It's just the the green dots.

59:38

Bruce Bryant's going to share his screen so you can, you can take a look.

59:42

Yeah.

59:42

It's been hard for me to see the maps on the on the if you could share that screen again.

59:51

Yep, he's doing it right now.

59:52

Give me one second.

59:58

I mean, my my big concern is effect on the insect life and stuff.

1:00:03

But but if you show me the the the picture you just had there Now show me the picture you just had.

1:00:10

So this is the.

1:00:12

This is against the if.

1:00:13

If you go, that would have been Tim's.

1:00:18

I think that was that one.

1:00:20

No, the one which showed the the riverbed and you had the yeah, I think that was was that Tim?

1:00:25

Was that yours?

1:00:27

Oh, that that didn't show where the the lot layouts were.

1:00:30

This is actually the the lot layout, Bruce.

1:00:32

So this is showing you the actual lots.

1:00:35

It's a little bit hard to see the stream, but so so really, you know, oh, I bet I got a better one here so I'm gonna skip around but I I I really think that that's protected from flooding because of that slew area.

1:00:51

It it's that corner where the main channel comes in above the state land here.

1:00:57

You see where it says state land .78 acres Yep yeah to to the left of that is the main channel the the the remainder you see you actually see the Beaver Dam in that view there.

1:01:09

Do you see that right there?

1:01:12

Yeah.

1:01:13

And and so, so it and that's that dams up that pond there because it's spring fed mating flow is in the left channel there.

1:01:23

So so I mean, I sort of hate to say this, but I sort of agree with them.

1:01:29

The the odds of this being flooded from there is unlikely.

1:01:33

It's more at risk of being flooded from third from 3rd Ave.

1:01:39

from Tower St.

1:01:40

running down 3rd Ave.

1:01:42
during a flood.

1:01:43
I mean that's my low lowly opinion.

1:01:46
I I live on Spurgeon court.

1:01:48
Creighton actually used to be my neighbor and that whole Kelly Island area has a huge reservoir to buffer and all has to do with this jet of water coming down from the main channel there.

1:02:01
And perhaps a gentleman who spoke about flooding and hunts deck there can speak on it too.

1:02:07
Does that make sense?

1:02:08
But I, I will say that that green tree area there with that backed Slough is, is a very sensitive riparian area.

1:02:18
And and I appreciate the fact that they're not going to build on anyway.

1:02:23
And that's that active channel.

1:02:24
Yeah, I showed the 12 foot.

1:02:26
That's exactly what Bruce is talking about.

1:02:29
Yeah.

1:02:30
So, so anyway, I'm sorry, I hope I didn't cause confusion, but it's really the lower SW portion there.

1:02:44
That's that red part right there.

1:02:46

That's going to be where the spray hits there.

1:02:49

And then it's going to erode that house that's currently there before it hits Lot 7, in my opinion.

1:02:57

But anyway, good luck with all this.

1:03:01

And I it, it would be a beautiful place to have a home.

1:03:05

I just hope lot 6 and seven don't put a lot of herbicides on their lots.

1:03:09

Thank you.

1:03:11

Thanks for your comments, Bruce.

1:03:23

Want to wait a little longer.

1:03:24

Did Tetra Tech arrive?

1:03:27

No sign of Matt Barnes from Tetra Tech yet.

1:03:32

And maybe on Tuesday was there discussion about something further to the West where this remnants of this southern channel, we can see where it used to be at one time?

1:03:46

Well, and I can show my screen again and try to explain what's what I understand of what's going on.

1:04:01

I think the area of concern is in is right here now.

1:04:06

I, I think what Mr.

1:04:07

W, I'm at east.

1:04:08

I'm sorry, but yeah, what Mr.

1:04:10

Bowen was talking about is as this channel comes from the north, that's where the major erosion currently is happening.

1:04:17

Like we've had issues with real issues right here.

1:04:21

There's a well casing out in the middle of the river here somewhere.

1:04:25

Well, it might have been removed by now, but that's where you can see the significant erosion.

1:04:34

But that is AI think it's fair to make the distinction between what's going on here.

1:04:40

It does touch a small part of the Creighton Holdings.

1:04:44

But I guess the question is whether an avulsion event could change the dynamic in this slew area here.

1:04:53

And I and I don't know the answer to that.

1:04:56

There is some degree of I don't know if speculation is the right word, but trying to to guess what could happen maybe I think I was zooming out even further and then looking to the east by tower, maybe not quite.

1:05:16

Yeah, this area in fact, in fact, right there, you see the 3rd Ave.

1:05:22

**** there and and that's not discussed a whole lot, but that's to I'd be interested in the hydrologist view of the effect of that Third Ave.

1:05:33

dry **** on stream flow.

1:05:35

That **** is a significant.

1:05:37

I've walked that **** and it raises the oh, I think I can see it or where the county needs to maintain that **** and I'm not sure it does.

1:05:47

But thank you.

1:05:50

Well, here's the Kerrwald area, which I'm sure you're all familiar with.

1:05:53

But yeah, here's the the levee is.

1:05:57

I don't know if you can see there.

1:05:58

OK, thanks.

1:05:59

Let's see if I can.

1:06:06

Yeah, it's right here.

1:06:13

OK.

1:06:13

That's the **** that Bruce was talking about.

1:06:17

I thought there was something closer.

1:06:20

I think that's the extent of the levy.

1:06:23

I don't think it continues beyond the Tower neighborhood here, Tower and Kerrwald.

1:06:30

No, I think, I think that's not the ****.

1:06:34

I think the **** is, is a little bit more the ****.

1:06:38

I think you pointed third, you pointed the 3rd Ave.

1:06:41

not the ****.

1:06:42

The, the, the **** actually runs, runs.

1:06:48

It is more beyond those developments there.

1:06:54

I mean there, there's actually a raised **** in there.

1:06:57

It's more along that green line there.

1:07:00

It's a it's an interesting place to hike on.

1:07:02

Perhaps the gentleman who hunts there could talk about it, but there's actually a **** over there.

1:07:09

I'm not sure there's a formal levy West of Tower though.

1:07:14

The maintain levy, the one that's maintained by the core, is all east of Tower.

1:07:19

To my understanding, there might be a natural terror or natural **** and there could there's some informal ones

from what we've heard in the neighborhood from folks in the neighborhood, but I don't think there's a formal one that the core was involved in construct constructing West of tower.

1:07:42

So absent Tetra Tech, Tim, we'll see if you can channel them.

1:07:49

And I really want to just see if we can have a, a clear description on the point of divergent between the two Geodec geotech companies and scientists on river hydraulics.

1:08:03

So we have a a clear sense of, of where the disagreement is.

1:08:11

Yeah, they don't appear to be in yet from what I can tell.

1:08:17

Do you mind trying to summarize their position on on river hydraulics?

1:08:24

I can do my best.

1:08:25

Let's see.

1:08:30

It might be helpful actually to reference their analysis.

1:08:34

Great.

1:08:34

It's part of, let's see, Matt.

1:08:38

Matt Heimel did comment on the Levy issue.

1:08:44

This may not be relevant, but the US Army Corps of Engineers levy ends by Stone St.

1:08:49

and the levy on Nancy Lou Drive immediately east of Tower is an old unofficial levy.

1:08:59

I'm going back so I need a visual reference to understand what Matt just said.

