



Livingston City Commission Agenda

February 4, 2025 — 5:30 PM

City – County Complex, Community Room

<https://us02web.zoom.us/j/86051371883?pwd=cNMG558C1FhvXK5uVdA8KCkdlSUbqB.1>

Meeting ID: 860 5137 1883

Passcode: 289211

1. Call to Order

2. Roll Call

3. Public Comment

Individuals are reminded that public comments should be limited to item over which the City Commission has supervision, control jurisdiction, or advisory power (MCA 2-3-202)

4. Consent Items

A. APPROVAL OF MINUTES FROM JANUARY 21, 2025, REGULAR MEETING [PG.4](#)

B. APPROVAL OF CLAIMS PAID 1/16/25 - 1/29/25 [PG.118](#)

C. JUDGES MONTHLY REPORT DECEMBER 2024 [PG.129](#)

D. RE-APPOINTMENT OF ALLISON VICENZI TO THE LIVINGSTON URBAN RENEWAL AGENCY BOARD [PG. 131](#)

E. RATIFICATION OF PURCHASE ORDER 20154 FOR A GARBAGE TRUCK [PG.134](#)

5. Proclamations

A. A PROCLAMATION OF THE CITY COMMISSON OF THE CITY OF LVINGSTON MONTANA, DECLARING FEBRUARY 4, 2025 AS ROSA PARKS DAY IN LIVINGSTON MONTANA [PG.149](#)

6. Scheduled Public Comment

A. UPDATE REGARDING UPPER YELLOWSTONE CHANNEL MIGRATION ZONE MAPPING PROJECT [PG.152](#)

7. Action Items

A. RESOLUTION 5154: A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, DECLARING CERTAIN ITEMS AS SURPLUS AND DIRECTING THAT SAID PROPERTY BE DONATED, SOLD OR DISPOSED OF. [PG.311](#)



B. RESOLUTION 5155: A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, ADOPTING THE 2024 WESTERN MONTANA HAZARD MITIGATION PLAN [PG.315](#)

C. RESOLUTION 5156: A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LIVINGSTON, MONTANA, ACCEPTING UTILITY AND ACCESS EASEMENTS GRANTED BY LIVINGSTON WEST LLC FOR THE MOUNTAIN VIEW SUBDIVISION AND AUTHORIZING CITY MANAGER TO SIGN ASSOCIATED DOCUMENTS. [PG.319](#)

D. DISCUSSION REGARDING DEVELOPMENT OF A CONFLICT OF INTEREST POLICY [PG.331](#)

E. CLOSED SESSION TO DISCUSS MATTERS OF INDIVIDUAL PRIVACY PURSUANT TO MCA 2-3-203(3)

8. City Manager Comment

9. City Commission Comments

10. Adjournment

Calendar of Events

Supplemental Material

Notice

1. Public Comment: The public can speak about an item on the agenda during discussion of that item by coming up to the table or podium, signing-in, and then waiting to be recognized by the Chairman. Individuals are reminded that public comments should be limited to items over which the City Commission has supervision, control, jurisdiction, or advisory power (MCA 2-3-202).
2. Meeting Recording: An audio and/or video recording of the meeting, or any portion thereof, may be purchased by contacting the City Administration. The City does not warrant the audio and/or video recording as to content, quality, or clarity.
3. Special Accommodation: If you need special accommodations to attend or participate in our meeting, please contact the Fire Department at least 24 hours in advance of the specific meeting you are planning on attending.

File Attachments for Item:

A. APPROVAL OF MINUTES FROM JANUARY 21, 2025, REGULAR MEETING



Livingston City Commission Minutes

January 21, 2025 — 5:30 PM

City – County Complex, Community Room

<https://us02web.zoom.us/j/82115423002?pwd=0Pj7nJqccnuEp03tvvQS2fPT97IFGy.1>

Meeting ID: 821 1542 3002

Passcode: 024891

1. Call to Order

Chair Schwarz call the meeting to order at 5:30 PM

2. Roll Call

Commissioners Present

- Chair Schwarz
- Commissioner Kahle
- Commissioner Lyons
- Commissioner Willich

Commissioners Absent

- Vice Chair Nootz (Arriving at video mark 23:09)

City Staff Present

- City Manager Grant Gager
- Policy Analyst Greg Anthony
- City Attorney Jon Hesse
- Chief of Police Wayne Hard
- Assistant Chief of Police Andrew Emanuel
- Planning Director Severson

3. Public Comment

Individuals are reminded that public comments should be limited to item over which the City Commission has supervision, control jurisdiction, or advisory power (MCA 2-3-202)



Patricia Grabow stated Downtown Business Owners Association would like to share that business is down about 20%. She presented the Commission with a packet of proposed prosperity of downtown

Leslie Feigel thanked the City Manager and Chair Schwarz for attending the ribbon cutting for the Park County drop in center.

4. Consent Items

- A. APPROVAL OF MINUTES FROM JANUARY 07, 2025, REGULAR MEETING [PG.4](#)**
- B. APPROVAL OF CLAIMS PAID 1/2/25 - 1/15/25 [PG.12](#)**
- C. CONSOLIDATED LAND USE BOARD APPOINTMENTS [PG.24](#)**
- D. AGREEMENT 20149 FOR PARK COUNTY CRISIS COALITION CHARTER RENEWAL [PG.27](#)**
- E. APPROVAL OF LIVINGSTON WEST LLC'S MOUNTAIN VIEW MAJOR SUBDIVISION FINAL PLAT [PG.36](#)**

Commissioner Kahle motioned to approved consent items A – E seconded by Commissioner Lyons. Unanimously approved.

5. Proclamations

- A. A PROCLAMATION OF THE CITY COMMISISON OF THE CITY OF LVINGSTON MONTANA, DECLARING APRIL 25, 2025 AS NATIONAL ARBOR DAY IN LIVINGSTON MONTANA [PG.163](#)**

Chair Schwarz read the proclamation

The City Manager stated looks forward to April 25th to celebrate Arbor Day

Commissioner Lyons expressed appreciation for the transplanting of trees from Katie Bonnell Park instead of cutting them down.

Commissioner Kahle thanked folks who have adopted trees over the past three years.

6. Scheduled Public Comment

- A. CONSOLIDATED LAND USE BOARD YEAR END SUMMARY 2024 [PG.166](#)**

The City Manager stated the Chair for the Consolidated Land Use Board is absent tonight, so they will moved on to the next item.

7. Action Items

- A. POLICE DEPARTMENT PRESENTATION TO CITY COMMISSION**

The City Manager stated it has been about a year since Chief Hard was appointed to Chief and felt it would be great to bring him in to review his time as Chief and hear about the department.



Chief Hard presented with slides which showed the different subsections of the Livingston Police Department, and what they do and how their whole department functions.

The City Manager expressed thanks to the police department and reflected on the Chief hiring process where Chief Hard stood out from all the rest of the candidates that included some that came from very large and complex agencies. He stated Chief Hard really won that position fairly and is happy to see his growth in the position as Chief. He also recognized Assistant Chief Andrew Emanuel as a great asset to the police force.

Commissioner Willich inquired about the juvenile arrests information shown in the presentation and wondered how that compared to other municipalities of our size.

Chief Hard stated he is unsure about other municipalities, but that number is about the same number they have had over the past few years.

(Vice Chair Nootz entered the conversation as video mark 38:35)

Vice Chair Nootz asked Chief Hard if there were any fun facts, stories, or things he loves about the job that he would like to share.

Chief Hard expressed that no one ever becomes a police officer to work behind a desk, and as you put in time and want to grow and change he stated his time as Chief is noticeably different than being a patrol officer. He enjoys the challenges and realizes the difference from being a patrol officer where decisions often times need to be made on the spot, and now as Chief a lot of decisions he gets time to process and make those decisions. The police department is like a family and he looks forward coming to work with his team every day.

Vice Chair Nootz expressed that they seem to hear about less vacancies now than before.

Chief Hard clarified that they have been carrying at least one vacancy for the last couple years, and reflected on a rough spot they had a few years ago where they lost quite a few people in a short period of time.

Vice Chair Nootz thanked Chief Hard for coming and thanked him and his team for showing up for the community.

Public Comment was offered by:

- Linda Mahr reflected on an incident that happened close to her and wondered how to obtain record of this incident.

Chief Hard offered for Linda to reach out to him outside this meeting

Commissioner Lyons thanked Chief Hard for the presentation and feels it is helpful for the public to hear these things about the department and feels it builds trust within the community.

Public Comment was offered by:

- Katherine Daly thanked Chief Hard for his presentation and expressed appreciation for the Livingston Police Department.



B. DISCUSSION OF PROPOSED GROWTH POLICY INSPIRED CHANGES TO THE CITY OF LIVINGSTON SUBDIVISION REGULATIONS PG.169

The City Manager stated this item is a continuation of a discussion that started back in December. He introduced Planning Director Severson to present a presentation on this item.

Planning Director Severson presented slides on the proposed changes to the Growth Policy.

Commissioner Lyons expressed appreciation for the table in the presentation. He questioned sidewalks and recalled seeing them in the subdivision review, but is not seeing them referenced in some places in these proposed changes to the Growth Policy.

Planning Director Severson clarified she was listing trail connections as sidewalks.

Commissioner Lyons recommended for it to read as sidewalks as it aligns with everything in the Growth Policy.

Planning Director Severson stated she will add it to the table.

Commissioner Lyons questioned the Public Works design standards.

The City Manager clarified that the state of Montana does have their Public Works design standards which apply to their roadways, then the City of Livingston has adopted local modifications to the Statewide Public Works standards. He clarified it was meant to reflect those two documents within the proposed changes.

Commissioner Kahle expressed concern about the part about explore water course and wetland setback only appearing in the Zoning Code.

Planning Director Severson agreed that this is a good point and is something to look at including that in subdivision regulations.

Chair Kahle asked if the wording can be a little stronger around tree preservation, especially with old growth trees.

The City Manager stated trees preservation is referenced in other places within the document and they can find the best location to add this.

Chair Kahle asked to also include something about wildlife or bear proof trash.

Vice Chair Nootz expressed appreciation for the variance criteria. She voiced concern about boulevard trees specifically in areas with and HOA and would like to see that monitored because there have been instances where HOAs have altered our local regulations. She asked if floodplain setback should be included in the subdivision regulations rather than the zoning.

Planning Director Severson explained that setbacks are generally handled in zoning, but the team would explore whether a subdivision-specific standard should be added.



Vice Chair Nootz pointed out a couple spots where language could be simplified and cleared up so it's easier to read and understand. She asked and voiced a recommendation that cul-da-sacs be removed as it seems like a potential invitation for variance requests.

The City Manager reminded that this item will come back before the Commission in a later meeting.

7:23 PM Vice Chair Nootz motioned for a 10 minute break seconded by Commissioner Kahle. Unanimously approved.

Public Comment was offered by:

- Patricia Grabow stated that thinks subdivision regulations have been an issue for a long time in the City of Livingston.
- Katherine Daly asked questions on behalf of the Park county Housing Coalition with HRDC. She wondered about next steps for community experience changes, and asked for clarity on how and when definitions will be updated.

The City Manager stated the community experience updates will likely appear in the second meeting in February and in March there will be a full conformed version of the subdivision regulations with all proposed changes.

C. RESOLUTION NO. 5152: A RESOLUTION BY THE CITY OF LIVINGSTON CITY COMMISSION AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO DOT - REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE), COMMITMENT OF NEEDED FUNDS AND AUTHORIZING THE CITY MANAGER OR DESIGNEE TO ENTER INTO REQUIRED CONTRACTS FOR GRANT FUNDS TO ENGAGE IN A CORRIDOR STUDY AND EVALUATION OF VIABLE AND SUSTAINABLE OPTIONS FOR A GRADE SEPARATED CROSSING. [PG.260](#)

The City Manager reminded this is the third year that we have applied for this funding for a grade separated crossing. He expressed thoughts that it is not certain that we will be awarded this funding.

Commissioner Lyons motioned to approve this item seconded by Commissioner Willich.

Commissioner Willich expressed that he feels we should keep trying for this grant.

Commissioner Lyons is in favor of doing this in a way that will reduce tax burden on the community.

Commissioner Kahle thanked the City Manager and City Staff for applying for this grant.

Vice Chair Nootz expressed that it would be great to receive this grant, and would like in some way to see forward movement on this topic.

Chair Schwarz thanked the City Manager for applying for this and hopes we get it.



Vice Chair Nootz asked if the City Manager can clarify how this crossing does or doesn't apply to decisions the commission can make about land use on the north side of the tracks.

The City Manager reviewed the previous item that includes criteria about a crossing, but recognizes that it is not crystal clear. He wants everyone to understand that this crossing is a citywide issue, not just an issue for a specific subdivision or development that would be on the north side.

Vice Chair Nootz clearly stated that a crossing alone is not enough to approve or deny a subdivision that comes before them.

This item was unanimously approved by all five commissioners present.

D. RESOLUTION 5153: A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LIVINGSTON, MONTANA, DECLARING CERTAIN PROPERTY AS SURPLUS AND DIRECTING THAT SAID PROPERTY BE DONATED, SOLD OR DISPOSED OF. [PG.265](#)

The City Manager stated these surplus items are intended to be traded as a result of a transaction approved back in 2022. That transaction being that the garbage truck we just received in December would be considered partially paid with these two trade-ins.

Vice Chair motioned to approve this item seconded by Commissioner Kahle.

Public Comment was offered by:

- Linda Mahr expressed thoughts that garbage truck arms don't handle the can carefully enough so they don't crush or break them.

The City Manager stated the City switched trash receptacle providers several years ago, and we have recently switched back to the original provider because the receptacles from the temporary company were of lesser quality. He reminded that everyone is able to call Public Works for a new can if needed.

This item was unanimously approved by all five commissioners present.

E. DISCUSSION AND DIRECTION TO STAFF REGARDING 2025 SESSION OF THE MONTANA STATE LEGISLATURE [PG.269](#)

The City Manager stated this item is to inform the Commission on the plan related to legislative communications from the city and would like to gather their input on the plan. He let them know he will be in Helena in February for the municipal day at the capitol. He is working with Montana League of Cities and Towns to monitor bills related to housing, infrastructure, land use, local authority, natural resources, property taxes, public safety revenue, transportation, water and other subjects. His recommendation is for the city to monitor bills but to be more selective on the bills we engage upon, and expressed that sometimes being the loudest voice at legislature is not always helpful and could potentially lead to negative results.



Commissioner Kahle expressed that is good to engage with legislature especially on bills that will affect the city. She feels in years past Montana League of Cities and Town represented cities of larger size on land use topics that affected our city negatively, and would hope we can keep topics like that in our selection to be vocal about. She expressed trust in the City Manager to fight for the community where and when needed.

Commissioner Willich agreed with Commissioner Kahle in trusting the City Manager.

Commissioner Lyons admitted that state policy is outside of his area of expertise, but expressed trust in fellow commissioners for the policy guidance and expertise along with the City Managers expertise in strategy and ability to prioritize what is important and making sure our voices are heard in our community.

Vice Chair Nootz reminded the City Manager and City Staff to take care of themselves during this process. She reminded that during the City Manager selection process that Mr. Gager had experience at the state level analyzing policy from different perspectives.

F. APPOINTMENT OF CITY COMMISSIONERS TO COMMUNITY AND ADVISORY BOARDS PG.272

The City Manager stated this item is to appoint City Commissioners to community and advisory boards.

Chair Schwarz expressed that it is nice to switch it up on these boards and voiced interest in serving on the Consolidated Land Use Board.

Vice Chair Nootz disclosed that her husband is the Library Director so she is unable to serve on that board.

Commissioner Kahle expressed that changing these boards year to year may not be use due to institutional knowledge that is gained from a commissioner serving on a board for several years, and reminded that some commissioners have expertise on topics that these boards deal with and feels that is also helpful in their representation on those boards.

Chair Schwarz expressed understanding to Commissioner Kahle's comments.

Chair Schwarz motioned to appoint himself at the City Commission representative on the Consolidated Land Use Board.

Commissioner Kahle explained the meeting schedule for the Community Trust Board since it's listed as needed.

Vice Chair Nootz voiced concern about meeting times and her ability to meeting during the day. She stated she has never served on the URA board and would be interested in that.

Commissioner Kahle stated she has been on the Trust Board her entire time as commissioner, and has no interest in serving on the Land Use Board. She clarified that she is available for meetings during the day.

Commissioner Lyons expressed interest in the Consolidated Land Use Board as well. He understands where Chair Schwarz is coming from with switching it up every year. He explained what his role has been as part of



that board, and feels he has a lot to offer serving on that board. He disclosed that the URA board has potential for conflict as his wife serves on a board that is seeking funds from the URA.

Commissioner Willich enjoyed his time on the Library Board, and expressed interest in the Health Board and URA Board.

Chair Schwarz listed out who could be on each board and asked for a motion.

Vice Chair Nootz motioned Chair Schwarz recommendation of Chair Schwarz on Consolidated Land Use, Vice Chair Nootz on URA, Commissioner Kahle on the Trust Board, Commissioner Lyons on the Library Board, and Commissioner Willich on the Health Board seconded by Commissioner Willich.

Chair Schwarz: For

Vice Chair Nootz: For

Commissioner Kahle: Against

Commissioner Lyons: Against

Commissioner Willich: For

Motion carries 3 to 2

Chair Schwarz motioned to move into closed session seconded by Commissioner Kahle. Unanimously approved.

G. CLOSED SESSION TO DISCUSS LEGAL STRATEGY PURSUANT TO MCA 2-3-203(4)(a)

H. ACTION ARISING FROM CLOSED SESSION.

The City Manager stated this item is a settlement agreement and release of claims arising out of Park County District Court case that was filed by the Livingston Area Chamber of Commerce and Visitor Center against the City of Livingston in 2020. This is related to the City's re designation of the convention and visitors bureau at that time. He announced the City attend its second mediation to work to resolve the outstanding issues. This was following a decision by the Sixth District Judicial Court here in Livingston that found the City prevailed in its defense of the lawsuit. The Chamber has appeal rights, so the City initiated conversations to try and resolve the lawsuit and prevent an appeal. He reviewed the agreement showing \$10,000 going to the Chamber and \$1200 of that shall be used for expense reimbursement and the remained shall be used for the sole purpose of hosting events that have not been previously hosted or sponsored by the Chamber which are designated to support the Livingston area business community. He expressed thanks to the Chamber for their time in coming to the agreement and the community for their patience in this matter. He sees that this is something that has taken a toll on the community and his thoughts for this agreement and its conditions was an attempted to bring the community together and start the healing process.



Vice Chair Nootz motioned to approve this item seconded by Commissioner Willich.

Vice Chair Nootz hopes this agreement helps resolve the issue and divisiveness within the community, and would like to move forward. She likes that this is in direct support of the local business community.

This item was unanimously approved by all five commissioners present.

8. City Manager Comment

The City Manager thanked the Commissioners for their hard work this evening.

9. City Commission Comments

Commissioner Willich thanked everyone for the meeting

Commissioner Lyons thanked fellow commissioners and the City Manager and City Staff for helping to keep them informed.

Commissioner Kahle thanked the City Manager and City Staff for all the work they do. She thanked the commission for conversations around subdivisions.

Vice Chair Nootz commented that school is back in session and Bozeman is busy

Chair Schwarz: no comment

10. Adjournment

9:47 PM Commissioner Lyons motioned to adjourn seconded by Commissioner Willich. Unanimously approved.

Calendar of Events

Supplemental Material

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DEPARTMENT OVERVIEW

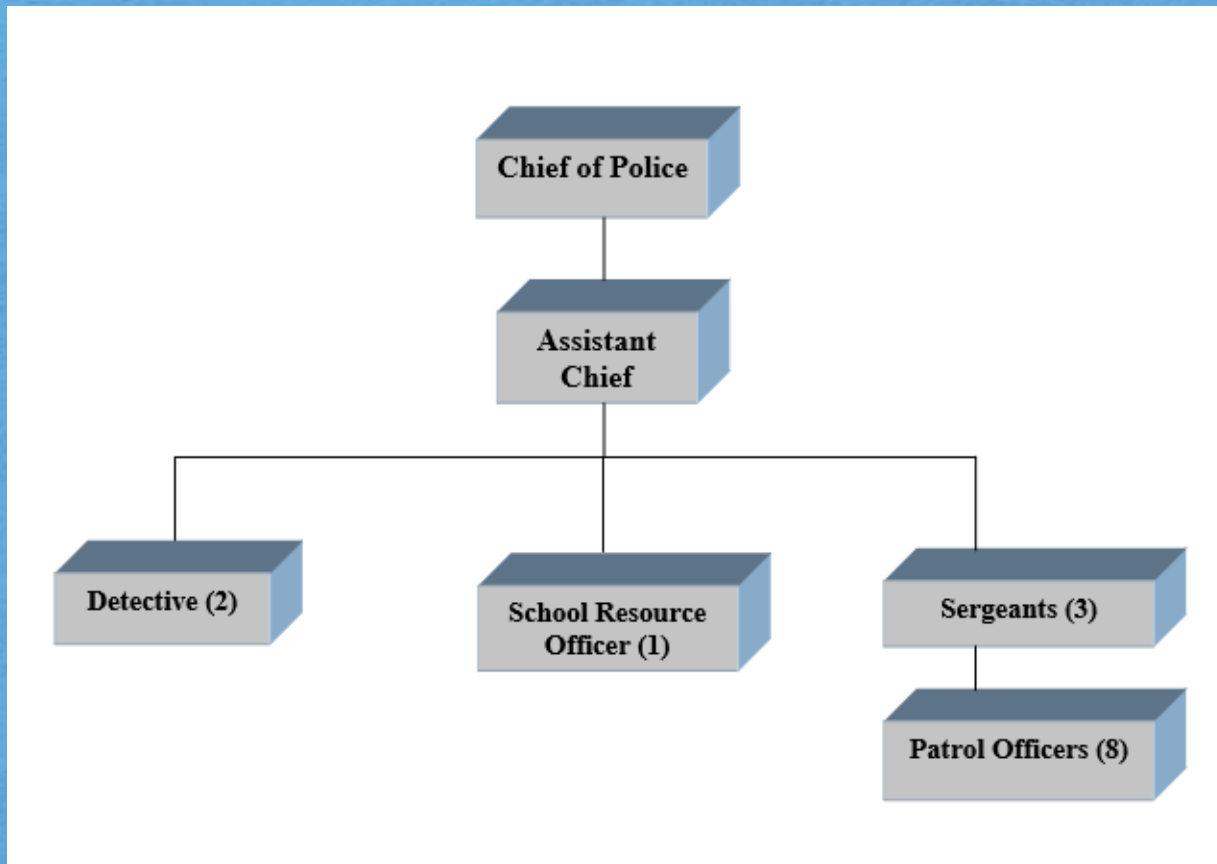
LIVINGSTON POLICE DEPARTMENT



PRESENTATION OVERVIEW

- Department Structure
 - Mission Statement and Core Values
 - Operations
 - Enforcing the law
 - Protecting the Community
 - Providing service to the Community

OUR TEAM - LPD



- Police Chief Wayne Hard
- Assistant Police Chief Andrew Emanuel
- Sergeant Kevin Engle
- Sergeant Corey O'Neill
- Detective Jason Gunderson'
- Patrol Officer Dan Lashinski
- Detective Jordan Brummel
- Patrol Officer Hunter Grunhurd
- School Resource Officer Hannah Buckley
- Patrol Officer Marguerite Holbrook
- Patrol Officer Mark Allen
- Patrol Officer Robert Crank
- Probationary Patrol Officer Jonathan Manley
- Probationary Patrol Officer Taylor Bauer

OUR TEAM – PARK COUNTY 911

- TAC Peggy Glass
- Dispatch Supervisor Kathy Edmiston
- Communications Officer Chris Fowle
- Communications Officer Barbara Roberts
- Communications Officer Cheyenne Bray
- Communications Officer Mariah Thomas
- Communications Officer Kate Miller



MISSION STATEMENT

It is the mission of the Livingston Police Department to enforce the laws of the United States, the State of Montana and the City of Livingston, to assist the citizens of Livingston in protecting their lives and property, and to provide service to the public to the extent which we are empowered and enabled to do so by law, by department regulation, and by financial consideration.