1:09:05

If you could go back to what that showed Stone St.

1:09:09

since Matt's on, maybe he could share a screen.

1:09:13

Would you be willing to do that?

1:09:18

Hi, yes, I just need to get my screen up in the right place, but OK.

1:09:26

But doesn't it show this?

1:09:50

Hi, yes, this is Matt Heimel with PDS.

1:09:55

Just for illustration purposes, because I heard discussion about the levy the US Army Corps of Engineers maintain
levy is as we can see this east of Stone St.

1:10:06

the Orchard Homes levy.

1:10:09

I per my correspondence with DNRC, that does not include this older unofficial levy that is between Stone St.

1:10:19

Nancy Liu and Tower.

1:10:25

Thank you.

1:10:25

Sure.

1:10:27

Yep.

1:10:28

No, no, I got it.

1:10:28

OK.

1:10:29

Thanks so much, Matt.

1:10:32

So, Tim, would you mind bringing up maps where we can see the the slew and the potential southern channel?

1:10:43

Is it?

1:10:43

It does seem to me that's the point of divergent and on estimations of danger from the river assuming more dominance in the southern channel than there is right now.

1:11:09

So I've outlined the the larger of the parcels involved in the subdivision, but here's the channel.

1:11:16

I think that's doing most of the erosive work right here.

1:11:20

And then the slew is kind of back in here.

1:11:22

Correct me if I'm wrong, Brian and Ken, that's where it's kind of slack water.

1:11:30

And Mr.

1:11:32

Bolin is saying that that theoretically could be more protective.

1:11:39

And I, I have a section I can read from Matt's analysis, Tetra Tech's analysis.

1:11:46

Tetra Tech reviewed the documents provided by Missoula County and the applicable background information referenced in them.

1:11:54

No independent analysis or calculations were completed other than a measurement of riverbank erosion at the site that occur between 2019 and 2021 aerial imagery on the property.

1:12:06

Based on our review, the methodologies and technical work are valid for both the CMZ 2021 report and the All W consultation.

1:12:16

However, the All W consultation only evaluated the existing on site materials.

1:12:22

It did not incorporate 2 potentially key factors that could both be evaluated to determine if the 200 foot buffer is appropriate.

1:12:30

These two factors, which are both mentioned in the CMZ 2021 report are the first one.

1:12:37

If the on site materials differ from those present on the north riverbank where where migration rates are higher.

1:12:45

If the South riverbank on site materials are generally larger than those found on the north riverbank, they may be found more resistant to erosion or vice versa.

1:12:56

2 the potential for the South channel to become the dominant Clark Fork River channel, thereby increasing the migration rates that were measured in the CMC 2021 report.

1:13:19

Sorry about that one either that was bad, that was bad timing.

1:13:27

You know, that's a great picture and just to answer one of the commissioners question, as you can see the various connections to that S channel from the North channel.

1:13:38

The one of the far right is the one that comes in at Tao Tao Tao Tower St.

1:13:44

and flows during high water and historically stopped flowing in the summer.

1:13:50

But then this one in the middle is the one that broke through that has provide constant flow is the way I read that, which is interesting because it changed the whole character of that Channel there.

1:14:04

And then what happened was is down by 7:55.

1:14:08

There used to be a major connection there and that got dammed up and that protected the house on lot 755.

1:14:15

It was shooting right into his house.

1:14:19

And so it it's all it's all very, very interesting the dynamic way this will change.

1:14:27

He was when Bruce was talking about a middle section, was he talking about something that was flowing north to South or, or east West?

1:14:34

We go back to the larger view, Tim, there we go.

1:14:39

Great.

1:14:41

So it's a north-south connection sort of by 3820 and 460.

1:14:47

There's a connection there.

1:14:48

You see that to the north main channel and then above 116 you see the connection at Tower St.

1:15:00

and that's the one that historically fed this southern channel that went dry.

1:15:05

It was a spring Creek and then about 10 years ago north of 460 that broke through and provide more of a constant flow all year long.

1:15:16

And what happened that same time is that major connection at lot 455 is now dry and that was the major flow to the South Channel.

1:15:27

So these are the dynamic changes that occur.

1:15:30

It's fascinating to watch as you hike in there.

1:15:37

I see 460, I see 460, but I can't find 455.

1:15:41

I wonder if it might be helpful.

1:15:51

I was going to jump off this map and and show the page.

1:15:55

I think we've all referenced it from the channel migration zone study that shows a potential evulsion path.

1:16:02

I mean, it shows everything that we've talked about today pretty much, but I think it might illustrate some of the things that we're talking about.

1:16:14

It took me a while to get there.

1:16:20

There we go.

1:16:22

I think one thing to point out, the 200 foot buffer is off of the inactive channel.

1:16:27

So it's not like the 200 foot buffer or and the 580 already takes into account that Channel someday becoming active.

1:16:37

So even that 200 foot is off of that inactive channel, not the active channel currently.

1:16:44

So the the what ifs and that that has actually been taken into account already with the 200 foot and the 580.

1:16:53

So, so if that southern channel that's a slew right now becomes active, we would expect to see more erosive activity than there is right now, because right now it's more like a pond.

1:17:07

Yeah, there's 12 feet in 47 years.

1:17:10

Yeah, of course.

1:17:11

Right.

1:17:11

And it'll probably be similar to where the active channel is, which is a is, you know, 87 feet in 47 years or about right where we've seen on average, which corroborates the 200 feet.

1:17:22

So you know what?

1:17:24

Yeah, but the buffer is already there in case that becomes the active channel.

1:17:29

OK.

1:17:31

So, and Matt certainly could speak to this better than I could.

1:17:34

But the subdivision is right.

1:17:36

I'm not sure if you can see my cursor, but it's right here.

1:17:41

This is third and Clements right over in here.

1:17:43

So that's where the subdivision is.

1:17:47

One of the concerns is that an evulsion path that could be taken.

1:17:51

And yes, there's a certain amount of speculation here, but upstream this could activate the southernmost channel right here if you get a cut off in here and you just get more river action on that southern channel.

1:18:11

Same, Brian, is that yes, if that did happen, it, it's kind of calculated already in there because if you look at so if you look at the, you know, the, the flowing water goes up, it goes above CFO 6, it comes down.

1:18:28

But if you look at how the 580 works, if you look at where the ponding is and especially where the subdivision is, you can see that the blue, you know, stops in there, but that 580 is off of that backed up water.

1:18:40

And so if the river cuts, you know, basically through CFO 6, it cuts through there that you can see the 200 feet is basically based off of that Channel already.

1:18:51

And so we're abiding by, if that becomes active, we've we've already set the boundaries saying we're, we're there.

1:18:59

And then we all agree we still have a mature terrace that you know, we've set 200 feet that became active.

1:19:04

Now we have a mature terrace that are out slower.

1:19:07

And so we're still 200 feet back on that.

1:19:15

And again, that's where this study, I think they took that into account.

1:19:19

The maybes, the what ifs, the, I mean, this is the overriding experts wrote this.

1:19:24

I don't think we're disagreeing with that.

1:19:26

I don't think Tetra Tech's going to come on and say we're more of an expert than this study.

1:19:31

So don't listen to the study.

1:19:33

And in this study, they say the 200 foot's good if we're in a mature terrace and we look at erosion rates.

1:19:39

So, you know, that's where, where we've kind of came in is Tetra Tech's got a lot of what S where we just want to follow what I think we've all agreed is the experts, which is this study.

1:19:50

And that's, that's what we're looking at.

1:19:52

So hi folks, this is Matt Barnes here from Tetra Tech.

1:20:00

I I just hopped on trying to squeeze in between a couple other meetings and I, I I could.

1:20:09

Lend my piece, I guess if folks are interested or or just listen to folks now, Matt, that would be great.

1:20:15

Or our summary up to this point is that all West and Tetrachec are in agreement on the soils and their relative potential for erosion.

1:20:25

There's a point of diversion in terms of not necessary agreeing agreement between the two geotech firms on the potential for the Southern channel to become live again and what that would actually mean for the subdivision.

1:20:39

So if you could speak to that second piece, that would be great.

1:20:42

Yeah.

1:20:43

And to to you know, just so folks are aware, like I am not a geotechnical engineer.

1:20:48

We have those folks.

1:20:51

And and you're exactly right.

1:20:53

I, you know, the all W information that Marco fell in and, you know, I just familiarize myself, looked at, looked totally solid, you know, mature terrorists.

1:21:01

You bet.

1:21:03

But, and, and whoever was speaking about the CMD study is absolutely correct that Karen Boyd and Tony Thatcher are the recognized experts for channel migration zone mapping.

1:21:14

And I personally have worked with Karen often and, and spoke about her study as we reviewed this information.

1:21:24

And I guess it boils down like, you know, Karen's presentation of the potential for a 200 foot buffer was kind of just presented as A and, you know, I'm trying to paraphrase her message, you know, to put things in context because channel migration zone mapping is complex and you know, it's it's not perfect.

1:21:47

And so having some, I think understanding of the limitations and potentials is helpful.

1:21:54

It's not a regulatory document.

1:21:56

It's not, you know, she didn't, you know, the report, the CMZ report did not present like OK, if you go it wasn't a linear like requirement, right?

1:22:04

Like if you go do test pitting, then you should use the 200 foot buffer.

1:22:08

That wasn't how it was phrased.

1:22:12

You know, there's a couple factors here in the report.

1:22:15

I think maybe even on this page that's pulled up here on the screen, you know, she talked about that they didn't have a great data set relative to that terrace to, you know, justify in their report using a different buffer.

1:22:31

But they did present, you know, what that could look like based on the data they had, even though it was insufficient to, you know, show a different erosion hazard area.

1:22:41

So, So what we did when we reviewed it was just maybe trying to think about like what else could be done to grapple with that uncertainty better and and see if that 200 foot was justified because, you know, and this is just our opinion.

1:22:56

There's, you know, none of these are certain answers, but in our opinion, you know, simply testing the soils on the site didn't quite seem sufficient to like fully, you know, transition to using a 200 foot buffer.

1:23:15

But you know, is the, you know, that comparative analysis potential, you know, is this as erosive as the whole valley floor, you know, comprised of the same material?

1:23:27

Yeah.

1:23:27

You know, because, you know, I guess glass half full towards, you know, using a, the narrower buffer might be if you did go to the North bank where you see high rates of erosion and it was a vastly different finer grain material that's more erodable than yeah, even if the, the South channel becomes active, I think it's reasonable to expect you'd get lower rates of erosion.

1:23:49

You know, on the flip side of that coin, if it's the same material and the South channel becomes active, it it might be equally reasonable to expect similar rates of erosion, which are pretty darn high.

1:24:02

And then and, and I I think everyone probably has understood from just a quick conversation I heard there that the potential for that, you know, recapturing of the South Channel is, is always going to be really hard to quantify, nigh impossible.

1:24:21

But that's risk.

1:24:22

I mean, that's the definition of risk is like, how much risk are we acceptable too?

1:24:27

And so that that's all we were trying to describe is, you know, that was our opinion that, you know, not many recommendations on decisions, but you know, we and speaking, you know, I personally with Karen felt like if, if the 200 foot, it would have been justifiable, they would have used it based on the data they had.

1:24:48

It just didn't quite get there based on the data set that was available.

1:24:52

And and we agreed with that.

1:24:54

And when you're saying the data set, you mean the soil tests, all of it.

1:25:00

So the data set that was utilized to, you know, compile the CMZ, the map that that's here on the screen and then the soil tests certainly are, you know, like Karen didn't have that.

1:25:14

But even if she had, I think, you know, what would what that would say is yes, it's a mature terrace, which, you know, seemed plausible even before the thill test probably.

1:25:25

But the other piece of that is that they didn't have enough erosion measurements into that terrace to really, you know, commit to even the 200 foot buffer.

1:25:38

What what she did in the report was just to present that context, like we don't have enough data to really utilize this in our results.

1:25:47

But based on the data we do have, here's kind of what it looks like.

1:25:52

Hopefully that makes sense, I guess from what I'm trying to describe.

1:25:57

So in a more perfect world, what could you describe the data set you would have in a in a perfect world, you would have, you know, a data set of more, just more data points of erosion rate throughout this reach on the South side against that terrace.

1:26:17

That would give you, you know, a more confident average or 75th percentile, I think is what they used in this report.

1:26:26

When you say 75th percentile, would it that that's reflective of confidence?

1:26:33

It's, it's a term out of the CMZ report and I'd have to find it and I, or if it's on the screen, because you know, there's a range, right?

1:26:42

You've got, you know, a bunch of different erosion rate measurements and, and, and they're not all exactly the same.

1:26:49

So do you take, do you, you know, and, but we're trying to utilize a, a buffer, a, a singular number for a given reach.

1:26:56

So do you take the mean?

1:26:58

Do you take the Max?

1:26:59

Do you take, you know, the median, the 75th percentile?

1:27:02

It's just, you know, which statistic are you going to use to off do that offset for in this case, the erosion hazard area.

1:27:11

And you know, and, and to be fair and you know, and to kind of circle back to Karen's work, she's absolutely an expert.

1:27:18

I am not super well versed, but there are procedures and developed, you know, like how they develop these CMZ studies, right?

1:27:28

There's guidelines and things and, and I and I, you know, I, I read the CMD report and grasped that, but I didn't dive into like the procedure itself.

1:27:38

Right.

1:27:38

Thank you.

1:27:39

Thanks.

1:27:41

Any response, Sir?

1:27:43

No, I mean, I, I think, you know, we went through, we looked at the detail we could get on our site.

1:27:50

I mean, we can't go around and dig on everybody's property around.

1:27:54

I think it's some of that's kind of like saying I need to find a watermelon.

1:27:58

So I do I have to go over and make sure that compare my watermelon to a cantaloupe to know I have a watermelon.

1:28:03

We I mean, we, we have a scientist that says we have a mature terrace materials good.

1:28:09

We've looked at you know, I went back to the 47 years ago compared what the rate is.

1:28:13

It seems to match what the mature terrace is.

1:28:16

So you know, there's that aspect of things that we can go dig test bits all over.

1:28:23

But again, that's doing reach study data, we're trying to do site specific data and I think that's what we're honing into and wanted to hone into and we I feel like we did that from from our standpoint.

1:28:42

So to my mind, this for us, this comes down to a question of risk.