CORE VALUES

- ✓ Integrity
- ✓ Honor
- ✓ Respect
- ✓ Trust

Valuing other's feelings and their
Adherence to what is right or to
firm belief in the reliability, truth,
Being honest and having strong
views, even if you don't
a standard of conduct
moral principles of someone or
necessarily agree with them
something

Operations



Livingston, Montana

LPD by the Numbers

2024

Patrol

- 8,583 Calls for service
- 858 Calls per Patrol Officer
- 869 Investigative reports

- 242 Adult arrests
- 112 Juvenile arrests

- 1228 Traffic stops
- 204 Traffic citations

- 202 Accident reports

Investigations

- 40 Sex offense Reports
- 11 Sex offense arrests
- 40 Forgery/Fraud Reports

- 22 Investigative subpoenas
- 74 Warrants



Livingston Police Department

K9 Unit

Our K9 program consists of two dog/handler teams in specially equipped patrol vehicles. We have the only Police Service Dogs in the County and our handlers are on-call 24/7 to assist not only the City of Livingston, but all of Park County. Our teams have also been called to assist the Department of Corrections at the Montana State Prison and the Missouri River Drug Task Force.



Our teams have been certified through the North American Police Work Dog Association – the largest, nationally recognized certifying body in the country.

K9 BRIGGS

5 Year old German Shepard imported from Slovakia. K9 Briggs is a highly trained, dual purpose police service dog, proficient in narcotics detection and the patrol areas of obedience, tracking, evidence search, area/building searches, as well as handler protection and aggression control.



K9 RHINO

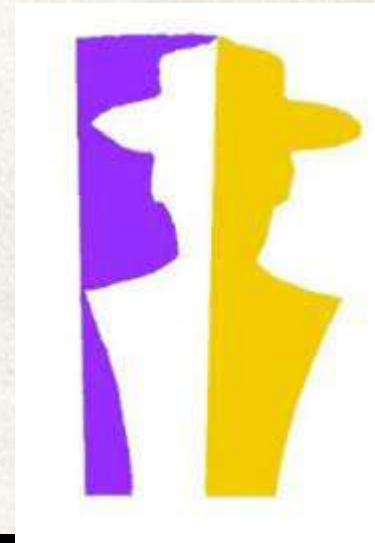
6 Year old Belgian Malinois imported from Slovakia. K9 RHINO is a highly trained, dual purpose police service dog, proficient in narcotics detection and the patrol areas of obedience, tracking, evidence search, area/building searches, as well as handler protection and aggression control.



LPD School Resource Officer



SRO Hannah Buckley and Patrol Officer Rita Holbrook



Livingston, Montana

Protecting our Schools

- How do we prepare?

- Monthly firearms training
- Bi-annual firearms qualifications
- Tactical combat casualty care (TCCC)
- Defensive tactics
- De-escalation/Negotiation
- School walk-throughs
- School lock down procedures

- Team movement drills
- Room clearing protocols
- SIMUNITIONS training
- Community based RUN-HIDE-FIGHT training

- Mass casualty training scenarios
 - Livingston School District
 - Livingston Health Care
 - Livingston Fire/Rescue
 - Park County Sheriff's Office
 - Montana highway patrol
 - Park County 911



Livingston, Montana

Stress Inoculation:

- Approach, entry, room-clearing tactics
- Follow-up (EMS, restraint, clearing the rest of the building)
- Communications (dispatch and other Officers/Deputies)
- Noise discipline
- Weapon manipulations (tactical and speed reloads)
- Overall situational awareness (manipulating keys, sirens)



PHS Mass Casualty Training Scenario



NO STUDENTS WERE PRESENT FOR THE DRILL

Service to our Community



Our Department works closely with the Park County Sheriff's Office, the Montana Highway Patrol, and even Federal agencies to provide the highest level of service possible to the Community we serve.

Livingston, Montana

Department Training



Every LPD Officer attends monthly training. Topics include ethics, anti-bias, medical training, specialty training, and firearms qualifications.

Livingston, Montana

Community Oriented Policing

Farmers Market



National Night Out

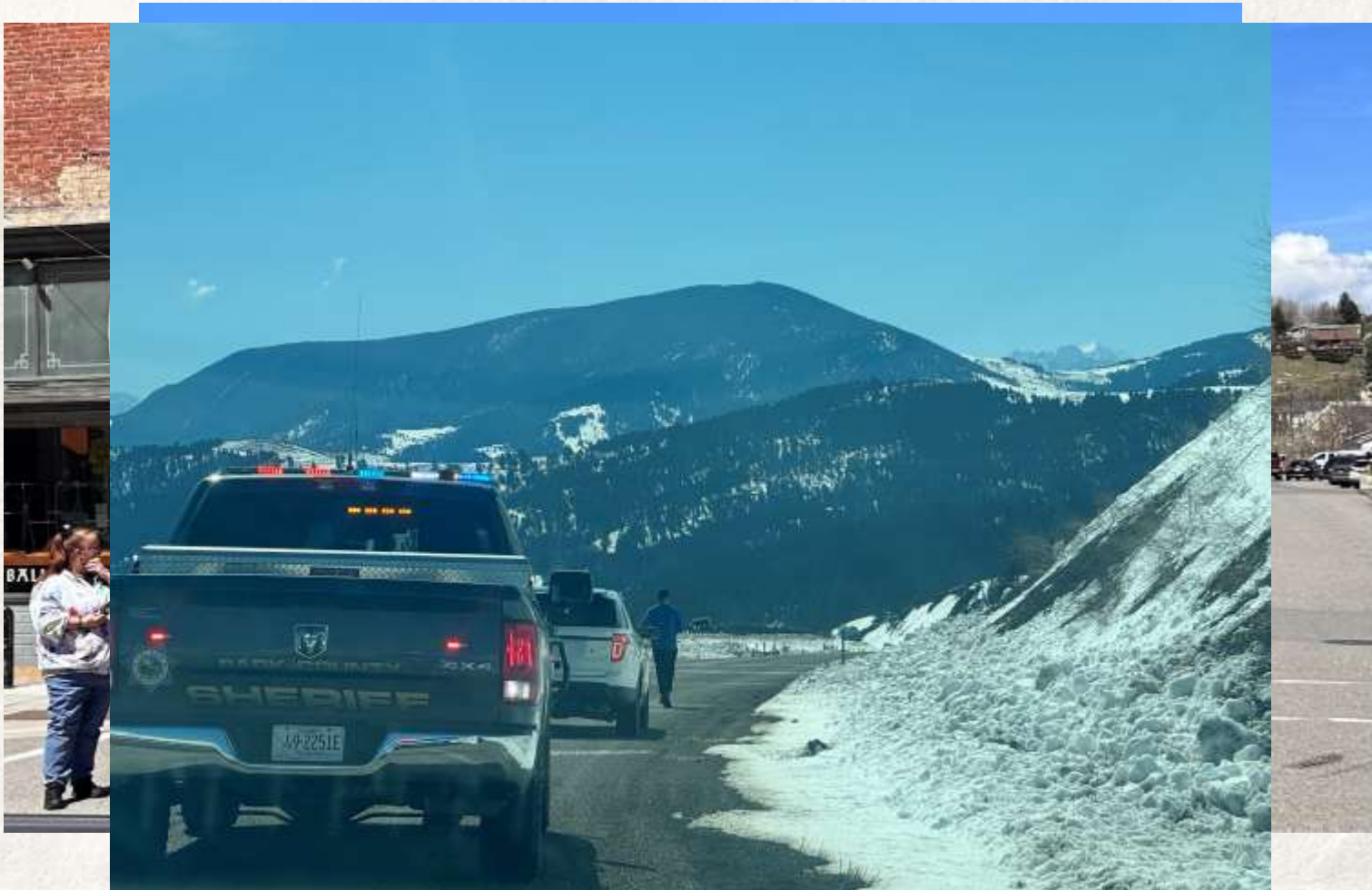
NNO is a national community-building campaign that promotes Police-Community partnerships.

In 2024, we had LPD, PCSO, MHP, LFR, FWP, and the Forrest Service in attendance.



Law Enforcement Torch Run for Special Olympics

The mission of the Law Enforcement Torch Run is to raise awareness and funds for the Special Olympics movement.



Since inception, the Law Enforcement Torch Run has raised more than half a billion dollars and changed millions of attitudes by engaging law enforcement officers worldwide to be champions of acceptance and inclusion.

Livingston, Montana

Operation Christmas Caring



In partnership with the Yellowstone Boys and Girls Ranch, LPD and PCSO delivered Christmas presents to 108 families, 257 children in Livingston/Park County.



Trust.

Honor.



Integrity.

Respect.





Review of Subdivision Regulations

City Commission Meeting
January 21, 2025

PRESENTATION OVERVIEW

- Statutory Authority
- Scope of Review
- Initial Recommendations

PURPOSE OF LOCAL SUBDIVISION REGULATIONS 39

MCA 76-3-501

(1) The governing body of every...city...shall adopt and provide for the enforcement and administration of subdivision regulations reasonably providing for:

- (a) the **orderly development** of their jurisdiction;
- (b) the **coordination of roads** within subdivided land with other roads (existing and planned);
- (c) the **dedication of land for roadways and public utility easements;**
- (d) the **improvement of roads;**
- (e) the provision of **adequate open spaces for travel, light, air, and recreation;**

CRITERIA FOR LOCAL GOVERNMENT REVIEW

MCA 76-3-608

- (3) A subdivision proposal must undergo review for the following primary criteria:**
- (a) except when the governing body has established an exemption...as provided...76-3-609(2) or (4), or 76-3-616 (N/A), the specific, documentable, and clearly defined impact on:**
- agriculture
 - agricultural water user facilities
 - local services,
 - the natural environment,
 - wildlife,
 - wildlife habitat, and
 - public health and safety, excluding any consideration of...resulting loss of agricultural soils;

PRESENTATION OVERVIEW

- Statutory Authority
- Scope of Review
- Initial Recommendations

SCOPE OF REVIEW OF SUBDIVISION REGULATIONS

Three Types of Changes:

- Technical and Conforming
- **Growth Policy Recommendations**
- Community Experience



PRESENTATION OVERVIEW

- Statutory Authority
- Scope of Review
- Initial Recommendations

GROWTH POLICY RECOMMENDED CHANGES

- Updated Street Design Standards
 - Reduce max block length from 1,600 to 1,000 feet
 - Increase minimum block width to 300 feet (2-tier lots with alley)
 - Prohibit cul-de-sacs/ T-turnarounds except by variance
 - Require gridded street networks that promote active transportation
- More Robust Variance Criteria
 - Parcel must have unique physical conditions (limitations) that can only be addressed by variance
 - Affected area is the least necessary to alleviate the hardship
 - Burden of proof of variance need is on applicant
 - Hardship can only be rectified through variance approval

RECOMMENDATIONS FROM THE GROWTH POLICY TO BE ADDRESSED UNDER COMMUNITY EXPERIENCE

- Considerations for:
 - Transportation Impacts of Greenfield Development
 - Require Boulevard tree plantings
 - Update/ Modernize street sections in Table 1
 - Viewshed/ Ridgeline protection
 - Add detailed factors to evaluate subdivision impacts

QUESTIONS?



LIVINGSTON
M O N T A N A

GROWTH POLICY- RECOMMENDED UPDATES TO SUBDIVISION REGULATIONS		
Recommendation	Included in Updates?	Notes
Carefully evaluate transportation impacts of greenfield development as part of the development review process.	Y	Assessed through Traffic Impact Study; Community Experience updates will include TIS requirement for 200+ trips to be added to Subdivision Application Form.
Require sidewalks, and trail connections where possible, with new subdivisions.	N	Allowed under current sub regs 28.7.17.4
Create Public Works Infrastructure Design Standards to incorporate into the Subdivision Regulations.	N	Completed in August 2022
Explore requiring boulevard tree plantings with all subdivisions.	Y	To Be Included in Community Experience updates - Sec 28.7
Explore watercourse and wetland setbacks.	N	Riparian Setbacks will be included in Zoning Code Update
Require a flood study if proposed development is to be located within a 100-year floodplain.	N	Floodplain Development Permit restricts impacts to regulatory floodplain; development in mapped floodway is prohibited
Investigate updating subdivision regulations to consider lifetime cost to the taxpayer, tax revenue projections , greenhouse gas emissions, water use reduction, solid waste reduction, reuse of current resources, and coordination of project work to reduce disruption and waste .	N	Tax revenue projections already evaluated under current subdivision regs. Reduce disruption/ waste during project is under purview of DEQ.
Update regulations to add language from the Subdivision and Platting Act.	Y	Revisions included MCA changes
Include definitions within document	Y	Revisions included MCA changes
All definitions should be updated to meet the intent of the zoning code, subdivision regulations, recommendations of the Growth Policy and compliance with state, county, and local laws.	Y	Updated with MCA changes. Will be updated again for consistency with new zoning code.
Ensure references to MCA and MSPA are up-to-date.	Y	Revisions included MCA changes
Procedure should be reviewed by staff and legal counsel to ensure proper administration of regulations.	Y	Revisions included in MCA changes
Consider removing professional land surveyor and have all plans certified by a professional engineer.	N	Certain design aspects required to be certified by engineers but state law allows survey of subdivision plats by licensed surveyor
Prohibit cul-de-sacs in subdivision development.	Y	Cul-de-sacs will only be allowed by variance- see 28.7.9.1.3
Require gridded street networks that promote active transportation.	Y	Added 28.7.8.4
Consider requiring a tree preservation ordinance to regulate the preservation of desirable trees.	N	Curent regs (28.7.9.3.6) encourage tree and vegetation preservation where appropriate; evaluated on case basis.

GROWTH POLICY- RECOMMENDED UPDATES TO SUBDIVISION REGULATIONS		
Recommendation	Included in Updates?	Notes
Street light electric bill should be the responsibility of the homeowner's association.	N	These are managed through the City's light maintenance districts.
An engineer should review Table 1 to consider reducing the impact streets have on water runoff and other environmental and fiscal considerations.	N	Design must be consistent with Pub Works Design Standards; impacts to stormwater will be evaluated when MS4 requirements are established
Table 1 should be updated to meet more modern street sections and give sections for different types of street sections and give sections for different types of street (arterial, collector, local).	Y	Community Experience updates: Table 1 will be moved to Appendices-typical section(s) will be included . Design must be consistent with Pub Works Design Standards
Explore working with Public Works Department to create city-wide transportation standards for all development.	N	Transportation standards and design are regulated by AASHTO and Pub Works Design Standards.
The City should strengthen the drainage facilities requirements. This is often a source of water pollution both during and after construction of the development.	N	This is evaluated during subdivision review by Public Works and MT DEQ.
Evaluate utilizing underground stormwater drainage systems rather than allowing surface gutters along curbs and through intersections for new developments.	N	This is evaluated during subdivision review by Public Works and MT DEQ.
Often developers choose to pay the City for park land dedication. The City often loses green space and other scenic views. Consider requiring park land dedication first and payment in-lieu-of park land as a second option approved by City Commission.	N	This is inconsistent with PUD ordinance Sec 30.47.D.4. (created after Growth Policy adopted)
Consider adopting a ridgeline or viewshed ordinance.	Y	Community Experience updates- viewshed consideration and analysis will be included (28.7.xx).
Communities often shy away from mobile homes. Review to make sure this is acceptable to the City Commission.	N	This is addressed in current zoning ordinance.
Ensure all fees are included and cover staff and City resource costs to process each application.	Y	Review fees updated October 2024.
The City should strengthen the variance section.	Y	Variance language will be more robust - See Sec. 28.10.2
Add language on evaluation of subdivisions.	Y	Community Experience updates. Sec 28.4.7.2.4 will include specific factors will be used to evaluate development impacts with respect to seven subdivision review criteria under MCA. Language TBD



PURPOSE OF LOCAL SUBDIVISION REGULATIONS 49

MCA 76-3-501

(1) The governing body of every ...city...shall adopt and provide for the enforcement and administration of subdivision regulations reasonably providing for: *(cont.)*

(f) the provision of **adequate transportation, water, and drainage;**

(g) **N/A;**

(h) the **avoidance or minimization of congestion;** and

(i) the **avoidance of subdivisions that would involve unnecessary environmental degradation and danger of injury to health, safety, or welfare by reason of natural hazard, including but not limited to fire and wildland fire, or the lack of water, drainage, access, transportation, or other public services or that would necessitate an excessive expenditure of public funds for the supply of the services.**

STRATEGIC ALIGNMENT

The proposed updates support Land Use Recommendations for Subdivisions identified in Chapter 11 in the Growth Policy:

- Update regulations to add language from the MT Subdivision and Platting Act.
- Include definitions within document (i.e. Subdivision Regulations in Ch. 28).
- All definitions should be updated to meet the intent of the zoning code, subdivision regulations, recommendations of the Growth Policy and compliance with state, county, and local laws.
- Ensure references to MCA and MSPA are up to date.
- Ensure all fees are included and cover staff and City resource costs to process each application.

PURPOSE OF LOCAL SUBDIVISION REGULATIONS 51

MCA 76-3-501

- (2) Any action that is not specifically prohibited in the conditions of subdivision approval is ...allowed or is otherwise subject to additional restrictions that may be provided in the governing documents of the subdivision and applicable zoning regulations.**
- (3) If a local government has historically interpreted and enforced, or chosen not to enforce, a condition of subdivision approval to the benefit of a parcel owner, the...government may not undertake a different interpretation or enforcement action against a similarly situated parcel owner in the same subdivision.**

CRITERIA FOR LOCAL GOVERNMENT REVIEW

MCA 76-3-608

The basis for the governing body's decision to approve, conditionally approve, or deny a proposed subdivision is whether the subdivision application, preliminary plat, applicable environmental assessment, public hearing, planning board recommendations, or additional information demonstrates that development of the proposed subdivision meets the requirements of this chapter.

CRITERIA FOR LOCAL GOVERNMENT REVIEW 53

MCA 76-3-608

(3) A subdivision proposal must undergo review for the following primary criteria: (cont.)

(b) compliance with:

(i) the survey requirements provided for in part 4 of this chapter;

(ii) the local subdivision regulations provided for in part 5 of this chapter; and

(iii) the local subdivision review procedure provided for in this part [i.e. 76-3-608.3(a)];

(c) the provision of easements within and to the proposed subdivision for the location and installation of any planned utilities; and

(d) the provision of legal and physical access to each parcel within the proposed subdivision and the required notation of that access on the applicable plat and any instrument of transfer concerning the parcel.

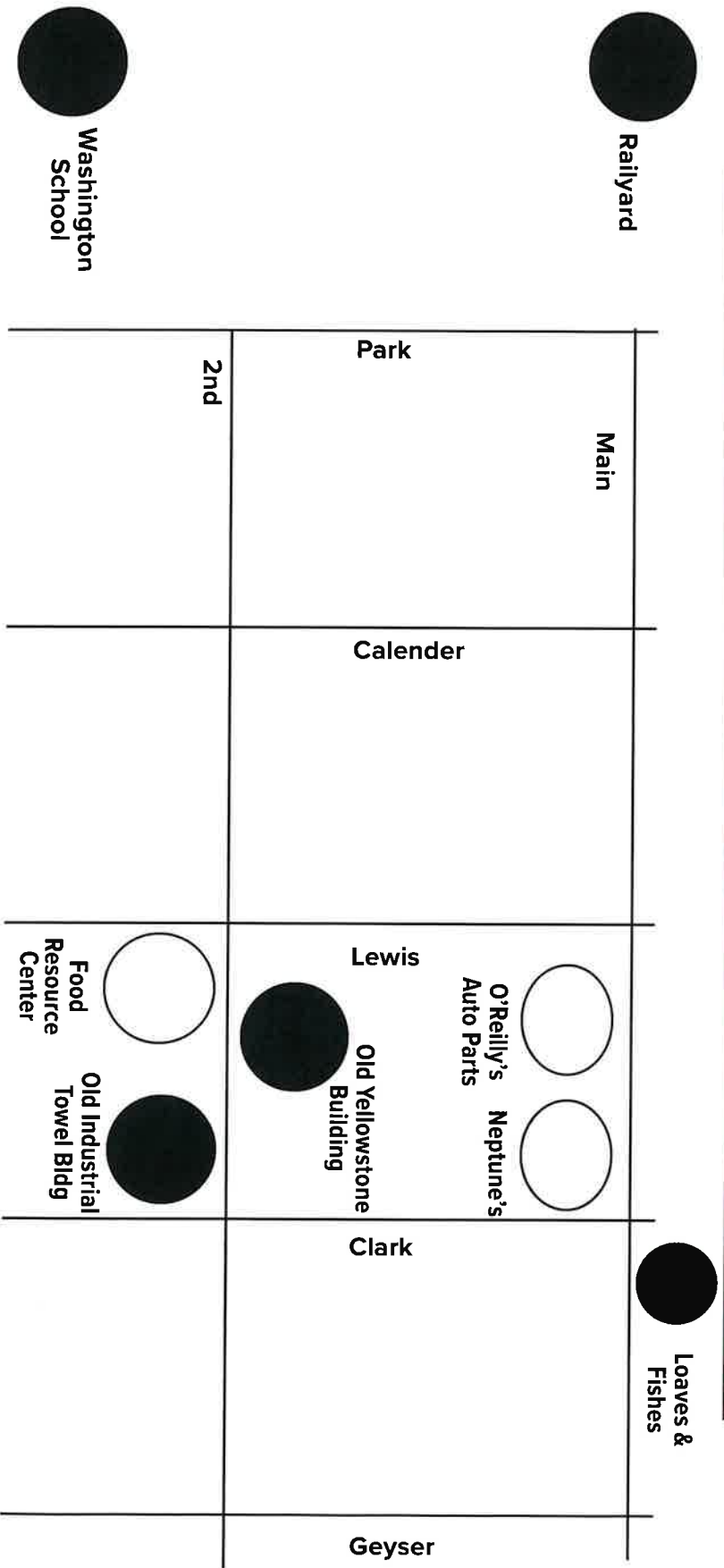
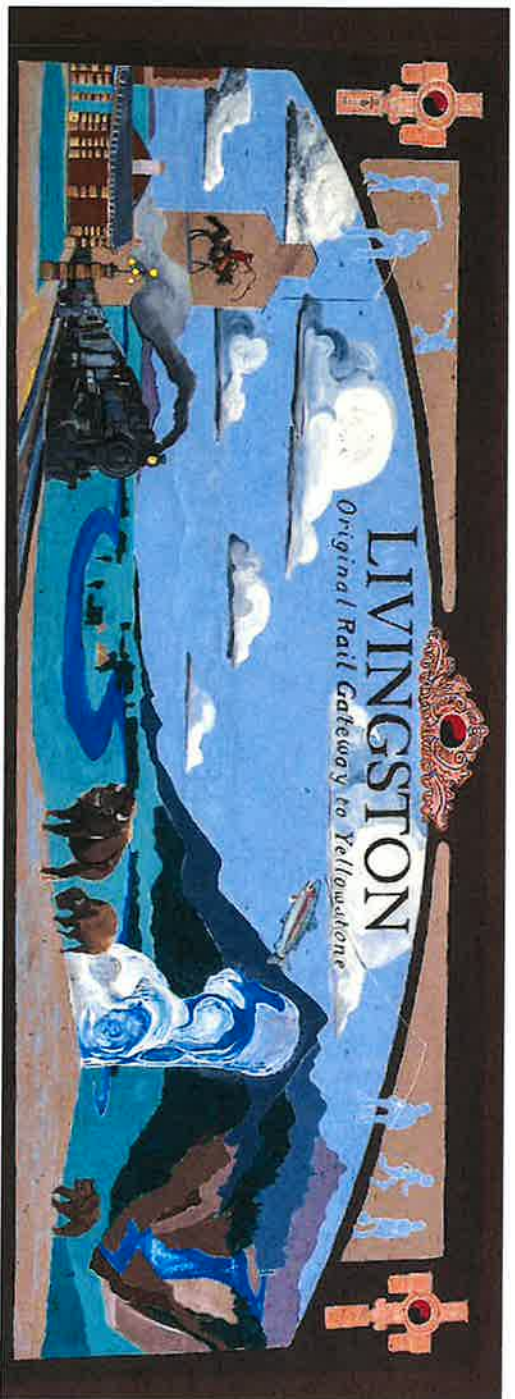
COMMUNITY EXPERIENCE CHANGES

- Integrate language from MT Dept of Commerce Model Subdivision Regulations
- Updated Fire Protection Language
- Integrate Best Practices for Wildland Urban Interface (WUI) considerations
- Other, as directed by City Commission



Vision of Prosperity for Downtown Livingston

Livingston Downtown Building Owners and Business Association (LDBOBA)



B Development Properties - Affordable Housing



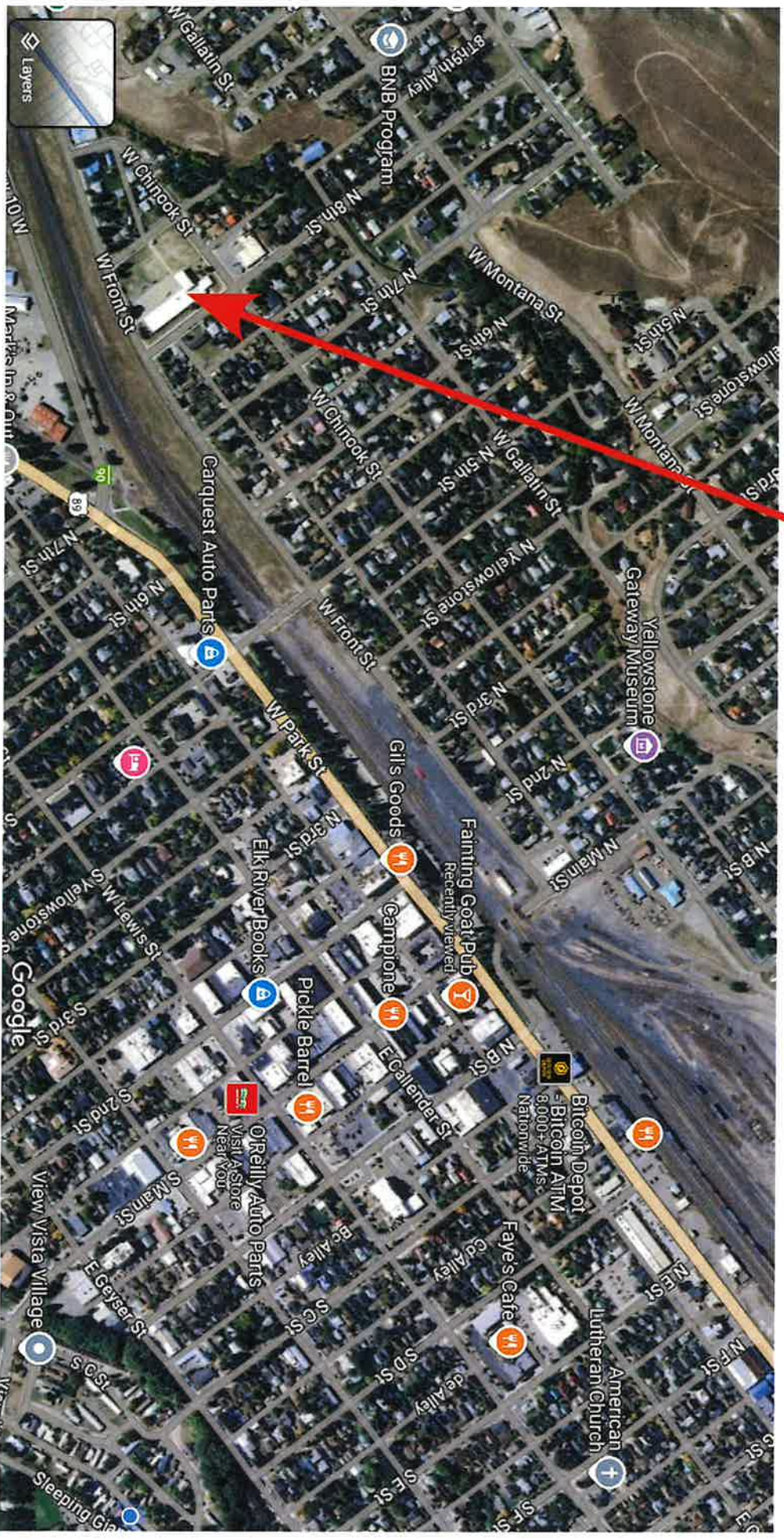
Putting shops back to work making Hydrogen Trains



Our railroad shops were made for train manufacturing. Talgo was there before, making high speed trains for Europe. Now, we can bring high paying jobs back to Livingston in the creation of Hydrogen fuel driving trains, the end to fossil fuels.



Washington School Loaves & Fishes, Homeless, Non-Profits



Non-Profits on Main and Second

- Big Brothers, Big Sisters - Miles Building - Community Foundation -
- Aspen - HRDC - E'Sprit - Landon's Landing - Mental Health/Homeless

Vision of Prosperity for Downtown Livingston

**Letters and Material on putting shops back to work
making Hydrogen Trains**

In Search of Elusive Accord

By Patricia Grabow

If Tip O'Neill, former Speaker of the House, was right that all politics is local, we can take a lesson from the life of recently passed former president and peacemaker Jimmy Carter, when he said, "*The bond of our common humanity is stronger than the divisiveness of our fears and prejudices.*" He might be best remembered for his legendary struggles to negotiate one of the few Middle East peace agreements, the Camp David Accords. They helped the world see, even if through a brief keyhole, how different life can be, economically, socially, and aesthetically, when instead of conflict, intelligence and peace prevail as people deserve.

In our tiny Livingston area microcosm, we have a small echo in our Growth and Smart Growth policies – fought against by selfish interests who set their personal advancement above the well-being of others, but hard won nevertheless with the focus and perseverance of 1600 people, day by day, decision by decision, for the good of all.

Like the Accords, these policies were not won easily. However, the miracle of things was that when Livingston created its Growth Policy, it really was a coming together, with diverse opinions, but negotiated out for the bigger picture. It was not "you belong to this political party and I belong to that political party and we cannot communicate, "but "how do we want to grow, since we know it will happen, and where and in what way?" And our city manager and commission today, we are fortunate, remain dedicated to making these visions as far as possible our reality.

And just as in the woods of a presidential compound in Maryland decades ago, a keystone remains our ability to collaborate intelligently and get along. Without that, as then, we have nothing.

Part of our consensus was that we wanted Livingston to stay a "real town," with a real, functioning downtown, with planned "smart growth" out from a viable, economically core commercial area outward – a key being economically viable. People like me were ecstatic when we decided on Smart Growth as a plank of this vision. We have over 350 businesses in our downtown, and if you saunter down Main or Second Street or everything in the area, you will see people coming to work day after day, putting their heart and soul into their businesses, decorating everywhere for Christmas, paying for sidewalks, you name it. And sometimes it doesn't return for them financially soon or at all, in spite of the fact their kids needed new shoes or health care or food. They still show up ready to make the area a commercial success. And we need to have their backs.

The hard part of a **Growth Policy** often comes in the question of how we pay for what, and how vision translates into healthy growth while keeping our standards high. We want to be more specific than the person who prayed for a car and got a clunker instead of the proverbially possible Cadillac. Sometimes we keep the gods smiling at least a little.

But we know our history, character, and opportunity in the world. Fifty-two miles from Yellowstone with a charming historic downtown is a good start in anyone's book, and as I am

fond of saying, the original rail gateway to the first national park in the world, with our historic Depot anchoring over twenty beautiful hotels built in rough parallel to the creation of Old Faithful Inn, Canyon Hotel, and the Robert Reamer remodel of Lake Hotel. Most of our beautiful hotel structures remain, as do once noisy railroad shops capable of service and potentially fabrication. We still sit on the edge of wilderness with a world draw, an amazing art element, and an amazing community, period.

I've pointed out the local economy is not, and must never be, confused with handouts from the wealthy, including billionaires. That is the model for non-profits, who rarely truly understand the private sector that sustains the majority of those who live here. It is therefore critical that these non-profits, however important, however well-intentioned in shelters and more, understand they cannot take over our critical downtown spaces and commercial infrastructure; there are always other places they can function not at the detriment of the engine that powers the train.

And there have been small smiles from the heavens on our aspirations.

Congress for example, despite our serious debt situation, has just passed a \$1.2 trillion EXPLORE ACT, with one of its policy initiatives being the "Gateway Community [e.g. to our national parks] and Recreation Enhancement Act." The Park County Community Journal is planning future articles on its implications for our local economy-, which may be significant.

Another relevant act I've noted is the Infrastructure and Investment and Jobs Act (IIJA, HB 3684). The possibility exists to even put our shops back to serious work. They were designed to make full repairs to trains and to make trains, and the technical prospect is no longer just DMUs (Diesel Multiple Units) but HMU's (Hydrogen Multiple Units). Little St. Regis, Montana, population 300, is looking to expand from just a tourist economy but through Congressional grant help taking green energy to generate hydrogen fuel, which could begin to replace fossil fuels to help our economy and make a difference for the planet. Win-win.

But we have two other welcome changes.

First, some of our downtown hotel buildings are exploring their past roles as guest accommodation to attract visitors and mitigate the effect when decades ago I-90 took our customers two miles out of town.

Second, investors are beginning to show up who understand our Growth Policy. Technically, if we are to engage Smart Growth with our historic preservation commitment, not destroying historic structures, the only place we can currently develop new structures in the downtown itself is three properties on the south edge of the south side of our downtown, one of which has already had a hearing before our Historic Preservation Commission. Those have sometimes faced what seems like needless resistance in past, so as a force for good I think we should wish them well.

Part of what we need today is affordable housing for our workers. The so-called Housing Coalition, which was kind of a coalition of elites without serious skin in the game, if we're honest, and probably generous, really did not work. And, anyone with any kind of background

in economics know that key public housing, namely the Sherwood (workforce housing) and the Miles Building (affordable housing), in a commercial area had an element of substandard urban planning in not realizing the importance of encouraging, or at least not discouraging, abundant public market housing supply instead.

Once a critical mass is achieved with beautiful buildings built and intelligent investments, then we can explore prospects of even something like a mini-Target or similar, such as at the old Enterprise site or somewhere similar, or small entities like grocery or similar retail, or other ideas to help mitigate the unattractive sprawl of places like and combine function and form.

If we use these opportunities well, we can spiff up our ride. We have great tools in our Growth Policy and its Smart Growth vision to revive our character and health for the 350 businesses, those who depend on them, and our visitors. It's early, but that "real town" character is out there if we look.

Memo from: Patricia Grabow, MEd

To: Torrey Lyons, Livingston City Commissioner

Re: DMU and Hydrogen Engines in Livingston Shops

Date: September 7, 2024

Thanks for your input in the September 4 city commission meeting. I said I would send you a synopsis so such as it is, here it is.

Since I can't be brief, I will do my best to catch you up on what is happening here regarding the manufacture in our shops of Deisel Multiple Units, (DMU's), (https://en.wikipedia.org/wiki/Diesel_multiple_unit used for rail passenger service) throughout the world and hydrogen engines. This is not a reality, just a very early beginning.

I have no idea if it will happen in the long run. To some degree it will be dependent on our will, the intelligence that we approach this with, our attention to detail, timing, and just plain luck.

In my wildest dreams we in Livingston would become part of the process (like St. Regis is with hydrogen fuel) of the four phases, with the first phase the planning phase, leading to the manufacture DMU's and hydrogen engines by the private sector in our shops for use as multiple unit rail passenger trains that run on hydrogen engines. In addition, since hydrogen engines can replace diesel engines in freight trains, they could be used in freight trains thus there would be no carbon footprint for much of the transportation in Montana. In my greatest hope. could export that to the world.

The piece of reality is that the money has already been allocated to potentially begin the process.

What happened was that last June, I attended the Annual Meeting of the Big Sky Rail Passenger Authority (BSRPA). Its director, Dave Strohmaier (1) (This number indicates the corresponding number of the person in the copied material) , State Representative Andrea Olsen, and I had been active in getting the legislature to pass a bill dealing with rail passenger service. (I got over 700 signatures in Livingston advocating for the bill.) When the three of us went to the follow-up Legislative Transportation Committee, they literally did nothing.

As a result, Dave started the BSRPA. During the presentation at the Annual Meeting I attended, St. Regis spoke of the work they are doing in creating hydrogen fuels. I have copied much of the material at the meeting since the players were well described in the handout they gave. (Please see attached material from the Annual Meeting) I have to add that the progress that organization has made has been stunning! There were over 200 enthusiastic, bright people at that remarkable meeting. Our city manager, Grant Gager, who has an extensive knowledge (what doesn't he have extensive knowledge in?) in railroad in on the BSPRA board of directors.

It turns out that we are a part of the Pacific Northwest Hub of the \$1.2 trillion Infrastructure Investment and Jobs Act (IIJA) also known as the Biden Administration Bi-partisan Infrastructure Law (BIL). The Pacific Northwest Hub, the Department of Energy Regional Clean

Hydrogen Hubs (H2Hubs) has \$1 billion. (Please see attached article on St. Regis, Montana and their making hydrogen fuel in their small town,)

The thing to remember, again and throughout this informal narrative, is that the money from the \$1.2 trillion Infrastructure Bill HAS BEEN ALLOCATED. If it is not spent, then it is not spent. That is a kind of important detail to remember.

In a “Hydrogen & Rail: Generating Sustainable Development Panel,” George Bailey (2), the associate manager of the St. Regis Solar Hydrogen (SRAH2) described their work in creating hydrogen fuel in his small town. He said, “that people living in distressed rural communities deserve access to well-paying jobs...” and after their talk it was mentioned that it would be great if we could have the DMUs’ and hydrogen engines made in Montana. That is the point at which I spoke up and told the group about the Livingston shops.

We really are the only facility in which DMU’s and possibly even hydrogen engines can be made. Talgo bought our shops in 2000 and sold them in 2006.

Just a note. Early on I developed a working relationship with the Colorado Rail Company that ceased to manufacture DMUs in 2008 and as a city commissioner I had toured the then Talgo facility at the shops. I was there when Talgo sold their part of the shops to Montana Rail Link (article attached). Ernie Meador, a local realtor with ERA, was the realtor in the sale Just a funny note. I have never seen Carter Bohem move as quickly as he did the day Talgo sold. Carter ran from where he learned that he could pay Talgo’s taxes to the county treasurer’s office, I believe, in 30 seconds flat---almost ran me over!

Burlington Northern has since taken over those shops from MRL.

So, after I told the BSRPA Annual Meeting about the shops in Livingston, I talked with Jack Martenson, (3) the Senior Director of Business Development at Stadler Rail US. Stadler, one of the two potential DMU manufacturers attending the BSRPA meeting. Asltrom Transportation is the other. (4) When I told Stadler that Talgo had at one point owned most of our shops, his ears perked up.

When Talgo had the shops, they had hoped to build high speed trains for use primarily in Europe, but it did not pan out. But what my talking about Talgo, told Stadler was that our shops did have the capacity to make DMU’s.

They also had a panel on “Hydrogen and Rail: Generating Sustainable Development Panel” with Vishai Agarwal (5) who is part of the \$1 billion Pacific Northwest Hydrogen Hub (PNWH2) and Jason Hewitt (6).

The other panel that was intriguing was the “Revitalizing Communities and Creating Opportunities” with Dan Bucks (7) as the moderator,

Since the I been talking with Grant Gager who is talking with BN. Grant tells me that he might be able to get an inventory of the shops which would be very important knowledge to have as we create a strategy going forth in this area.

In addition, I have talked with Ernie Medor who is in Hawaii helping his granddaughter. He has indicated that Talgo did not own everything but owned the administrative offices, the now gone athletic center, the shops and roundhouse building. He said that MRL: was always protective of the water treatment plant and discharge water. It is not an easy sell since it is not just about the money but other factors enter in. They can be negotiated. BN is protective the site and are working with their partners at DEQ.

I voted for the \$36 million plume clean-up lawsuit when I was on the Livingston City Commission and attended every meeting of the plume clean-up with Aimee Reynolds for 8 years so have some awareness of it the sequence of events leading to the clean-up of the plume.

I have since spoken with St. Regis. There will be a meeting specifically for hydrogen engines in Missoula on September 25, 2004. We really should have our act together before then. I have received an invitation to the meeting and know that others might be interested in going as well. I can just let them know how many might be interested.

The Transportation Committee of the Legislature just had a meeting on September 4 which I attended by Zoom. I can send you the power point but it is best that you see the presentation on hydrogen engines. It only took 15 minutes. I started watching at 8:30 AM, and the subject of hydrogen engines came up at 2:30. Interesting though. Toyota has been developing hydrogen engines for over 20 years and is using them aggressively now in vehicles powered by hydrogen. The problem is fuel, but that is happening quickly. We can try to get the talk by contacting the Montana Legislature. I have included the power point, but it does not have the narrative. Hydrogen engines are coming quickly and we have the shops to make them!

I was able under public comment to say to the Montana Legislature Transportation Committee, that we in Livingston are interested in what it might take to manufacture DMU's and hydrogen engines in our shops.

The Rubicon is crossed.

St. Regis tapped to take part in \$1 billion hydrogen project

SharePrint

| October 22, 2023 12:00 AM

St. Regis Solar Hydrogen has been selected to begin award negotiations as part of the U.S. Department of Energy Office of Clean Energy Demonstrations development of the Pacific Northwest Hydrogen Hub involving Washington, Oregon and Montana.

St. Regis Solar Hydrogen (SRSH2) is a project that would split water into hydrogen and oxygen using electrolysis. The U.S. Department of Energy last week announced that it would spend up to \$1 billion developing the technology in Bipartisan Infrastructure Law funding of the three states. Office of Clean Energy funding will support SRSH2's participation in the Hydrogen Hub through the advancement of planning, detailed design, environmental permitting, and procurement of long-lead equipment.

“My brain is on fire. I’m not sleeping at night,” laughs Arnold Thompson, of Seattle who has partnered on the St. Regis project with George Bailey, a longtime solar advocate in Mineral County.

Thompson, Managing Partner of AB Aero Partners in Seattle, is in the drone business and explains how their paths crossed and a partnership was developed.

“I had submitted a proposal to the Department of Energy for hydrogen-based drone constellation and realized I didn’t need that much (hydrogen). So that’s where I was introduced to George and we said, ‘Let’s go at this together’ where we’re like-minded in community development.”

Last month, Thompson, Bailey and Jeremy Crowley, Director of the Autonomous Aerial Systems Office at the University of Montana, held a demonstration on using drones for communication in emergency conditions from St. Regis to Lookout Pass along Interstate 90. Hydrogen-fueled drones

have a much longer flight life than battery-operated drones, which will be imperative for this project.

Thompson explained that a grant for that project was due at the same time the Hydrogen Hub grant would be announced, which was mid-October.

“The problem with hydrogen to date is that there hasn’t been a reliable source that’s been able to produce it cheap enough,” explained Thompson.

Hydrogen-fueled transportation was one aspect of the 2022 Inflation Reduction Act.

The Department of Energy's Regional Clean Hydrogen Hubs (H2Hubs) will kickstart a national network of clean hydrogen producers, consumers and connective infrastructure while supporting the production, storage, delivery and end-use of clean hydrogen. H2Hubs will accelerate the commercial-scale deployment of clean hydrogen—helping generate clean, dispatchable power, create a new form of energy storage, and decarbonize heavy industry and transportation.

This marks the largest U.S. investment in clean energy to date. There are four phases over nine years, with the first phase as the planning phase which will be obtaining permits at ground level over the next 12 months which will start this year.

RSH2 represents the rural Justice40 community and will work with disadvantaged rural/tribal communities throughout Montana, the Pacific Northwest and the U.S.

“The bottom line is that this has set the foundation for creating jobs in St. Regis,” said Thompson.

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Western Railroad Discussion > MRL last minute purchase of Livingston Rebuild Center

Date: 07/15/06 00:35

MRL last minute purchase of Livingston Rebuild Center

Author: Yardmaster

It's official!