1:28:46

And I appreciate you guys all recognize that it is hard to add up that entities that do not have a stake in the

specifics of this, the water quality district, the conservation district advised not taking the risk and the folks that do have a stake in it advised taking the risk.

1:29:12

And that's just the reality of the situation.

1:29:14

I know, but I want to say it out loud.

1:29:16

Yeah.

1:29:17

And I and I get it.

1:29:18

If you're, you know, the conservation district, it's easy just to say no, go 58580's like a we're 100% we're it's easy.

1:29:26

Yeah, yeah.

1:29:26

They haven't invested hundreds of thousands of dollars.

1:29:29

Yeah.

1:29:33

So I, yeah, it's, I mean, to me, if I'm really looking at this, I think the fact that we have to do something as a whole in this area, again, you have lots of homes closer, quite a bit closer, and it has to be done in a reach section.

1:29:50

We can't just like we said, we know we can mitigate.

1:29:53

We only have, like Bruce said, this little tiny chunk, it's like 50 feet of river that's actually eroding.

1:29:58

We could go Hard Rock that or not Hard Rock, but even put root balls, you know, maintain, but it affects the neighbor and we don't want to do that.

1:30:07

So this has to be done.

1:30:10

And you guys don't want houses washing away in the river Like that is not going to happen.

1:30:14

So how do we, how do we do this as a group and a community?

1:30:18

The Creightons are willing or who's ever going to move in there, you know, to help out with this.

1:30:24

So, so that's part of the risk that I think you guys need to analyze is we, we do need to do something.

1:30:31

Or if you believe it's not needed, then then this should be fine too.

1:30:37

But if you do believe that the risk is high, then something needs to be happening there.

1:30:41

I think we're set back far enough.

1:30:43

That's, that's the mitigation we took as saying we've done all the analysis.

1:30:47

We can set back a lot further than most houses out there in order.

1:30:53

That's the mitigation for us.

1:30:54

So I guess if they do, you know, those houses do wash away.

1:30:58

Well, we're far enough back that these ones are not.

1:31:01

But I truly believe that at some point, because we worked with Thorp on Thorp stuff, that's the one that that had the well casing in the river.

1:31:09

So we did the family transfer and and I walked out there with them and we talked dollars.

1:31:14

And I mean, her face dropped when I explained to her how much it costs even to Hard Rock their place.

1:31:19

She's like, I can't afford that.

1:31:21

And I, and I think that's what you're going to run into up and down the river.

1:31:24

Some will and some won't.

1:31:25

Probably the newer houses are going in can afford it, but that's not fair to push it downstream.

1:31:30

So I think at some point this needs to be a county initiative, an area initiative.

1:31:36

And however that's taken, I, I don't know, but I think it needs to happen together as a group with the group, you know, taking care of it as a whole, not one push and pushing it to the other.

1:31:48

So, yeah, and, and you know, just speaking as one person right now, I, I have no idea what the appetite is for a reach scale intervention to harden the banks.

1:32:01

It does seem culturally in our approach to rivers at this moment, people seem to be leaning more into let's let the floodplain area be the floodplain rather than do what we would have done maybe 50-60 years ago, where we'll channelize that *****.

1:32:18

We'll just, we'll, we'll protect the homes and we'll push the water downstream and hopefully there's no houses down there.

1:32:23

There's open space or something.

1:32:25

It it does feel that way, as someone who's not a river scientist, that we're more concerned about active riparian floodplain areas than we are about doing the really kind of dollar intensive protection that we used to do.

1:32:39

Yeah, but I think you would have more Flack for having a river in the a house in the middle of the river.

1:32:44

I think that does more harm to, I mean, my dad and brother fishing guides.

1:32:47

I love the river.

1:32:48

Like, I'm on it all the time.

1:32:51

If we have garbage in houses in the middle of the river constantly falling, you know, if even if you have, if you have 30 of them over the next 100 years, every three years we have a house go down the river.

1:33:01

Oh, it's terrible.

1:33:02

That's not going to fly.

1:33:02

No way.

1:33:03

And and and I think part of the push there would be.

1:33:06

Well, don't let them build there.

1:33:08

Well, yeah, but these are there.

1:33:09

I'm not talking about those, I'm talking about these.

1:33:11

Yeah, Yeah.

1:33:12

But I'm just, you know, you're not going to lie.

1:33:14

And again, that's where I think we've done the data to prove we're not close enough.

1:33:20

It, you know, we've, we hired the experts, went out, did the area even take into account, you know, showed where the majority of it?

1:33:29

Bruce agreed.

1:33:30

Has, you know, moved 12 feet in 47 years.

1:33:34

So, you know, this subdivision in particular, I think is protected and fine based on the current design.

1:33:42

Now if we were right up against the river, I would that would not be good.

1:33:44

But our design is the mitigation based on the data and the information that we have and, and that's how we do every subdivision.

1:33:53

If it was a wildfire and we were up the middle of the rattlesnake, the chances of a wildfire in the next 100 years are pretty damn high.

1:34:00

So what do we do?

1:34:00

We design and mitigate around it.

1:34:02

And that's exactly what we did here.

1:34:09

And then there's no way that the Creightons would be amenable to just doing the development outside.

1:34:18

I mean, how, how, how can we do this and, and honor the, the hazard, the road and hazard area.

1:34:29

If we pulled it back and went in, you guys won't even look at the CMZ.

1:34:33

It's not even in your regulations.

1:34:35

It's, it's such a broad stroke that you guys don't have it.

1:34:39

You have a riparian set back.

1:34:42

But like Tim said, it's what, 130 feet closer to the river for something 45450.

1:34:48

So we could be if, if we pulled this out and we went back in, we wouldn't even talk about the channel migration study because you guys didn't believe it enough to put it in your regulations.

1:35:01

But we're having to talk about it now.

1:35:03

So we would be within the yellow, but not talk about it at all because we would just have riparian setbacks.

1:35:09

I don't think I missed something.

1:35:13

Is is that accurate?

1:35:15

We didn't believe in the CMZ yet.

1:35:18

I think the county would say that this is best available information.

1:35:21

It's not perfect, obviously, that we've had a couple studies that have followed this that maybe drill down a little bit more.

1:35:29

If a subdivision came back through, I can't imagine why we wouldn't look at the CMZ study again.

1:35:34

I'm wanted, I think that's what you're getting at is that is there a possibility of doing a subdivision outside of the 580?

1:35:41

I think if there is a subdivision on this property, we would look at the CMZ.

1:35:46

It's not regulatory though.

1:35:47

I mean it doesn't prescribe any sort of particular regulatory path, but it's helpful information on public health and safety.

1:35:54

It's the best information we have in this talk about site specific in this in this area, right.

1:36:00

But if we were to go get a building permit, you wouldn't we wouldn't look at this.

1:36:05

We could go build apartments out there within the yellow.

1:36:09

It would only be in subdivision, right?

1:36:12

That's correct.

1:36:13

Yeah.

1:36:13

Because it's not zoning, there's no regulation, it's not regulatory.

1:36:19

The reason I'm so kind of struggling with this and hung up on this is because this particular area of the Clark Fork is bonkers dynamic.

1:36:29

And it it's not the same as it is the the the Clark Fork in East Missoula where it's like, here's the river.

1:36:36

Yeah, this place, I mean, you zoom out and you look at it, it's just this tangled knot of river arteries.

1:36:42

And I don't know what the proper term is.

1:36:44

I'm sorry.

1:36:47

And it makes it hard to approve something that is going to cost.

1:36:53

I mean, Strohmeier talks about this, the the, the socialization of of mitigation and, and addressing hazards.

1:36:59

And I'm looking at what we're doing at Kerrwald and how are those homes there.

1:37:07

And now we're trying to figure out how FEMA, how we can find money to address that.

1:37:13

And so I don't want to put ourselves in that position.

1:37:15

But I also hear you saying this isn't that bad.

1:37:19

We have a mature terrace and we're already acknowledging the southern boundary and we're 200 feet beyond that.

1:37:26

So we're OK.

1:37:28

I'm just, this is my conflict.

1:37:30

And we build these, let's say we say, ah, go for it, build these houses.

1:37:33

And a few years from now, channel moves, river changes, we have really intense storms that we haven't had.

1:37:40

And we're like, Oh no, now we're going to need 10s of millions of dollars to protect these houses when maybe.

1:37:45

And people would say, well, why the heck did you let those houses be there anyway?

1:37:49

Well, you can say the best information we had at the time.

1:37:51

According to the study, we're looking at this 200 foot buffer, right?

1:37:55

I mean, you're using 580.

1:37:57

So this is the hard thing is the 580 comes from a study that you guys are like yes, so we go and go, OK, well the 200 foot is in this same study that you're saying yes to.

1:38:07

We just need to find this information and then 200 foot seems good.

1:38:12

So same study that you're saying yes to, we go and find the information, go prove over a 47 year.

1:38:21

That that's about exactly where we need to be show that information.

1:38:26

You're like, we don't believe the study on that part we but 580 it's it's tough for us.

1:38:31

It's like taking your subdivision regulations and saying, well, this part we really like, but this part like we really don't like if that's in your favor.

1:38:39

And that's kind of what this is, is we're talking the same document and we went through and used the what's required in that document to prove our mitigation, which is set back in the same document that says 580.

1:38:57

So that that's the same thing.

1:38:59

You know, that's why I think it's the best information and science that we have right now.

1:39:03

Yes, things can go wrong.

1:39:04

Tim, would you see it though?

1:39:06

I'm sorry, I can't.

1:39:06

I'll ask Tim then you up for sure.

1:39:08

I totally want to make sure you get that speaker speaker piece.

1:39:11

Would you characterize it that way that we are kind of putting words in your mouth here, kind of cherry picking?

1:39:16

We're going to we're going to choose to pay attention to one part of the study, but not choose to pay attention to the other part of the study by by focusing on the 580.

1:39:24

Is that kind of what you're saying?

1:39:25

Yeah.

1:39:26

OK.

1:39:28

There's not really a a specific mitigation path prescribed in the study itself.

1:39:34

This is all like on 1/3 of a page in the CMZ what we're talking about.

1:39:39

And I think Matt would agree that the methodology for determining it was a mature terrorist is sound.

1:39:46

And Tetra Tech's additional response would be that it would be helpful to have more hydraulic information about how the river works, the bank essentially.

1:39:59

And I was going to go maybe on a little bit of a tangent, Commissioners, if you were to go in the direction of approval, I'm trying to look ahead.

1:40:08

I think we would need a little bit more time maybe into like an October, like October 24th hearing date.

1:40:14

And we could work on conditions because we have no mitigating conditions.

1:40:17

We're recommending denial if if you want to go the approval direction.

1:40:24

We could work up some conditions.

1:40:25

We could work with four O 6 and with Monsanto Northwest to come up with mitigating conditions if you want to go that direction, assuming I think we're sort of going the direction of possibly being OK with a 200 foot buffer.

1:40:39

I know you're still wrestling with that.

1:40:41

But anyway, what did you there was a lot of planning board when that the mitigating potential was brought up.

1:40:49

We got that Kent.

1:40:50

Oh, sorry.

1:40:51

Yeah, come on up to the microphone.

1:41:00

I was just going to remind and echo a little bit of what's being said here is we're doing what the study says we needed to do.

1:41:09

The 580 was because they didn't do soils work.

1:41:13

They didn't have enough information, so they slapped the broad brush to it.

1:41:17

It's no different than a zone, a floodplain.

1:41:19

FEMA has those on all of our streams in western Montana.

1:41:23

And if we want to do something, we need to go do a flood study, figure out where it really is.

1:41:28

The zone A is a broad, broad brush.

1:41:31

And so it, to me, it's a very similar deal.

1:41:34

I just wanted to remind too, that our our mitigations being offered, first of all, we did the study.

1:41:42

We've proven the 200 feet, we got rid of a lot to move back further from the river.

1:41:51

The Creightons will waive the right to protest.

1:41:55

And it's not a given that that would ever have to be implemented.

1:42:02

Like I, you know, in my entire lifetime, this has been stable.

1:42:06

I would expect it to stay that way.

1:42:10
That's all.

1:42:11
Thank you.

1:42:13
I imagine the call for an RSID would come after some sort of disastrous event when people would say, Oh my gosh, I nearly lost my house or my neighbors lost their house.

1:42:23
You guys got to do something.

1:42:25
And at that point, there would be the, I think if we attempted to do it right now, it would be a massive protest because the cost for such a thing would be spectacular.

1:42:35
I, I think it would come on other houses way before this house, way before the subdivision.

1:42:41
So again, if you're going to protect 1, you, you really better protect it all because you can't push it downstream.

1:42:46
So if that call comes, it will be way before it affects this subdivision, if it ever does.

1:42:54
We're we're reminder, we're saying it's not going to be based on the scientific data that we provided.

1:43:01
But if it does, something is crazy, just like you can't, you know, predict all the wildfires.

1:43:07
If something like that happens, there are houses that are further out in the woods or closer to the river that will need to be protected long before any of these ever would.

1:43:17
And at that point, you have to do the whole thing.

1:43:27
I'm ready for Tim's diatribe, commissioners.

1:43:31

I don't know if I have a diatribe.

1:43:32

It's more of a process thing.

1:43:34

I mean, before you, you have the staff and planning board recommendation.

1:43:39

I guess Juanita, you were asking it what the planning board deliberate about.

1:43:45

I mean, I think one of their concerns, it was one particular planning board member said, you know, it's, it's not a good thing to be planning for mitigation right out of the chute.

1:43:56

I I think that resonated.

1:43:59

Another planning board member was wondering, well, what about is this a taking?

1:44:03

And I think there was you don't have a right necessarily to a concluded subdivision process that doesn't constitute a taking.

1:44:13

But there was concern I think from the majority of planning board members that it would have been nice to have a little bit more river hydraulic specific information that's at would be asking a lot of the applicant to do that.

1:44:27

It would be going pretty far beyond doing a geotech analysis to confirm this mature terrace issue.

1:44:35

It'd be looking at the dynamics of the river as the river cuts into the terrace, or maybe even comparing, like Matt was saying, comparing the erosion rates on the north Bank of the Clark Fork to this area right here and sizing up what what are the materials on the north bank versus the materials on the South Bank.

1:44:56

Can we compare these two things?

1:44:58

You mean the north Bank of the South?

1:44:59

No, I mean the north.

1:45:00

I think what Matt means is that the channel, the north, north.

1:45:06

Yeah.

1:45:07

OK, sorry.