From the Livingston Enterprise:

""MRL agrees to buy Talgo-LRC

By Tahlia Ganser and Stephen Matlow, Enterprise Staff Writers

Talgo-LRC agreed Friday, July 7, to sell all its Livingston assets to Montana Rail Link.

Rail Link officials, based in Missoula, declined to say how much the company paid for Talgo-LRC.

Talgo-LRC was scheduled to close its doors on July 31 if a purchaser could not be found, a June 21 press release stated.

The company purchased all of Talgo-LRC's assets on Friday, July 7, one day after the National Railway Equipment Co. pleaded with the Park County Commission to receive a tax abatement of nearly \$432,000 to ease their possible purchase of the sprawling shops complex.

Their hopes were crushed when local speculator Cater Boehm paid \$656,079.48 in back taxes on the main shop complex.

With the sale to MRL, Talgo-LRC must repay the taxes to the Park County Treasurer's office, which will be passed on to Boehm, according to County Treasurer Kevin Larkin.

The century-old railroad repair and maintenance complex was purchased from Burlington Northern Railroad by the Washington Corp., in 1987. Washington Corp. also owns Montana Rail Link.

Since that time, MRL has maintained a running repair facility on the property's south side near the mainline tracks.

LRC was sold by Washington Corporation's primary investor, Dennis Washington, to his brother-in-law, Randy Peterson, in 1993.

Peterson sold the complex to Talgo-LRC in 2000.

MRL will use part of the facility for railroad operations, but is considering a variety of options for the remaining assets, said MRL spokeswoman Lynda Frost.

Talgo-LRC, which has cut back to about 20 workers, is scheduled to cease operations by the end of July. It has an option to postpone the takeover for 30 days, but assuming they don't, MRL will take ownership on Aug. 1.

Without the sale of its Livingston assets, Talgo-LRC would have been forced to go bankrupt, company president Antonio Perez wrote in a recent letter to the Park County commissioners.

The Talgo-LRC front desk said Wednesday morning, July 12, Perez was the only person authorized to comment on the sale. Repeated phone calls to Perez were not returned."

Yarddog

[Reply To This Message] [Quote]

Date: 07/15/06 01:53

Re: MRL last minute purchase of Livingston Rebuild Cent

Author: MrMRL

Wow, I wonder what plans Montana Rail Link has for the site now.

Thanks for the information.

Robby F. (Mr. MRL)

[Reply To This Message] [Quote]

Date: 07/15/06 06:57

Re: MRL last minute purchase of Livingston Rebuild Cent

Author: FECSD40-2

They should do what NS has done with Juniata Shops and rebuild for others as well as themselves.

[Reply To This Message] [Quote]

Date: 07/15/06 08:09

Re: MRL last minute purchase of Livingston Rebuild Cent

Author: rbx551985

FECSD40-2 Wrote:

> They should do what NS has done with Juniata Shops
> and rebuild for others as well as themselves.

Other rebild sites seem to be on the auction block, or are being sold off these days as well. Is this a trend? Witness this Eastern RR's discussion thread:
<http://www.trainorders.com/discussion/read.php?2,1199617>

[Reply To This Message] [Quote]



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THE GRABOW AND HER SISTERS

Livingston's Historic Hotels

by JOSEPH SHELTON

LOOKING OUT THE THIRD-FLOOR WINDOW OF THE GRABOW HOTEL, from the comfortable confines of the Lake Suite, it's hard not to imagine how it must have been over 100 years ago.

At the turn of the 20th century, the Northern Pacific Railroad often billed Yellowstone National Park as Wonderland. The frontier may have been more or less settled, but here was

a place, set aside in an act of national wisdom, where anyone could witness the West as it was. Only, perhaps, even *better*. Because where else could you see geysers and grizzlies in the same (admittedly vast) space?

Quickly, Yellowstone National Park joined the Valley of the Kings, the Colosseum, and the Hagia Sophia as places that anyone should see before they die—providing they had the means



PHOTO COURTESY OF MARILYN GARDNER

At its peak, when as many as 30,000 people a year
PASSED THROUGH LIVINGSTON ON THEIR WAY TO YELLOWSTONE,
MORE THAN TWENTY HOTELS SERVED THE AREA.

to get there, and the hardiness to make it there. And in, say, 1908, getting to Yellowstone, for those who would travel by rail, meant a stop in Livingston, the original first National Park in the world. From there they would board the Yellowstone Park Branch Line and travel to Cinnabar or, after 1903, to an established but for 20 years largely bypassed outpost called Gardiner, and then onto 16-person stagecoaches that would take travelers to the lodges or camps therein.

The National Pacific Railroad sleeper cars that arrived at Livingston may have been comfortable enough as train rides go*, but the subsequent stagecoach ride bordered on roughing it.

Opportunities to perform one's toilet were going to be rare, visitors were made to understand. Those who were partial to taking the occasional bath would do well to seek lodgings in Livingston, as there would be no more baths for some time.

At its peak, when as many as 30,000 people a year passed through Livingston on their way to Yellowstone, more than twenty hotels served the area. Crowned heads, presidents, statesmen, writers, and painters all stayed in Livingston hotels. Some of the hotels' names live on today, like the Grabow or the Murray. Others, like the Grand and its adjoining opera house, or the Albermarle, with its three-story aviary, are gone now.

*The relative comfort of the train ride could be variable; Rudyard Kipling, on an 1892 trip to Yellowstone, saw a conductor put a man's head through "a double plate-glass window" before leaving him, "spurting blood at every hair—a scarlet-headed and ghastly sight," at the next stop.



PHOTO COURTESY OF PATRICIA GRABOW



Gone, too, are the dusty streets rutted with horse and carriage tracks, and the Northern Pacific cars disgorging passengers en masse. The men, for the most part, no longer carry rifles. The women, for theirs, have abandoned parasols and petticoats.

Still, for all the changes wrought by time, the character of the town in that period is largely preserved today, as is the Grabow.

Many, about to embark on the wilderness, therefore chose to seek lodging in Livingston. H. F. Sanders wrote in his three-volume *History of Montana* (1913) that visitors "will usually find themselves directed to the Grabow Hotel, one of the finest hostelries in the state," and adding additional praise for its "modern hotel building... fitted with the finest equipment, with hot and cold running water in every room, European cafe in connection, and every known convenience for the comfort of [the hotel's] guests." A later volume, *Montana: the Land and the People* by Robert George Raymer, concurred when it declared that the Grabow Hotel, "while possessing all the modern features and conveniences of the up-to-date caravanseries, also has that indefinable something that makes the weary traveler feel at home." The high-ceilinged lobby had rows of rocking chairs under the watchful eye of a taxidermied elk head, and the long wooden back bar was well-appointed with high-proof refreshment. In short, nothing was lacking.



PHOTO COURTESY OF PATRICIA GRABOW

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The Grabow was built by German-born entrepreneur William Grabow. William did whatever he could to make money. He owned a hotel and restaurant called the Tivoli, dabbled in milling flour and manufacturing bricks, and secured the liquor license for Park County and Yellowstone National Park, as well as the right to sell Pabst Blue Ribbon Beer from his store in the Grand Hotel. Comfortably successful in these ventures, Grabow applied for a loan from PBR to build a new hotel, writing that the "character of the population, including such a vast number of single men working on the railroad and a large number of tourists through the summer... makes a lodging house very valuable property... especially valuable if it should be equipped with modern conveniences including baths." The loan was granted, and the hotel erected.

William would die tragically during the 1918 Spanish flu epidemic, leaving the management of the hotel to his wife, Elizabeth, and their sons. Elizabeth, who was warm-hearted and generous even during challenging times, valiantly tried to save the business, when the Depression hit hard. Family stories relate that Elizabeth fed many hungry families in the dining room of the Grabow, free of charge. The hotel was challenged and the Grabows lost it. That loss, writes Elizabeth's granddaughter Patricia, was like "breaking a collective family heart."

By the 1980s, the once grand Grabow Hotel was nearly a ruin. Today, it's anything but a ruin; it thrives again.



PHOTO COURTESY OF PATRICIA GARDNER

Patricia is its savior, and she brims with understandable pride at having the hotel back in her family. She also exudes love for her incredible grandmother, who she remembers as a vibrant

ninety-five-year-old with white hair so long she could sit on it. Patricia bought the building back after retiring from her job as a school principal and teacher in Alaska. She had stopped by Livingston just to see the old family stomping grounds again, but found herself profoundly moved to try to get the hotel fixed up and open. She set herself the challenge of meeting or exceeding the standards set by William when he first opened the hotel which would be the envy of Livingston. And after years of her hard work and that of her son, Chris, painstakingly restoring and fixing the hotel's rooms, she reopened it after restructuring the building as a condomini-



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Patricia sees a future

IN WHICH THE ORIGINAL GATEWAY TO
YELLOWSTONE, THE FIRST NATIONAL PARK IN
THE WORLD, BECOMES AN ESSENTIAL PART OF
THE PARK EXPERIENCE ONCE AGAIN.



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um and ultimately opening a number of spaces as full guest rooms. Today, you can book a stay at the Grabow Hotel online, and if you do you'll pass some very pleasant nights there in beautifully decorated and maintained suites.*

If you are lucky enough to stay on a chilly night you are blessed to periodically hear the original single pipe heating system with its old-fashioned radiators clink and clank as they turn on, hissing like somnolent snakes. In 1911, when the Grabow Hotel was first opened for business, that noise must have been soothing because it meant that you were warm and in bed, the wilderness and the cold temporarily at bay. But it must have also reminded them that there would be no such comforts on the stagecoach to the Park. Today the radiators' sibilant air vents are a brief passage back to the reassuring warmings of another day.

Patricia sees her success as a potential model for the rest of downtown Livingston. With so many beautiful and historic hotels, and with nearly as much demand for tourists in Livingston as during its fin-de-siècle heyday, Grabow envisions many of those remaining hotels converted to their original use, or made into online rentals. This will help keep their character, as well as

*The author and his family stayed one night at the Grabow Hotel and liked it so much they extended it to two. The only problem with that scheme is the author and his family liked it so well that they wish they had made it four nights, or rounded up to a week.

share their singular beauty with today's travelers and tomorrow's. She sees a future in which the Original Gateway to Yellowstone, the first national park in the world, becomes an essential part of the Park experience once again. Listening to her describe this vision, you can understand both its beauty and economic appeal.

After all, with Livingston's deeply rich heritage of antique Western hotels like the Grabow, who in their right mind would stay at the typical chain hotel you can stay at anywhere?

Century-plus-old historic stays like the Grabow Hotel and its historic sisters are a different and richer experience. Look out



PHOTO COURTESY OF PATRICIA GRABOW

the window and imagine what it would have been like, more than a century ago, to spend one last night in comfort, half fearful and half excited, before beginning an arduous, sublime journey into Wonderland. [SW](#)

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CITY / STATE

Condos saving old hotels in Livingston

By LINDA HALSTEAD-ACHARYA
The Billings Gazette

LIVINGSTON (AP) — In 1977, during a sale on Park County's courthouse steps, the Grabows finally lost title to their landmark hotel.

Now 20 years later, Patricia Grabow has saved the ruin of the century Grabow Hotel and turned it into condos.

"Condominiuming is a reasonable way to go on historic buildings," she said. "It's a lot to work with. I didn't do this to make a killing and leave. I did this to save the building."

The recent transformation of the Grabow Building represents a growing trend that spilled over from neighboring Bozeman several years back. Today, several Livingston landmarks have made the switch and developers have jumped on the condo bandwagon with new units under construction.

For Grabow, restoring the building built by her grandfather between 1908 and 1911 was a massive project. After buying back the hotel in 1998, Grabow decided to secure the building's future by "going condo."

By transferring the ownership, she hopes the landmark will never again fall into disrepair.

"You can take the space and use it for a multiplicity of purposes," she said, referring to the mix of commercial and residential units. "It in no way changes the building. It changes the use of the building."

In Livingston, Grabow followed in the footsteps of Kathleen and Dan Kaul, who converted 54 rooms in the historic Murray Hotel into 30 privately-owned condo units. Unlike Grabow, however, the Murray's condos still rent out as hotel rooms, and at prices that rival a typical chain.

"They're owned by different people," Kathleen Kaul explained. "But they're all rented out on a nightly basis. We rent their owners' properties out for them when they're not there."

When the Kauls decided to go condo, they thought they'd hit on a novel plan. But it wasn't.

"Most old historic hotels are condos," Kaul said. "People just don't realize it."

Ever since the couple purchased the Murray Hotel in 1991, they had hoped to recreate it original luster. The upstairs "looked like Beirut," Kaul said, and the rest of the rooms were in such disrepair

that the business was steadily losing money. The Kauls couldn't afford to fix it up and they couldn't afford to tear it down.

"We just thought, if we could sell part of it," Kaul remembers. "It just kind of happened that way."

Profits from the sale of the first units — the cost of the condos range from \$69,000 to \$260,000 for the spacious Sun Peckinbah Suite — were pumped back into the project, allowing them to install new plumbing, new windows and a new boiler. The revenue also covered the cost of bringing some of the building's historic features, like its 1904 Otis elevator and original white birch floors, into the 21st century. Best of all, condo fees will assure paced renovations into perpetuity.

"It cost way more than what we paid for the building," Kaul admitted.

Except for the few commercial condos at the Murray — Mabie's office, the downstairs Second Street Bistro and Murray Bar, to name a few — the privately-owned units are not permanently occupied. Most owners drop by for a few weeks in the winter and a few weeks in the summer. They don't pay a daily charge, but they must make a reservation, Kathleen said.

As rooms rent out throughout the year, owners share in the profits. "The money goes into a rental pool," she explained. "If you own 7 percent of the revenue."

At the Murray, condo fees vary. Commercial space doesn't require the same daily upkeep that a hotel room needs, Mabie explained, and membership in the rental pool is up to each owner.

"On an annual basis, you're in or you're out," he said. Mabie sees the advantage of his office condo as the advantages of ownership.

"I could get cheaper digs at the edge of town," he said. "But it's a particularly nice office and over a long period of time I could sell it for more."

In fact, the few units that have already hit the resale market have tracked well with the area's real estate values.

"They appreciated well," he said.

The potential disadvantage in condo ownership rests with the association's make up. If owners



Patricia Grabow holds a portrait of her grandmother, who lost possession of the historic Grabow Building, rear, in 1937, as she poses for photo earlier this month in Livingston. Patricia purchased the building, turning it into condominiums.



Kathleen Kaul stands in the Murray Hotel in Livingston. Kathleen and her husband, Dan, have reconfigured the historic hotel into 30 unique condominiums.

are at odds, the "neighborhood" suffers.

Going condo proved such a boon for the Murray Hotel, though, that the Kauls launched a second, entirely different condo venture. On the northeast side of town, they are currently converting 15 year-old multiplexes into two and three-bedroom residential condos. Priced at about \$135,000, the completely renovated units offer housing at a reasonable price, Kaul said.

Across town, behind the Albertson's store, two new buildings with 20 condo units are nearly ready. Lynn Haerr, broker at Liv-

ingston Realty, said the plan for the Eagle Landing project eventually call for a total of 180 units in 10 buildings on 10 acres. The six different floor plans run between 1,100 and 1,300 square feet and sell for \$168,000 to \$185,000.

Haerr believes the developers, longtime Livingston businessmen, wanted to offer an affordable, growth friendly option. Instead of houses sprawled across acres of open space, Eagle Landing offers the advantage of maintenance-free living within a few minutes' walk of the grocery store.

Jim Woodhull, Livingston's city planner, is not surprised by the

recent condo trend. The volume, however, does raise his eyebrow.

"It's contrary to the Montana nature, living across the hall from someone else, with no yard to store the boat or snowmobile," he said. "But for people who visit here, it may be just the ticket."

Whether Montanans buy into the concept, Woodhull says the higher density is considered a good thing, particularly for a town like Livingston, that's not on the heels of the Bozeman boom.

Bob Moore, a member of the Livingston's urban renewal agency, has been inspired by what he's seen. A native of Portland, Ore., he remembers sprawl bulldozing its way through the small communities surrounding that city. It doesn't want to see the same happen in his newly adopted hometown.

"The way to save the (town's) character seems to be to condominiumize," he said.

Greg Krueger, who has been instrumental in Billings' downtown development, now works with Livingston in a similar capacity. Until recently, he pointed to building a nice home on a small ranchette was the only option for upscale living in the community of 8,000. Now, Livingston has unique condos that offer similar quality in a totally different lifestyle.

According to the Park County Treasurer's Office, the Murray has 25 Owners/30 condo units

By Linda Halstead -Acharya

CONDOS SAVING OLD HOTELS IN DOWNTOWN LIVINGSTON LIVINGSTON AP-

In 1937, during a sale on Park County’s courthouse steps, the Grabow family lost title to its namesake hotel.

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Vision of Prosperity for Downtown Livingston

**Rationale for persuading non-profits to locate out of the
Livingston Business District**

Rationale for persuading non-profits to locate out of the Livingston Business District

An Op Ed in the Park County Community Journal on the rationale for persuading non-profits to locate out of the Livingston Business District---preferably Washington School, if not that then a larger facility to provide a case management system for the homeless, transitional housing. And food through Loaves and Fishes, that will have to relocate because a larger affordable housing structure would be built downtown. There are three reasons:

- 1) It could save lives. Example of current homeless people not doing well under the current system
- 2) It could provide case management for the homeless in Livingston
- 3) It could provide transitional housing with the objective of finding a home for the population.
- 4) It could free up first floor space downtown for attractive retail that would help adjacent retail.
- 5) Business is down this year. This transition could help. The goal is for Livingston's economy to flourish. Let the non-profits flourish in its space, the homeless flourish and the commercial space with 355 businesses flourish in its space.

Several steps are needed for this to happen including condominizing Washington School so that the entities can own their parts of the space. It would take rewriting the current Housing Coalition Plan to accommodate the additional affordable rentals downtown and Washington School as a homeless case management shelter, non-profit services, and transitional housing. This can work well!

File Attachments for Item:

B. APPROVAL OF CLAIMS PAID 1/16/25 - 1/29/25

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
ADVANCED ENGINEERING &							
3605	ADVANCED ENGINEERING &	100143	I&C SYSTEM	01/07/2025	3,893.00	3,893.00	01/17/2025
Total ADVANCED ENGINEERING &:					3,893.00	3,893.00	
ALL SERVICE TIRE & ALIGNMENT							
22	ALL SERVICE TIRE & ALIGNME	69480	Mount AND BALANCE	01/03/2025	880.00	880.00	01/17/2025
Total ALL SERVICE TIRE & ALIGNMENT:					880.00	880.00	
ALSCO							
10005	ALSCO	LBIL1967827	330 BENNETT	08/15/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1967827	330 BENNETT	08/15/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1967827	330 BENNETT	08/15/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1967827	330 BENNETT	08/15/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1971119	330 BENNETT	08/26/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1971119	330 BENNETT	08/26/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1971119	330 BENNETT	08/26/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1971119	330 BENNETT	08/26/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1977634	330 BENNETT	09/20/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1977634	330 BENNETT	09/20/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1977634	330 BENNETT	09/20/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1977634	330 BENNETT	09/20/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1980810	330 BENNETT	10/04/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1980810	330 BENNETT	10/04/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1980810	330 BENNETT	10/04/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1980810	330 BENNETT	10/04/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1990158	330 BENNETT	11/15/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1990158	330 BENNETT	11/15/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1990158	330 BENNETT	11/15/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1990158	330 BENNETT	11/15/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1993203	330 BENNETT	11/29/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1993203	330 BENNETT	11/29/2024	15.91	15.91	01/17/2025
10005	ALSCO	LBIL1993203	330 BENNETT	11/29/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1993203	330 BENNETT	11/29/2024	15.90	15.90	01/17/2025
10005	ALSCO	LBIL1999327	330 BENNETT	12/27/2024	17.50	17.50	01/17/2025
10005	ALSCO	LBIL1999327	330 BENNETT	12/27/2024	17.51	17.51	01/17/2025
10005	ALSCO	LBIL1999327	330 BENNETT	12/27/2024	17.50	17.50	01/17/2025
10005	ALSCO	LBIL1999327	330 BENNETT	12/27/2024	17.50	17.50	01/17/2025
10005	ALSCO	LBIL2002401	330 bennett	01/10/2025	18.38	18.38	01/17/2025
10005	ALSCO	LBIL2002401	330 bennett	01/10/2025	18.38	18.38	01/17/2025
10005	ALSCO	LBIL2002401	330 bennett	01/10/2025	18.38	18.38	01/17/2025
10005	ALSCO	LBIL2002401	330 bennett	01/10/2025	18.38	18.38	01/17/2025
Total ALSCO:					525.25	525.25	
BALCO UNIFORM COMPANY, INC.							
3371	BALCO UNIFORM COMPANY, IN	81240-1	Uniform-ALLEN	10/18/2024	212.86	212.86	01/17/2025
Total BALCO UNIFORM COMPANY, INC.:					212.86	212.86	
BIGHORN FIRE ACADEMY, INC.							
3399	BIGHORN FIRE ACADEMY, INC.	2025.1.8	BLS CPR	01/08/2025	80.00	80.00	01/17/2025
Total BIGHORN FIRE ACADEMY, INC.:					80.00	80.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
BILLINGS CLINIC TRAINING CENTER							
3069	BILLINGS CLINIC TRAINING CE	1257	PT SUPPLIES	12/16/2024	306.00	306.00	01/17/2025
Total BILLINGS CLINIC TRAINING CENTER:					306.00	306.00	
CHABALOWSKI, JOSHUA							
10004	CHABALOWSKI, JOSHUA	335731	FUEL PUMP	01/17/2025	53.90	53.90	01/23/2025
Total CHABALOWSKI, JOSHUA:					53.90	53.90	
CNA SURETY							
2710	CNA SURETY	2025.3.1	Notary Public	01/01/2025	40.00	40.00	01/17/2025
Total CNA SURETY:					40.00	40.00	
COMDATA							
2671	COMDATA	IB986/2041275	BZR70	12/01/2024	105.26	105.26	01/28/2025
2671	COMDATA	XW716/204231	CG72P	01/01/2025	80.44	80.44	01/17/2025
2671	COMDATA	XW716/204231	CG72R	01/01/2025	88.74	88.74	01/17/2025
2671	COMDATA	XW716/204231	CG73C	01/01/2025	309.49	309.49	01/17/2025
2671	COMDATA	XW716/204231	CG73H	01/01/2025	109.61	109.61	01/17/2025
2671	COMDATA	XW716/204231	CG73L	01/01/2025	229.76	229.76	01/17/2025
2671	COMDATA	XW716/204231	CG73L	01/01/2025	21.32	21.32	01/17/2025
2671	COMDATA	XW716/204231	CG73S	01/01/2025	488.30	488.30	01/17/2025
2671	COMDATA	XW716/204231	CG73S	01/01/2025	178.00	178.00	01/17/2025
2671	COMDATA	XW716/204231	CG74G	01/01/2025	457.58	457.58	01/17/2025
2671	COMDATA	XW716/204231	CG72P	01/01/2025	126.21	126.21	01/17/2025
2671	COMDATA	XW717/204231	CG72S	01/01/2025	1,614.22	1,614.22	01/17/2025
Total COMDATA:					3,808.93	3,808.93	
CULLIGAN OF BOZEMAN							
10000	CULLIGAN OF BOZEMAN	575X02601704	SERVICE CALL	12/31/2024	225.00	225.00	01/17/2025
Total CULLIGAN OF BOZEMAN:					225.00	225.00	
DANA SAFETY SUPPLY, INC.							
3234	DANA SAFETY SUPPLY, INC.	945057	Install equipment	01/07/2025	75.00	75.00	01/17/2025
Total DANA SAFETY SUPPLY, INC.:					75.00	75.00	
DEMCO INC							
199	DEMCO INC	7575262	Book Processing Supplies	12/03/2024	188.08	188.08	01/28/2025
Total DEMCO INC:					188.08	188.08	
ENCODE CORPORATION							
1548	ENCODE CORPORATION	46035	QUARTLERY MAINT.	02/10/2024	473.86	473.86	01/28/2025
1548	ENCODE CORPORATION	46037	VALVE REPLACEMENT	12/10/2024	1,907.76	1,907.76	01/28/2025
Total ENCODE CORPORATION:					2,381.62	2,381.62	
ENERGY LABORATORIES, INC.							
424	ENERGY LABORATORIES, INC.	682641	Effluent	01/06/2025	1,760.00	1,760.00	01/17/2025
Total ENERGY LABORATORIES, INC.:					1,760.00	1,760.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
FOUR CORNERS RECYCLING, LLC							
2919	FOUR CORNERS RECYCLING,	5420	Pull fees	12/28/2024	6,422.55	6,422.55	01/17/2025
2919	FOUR CORNERS RECYCLING,	CM5450	Credit	12/28/2024	2,783.15-	2,783.15-	01/17/2025
Total FOUR CORNERS RECYCLING, LLC:					3,639.40	3,639.40	
GENERAL DISTRIBUTING COMPANY							
1845	GENERAL DISTRIBUTING COM	0001458021	SMALL NITROUS	12/31/2024	171.86	171.86	01/17/2025
Total GENERAL DISTRIBUTING COMPANY:					171.86	171.86	
GUNDERSON, JASON							
3729	GUNDERSON, JASON	2025.1.7	REIMB MAIL	01/07/2025	15.00	15.00	01/17/2025
Total GUNDERSON, JASON:					15.00	15.00	
HANSER'S AUTOMOTIVE & WRECKER							
1687	HANSER'S AUTOMOTIVE & WR	LIV6202	Towing CHARGE	01/13/2025	100.00	100.00	01/17/2025
Total HANSER'S AUTOMOTIVE & WRECKER:					100.00	100.00	
KEN'S EQUIPMENT REPAIR, INC							
1390	KEN'S EQUIPMENT REPAIR, IN	63932	570 REPAIR	12/17/2024	1,000.00	1,000.00	01/17/2025
Total KEN'S EQUIPMENT REPAIR, INC:					1,000.00	1,000.00	
LEHRKIND'S COCA-COLA							
2830	LEHRKIND'S COCA-COLA	2213015	Water	01/07/2025	12.00-	12.00-	01/17/2025
2830	LEHRKIND'S COCA-COLA	2213022	Water	01/08/2025	54.00	54.00	01/17/2025
Total LEHRKIND'S COCA-COLA:					42.00	42.00	
LIVINGSTON CHAMBER OF COMMERCE							
618	LIVINGSTON CHAMBER OF CO	20152	SETTLEMENT AGREEMENT	01/21/2025	10,000.00	10,000.00	01/28/2025
Total LIVINGSTON CHAMBER OF COMMERCE:					10,000.00	10,000.00	
LIVINGSTON ENTERPRISE							
146	LIVINGSTON ENTERPRISE	PCN-1300 202	2025 SUBSCRIPTION	12/25/2024	259.20	259.20	01/28/2025
Total LIVINGSTON ENTERPRISE:					259.20	259.20	
LIVINGSTON UTILITY BILLING							
147	LIVINGSTON UTILITY BILLING	2024.12.31	1012100 228 W CALLENDER	12/05/2024	173.14	173.14	01/28/2025
Total LIVINGSTON UTILITY BILLING:					173.14	173.14	
MASTERCARD							
3184	MASTERCARD	2024_11 CHAB	Meals - Thanksgiving	12/01/2024	214.92	214.92	12/12/2024
3184	MASTERCARD	2024_11 CHAB	Weight Sled	12/01/2024	199.99	199.99	12/12/2024
3184	MASTERCARD	2024_11 CHAB	Awards Banquet	12/01/2024	71.74	71.74	12/12/2024
3184	MASTERCARD	2024_11 CHAB	Awards Banquet	12/01/2024	126.00	126.00	12/12/2024
3184	MASTERCARD	2024_11 CHAB	Awards Banquet	12/01/2024	66.00	66.00	12/12/2024
3184	MASTERCARD	2024_11 DELA	Return of Timberland Work Boots	12/01/2024	160.00-	160.00-	12/12/2024
3184	MASTERCARD	2024_11 DELA	Animal Supplies	12/01/2024	34.97	34.97	12/12/2024
3184	MASTERCARD	2024_11 DELA	Winter Work Clothing	12/01/2024	24.99	24.99	12/12/2024
3184	MASTERCARD	2024_11 DELA	Mailing Return of Timberland Boot	12/01/2024	29.99	29.99	12/12/2024

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
3184	MASTERCARD	2024_11 DELA	Winter Work Clothing	12/01/2024	234.95	234.95	12/12/2024
3184	MASTERCARD	2024_11 DELA	Timberlan Work Boots	12/01/2024	167.00	167.00	12/12/2024
3184	MASTERCARD	2024_11 DELA	Personality Test	12/01/2024	19.00	19.00	12/12/2024
3184	MASTERCARD	2024_11 FETT	SPACE HEATER	12/01/2024	35.95	35.95	12/12/2024
3184	MASTERCARD	2024_11 FETT	OFFICE SUPPLIES	12/01/2024	33.89	33.89	12/12/2024
3184	MASTERCARD	2024_11 FETT	PHONE CASE - ACO	12/01/2024	14.99	14.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	ERGO DESKTOP	12/01/2024	792.00	792.00	12/12/2024
3184	MASTERCARD	2024_11 FETT	MANUSCRIPT COVERS	12/01/2024	54.99	54.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	OFFICE SUPPLIES	12/01/2024	27.77	27.77	12/12/2024
3184	MASTERCARD	2024_11 FETT	AICPA CONFERENCE - TRAVEL	12/01/2024	75.00	75.00	12/12/2024
3184	MASTERCARD	2024_11 FETT	AICPA CONFERENCE - MEALS	12/01/2024	11.83	11.83	12/12/2024
3184	MASTERCARD	2024_11 FETT	AICPA CONFERENCE - LODGIN	12/01/2024	1,087.08	1,087.08	12/12/2024
3184	MASTERCARD	2024_11 FETT	GFOA ANNUAL DUES	12/01/2024	170.00	170.00	12/12/2024
3184	MASTERCARD	2024_11 FETT	SCANNER	12/01/2024	241.00	241.00	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	7.46	7.46	12/12/2024
3184	MASTERCARD	2024_11 FETT	BLUEPRINT MAP HOLDER	12/01/2024	76.10	76.10	12/12/2024
3184	MASTERCARD	2024_11 FETT	PHONE CASES - LPD	12/01/2024	229.55	229.55	12/12/2024
3184	MASTERCARD	2024_11 FETT	OFFICE SUPPLIES	12/01/2024	33.89-	33.89-	12/12/2024
3184	MASTERCARD	2024_11 FETT	SNACKS - DEFENSIVE DRIVING	12/01/2024	87.95	87.95	12/12/2024
3184	MASTERCARD	2024_11 FETT	DOG RAMP	12/01/2024	119.95	119.95	12/12/2024
3184	MASTERCARD	2024_11 FETT	DOG HARNESS	12/01/2024	31.99	31.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	TABLET CASE - CODE ENFORC	12/01/2024	26.99	26.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	WATT METER	12/01/2024	9.99	9.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	OFFICE SUPPLIES	12/01/2024	82.27	82.27	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	23.99	23.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	APPT BOOK	12/01/2024	18.36	18.36	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	79.98	79.98	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	19.99	19.99	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	75.44	75.44	12/12/2024
3184	MASTERCARD	2024_11 FETT	HOLIDAY PARTY SUPPLIES	12/01/2024	141.59	141.59	12/12/2024
3184	MASTERCARD	2024_11 FETT	OFFICE SUPPLIES	12/01/2024	52.25	52.25	12/12/2024
3184	MASTERCARD	2024_11 FETT	ACO SUPPLIES	12/01/2024	63.99	63.99	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Monthly Subsription (Zoom)	12/01/2024	40.00	40.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Food for Meeting	12/01/2024	50.00	50.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Postage for Wellness Center	12/01/2024	39.81	39.81	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Monthly Subsription (ChatGPT)	12/01/2024	20.00	20.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Annual Membership	12/01/2024	150.00	150.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Monthly Subsription (Mailchimp)	12/01/2024	60.00	60.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Decorations	12/01/2024	16.99	16.99	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Outerwear for Code Enforcement	12/01/2024	250.27	250.27	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Food for Meeting	12/01/2024	40.00	40.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Decorations	12/01/2024	16.99	16.99	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Monthly Subsription (ChatGPT)	12/01/2024	20.00	20.00	12/12/2024
3184	MASTERCARD	2024_11 GAGE	Food for Meeting	12/01/2024	77.00	77.00	12/12/2024
3184	MASTERCARD	2024_11 GILB	Station Supplies	12/01/2024	11.29	11.29	12/12/2024
3184	MASTERCARD	2024_11 GLAS	Fax	12/01/2024	34.99	34.99	12/12/2024
3184	MASTERCARD	2024_11 GLAS	Processing Fee	12/01/2024	.31	.31	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 27261, 97124, 99326	12/01/2024	16.04	16.04	12/12/2024
3184	MASTERCARD	2024_11 GRAD	refund (never arrived)	12/01/2024	10.40-	10.40-	12/12/2024
3184	MASTERCARD	2024_11 GRAD	desk calendar	12/01/2024	10.90	10.90	12/12/2024
3184	MASTERCARD	2024_11 GRAD	6 books	12/01/2024	152.40	152.40	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 19899, 70501, 57117	12/01/2024	14.62	14.62	12/12/2024
3184	MASTERCARD	2024_11 GRAD	caution signs	12/01/2024	37.98	37.98	12/12/2024
3184	MASTERCARD	2024_11 GRAD	water, sewer, garbage, recycling	12/01/2024	129.43	129.43	12/12/2024
3184	MASTERCARD	2024_11 GRAD	winter changeover	12/01/2024	119.92	119.92	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 84111, 60115, 66201,	12/01/2024	18.31	18.31	12/12/2024
3184	MASTERCARD	2024_11 GRAD	2 books	12/01/2024	66.40	66.40	12/12/2024

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
3184	MASTERCARD	2024_11 GRAD	Subscription	12/01/2024	149.97	149.97	12/12/2024
3184	MASTERCARD	2024_11 GRAD	masonry drill bit	12/01/2024	10.99	10.99	12/12/2024
3184	MASTERCARD	2024_11 GRAD	19 books	12/01/2024	326.36	326.36	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage	12/01/2024	5.82	5.82	12/12/2024
3184	MASTERCARD	2024_11 GRAD	1 book	12/01/2024	15.99	15.99	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 59812, 60016, 60069,	12/01/2024	25.55	25.55	12/12/2024
3184	MASTERCARD	2024_11 GRAD	12 books	12/01/2024	151.71	151.71	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 60463, 53952, 80631	12/01/2024	13.91	13.91	12/12/2024
3184	MASTERCARD	2024_11 GRAD	ice melt	12/01/2024	12.00	12.00	12/12/2024
3184	MASTERCARD	2024_11 GRAD	10 books	12/01/2024	410.40	410.40	12/12/2024
3184	MASTERCARD	2024_11 GRAD	1 book	12/01/2024	12.49	12.49	12/12/2024
3184	MASTERCARD	2024_11 GRAD	desk calendar	12/01/2024	10.40	10.40	12/12/2024
3184	MASTERCARD	2024_11 GRAD	3 books, 2 DVDs	12/01/2024	80.46	80.46	12/12/2024
3184	MASTERCARD	2024_11 GRAD	15 books	12/01/2024	236.00	236.00	12/12/2024
3184	MASTERCARD	2024_11 GRAD	6 books	12/01/2024	147.16	147.16	12/12/2024
3184	MASTERCARD	2024_11 GRAD	1 book	12/01/2024	26.99	26.99	12/12/2024
3184	MASTERCARD	2024_11 GRAD	3 books	12/01/2024	40.15	40.15	12/12/2024
3184	MASTERCARD	2024_11 GRAD	22 books	12/01/2024	276.20	276.20	12/12/2024
3184	MASTERCARD	2024_11 GRAD	domain renewal	12/01/2024	15.16	15.16	12/12/2024
3184	MASTERCARD	2024_11 GRAD	1 book	12/01/2024	25.60	25.60	12/12/2024
3184	MASTERCARD	2024_11 GRAD	5 books	12/01/2024	123.95	123.95	12/12/2024
3184	MASTERCARD	2024_11 GRAD	desk calendar	12/01/2024	9.49	9.49	12/12/2024
3184	MASTERCARD	2024_11 GRAD	postage to 45662, 14202, 51503,	12/01/2024	23.15	23.15	12/12/2024
3184	MASTERCARD	2024_11 HAPP	Postage	12/01/2024	365.00	365.00	12/12/2024
3184	MASTERCARD	2024_11 HAPP	Jury Trial Snacks	12/01/2024	37.93	37.93	12/12/2024
3184	MASTERCARD	2024_11 HARD	Postcards/Flyers	12/01/2024	33.22	33.22	12/12/2024
3184	MASTERCARD	2024_11 HARD	charging cord	12/01/2024	11.98	11.98	12/12/2024
3184	MASTERCARD	2024_11 HARD	Scratch Notebook	12/01/2024	58.98	58.98	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Adam	12/01/2024	4.57	4.57	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Adam	12/01/2024	4.58	4.58	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Legal Notice- Certified Mail to Col	12/01/2024	9.68	9.68	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Parks Dept Truck Registration	12/01/2024	26.46	26.46	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Faith	12/01/2024	5.99	5.99	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Faith	12/01/2024	6.00	6.00	12/12/2024
3184	MASTERCARD	2024_11 KINNI	WRF Operating R&M Vehicle	12/01/2024	21.00	21.00	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Adam	12/01/2024	4.58	4.58	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Adam	12/01/2024	4.58	4.58	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Adam	12/01/2024	4.58	4.58	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Water Dept.- R&M Supplies	12/01/2024	27.49	27.49	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	11.98	11.98	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Faith	12/01/2024	6.00	6.00	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Faith	12/01/2024	6.00	6.00	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Office Supplies- Faith	12/01/2024	6.00	6.00	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	3.74	3.74	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	3.74	3.74	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	3.74	3.74	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	7.39	7.39	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Solid Waste Operating	12/01/2024	11.99	11.99	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	3.73	3.73	12/12/2024
3184	MASTERCARD	2024_11 KINNI	Operating Supplies	12/01/2024	3.74	3.74	12/12/2024
3184	MASTERCARD	2024_11 PIER	Pt Supply - Airway	12/01/2024	199.99	199.99	12/12/2024
3184	MASTERCARD	2024_11 PIER	Mtg w/PCRFD Chiefs	12/01/2024	14.40	14.40	12/12/2024
3184	MASTERCARD	2024_11 PIER	Temp Probe	12/01/2024	179.80	179.80	12/12/2024

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
3184	MASTERCARD	2024_11 PURK	Medwrite	12/01/2024	5,591.25	5,591.25	12/12/2024
3184	MASTERCARD	2024_11 RUBI	Testing Software for 911 Communi	12/01/2024	1,384.00	1,384.00	12/12/2024
3184	MASTERCARD	2024_11 RUBI	City Employee Coaching Services	12/01/2024	600.00	600.00	12/12/2024
3184	MASTERCARD	2024_11 RUBI	SHRM - Recertification Fee for S	12/01/2024	135.00	135.00	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Focus Gro	12/01/2024	20.87	20.87	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Focus Gro	12/01/2024	33.95	33.95	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Zoom Monthly Subscription- Plan	12/01/2024	56.59	56.59	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Open Hou	12/01/2024	23.85	23.85	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Open Hou	12/01/2024	26.28	26.28	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Open Hou	12/01/2024	225.88	225.88	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Supplies Code Update Open Hou	12/01/2024	67.98	67.98	12/12/2024
3184	MASTERCARD	2024_11 SEVE	Land Use Law Webinar Series	12/01/2024	649.00	649.00	12/12/2024
3184	MASTERCARD	2024_11 SKAG	Parks Operating	12/01/2024	399.98	399.98	12/12/2024
3184	MASTERCARD	2024_11 SKAG	Parks Operating Membership Due	12/01/2024	135.00	135.00	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	24.99	24.99	12/12/2024
3184	MASTERCARD	2024_11 TARR	Communication Tool	12/01/2024	20.00	20.00	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	6.98	6.98	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	12.97	12.97	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	282.67	282.67	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	89.94	89.94	12/12/2024
3184	MASTERCARD	2024_11 TARR	Concession Supplies	12/01/2024	158.00	158.00	12/12/2024
3184	MASTERCARD	2024_11 TARR	Communication Tool	12/01/2024	.87	.87	12/12/2024
3184	MASTERCARD	2024_11 TARR	Coach Training / Background Che	12/01/2024	55.00	55.00	12/12/2024
3184	MASTERCARD	2024_11 TARR	Christmas Craft Supplies	12/01/2024	68.64	68.64	12/12/2024
3184	MASTERCARD	2024_11 TARR	Faith Kinnick	12/01/2024	14.32	14.32	12/12/2024
3184	MASTERCARD	2024_11 TARR	Faith Kinnick	12/01/2024	14.32	14.32	12/12/2024
3184	MASTERCARD	2024_11 TARR	Faith Kinnick	12/01/2024	14.32	14.32	12/12/2024
3184	MASTERCARD	2024_11 TARR	Banner - Holiday Market	12/01/2024	76.50	76.50	12/12/2024
3184	MASTERCARD	2024_11 TARR	Concession Supplies	12/01/2024	27.61	27.61	12/12/2024
3184	MASTERCARD	2024_11 TARR	Return Facility Maintenance	12/01/2024	32.30-	32.30-	12/12/2024
3184	MASTERCARD	2024_11 TARR	City Font Digital File	12/01/2024	189.00	189.00	12/12/2024
3184	MASTERCARD	2024_11 TARR	Facility Hardware	12/01/2024	78.14	78.14	12/12/2024
3184	MASTERCARD	2024_11 TARR	Team Account - Graphic Design	12/01/2024	144.12	144.12	12/12/2024
3184	MASTERCARD	2024_11 TARR	Faith Kinnick	12/01/2024	14.32	14.32	12/12/2024
3184	MASTERCARD	2024_11 TARR	Faith Kinnick	12/01/2024	14.32	14.32	12/12/2024
3184	MASTERCARD	2024_11 TARR	Greg Anthony	12/01/2024	71.60	71.60	12/12/2024
3184	MASTERCARD	2024_11 TARR	Cari Rubin	12/01/2024	71.60	71.60	12/12/2024
3184	MASTERCARD	2024_11 TARR	Water Filter	12/01/2024	64.78	64.78	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant Laboratory Supplie	12/01/2024	35.48	35.48	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Computer Su	12/01/2024	1,113.19	1,113.19	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Computer Su	12/01/2024	671.97	671.97	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant Laboratory Supplie	12/01/2024	89.99	89.99	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Supplies	12/01/2024	251.60	251.60	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Supplies	12/01/2024	273.84	273.84	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Supplies	12/01/2024	10.99	10.99	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Supplies	12/01/2024	231.59	231.59	12/12/2024
3184	MASTERCARD	2024_11 TIDW	WRF TX Plant R&M Supplies	12/01/2024	3,875.00	3,875.00	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Vehicle R&M Supplie	12/01/2024	19.95	19.95	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Vehicle R&M Supplie	12/01/2024	35.90	35.90	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. R&M Supplies	12/01/2024	294.52	294.52	12/12/2024
3184	MASTERCARD	2024_11 TOW	Sewer Dept. R&M Supplies	12/01/2024	428.08	428.08	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Vehicle R&M Supplie	12/01/2024	121.00	121.00	12/12/2024
3184	MASTERCARD	2024_11 TOW	Sewer Dept. R&M Supplies	12/01/2024	120.99	120.99	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Hydrant Parts	12/01/2024	472.47	472.47	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. R&M Supplies	12/01/2024	26.09	26.09	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. R&M Supplies	12/01/2024	123.98	123.98	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Vehicle R&M Supplie	12/01/2024	14.18	14.18	12/12/2024