1:45:10

I didn't mean to interrupt.

1:45:11

Keep keep going or is that that's yeah, that's pretty much it.

1:45:15

I think most of the planning board members would have preferred to have seen a little bit more on.

1:45:21

But again, that's that is definitely asking a lot of this applicant beyond it's such a tricky area.

1:45:27

It's tricky.

1:45:27

Yeah, it's A and I liked your description of it.

1:45:32

I go down to this area, not not this far West, much more close to the Tower Rd.

1:45:37

area because that's by where I live.

1:45:38

And one of the cool things about going down there after the high water from spring recedes as you see the change.

1:45:43

It's different every year.

1:45:44

Dynamic is the watchword.

1:45:46

If you're going to describe this area, you're in young Garretts, right?

1:45:50

You're you're old everything the new channels.

1:45:54

If that's where they're talking about, that's rooting.

1:45:57

Oh, you're, you're come up to the so that historic area is, is the younger material that you're that we were looking at that it's not.

1:46:09

So that is true.

1:46:10

So when you get out in the center that has been moved so much, it's just loosely put together and the the river just washes it away.

1:46:17

And and that's the idea behind proving the mature terrorists is saying this has been here for 10,000 years.

1:46:25

So at that compaction and that rate, like that's not going to really move or it takes a lot more energy to move that section.

1:46:35

So and keep in mind, again, I think you guys keep going back to like planning for mitigation.

1:46:40

That's we thought we, you know, we're proving this 200 feet.

1:46:44

So we're not planning to mitigate anything.

1:46:47

We're we're saying we've gone out and scientifically said this is a safe distance to be from the river with in accordance with the study.

1:46:57

So there's not, I know I forgot to do, I will say in the planning board, I came up really late because I realized where we were going and I didn't remind him.

1:47:04

I thought I should have earlier that hey, we're we're the same study that says 580.

1:47:10

It's the same study that we're proving just like a hammer try to hammer home here.

1:47:14

I didn't do that with the planning board.

1:47:16

And I think that got lost sight a little bit of the 200 almost seemed an arbitrary number that we picked versus saying like this is the, this is what's required.

1:47:25

And this is what they're saying.

1:47:27

So in essence, if, if you're saying 580, then 200, you should be saying if we have the, the information that corroborates that.

1:47:34

So you're, you're saying you didn't just pick 200.

1:47:36

You guys dug in the soil found, found where the mature soil start.

1:47:41

And that was 200 feet.

1:47:43

No, no, no.

1:47:44

So the 200 foot is from the experts in the study.

1:47:47

That's where that line.

1:47:48

I mean, they're saying what the 200 foot, you know, we went out there and said we, we, the data matches what the study says when you can use 200 feet.

1:47:59

So that's where the 200 feet comes from.

1:48:01

It's just not us picking out that's, you know, what's put there in 2020 when the study was published.

1:48:08

So I'm going to try and wrap my mind around the, the difference between our two, our dueling geotech firms.

1:48:14

So Tetra Tech is saying the South Channel could come alive.

1:48:20

And if the South Channel comes alive, we don't really know what the soils are there and it could be more erosive than what what exists out there right now.

1:48:32

Is that, is that what they're saying?

1:48:33

I think we know we have a better idea what the soils are at just more the rate of erosion once you activate that southernmost channel.

1:48:41

OK.

1:48:41

So if if that Channel is activated, we don't know how fast things will erode, not based on the soils, but based on how would those soils respond to this new level of kind of pounding from water that didn't used to exist.

1:48:55

And and you guys are saying even if that S channel is full of water, the soils are stable enough that we won't see erosion.

1:49:03

Yeah.

1:49:03

And then you're and we're still saying.

1:49:04

And then on top of that, there's you're saying what if's like this channel has to breakthrough.

1:49:09

It has to become the main, you know that that's a lot of pastos and maybes.

1:49:14

And then we still have buffers on the onto that.

1:49:16

Yeah, I'm just trying to make sure I understand there.

1:49:19

And and you're also saying that the if the channel does breakthrough, the southern channel becomes the main channel.

1:49:28

It actually is running parallel to where the development is.

1:49:31

Whereas where we're seeing the most erosion is where the river is like pounding into it.

1:49:37

That's why there's so much.

1:49:38

Whereas this one, the river goes into it by and further to the West or South or downstream, whatever the the the river is running right into the actually non mature or less mature.

1:49:53

That's exactly what Bruce has said.

1:49:54

That's why you know, downstream you had so much erosion, but not in just the little corner.

1:50:00

So and I Ken Jenkins again, I just wanted to point out too the the CMZ study, the 200 feet is not an arbitrary number.

1:50:15

The hydraulics are in their study.

1:50:20

The study says if you have this type of soil, so the erosion rates on that type of soil is something the study already contemplated.

1:50:29

They said if you have that type of soil, your set back can be 200 feet.

1:50:35

They didn't do the work to prove that it had that kind of soil, so they went with the 580 feet.

1:50:41

I think the hydraulic information is already in the study.

1:50:45

They're saying if you have that soil, you can go 200 feet.

1:50:50

And the difference is they're looking at this, the 200 feet is based on this 100 year time frame that the study encompasses.

1:51:00

How far does it erode in 100 years?

1:51:04

OK, correct.

1:51:07

Yeah, correct.

1:51:08

And it, I guess one thing that want to factor in here, how far would it erode in 100 years if the next 100 years are like the last 100 years?

1:51:17

And I don't think they're going to be that way in terms of patterns of, of, of moisture and weather, etcetera.

1:51:24

I think they're going to be way more extreme than they were in the last 100 years.

1:51:28

I mean, we, we can't prove predict.

1:51:33

I mean, we got 47 years worth of data and go back to 1972.

1:51:37

And that that seems, seems reasonable.

1:51:39

It's less than 200 feet.

1:51:41

You're going to get to, you know, really similar to about 170.

1:51:45

Again, we could do a condition of approval, add another 50 feet.

1:51:49

Again, there's 200 feet seems reasonable.

1:51:52

We're looking at that.

1:51:53

47 years is almost half the time frame of what the study's saying.

1:51:57

So I think that seems a pretty reasonable amount of time to look at this.

1:52:05

But it's one of the, it's one of those things there's there's a lot of what ifs, maybes, could ofs.

1:52:10

I mean, again, I, I harken it back to the same as like a forest fire.

1:52:15

You, you can't, I mean, we're doing the best we can, but you don't know when that's coming, right?

1:52:21

But I think by us setting back where we are, the study we've done, that's doing everything you can to mitigate for a forest fire.

1:52:28

But at the same time one might come, you know, down the hill is 250 as far as you can go.

1:52:35

I could I could.

1:52:36

I mean, that's where we could get with with Tim and look at like a condition of what that would be.

1:52:40

I think we could definitely do 250 for no build.

1:52:43

Now we definitely have lots into it because if you a backyard, but we could probably definitely do 250 no build.

1:52:50

The problem is is Walker drive is in really close to that.

1:52:54

So if we're going to connect the Walker drive, how mangled does Walker drive to the north?

1:52:58

Can you like make a no, no, it's like a straight line.

1:53:01

So yeah, you're going to come into it.

1:53:03

But you know, I think that's a big part I-250 I know we could do really easy, but there's that corner and you know, you're trying to you were connecting down to to Walker, which I think is a good design.