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
3184	MASTERCARD	2024_11 TOW	Water Dept. R&M Supplies	12/01/2024	216.44	216.44	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. Vehicle R&M Supplie	12/01/2024	125.90	125.90	12/12/2024
3184	MASTERCARD	2024_11 TOW	Water Dept. R&M Supplies	12/01/2024	187.99	187.99	12/12/2024
Total MASTERCARD:					28,913.05	28,913.05	
MISC							
99999	MISC	2025.1.1	WITNESS FEE	01/01/2025	10.00	10.00	01/17/2025
99999	MISC	BARGR000	AMBULANCE OVERPAYMENT	01/14/2025	100.00	100.00	01/23/2025
99999	MISC	BOHSU000	Ambulance Overpayment	01/14/2025	190.25	190.25	01/23/2025
99999	MISC	BOWWA000	Ambulance Overpayment	01/14/2025	50.00	50.00	01/23/2025
99999	MISC	FIEAN000	Ambulance Overpayment	01/14/2025	168.00	168.00	01/23/2025
99999	MISC	KOEET000	Ambulance Overpayment	01/14/2025	187.44	187.44	01/23/2025
99999	MISC	LEIRO000	Ambulance Overpayment	01/14/2025	287.48	287.48	01/23/2025
99999	MISC	LINMA000	Ambulance Overpayment	01/14/2025	200.00	200.00	01/23/2025
99999	MISC	NEWSH000	Ambulance Overpayment	01/14/2025	601.17	601.17	01/23/2025
99999	MISC	SMICH001	Ambulance Overpayment	01/14/2025	98.96	98.96	01/23/2025
99999	MISC	SPRPA000	Ambulance Overpayment	01/14/2025	327.68	327.68	01/23/2025
99999	MISC	TK2020-0086.7	RESTITUTION	01/10/2025	50.00	50.00	01/10/2025
99999	MISC	TK2024-0226	Bond Refund	01/17/2025	885.00	885.00	01/17/2025
99999	MISC	TK2024-0277.1	JURY DUTY	12/01/2024	12.00	12.00	12/12/2024
99999	MISC	TK2024-0451	RESTITUTION	01/17/2025	1,472.50	1,472.50	01/17/2025
99999	MISC	TK2024-0523	Bond Refund	01/10/2025	380.00	380.00	01/10/2025
99999	MISC	TK2025-0010	Bond Refund	01/10/2025	670.00	670.00	01/10/2025
Total MISC:					5,690.48	5,690.48	
MONTANA AIR CARTAGE							
3808	MONTANA AIR CARTAGE	LVQ113024	11.2024 COURIER SERVICE	11/30/2024	315.15	315.15	01/28/2025
Total MONTANA AIR CARTAGE:					315.15	315.15	
MOTOROLA							
2634	MOTOROLA	8282042658	WIFI DOCK SYSTEM	12/15/2024	13,482.10	13,482.10	01/17/2025
2634	MOTOROLA	8282042658	WIFI DOCK SYSTEM	12/15/2024	1,990.00	1,990.00	01/17/2025
Total MOTOROLA:					15,472.10	15,472.10	
MSU EXTENSION SERVICE							
3275	MSU EXTENSION SERVICE	44	ECONOMIC & COMMUNITY DEV	01/09/2025	2,915.06	2,915.06	01/17/2025
Total MSU EXTENSION SERVICE:					2,915.06	2,915.06	
NORTHWEST PIPE FITTINGS, INC							
423	NORTHWEST PIPE FITTINGS, I	5223071-2	CURB BOX	01/02/2025	532.20	532.20	01/17/2025
Total NORTHWEST PIPE FITTINGS, INC:					532.20	532.20	
NORTHWESTERN ENERGY							
151	NORTHWESTERN ENERGY	0107897-1 202	228 W CALLENDER ST	12/09/2024	1,203.85	1,203.85	01/28/2025
151	NORTHWESTERN ENERGY	0709882-5 202	229 River Drive - Pump Civic Cent	01/20/2025	.00	.00	
151	NORTHWESTERN ENERGY	0709891-6 202	15 Fleshman Creek-Cemetery Wo	01/15/2025	.00	.00	
151	NORTHWESTERN ENERGY	0720048-8 202	330 Bennett 1/4	01/08/2025	.00	.00	
151	NORTHWESTERN ENERGY	0720048-8 202	330 Bennett 1/4	01/08/2025	.00	.00	
151	NORTHWESTERN ENERGY	0720048-8 202	330 Bennett 1/4	01/08/2025	.00	.00	
151	NORTHWESTERN ENERGY	1906055-7 202	815 North 13th - Soccer Fields (Irr	01/15/2025	.00	.00	
151	NORTHWESTERN ENERGY	3093023-4 202	320 North Main	01/15/2025	.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
151	NORTHWESTERN ENERGY	3506014-4 202	Brookstone/Elm	01/15/2025	.00	.00	
151	NORTHWESTERN ENERGY	3643752-3 202	115 East Clark	01/15/2025	.00	.00	
151	NORTHWESTERN ENERGY	4134094-4 202	200 E Reservoir	01/15/2025	.00	.00	
Total NORTHWESTERN ENERGY:					1,203.85	1,203.85	
OCLC, INC.							
1560	OCLC, INC.	1000411603	ILL DOCUMENT	11/30/2024	18.26	18.26	01/28/2025
Total OCLC, INC.:					18.26	18.26	
OFFICE OF THE INSPECTOR GENERAL							
10007	OFFICE OF THE INSPECTOR G	20250117	OIG SETTLEMENT	01/17/2025	116,687.72	116,687.72	01/23/2025
Total OFFICE OF THE INSPECTOR GENERAL:					116,687.72	116,687.72	
RECYCLED EARTH							
10007	RECYCLED EARTH	3144-1027	DELIVERY OF WALKING FLOOR	01/13/2025	4,600.00	4,600.00	01/24/2025
Total RECYCLED EARTH:					4,600.00	4,600.00	
RESSLER MOTOR COMPANY							
10001	RESSLER MOTOR COMPANY	20143	2025 chevrolet	12/18/2024	52,209.00	52,209.00	01/21/2025
Total RESSLER MOTOR COMPANY:					52,209.00	52,209.00	
ROCKY MOUNTAIN SUPPLY INC							
10006	ROCKY MOUNTAIN SUPPLY INC	4487	DIESEL 250G	11/20/2024	752.50	752.50	01/17/2025
10006	ROCKY MOUNTAIN SUPPLY INC	4552	DIESEL 300G	12/27/2024	1,614.00	1,614.00	01/17/2025
Total ROCKY MOUNTAIN SUPPLY INC:					2,366.50	2,366.50	
SHIELDS RIVER FARM & NURSERY							
10006	SHIELDS RIVER FARM & NURS	000329	TREES	11/19/2024	12,062.50	12,062.50	01/17/2025
Total SHIELDS RIVER FARM & NURSERY:					12,062.50	12,062.50	
TOWN & COUNTRY FOODS - LIVINGSTON							
2595	TOWN & COUNTRY FOODS - LI	26	StaION SUPPLIES	12/11/2024	37.26	37.26	01/17/2025
Total TOWN & COUNTRY FOODS - LIVINGSTON:					37.26	37.26	
TRANSUNION RISK & ALTERNATIVE							
3376	TRANSUNION RISK & ALTERNA	380349-20241	investigative resear	01/01/2025	88.50	88.50	01/17/2025
Total TRANSUNION RISK & ALTERNATIVE:					88.50	88.50	
UPS STORE #2420, THE							
292	UPS STORE #2420, THE	2025.1.15	Shipment	01/15/2025	51.09	51.09	01/17/2025
292	UPS STORE #2420, THE	2025.1.8	ShipPING	01/08/2025	7.15	7.15	01/17/2025
Total UPS STORE #2420, THE:					58.24	58.24	
US BANK EQUIPMENT FINANCE							
10001	US BANK EQUIPMENT FINANCE	544095854	CONTRACT PAYMENT	12/06/2024	307.03	307.03	01/28/2025

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Total US BANK EQUIPMENT FINANCE:					307.03	307.03	
USA BLUEBOOK							
1430	USA BLUEBOOK	INV00495789	FLOW TEST KIT	09/26/2024	761.10	761.10	01/17/2025
1430	USA BLUEBOOK	INV00498373	PRESSURE REGULATOR	09/30/2024	299.95	299.95	01/17/2025
1430	USA BLUEBOOK	INV00505161	AMMONIA TESTS	10/04/2024	397.71	397.71	01/17/2025
1430	USA BLUEBOOK	INV00506121	METAL BLADE	10/07/2024	179.80	179.80	01/17/2025
1430	USA BLUEBOOK	INV00512923	MEDIA PLATES	10/15/2024	631.00	631.00	01/17/2025
1430	USA BLUEBOOK	INV00525902	LEAK DETECTOR	10/28/2024	122.53	122.53	01/17/2025
1430	USA BLUEBOOK	INV00585394	AMMONIA TESTS	01/07/2025	.00	.00	
Total USA BLUEBOOK:					2,392.09	2,392.09	
VERIZON WIRELESS							
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	24.00	24.00	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	86.54	86.54	01/17/2025
879	VERIZON WIRELESS	6103116314	Jan Cellphones	01/08/2025	49.92	49.92	01/17/2025
Total VERIZON WIRELESS:					686.26	686.26	
VOICE PRODUCTS							
10002	VOICE PRODUCTS	AR118577	I RECORD	12/30/2024	100.00	100.00	01/17/2025
Total VOICE PRODUCTS:					100.00	100.00	
WHISTLER TOWING, LLC							
3237	WHISTLER TOWING, LLC	8823	MEDIC 3	01/06/2025	1,641.88	1,641.88	01/17/2025
Total WHISTLER TOWING, LLC:					1,641.88	1,641.88	
XYLEM WATER SOLUTIONS U.S.A, INC.							
2432	XYLEM WATER SOLUTIONS U.S	3556D54002	FLOOR MOUNT	12/05/2024	12,295.11	12,295.11	01/17/2025
2432	XYLEM WATER SOLUTIONS U.S	3556D57261	SUPPORT BRA	12/27/2024	1,839.62	1,839.62	01/17/2025
Total XYLEM WATER SOLUTIONS U.S.A, INC.:					14,134.73	14,134.73	
ZOLL MEDICAL CORPORATION							
10006	ZOLL MEDICAL CORPORATION	4100766	ECG MONITOR CABLES	12/12/2024	189.71	189.71	01/17/2025
Total ZOLL MEDICAL CORPORATION:					189.71	189.71	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Grand Totals:					292,451.81	292,451.81	

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____

File Attachments for Item:

C. JUDGES MONTHLY REPORT DECEMBER 2024

LIVINGSTON CITY COURT
MONTHLY FINANCIAL REPORT

Month: DECEMBER 2024

Dismissed-Plea Agreement:	4
“ Pretrial Diversion/Deferred:	
“ Miscellaneous:	14
Paid Fines:	31

Monthly Total: 49

Paid-Bond Forfeit/Fines/Time Payments: \$6,364.84

Parking Enforcement & Police issued Parking Tickets: \$2,068.00

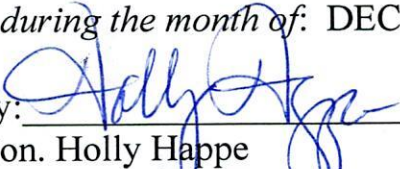
TOTAL \$8,432.84

MLEA Surcharge:	\$410.00
TECH Surcharge:	\$330.88
Victim/Witness Surcharge:	\$200.00
MISD Surcharge:	\$585.00
Court Costs	\$110.00

TOTAL: (\$ 1,635.88)

Total amount credited to City of Livingston General Fund: \$6,796.96

I hereby certify that this is a true and correct statement of the amount of fines/fees/costs which were fully paid and credited with the Livingston City Court during the month of: DECEMBER 2024

Prepared by: 
Hon. Holly Happe
Livingston City Judge

Date: 1-14-25

File Attachments for Item:

D. REAPPOINTMENT OF ALLISON VICENZI TO THE LIVINGSTON URBAN RENEWAL AGENCY BOARD



DATE: February 4, 2025
TO: Chair Schwarz and City Commissioners
FROM: Grant Gager, City Manager
RE: Staff Report for Re-appointment of Allison Vicenzi to Livingston Urban Renewal Agency

Recommendation and Summary

The City Manager is recommending the Commission approve the re-appointment of Allison Vicenzi to the Livingston Urban Renewal Agency by adopting the following motion:

"I move to re-appoint Allison Vicenzi to the Livingston Urban Renewal Agency."

The reasons for the recommendation are as follows:

- Title 7-15-4234 of Montana Code Annotated establishes the Urban Renewal Agency and provides that the City Manager shall nominate candidates for consent of the City Commission.
- The recommended candidate possesses knowledge, skills and perspectives that will help her succeed as a member of the Urban Renewal Agency.

Introduction and History

Per the Bylaws of the Livingston Urban Renewal Agency, the Commission shall appoint each member of the Livingston Urban Renewal Agency. The current board chair has expressed interest in retaining her seat on the Board.

Analysis

Filling the vacancy will enable the Livingston Urban Renewal Agency to more effectively perform its primary functions administering the Urban Renewal Plan as outlined in Title 7, Chapter 15, Parts 42 and 43 of the MCA, including, but not limited to 7-15-4233 MCA.

Fiscal Impact

The Livingston Urban Renewal Agency is an uncompensated Board of the City of Livingston so there is no fiscal impact from filling the vacancy.



Strategic Alignment

This appointment will help the City of Livingston fulfill its requirements under the Livingston Municipal Code.

Attachments

- None

File Attachments for Item:

E. RATIFICATION OF PURCHASE ORDER 20154 FOR A GARBAGE TRUCK



DATE: January 28, 2025
TO: Chair Schwarz and City Commissioners
FROM: Shannon Holmes
RE: Staff Report for Purchase Order 20154 of 2024 Autocar Heil Garbage Truck

Recommendation and Summary

Staff is recommending the Commission ratify the purchase of a 2024 Autocar Heil Garbage Truck by adopting the following motion:

"I move to ratify Purchase Order 20154 with Kois Brothers and authorize the City Manager to sign Purchase Order."

The reasons for the recommendation are as follows:

- The City ordered this new Garbage Truck in August 2022 to replace our 2015 garbage truck and it was finally delivered in December 2024.
- The purchase of this truck was approved in the FY 22-23 budget
- The City worked directly with Kois Brothers through Sourcewell in 2021 through 2024 to purchase the garbage truck.

Introduction and History

The City purchased garbage trucks in 2015 and 2017. The City ordered a new garbage truck in August 2022. It was supposed to be delivered in October 2023 but was finally delivered in December 2024. The City also purchased a garbage truck in March 2024 that was delivered in August 2024. The August 2022 unit was purchased through Sourcewell, a cooperative purchasing entity that procures on behalf of public entities and meets the procurement process of the State of Montana and City of Livingston. However, no purchase order was created at the time.

Analysis

The 2024 Autocar Heil Garbage Truck is a replacement of the truck we purchased in 2015. This purchase also includes the trade in for two 2003 Volvo Curb tenders for \$30,000.00. The surplus of these two trucks was approved at the January 21, 2025, City Commission meeting. The current purchase order is to ratify approval of the purchase by the City Commission.

**Fiscal Impact**

The purchase of the truck is the Fiscal Year 2025 budget for \$393,000.

Strategic Alignment

City of Livingston Organizational Goal #3 - Infrastructure: Build and maintain infrastructure now and into the future in a strategic and responsible manner that promotes and sustains existing neighborhoods and accommodates growth. Owning reliable equipment to ensure we maintain or improve our current level of service. New Equipment will ensure our residential and commercial routes are completed in an efficient manner. Maintenance costs of a new garbage trucks will be lower.

Attachments

- Attachment A: Purchase Order 20154
Attachment B: Quote from 2022



Purchase Order

Number: 20154
 Date: 1/28/2025

Vendor: KOIS BROTHERS EQUIPMENT COMPANY INC
 PO BOX 80314
 BILLINGS MT 59108-0314

Quote # 56472

Quantity	Item #	Description	Unit Cost	Total Cost
1	SEE ATTACHED	GARBAGE TRUCK -SEE ATTACHED	\$419,849.60	\$419,849.60
		TRADE IN CURB TENDER 2003 VOLVO	-\$30,000.00	-\$30,000.00
		FREIGHT	\$6,062.50	\$6,062.50
			Total	\$395,912.10

The City of Livingston is a tax-exempt political subdivision of the State of Montana. Please confirm this City of Livingston Purchase Order with Shannon Holmes, at sholmes@LivingstonMontana.org or (406) 222-5667.

Please Ship Above Listed Items to:
 City of Livingston
 Attn: Shannon Holmes
 330 Bennett St
 Livingston, MT 59047

Order Submitted By:

 Grant Gager
 City Manager

KOIS BROTHERS

EQUIPMENT COMPANY INC.

DATE 01/13/25

PAGE 1

DENVER
5200 Colorado Blvd.
Commerce City, CO 80022
Phone: 303-298-7370
Fax: 303-298-8527

BILLINGS
2107 Harnish Blvd.
Billings, MT 59101
Phone: 406-652-3975
Fax: 406-652-3744

GREAT FALLS
1610 River Drive North
Great Falls, MT 59401
Phone: 406-452-2757
Fax: 406-452-2799

INVOICE NO. 56472

SOLD TO:
CITY OF LIVINGSTON
PARK COUNTY/LIVINGSTON AIRPORT
414 EAST CALLENDER
LIVINGSTON MT 59047

SHIP TO:
CITY OF LIVINGSTON
Rich Stordalian
414 EAST CALLENDER
LIVINGSTON MT 59047

*** INVOICE ***

CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
SIGNED LETTE	12655	FOB LIVINGST	17	NET 10	406-222-2005

PART NUMBER	DESCRIPTION	QTY ORD	UOM	PRICE	EXTENDED
DP RAPID RAIL	*22 YARD HIGH PERFORMANCE AUTO	1.00	EA	151,475.00	151,475.00
FULL FACTORY MOUNT	*INSTALLATION OF UNIT FT. PAYN	1.00	EA	6,790.00	6,790.00
093-3414-K	KB-REAR GRABBER ASSY	1.00	EA	2,518.75	2,518.75
093-3415-K	KB-FRONT GRABBER ASSY GRABBER ARM	1.00	EA	2,518.75	2,518.75
OIGAI TRANSMISSION	*PTO/PUMP OPERATE @ IDLE OPRS.	1.00	EA	3,642.50	3,642.50
HOPPER AND LIFT WORK	*LED LIGHTS 1-HPR, 1-FSC GRABE	1.00	EA	907.50	907.50
MULTI FUNCTION	*STROBE/TURN LAMPS LED LIGHTS	1.00	EA	702.50	702.50
REMOTE LIFT CONTROLS	*MOUNTED UNDER SEAT DRIVERS SI	1.00	EA	1,905.00	1,905.00
HOPPER FLOOR LINER	*3/16" AR PLATE EXCEED SPECS	1.00	EA	1,581.25	1,581.25
STEEL MUD GUARDS	*AHEAD & BEHIND REAR TANDEMS	1.00	EA	282.50	282.50
FENDER EXT KIT	*BRUSH GUARDS PROTECT BODY MUD	1.00	EA	898.75	898.75
SUMP CHUTES	*CLEAN OUT HEDDER FRONT UNDERB	1.00	EA	576.25	576.25
INF SERIES EJECT	*CYLS W/ SCRAPERS 2 YEAR EXTRA	1.00	EA	3,773.75	3,773.75
HOPPER FLOOD LIGHT	*HOPPER LIGHT KIT	1.00	EA	0.00	0.00
FLOOD LIGHT KIT	*SIDE BACKUP FLOOD LIGHT	1.00	EA	0.00	0.00
BROOM SHOVEL KIT	*BROOM&SHOVEL KIT	1.00	EA	0.00	0.00
SPILL KIT	*SPILL KIT	1.00	EA	0.00	0.00

*** CONTINUED NEXT PAGE ***



EQUIPMENT COMPANY INC.

DATE 01/13/25 PAGE 2

DENVER 5200 Colgrado Blvd. Commerce City, CO 80022 Phone: 303-298-7370 Fax: 303-298-8527
BILLINGS 2107 Harnish Blvd. Billings, MI 59101 Phone: 406-652-3975 Fax: 406-652-3744
GREAT FALLS 1610 River Drive North Great Falls, MI 59401 Phone: 406-452-2757 Fax: 406-452-2799

INVOICE NO. 56472

*** INVOICE ***

SOLD TO: CITY OF LIVINGSTON PARK COUNTY/LIVINGSTON AIRPORT 414 EAST CALLENDER LIVINGSTON MT 59047

SHIP TO: CITY OF LIVINGSTON Rich Stordalian 414 EAST CALLENDER LIVINGSTON MT 59047

CUSTOMER PO SIGNED LETTE CUSTOMER NUM 12655 SHIP VIA FOB LIVINGST SALESMAN 17 TERMS NET 10 CUSTOMER PHONE 406-222-2005

Table with columns: PART NUMBER, DESCRIPTION, QTY ORD, UOM, PRICE, EXTENDED. Rows include items like FIRE EXTINGUISHER, CAMERA KIT, THIRD EYE CAMERA SYS, etc.

*** CONTINUED NEXT PAGE ***

KOIS EQUIPMENT COMPANY INC. BROTHERS

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CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
SIGNED LETTE	12655	FOB LIVINGST	17	NET 10	406-222-2005

PART NUMBER	DESCRIPTION	QTY ORD	UOM	PRICE	EXTENDED
	25570R22.5 COOPER WORK RANGE TIRES LOAD RANGE SIXTEEN PLY WITH ALUMINUM WHEELS				
TRADE IN CURB TENDER	*VOLVO 2003 TRUCKS & BODY	-1.00	EA	30,000.00	-30,000.00

THIS IS THE TRADE VALUE FOR BOTH UNITS.

A 3% fee will be added to all credit card purchases
All returned goods must be accompanied by
invoice and are subject to handling charge after 30 days.

NO RETURNS AFTER 90 DAYS

A SERVICE CHARGE OF 2% PER MONTH, 24% PER ANNUM WILL BE ADDED TO ANY INVOICES NOT PAID
BY THE LAST DAY OF THE MONTH IN WHICH IT IS DUE. WE ARE CONFORMING WITH THE FAIR LABOR
STANDARDS ACT OF 1938 AS AMENDED. NOT RESPONSIBLE FOR TIME LOST DUE TO FIRES, STRIKES
OR CAUSES BEYOND OUR CONTROL. STENOGRAPHICAL AND CLERICAL ERRORS SUBJECT TO CORRECTION.
PLEASE REMIT TO: P.O. BOX 80314 BILLINGS MT 59108-0314

Sub Total	389,849.60
Sales Tax	0.00
F.E.T.	0.00
Freight	6,062.50
TOTAL	395,912.10

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DATE 08/19/22
PAGE 3
QUOTE NO. 22-17128
*** QUOTE ***

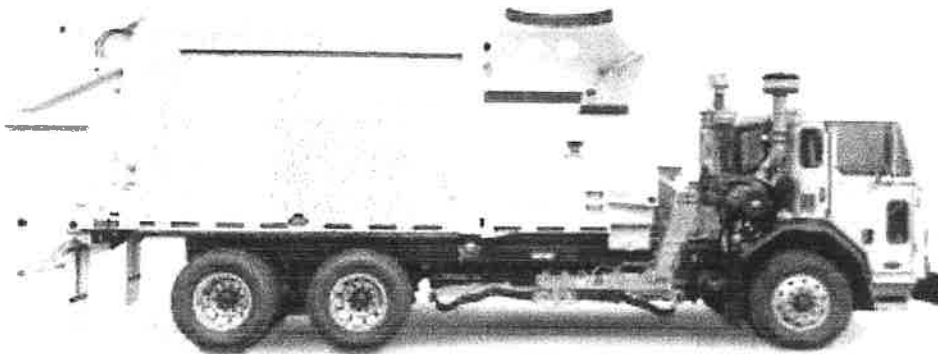
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CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
BID SOURCEWE	12655	FOB LIVINGST	17	NET 10	406-222-2005

PART NUMBER	DESCRIPTION	QTY ORD	UOM	PRICE	EXTENDED
STEEL SURCHARGE	*15% BASED ON STEEL PRICES CUR	1.00	EA	27,015.00	27,015.00
AUTOCAR ACX 2022	*19 360HP 20K FRONT & 24K REAR	1.00	EA	179,782.40	179,782.40
13,000 LIFT AXLE	*PUSHER OR TAG FOR LEGAL OPS	1.00	EA	15,850.00	15,850.00
TRADE IN CURB TENDER	*VOLVO 2003 TRUCKS & BODY	-1.00	EA	30,000.00	-30,000.00

THIS IS THE TRADE VALUE FOR BOTH UNITS.



This picture is not identical to your truck and may show options you did not select.



Awarded Contract

All returned goods must be accompanied by invoice and are subject to handling charge after 30 days.

NO RETURNS AFTER 90 DAYS

A SERVICE CHARGE OF 2% PER MONTH, 24% PER ANNUM WILL BE ADDED TO ANY INVOICE NOT PAID. BY THE LAST DAY OF THE MONTH IN WHICH IT IS DUE. WE ARE CONFORMING WITH THE FAIR LABOR STANDARDS ACT OF 1938 AS AMENDED. NOT RESPONSIBLE FOR TIMELOST DUE TO FIRES, STRIKES OR CAUSES BEYOND OUR CONTROL. STENOGRAPHICAL AND CLERICAL ERRORS SUBJECT TO CORRECTION
THANK YOU FOR ALLOWING US TO QUOTE THESE ITEMS. YOUR COST IS

Contract #12014-TPC

Sub Total	389,849.60
Sales Tax	0.00
F.E.T.	0.00
Freight	6,062.50
TOTAL	395,912.10

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BID SOURCEWE	12655	FOB LIVINGST	17	NET 10	406-222-2005	
PART NUMBER	DESCRIPTION	QTY	ORD	UOM	PRICE	EXTENDED
REMOTE LIFT CONTROLS	*MOUNTED UNDER SEAT DRIVERS SI	1.00		EA	1,905.00	1,905.00
HOPPER FLOOR LINER	*3/16" AR PLATE EXCEED SPECS	1.00		EA	1,581.25	1,581.25
STEEL MUD GUARDS	*AHEAD & BEHIND REAR TANDEMS	1.00		EA	282.50	282.50
MAN HOPPER COVER	*STD MESH EXT HANDLE LANDFL DR	1.00		EA	1,393.75	1,393.75
FENDER EXT KIT	*BRUSH GUARDS PROTECT BODY MUD	1.00		EA	898.75	898.75
SUMP CHUTES	*CLEAN OUT HEDDER FRONT UNDERB	1.00		EA	576.25	576.25
INF SERIES EJECT	*CYLS W/ SCRAPERS 2 YEAR EXTRA	1.00		EA	3,773.75	3,773.75
THIRD EYE CAMERA SYS	*CAB MONITOR & REAR CAMERA STD	1.00		EA	2,497.50	2,497.50
THRID EYE HOPPER	*CAMERA MOUNTED SEEING IN HOPE	1.00		EA	666.25	666.25
THIRD EYE CAMERA'S	*ADDITIONAL SIDES, FORWARD CAB	1.00		EA	666.25	666.25
3RD EYE LEFTHAND	*CAMERA DOWN SIDE OF BODY	1.00		EA	666.25	666.25
3RD EYE GATEWAY METX	*DIGITAL SYSTEM SHARED INFORMA	1.00		EA	3,857.50	3,857.50
ACRO LABOR	LABOR	48.00		EA	75.00	3,600.00
SCALE SYSTEM	MOUNTING SCALES/RAISE BOOM *6 POINT SCALE SYSTEM LOAD MAN	1.00		EA	15,785.00	15,785.00
KOIS DISCOUNT GIVEN	WITHOUT INTERLOCK *MUNICIPAL SOURCEWELL DISCOUNT	-1.00		EA	8,649.05	-8,649.05
ONE COLOR BODY PAINT	*DUPONT IMRON WHITE TO MATCH C	1.00		EA	540.00	540.00

*** CONTINUED NEXT PAGE ***



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CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
BID SOURCEWE	12655	FOB LIVINGST	17	NET 10	406-222-2005

These prices are priced according to Sourcewell contract #091219THC

Rich,
We are pleased to submit the following quotation for your consideration. The equipment we are providing is supplying the best possible solution to your equipment needs. We strive to give the highest quality of equipment so that your down time is minimalized. Please review the quote and let us know if there is anything we can change for you. Thank you for working with KoIs Brothers Equipment Company. We look forward to meeting your needs.

Thank You,
Roy Pilcher
406-403-5321



Signed Order and Date with changes



***These prices are good for 60 days and are subject to steel surcharges that may occur if a purchase order is not written within that time frame. Notifications of chassis hold up due to other manufacturing constraints must be clarified immediately of award. ***

PART NUMBER	DESCRIPTION	QTY ORD	UOM	PRICE	EXTENDED
DP RAPID RAIL	*22 YARD HIGH PERFORMANCE AUTO	1.00	EA	150,081.25	150,081.25
FULL FACTORY MOUNT	*INSTALLATION OF UNIT FT. PAYN	1.00	EA	6,790.00	6,790.00
UNIVERSAL STANDARD	*FLEX STEEL RUBBER SET GRABBER	1.00	EA	5,037.50	5,037.50
OIGAI TRANSMISSION	*PTO/PUMP OPERATE @ IDLE OPRS.	1.00	EA	3,642.50	3,642.50
HOPPER AND LIFT WORK	*LED LIGHTS 1-HPR, 1-FSC GRABE	1.00	EA	907.50	907.50
MULTI FUNCTION	*STROBE/TURN LAMPS LED LIGHTS	1.00	EA	702.50	702.50

*** CONTINUED NEXT PAGE ***



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At the time a vehicle is turned in, it must be capable of passing any applicable state and federal safety and emissions inspection. It must also meet or exceed the following Terms and Conditions. These requirements have been carefully defined to establish the operating condition of a used truck, as agreed to by both the seller and the buyer.

General

1. The purchaser reserves the right to inspect the vehicle not less than 45 days prior to the return date.
2. All standard and optional equipment, on or in truck chassis, must be in good working order, must be roadworthy, and must be on the chassis as delivered.
3. Truck must pass DOT inspection and be able to go in service without any repairs. A valid current DOT inspection certification must be provided.
4. Any unit that has been wrecked and sustained damages greater than 15% of the original contract price must be disclosed. **The purchaser reserves the right to reject any and all units that have not been repaired in accordance with acceptable standards or workmanship.**
5. Units (including bodies) must be maintained in accordance to the original manufacturer's published maintenance requirements. At the sole discretion of Carolina Environmental Systems, Inc proof of maintenance may be required before unit turn-in.
6. Vehicles must have a minimum of thirty (30) gallons of fuel at turn-in time.

Documents

1. A current Federal Annual and State (if applicable) inspection sticker valid for at least 90 days after the date of return must be on vehicle at time of delivery.
2. Truck must be free and clear of all liens and encumbrances.
3. All owner chassis manuals and body parts and service manuals are to be returned with unit.

Engine

1. Engine must be the original engine produced in the truck. If the engine has been replaced, owner must identify it as such and valuation may be altered based on engine age, mileage and other factors.
2. Engine must operate at a minimum of 80% of the original manufacturer's rated horsepower after allowing for driveline losses and as verified by a chassis dynamometer test.
3. Engine must be mechanically sound and within the manufacturer's specifications relating to oil pressure, coolant temperature and pressure and fuel pressure. Engine must have no leaks and be free from contamination. Crankcase blow-by must be within specification. Engine password must be cleared.
4. Engine air compressor must meet the manufacturer's performance specifications and must not exceed the manufacturer's maximum tolerances for oil blow-by (oil blown into the air system).
5. Batteries, starter, alternator and other ignition system components must be in sound condition. Batteries must be original CCA rating, capable of holding a charge and start the truck unassisted.
6. Air conditioning compressor must be operational and system must be free from defects and operate as intended.

Drivetrain

1. Clutch, Transmission, front and rear axles must be roadworthy and free from defects with no visible bends, cracks or leaks, meeting DOT requirements.
2. The clutch must be in adjustment or must be replaced if it cannot be adjusted to within acceptable tolerances.
3. Allison automatic transmission must shift smoothly and operate as originally intended.

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Brakes

1. Brake linings must have at least 60% remaining wear. Brake drums must be free from breaks or cracks and cannot be worn in excess.

Tires

1. Steer: Matched original equipment tread type tires. Minimum 11/32" tread depth measured at the lowest point. Recaps are not acceptable.
2. Drive: Matched original equipment tread type tires. Minimum 16/32" tread depth measured at the lowest point. Recaps are acceptable – must be first time recapped casings.
3. All tires must be free from cuts, bulges, gouges and have no irregular tread wear pattern, such as dishing, cupping, edging, feathering, etc.

Cab / Bodies and Equipment

1. Paint and/or body damage must not exceed \$200.00 total per unit, including, but not limited to, the sheet metal, bumper, grill, fuel tanks, fairings, dents, rust damage, all white components, etc.
2. All decals, permits, unit numbers and any other customer installed identification must be removed and done so in a manner as to not damage the original paint. Any damage resulting from de-identifying the truck must be repaired, interior and exterior to be clean and bodies to be empty of all trash and washed out.
3. Upholstery must be free from tears or open seams. Tears, open seams, holes and punctures must be repaired.
4. All glass shall be free from cracks, chips and scratches.
5. Dash panel and interior trim pieces must not be missing and must be free from holes, cracks and/or breaks.
6. All instruments, gauges, warning lights, radio, switches and knobs must be free from defect and operate as originally intended.
7. Bodies such as dump, refuse, flatbed, etc must be free from defects and perform as originally designed for by the manufacturer i/e curotto can and assembly.
8. There shall be no leaks of the hydraulic system.
9. Any repairs performed on body, including its hydraulic system, must be made with original equipment parts.

Accepted: Richard Stordalen Date 8-19-22
 Sign

Richard Stordalen Title Foreman
 Print



Credit Application

203 E. Park Avenue, Libertyville, IL 60048 • Phone: 866-EXEMPT-1 • Fax: 866-2-FAX-APP

CUSTOMER INFORMATION

Legal Name of Customer: City of Livingston Federal ID# _____
 Physical Address: 220 East Park
 City: Livingston County: Park State: MT Zip: 59047 Website: _____
 Mailing Address (if different than above): _____
 Contact Name & Title: Rich Stordalen E-Mail: r.stordalen@Livingston
 Phone #: (406) 223 6948 Ext: _____ Fax #: _____ Cell Phone # _____

Montana
1019

TRANSACTION INFORMATION

Equipment Description: Auto Cab / DPKR - Kenuse Truck
 New or Used?: Used Anticipated Delivery Date: 8/20/2023
 Equipment Cost: \$ 395,912¹⁰ Down Payment: \$ _____
 From what fund is the down payment originating? _____
 Trade-In: \$ _____ Financed Amount: \$ _____
 From what fund will the lease payments originate? _____
 Is the equipment replacing existing equipment? Yes No If "Yes", how old is the existing equipment? 10 yrs
 For what purpose is the equipment being purchased? _____
 Where will the equipment be located? Livingston MT

LEASE INFORMATION

Requested Lease Term: 5 years
 Payment Frequency: Monthly Quarterly Semi-Annual Annual Arrears or Advance

FINANCIAL INFORMATION

Has the Customer issued or does the Customer intend to issue more than \$10,000,000 in tax-exempt leases or bonds in the current calendar year (January 1 - December 31)? Yes No

- Please attach a copy of the following information for review:
1. Complete copy of audited financial statement from last two fiscal years
 2. Copy of current interim financial statement (since last audit)
 3. Equipment quote

Has the requested lease transaction been included in the current budget? Yes No

Has the Customer ever had an incident of non-appropriation or failed to complete any lease, loan, or borrowing obligation?
 Yes No If "Yes", please provide details: _____

To whom this application is made, or any credit bureau or other investigative agency employed by such person, is hereby authorized to investigate any references or information herein listed or statements or other data obtained from me or from any other person pertaining to the credit and financial responsibility of the customer listed on this application.

Authorized Signature: _____ Title: _____ Date: _____

Please forward the completed application and required financial info via E-Mail (application@taxexemptleasing.com) or Fax (866-2-FAX APP (866-232-9277))

File Attachments for Item:

**A. A PROCLAMATION OF THE CITY COMMISISON OF THE CITY OF LVINGSTON MONTANA,
DECLARING FEBRUARY 4, 2025 AS ROSA PARKS DAY IN LIVINGSTON MONTANA**



Proclamation Of the Livingston City Commission

Declaring February 4, 2025, as Rosa Parks Day
in Livingston, Montana

WHEREAS, Rosa Louise McCauley Parks was born on February 4, 1913, in Tuskegee, Alabama, and became a dedicated advocate for racial justice, working alongside her husband and the NAACP to challenge segregation and inequality; and

WHEREAS, on December 1, 1955, Rosa Parks’ courageous refusal to give up her seat on a Montgomery bus sparked the Montgomery Bus Boycott, a pivotal moment in the Civil Rights Movement that led to the desegregation of public transportation; and

WHEREAS, despite facing arrest and hardship, Parks remained steadfast in her fight for equality, continuing her activism in Detroit and leaving a lasting legacy of resistance against racial injustice; and

WHEREAS, Rosa Parks Day is observed in various states on both December 1st and February 4th to honor her contributions and inspire future generations; and

WHEREAS, the City of Livingston joins in recognizing Rosa Parks’ bravery and dedication to justice, encouraging all residents to reflect on her impact and continue the pursuit of equality;

NOW, THEREFORE, BE IT RESOLVED, on behalf of the Livingston City Commission, I, Quentin Schwarz, Chair, do hereby proclaim February 4, 2025, to be:

ROSA PARKS DAY IN LIVINGSTON, MONTANA

Further, encourage all residents to honor her legacy through education, advocacy, and unity.

Signed this___ day of February, 2025

Livingston, Montana



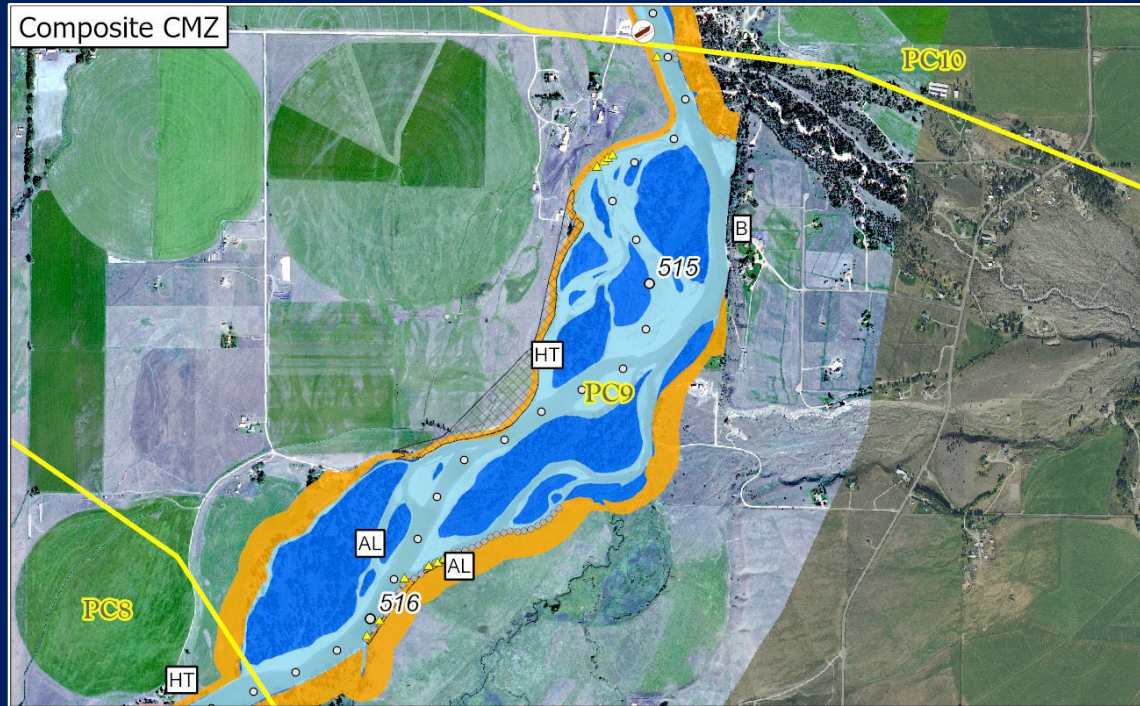
Quentin Schwarz, Chair
Livingston City Commission

Emily Hutchinson
City Clerk

File Attachments for Item:

A. UPDATE REGARDING UPPER YELLOWSTONE CHANNEL MIGRATION ZONE MAPPING PROJECT

2024 Yellowstone River Channel Migration Mapping Update to 2009 Mapping



Tony Thatcher
DTM Consulting, Inc
Bozeman, MT

Jeannette Blank
Montana Freshwater Partners
Livingston, MT

Karin Boyd
Applied Geomorphology, Inc.
Bozeman, MT



MONTANA
FRESHWATER
PARTNERS



Acknowledgements

- This project is based on work supported by the Department of Natural Resources and Conservation under Agreement No RITP-23-0194.
- Park County
- City of Livingston
- Other Public Interests

Channel Migration Mapping Concepts

- Defines a Specific Type of River Hazard – Channel Migration
- Non-Regulatory in Montana
- Different than floodplain mapping
- Based on mapping and measuring from historic imagery
- Cost-effective
- Used to help make management decisions = Best Available Information
- Based on well-established methodology

Channel Migration Mapping vs. Floodplain Mapping

Floodplain –
Flooded out

Channel Migration –
Wiped out



Gina Riquier / NPS

Channel Migration 101

The Natural Movement of a Channel Across its Floodplain



Yellowstone River Near
Miles City 1950-2001

What are the risks?



30 Homes Lost
Santa Clara River
2005 St George, UT



Mount Rainier NP
Emergency Operations Center

Homes
Roads/Bridges
Utilities
Diversion Structure
Loss of Property

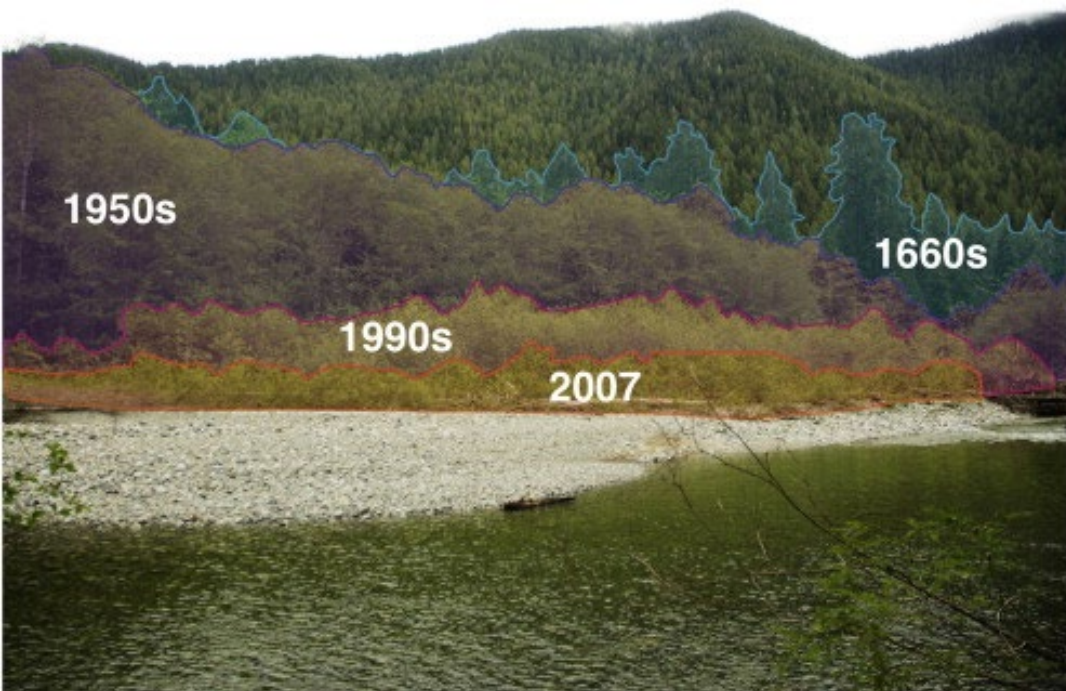
So, Migration is a Hazard

and yet...

Unimpeded Channel Movement is Critical to the Health and Stability of Dynamic Rivers



Migration Creates Open Bars that are Colonized by Streamside Vegetation





Gravel Recruitment
Woody Debris Recruitment
Fish Habitat
Riparian Turnover



Can We Strike a Balance?