1:53:18

I I'm sorry, I didn't.

1:53:19

Can we visual?

1:53:20

Yeah, let me let me share.

1:53:22

Why is my computer freaking out?

1:53:34

So here would be the new layout.

1:53:36

So when you look at, you know, Walker Dr.

1:53:39

coming in here, we could definitely take this house here and move it like right up on Walker.

1:53:43

That would give us plenty of 50 feet.

1:53:45

I mean, we're, we're way more than 50.

1:53:48

I mean, we're hundreds of feet here.

1:53:49

That's probably 75 feet there.

1:53:52

We're already to that house.

1:53:55

I don't know, that's probably another 75 feet down to there.

1:53:59

So if we if we move this house somewhere into here, it it would be like a lot 7.

1:54:03

You know, we recognize that's why there's no houses, you know, in any of, of this stuff here.

1:54:08

It's right in the zone right there.

1:54:10

Yeah.

1:54:10

So that that's that's and we did take a lot away.

1:54:13

So when we got this study and looked at it, we did originally this was a 10 lot subdivision, you know, nine with the utility lot.

1:54:20

We literally just deleted a lot in recognition of what that was.

1:54:25

But yeah, we could definitely move and these houses are representations.

1:54:29

I mean these aren't like one of those states.

1:54:31

So we could put a 250 foot no build zone and be fairly sound, which I think you know is, is a safety factor onto the data that we've currently looked at already.

1:54:51

Where's, where's the, Oh, go ahead, let's ask where the low point is.

1:54:56

Like I'm looking at, it's hard for me to see on this, on the, on the, you know what's funny?

1:55:01

The low point is lot 1, lot 1 is actually lower in elevation than lot 7 and 6.

1:55:08

So it actually has like the bank kind of bumped up right here.

1:55:11

And it, that's what I was trying to see where was like kind of the, yeah, it's, it's actually really flat.

1:55:15

I mean, it's really flat.

1:55:16

But in essence, I think lot 1's about like 2 feet lower than like lot 7 and 6.

1:55:22

And then it's just a steep bank right here.

1:55:24

So there's no, you know, basically the the green is the is a big steep bank.

1:55:30

So that's it like a 10 or 12 foot bank and then right along the river.

1:55:35

OK, thanks.

1:55:36

Yeah, I don't want to like belabor or delay, but I, I would love, I mean, if you guys talk about another, but I got to throw out a throw out a hard one, lose lot 7.

1:55:58

We can talk to our client about it because that's the that looks like the most precarious one.

1:56:03

If you look at the curve of the river and where the water be pounding, that would that, that looks to me like not saying no, not saying no looks like mitigating risk.

1:56:15

I mean, I, I think if yeah, we could definitely talk to our client about it and see do you think Ken, how big is lot 7?

1:56:32

They're all .74 acres.

1:56:35

Yeah, they're all right there.

1:56:37

3/4 an acre to acre at the most if the I'm not opposed to the concept, I'm opposed to without spending some time to study options.

1:57:00

Sure, sure, sure, sure.

1:57:01

But maybe eliminate that building site and if we could somehow rearrange things a little bit and not actually lose a a house site.

1:57:15

But alleviate the problem that looks like we have on lot 7.

1:57:20

So we have houses, one or the other closer to Clements or or half a couple, half a couple far, far away, farther away from the road.

1:57:29

What I was just thinking is, you know, these lots are going to have a variable value depending on where in the subdivision they're located.

1:57:41

The ones that are real close to the the connection Rd.

1:57:48

Walker Dr.

1:57:51

probably are of lesser value anyway, so we might be able to incorporate a couple smaller lots as you come in off of the Walker approach and alleviate the lot 7 issue.

1:58:05

Possibly.

1:58:06

I mean I I know you'd need time and I'm not saying do it right now.

1:58:09

It was more of a open question.

1:58:10

Not not opposed to the idea though.

1:58:13

So can what I mean, if you guys know where we're coming from in terms of mitigating risk, right.

1:58:19

So I think that's part sorry.

1:58:27

Thanks.

1:58:28

Very good.

1:58:29

I mean, if we can work with, with Tim on some conditions and kind of agree again, I, I think we're 200 feet, but if, if the mitigating risk sets us back another 5075 feet, you know, we look at what that really is and where that's at.

1:58:45

You, you know, we're happy to, it's just when you're truly at 580, which I think we all agree is, is too much.

1:58:51

You, you, you're pretty much the whole piece of property.

1:58:54

I mean, it, it's, it sounds like the question on the 580 is what is the effect on these soils if the South channel is alive?

1:59:01

And I, you would say, well, that's an if and it's never happened before.

1:59:04

And who knows?

1:59:05

But we don't really know unless we were to do a hydraulic study, which is what Tim was pointing out is too much to ask.

1:59:11

So we're we're not going to ask.

1:59:13

But we do have to imagine, well, what if that does happen?

1:59:15

And if that does happen, how could we mitigate risk by design right now so we don't build in anticipation of mitigation, which is what our critics would surely call for.

1:59:26

And then when we say, oh, we need \$10 million of tax money to fix this house, protect this house, and people say, well, why in the heck do you let them build houses there anyway?

1:59:34

So let's not put us in that position.

1:59:36

Yeah, I'll remind you, you will have that with other houses that are already there.

1:59:41

The difference is we didn't say yes to those True, but you.

1:59:44

And that's a big difference.

1:59:45

It's a it's a fix, one fix all.

1:59:47

But yeah, yeah, that's true.

1:59:48

We can work.

1:59:49

We are not on account for those houses.

1:59:50

Yeah, we would be accountable to these houses.

1:59:54

OK, Yeah, let us, I mean, if we can set back, you know, and work, work with Tim to see what he feels comfortable with, but.

2:00:04

I know 5050 feet is really easy for us.

2:00:06

Rather than just thinking feet right now, I'm thinking, where's the erosion going to happen at this juncture?

2:00:12

It's right here, right?

2:00:13

Yeah.

2:00:13

I mean, it's right here.

2:00:14

So if we if we leave that as all open space, that's the.

2:00:18

Yeah.

2:00:18

These other areas where you're where they're kind of the river's running straight.

2:00:21

It's sort of parallel.

2:00:22

It's not.

2:00:23

We're not seeing mad erosion there.

2:00:25

Yeah.

2:00:25

So the the feet kind of don't matter so much as the geometry.

2:00:29

Yeah, No, I get it.

2:00:30

So if we focus more over in this area and definitely leave a lot of distance here, I think that's true.

2:00:39

I mean that the erosion is happening.

2:00:41

This is the spot that's eroding this corner, just that corner.

2:00:45

But that, you know, as that comes down, what does that look like?

2:00:48

You know, there's a house here.

2:00:49

But as that comes down, we didn't say yes to that house.

2:00:53

I know.

2:00:53

No, I Yeah.

2:00:54

So as we come down.

2:00:55

So I think we could definitely look at, you know, more open space in this particular block right here.

2:01:02

If you guys can figure out how to put more houses that are way obviously out of harm's way.

2:01:07

Well, good on you.

2:01:09

So what process wise?

2:01:10

OK, we we punt this.

2:01:14

Yeah.

2:01:14

Commissioners, I would recommend you punt it to a date cert.

2:01:18

And I did see October 24th was open.

2:01:20

There's one item, I can't remember what it was, but that would give us enough time, I believe to sort through some conditions and deal with the, whether it's the 200 or 250 feet and then maybe rearrange lots so you can recoup one if you lose 7.

2:01:40

We can kind of go in that direction.

2:01:42

And again, at least to me, that the feet isn't as important as avoiding where we see the erosion.

2:01:47

And then that was why I tried to have that, you know, I think I, I did it down here.

2:01:54

But this is showing, you know, that's the active area.

2:01:57

So, and if we can use this as the study, right?

2:02:00

This is where I said here from this line up 12 feet happened.

2:02:05

This is the erosion.

2:02:06

So maybe if we can use almost this and talk more about this particular line and then stay away from the higher erosion area and then design more out here.

2:02:22

Yeah.

2:02:22

And you're not putting us in a really bad spot.

2:02:24

I like it.

2:02:25

Yeah.

2:02:25

No, I get it.

2:02:26

I get it.

2:02:28

What do you think?

2:02:33

Yeah, I'm just, no, I'm thinking this is good.

2:02:36

We're making progress in a fruitful manner.

2:02:41

I'm just thinking process wise, October 24th, that does give us time to hash out some conditions.

2:02:48

Whatever you, whatever you want and whatever we're, we're our schedule here on your end, Tim.

2:02:53

And then that is doable on our end to tweak the layout and I would hope maybe come back in here on the 24th and get this done.

2:03:05

Christina, what are you finding?

2:03:12

Thanks for your patience guys.

2:03:15

What's another month and 1/2?

2:03:20

Oh, James.

2:03:21

James, you have to be retiring.

2:03:22

Explain.

2:03:25

James is up, has a question.

2:03:28

James.

2:03:30

Yeah, I just, I just wanted to have a quick revisit.

2:03:33

I've been listening to everyone's comment commentary and whatnot.

2:03:37

I know a lot of the conversation has revolved around the cutting of the riverbank and I was wondering if I could just share my screen real briefly.

2:03:46

I'm sharing I think Christina's working or don't have permission yet and what what I wanted to just add and and get in everyone's thoughts here.

2:04:08

Am I able to share it?

2:04:10

There we go.

2:04:13

So what I want people to recognise as well in, in, in fluvial mechanics is that we we've been talking a lot about the ability of the river, if it were the main channel to, to cut away.

2:04:24

But we've also got to remember that there's a equally good chance that that river can deposit as well.

2:04:30

You know, rivers meander through and deposit sediments in as much an unpredictable way as if they would cut them away.

2:04:39

This was an interesting photo I found from I think 55 you'll recognize the turn obviously here and I think the site is roughly located in this region.

2:04:53

So you can see this, this heavy armouring that was, you know, present back in 1955 is, you know, it's, it's essentially this area here, the, the, the heavy armouring of the riparian area that's north of the site.

2:05:13

So I, I think, you know, we've also got to remember that there's an equal opportunity for that, for that to take place.

2:05:21

I just wanted to, to add that because we, we talk a lot about one scenario being a possibility.

2:05:26

And this is certainly one that can, if you, if you don't understand the, the whole level of the river dynamic, which would take a, I don't know how much that would cost to figure that out or if you'd even get conclusive answers.

2:05:39

But you know, this, this, this site has remained pretty much untouched for a good long time.

2:05:46

I, I just wanted to share that.

2:05:48

Thanks for that visual that I appreciate that.

2:05:54

What year was that?

2:05:54

Sorry, 5555.

2:05:58

For the record, I was not born OK.

2:06:07

Oh, Peggy, Peggy, Peggy.

2:06:16

We're ready for you.

2:06:17

Yeah, I'm here.

2:06:22

I so far we've spent two hours talking about the river and yet one big concern of the people that live around that corner is the entrance on Clements.

2:06:38

Are we going to have any discussion about that this afternoon?

2:06:45

Tim, what did we hear from Shane?

2:06:48

Public Works has been on site and I think initially they were maybe cautious about that access point, but they later felt that it was safe, essentially safe.

2:07:00

Now that curve, I think in the 21st century, you probably wouldn't design something that is exactly like that curve is today.

2:07:08

And yes, if it's IC, you might have issues or if people go too fast or or whatever.

2:07:15

But Brent from Public Works recently commented and said that they're supportive of that access point.

2:07:23

So they support the variance that essentially allows the IT looks like a cul-de-sac.

2:07:28

Now we're kind of bending it in the direction and a loop, right with Walker and and I can't remember what's the name?

2:07:37

Clements.

2:07:37

Clements.

2:07:38

No, it's just what No, what's the Yeah, I did.

2:07:42

OK, So thanks.

2:07:43

So Walker's just essentially being extended to to Clements, correct.

2:07:47

Like there's no, and, and I, I would love to see the some type of speed mitigation.

2:07:57

Mitigation's a watchword of the day.

2:07:59

So people, because I, because I live out there, I mean, I don't even know how many times I've seen tracks going off the road into a fence.

2:08:05

And it's, it's not a good spot.

2:08:08

We wouldn't design it as it is, you know.

2:08:14

Peggy, did you have something specific you wanted to share?

2:08:18

Well, Public Works certainly has a right to their opinion, but at the same time, I've listened and there have been a lot of people that live on that corner that are very concerned about their lives and their property, as well as kids going to and from school as they come along the the pathway there.

2:08:44

So I, I don't know how to get that back on the table is what I'm saying, is that I think we, we're focused totally right now on the river, which is critical, but I think the entrance onto Clements is critical also.

2:09:04

And so for that hasn't been so far that has not really been discussed.

2:09:08

I totally agree with you, Peggy, that some something needs to be done on this road.

2:09:12

And we did have an open house, man, it was probably six months ago with the idea of doing a complete St.

2:09:19

on 3rd St.

2:09:20

which would shrink lane sizes, constrict traffic and kind of necessarily slow down speeds.

2:09:26

And, and the public wasn't into it.

2:09:29

And if we had gotten a response, I'm like, yeah, let's go down that road, we would have gone down that road having to look for grant money to make it happen.

2:09:36

But that's what we do with all major infrastructure projects.

2:09:38

They're all too expensive to be paid for local resources.

2:09:42

But the response we got from the neighborhood was no change, which was unfortunate.

2:09:47

I was personally really hoping to see that area redone, but maybe things have to get a little worse first.

2:09:54

Well, I think the discussion at that meeting at which I was also in attendance was more focused on 3rd to the corner.

2:10:04

And I think now the focus is on the the corner right there at Clemens where this subdivision would take off from Clemens or add to Clemens.

2:10:18

So I just throw it out there to muddy the waters, I guess.

2:10:23

No, thanks for thanks for being attentive, Peggy.

2:10:26

You appreciate it.

2:10:29

All right, so we got we got something to work with.

2:10:31

All right, I think we're done.

2:10:34

Thanks, everybody.

2:10:39

Tim, were you about to say something?

2:10:40

I was just going to say, as long as it's clear that it's October 24th that we're returning to this conversation.

2:10:46

Yeah.

2:10:47

Yeah, you're continuing the hearing.

2:10:49

Yeah.

2:10:50

John, did you have anything on it?

2:10:51

Do we need to do this differently?

2:11:00

OK.

2:11:00

Thank you, Brian and Ken.