Rivers can be Managed as either Channels or Corridors

162



Sacramento River, California

~95% armored



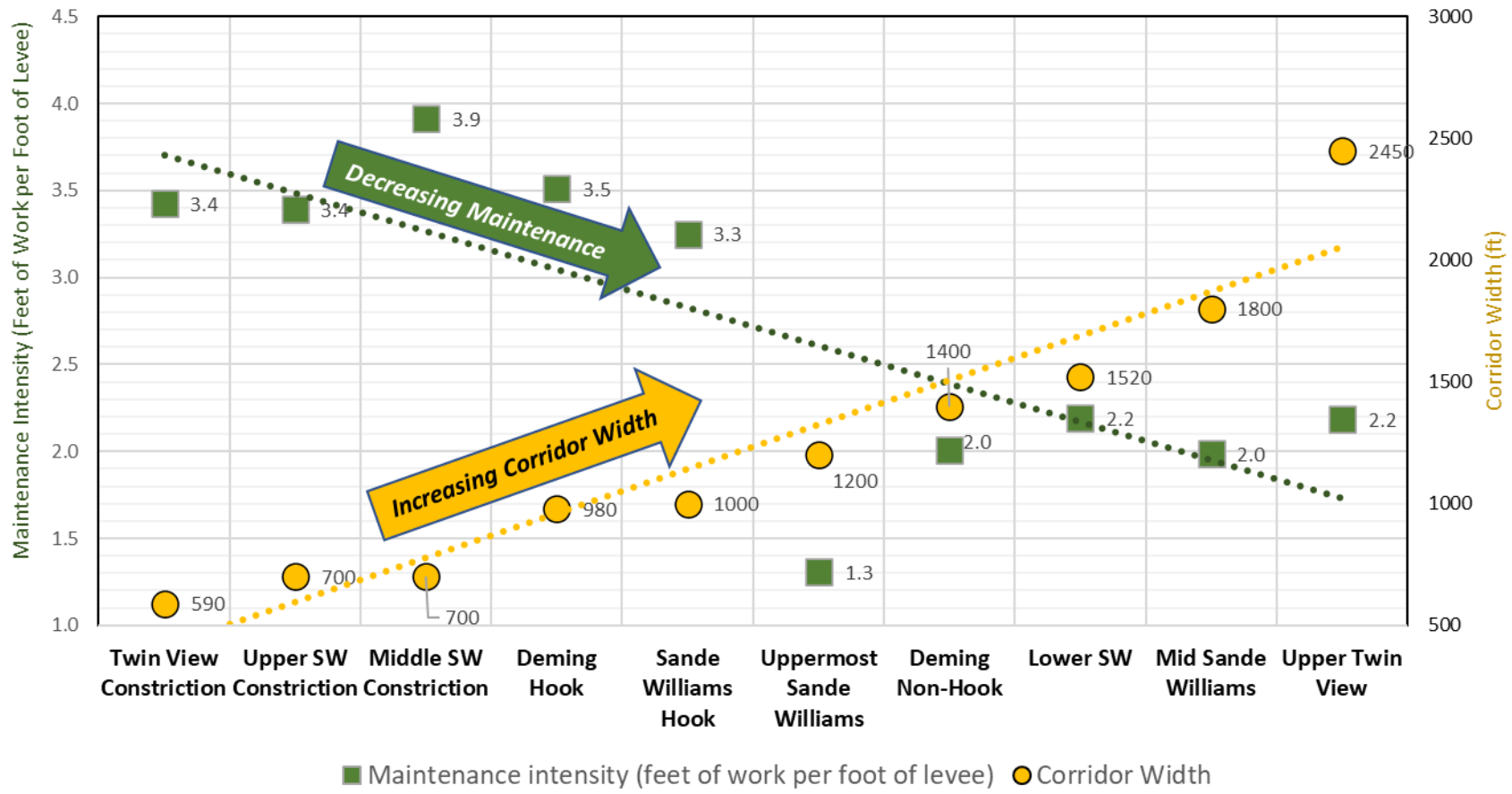
Gallatin River, Montana

~10% armored

Nooksack River WA

Relationship Between Migration Corridor Width and Levee Maintenance

Active River Corridor Width and Maintenance Intensity (feet of project per foot of levee)
Deming, Sande Williams, and Twin View Levees



Yellowstone River

Cumulative Effects Assessment

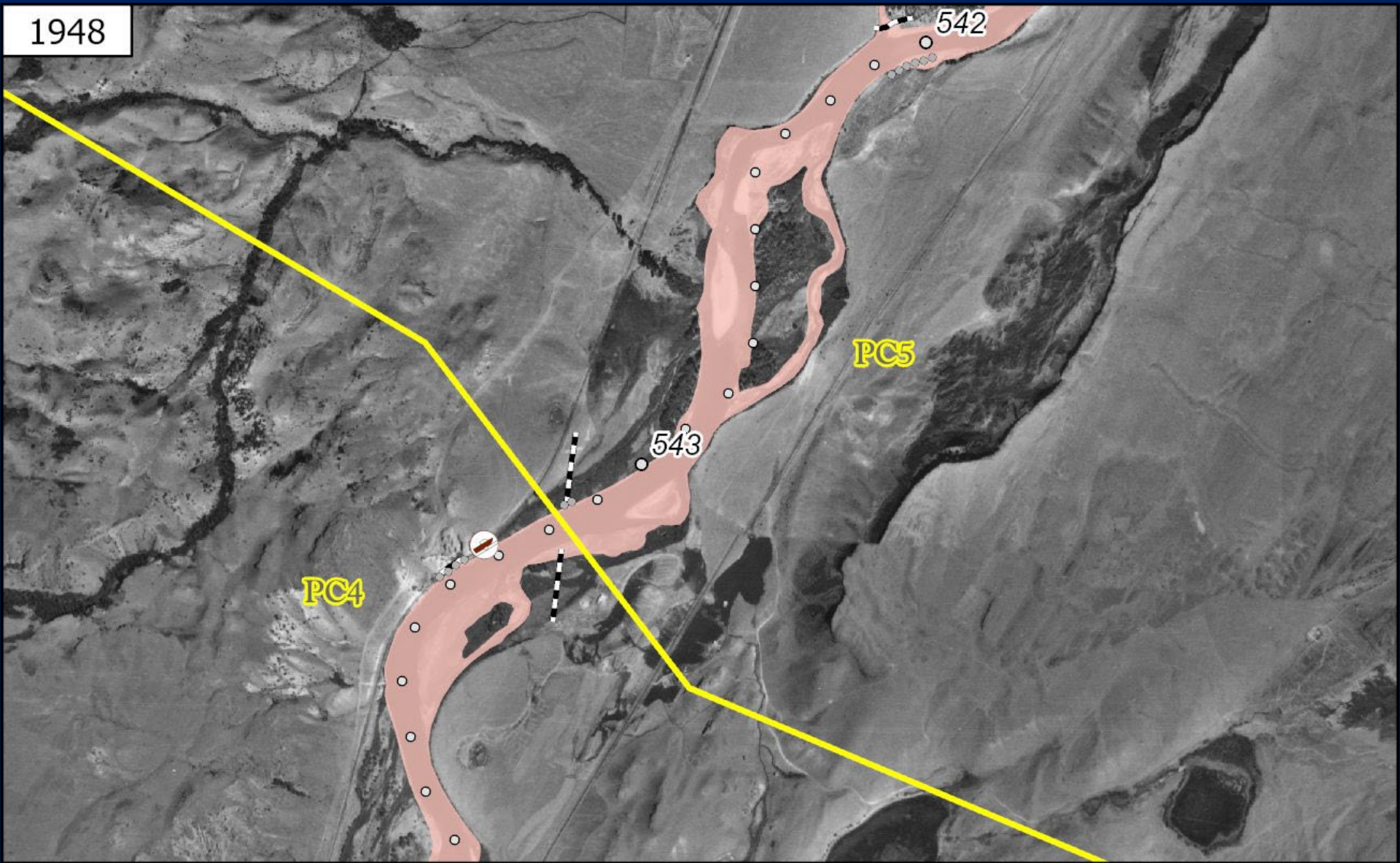
- Bank Armor
 - 2001: 23.1 miles of armor
 - 2011: 28.9 miles of armor
 - 2023: 31.5 miles of armor
 - ~18% of the bankline is currently armored, not including levees
 - Some reaches had over 25% of bankline armor
- Highest concentration of dikes/levees on the Yellowstone River

That Brings Us to Channel Migration Mapping

CMZ Mapping Process

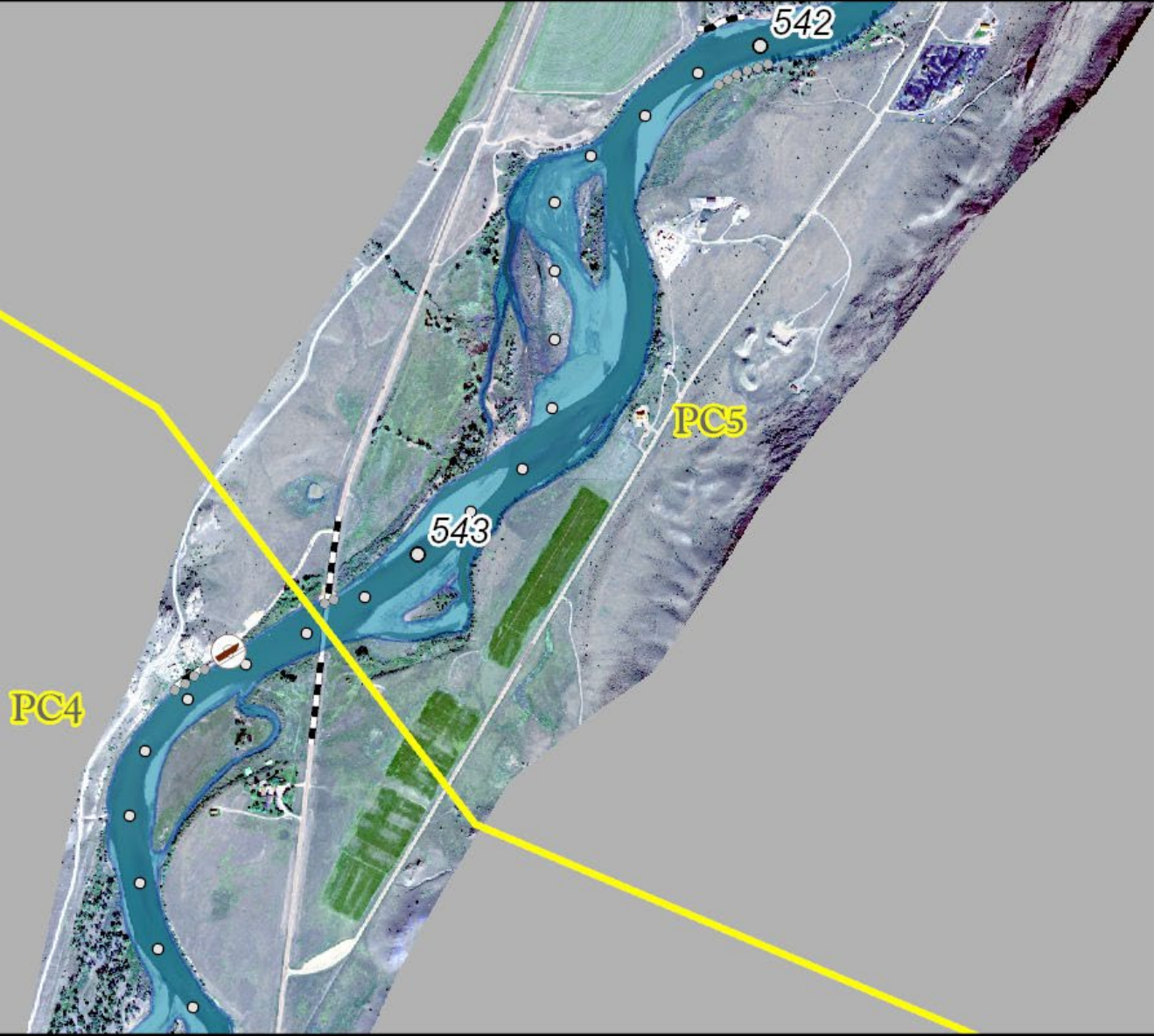
1. Identify Where the River has Been
⇒ Historic Migration Zone (HMZ)
2. Anticipate Future Erosion Potential
⇒ Erosion Hazard Area (100-yr)
3. Map Avulsion Potential
⇒ Avulsion Hazard Zone
4. Map Geotechnical Hazards – Slope Layback
⇒ Geotech Hazard Overlay
5. Map Restricted Migration Areas
⇒ Restricted Migration Area

1948 USDA – Point of Rocks

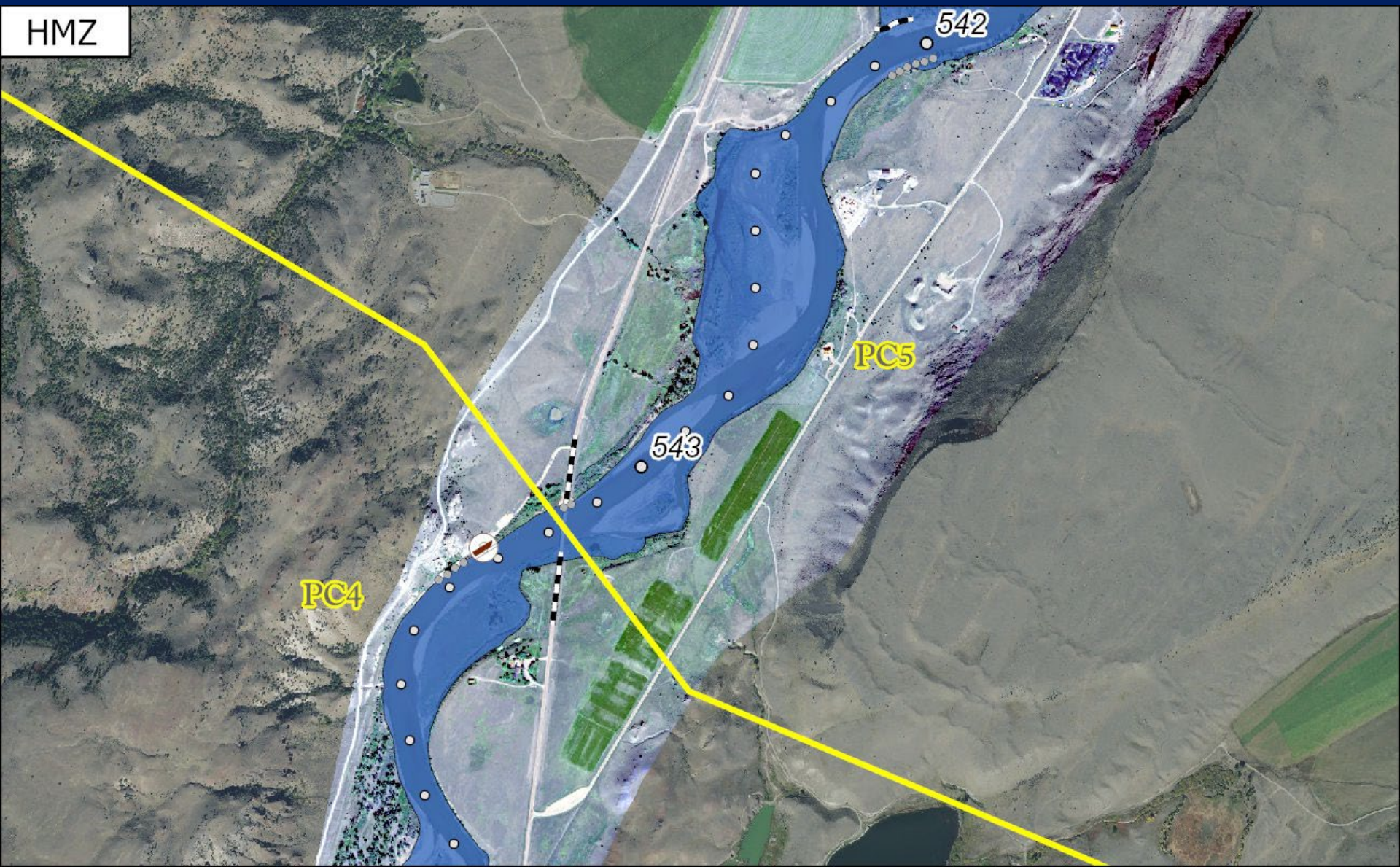


2023 50cm Satellite Imagery

2023



Historic Migration Zone (HMZ)



HMZ

PC4

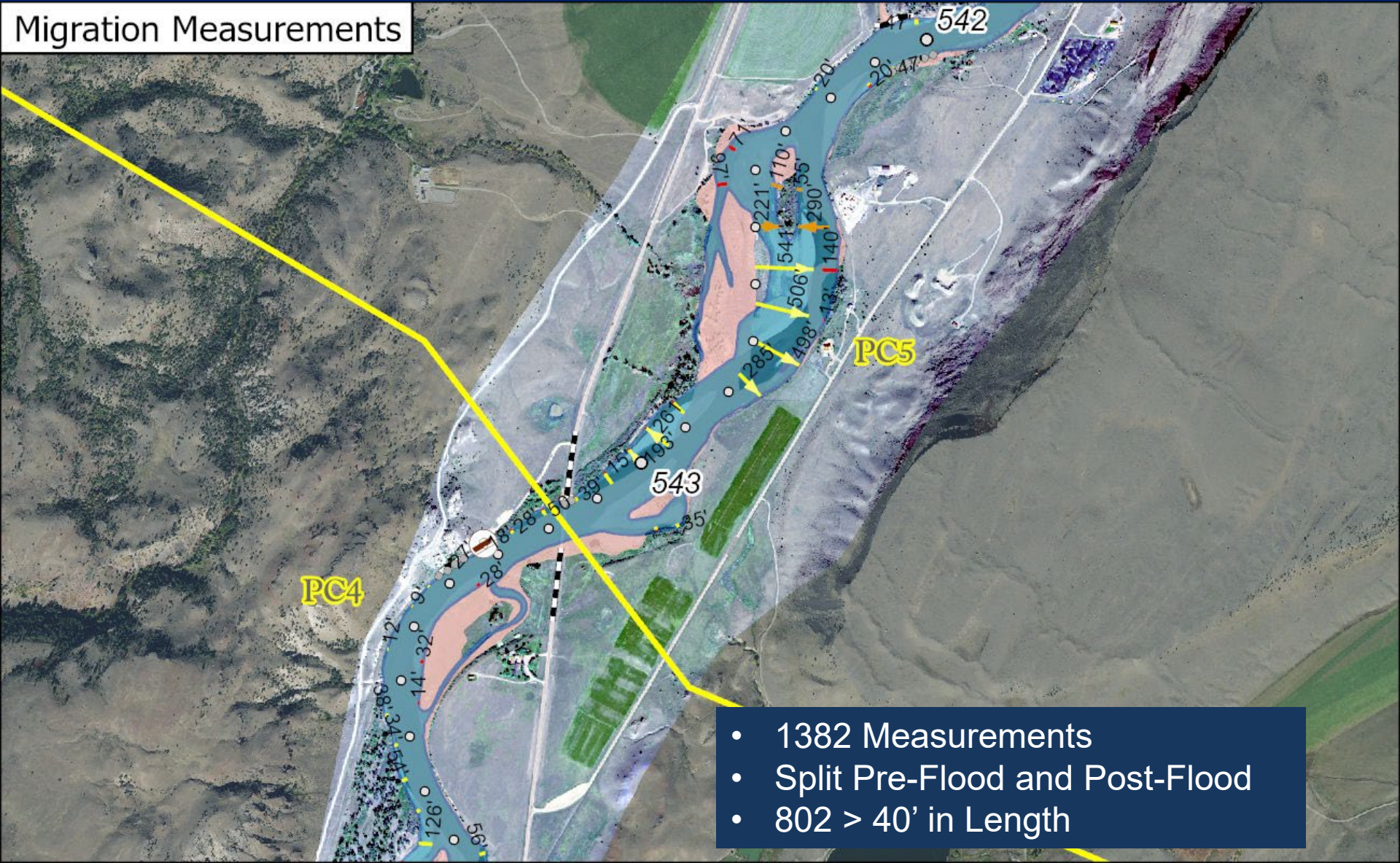
PC5

543

542

Migration Measurements

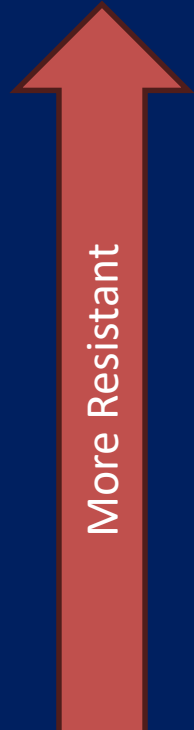
Migration Measurements



- 1382 Measurements
- Split Pre-Flood and Post-Flood
- 802 > 40' in Length

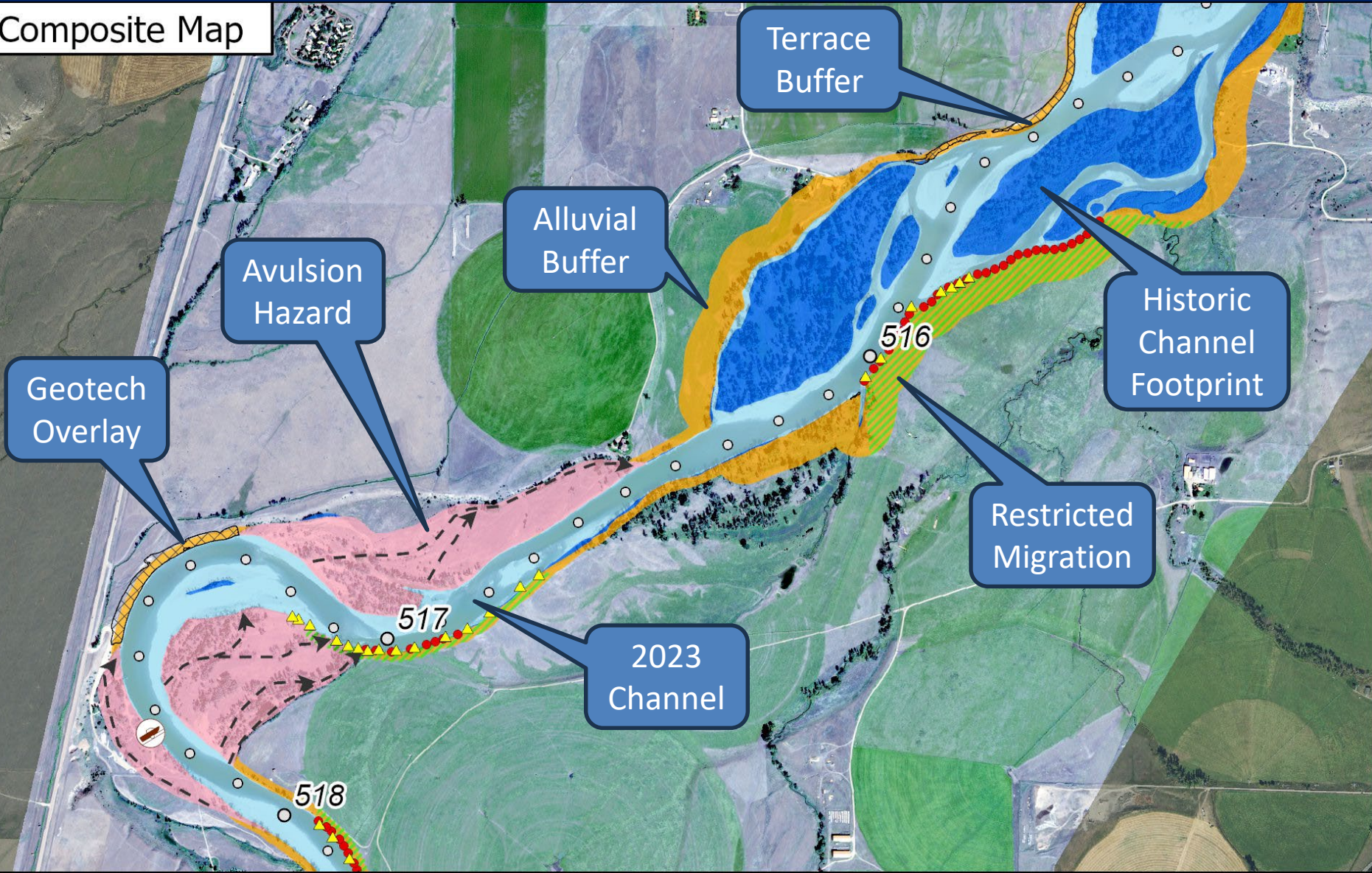
Different Bank Materials

- **Materials:**
 - **Bedrock**
 - **Glacial Outwash Terrace (Qg)**
 - Upper river only
 - **Terraces (Qt1/Qt2)**
 - Rates were essentially the same
 - **Alluvium**
 - Reach Based using mean of 71 years of record



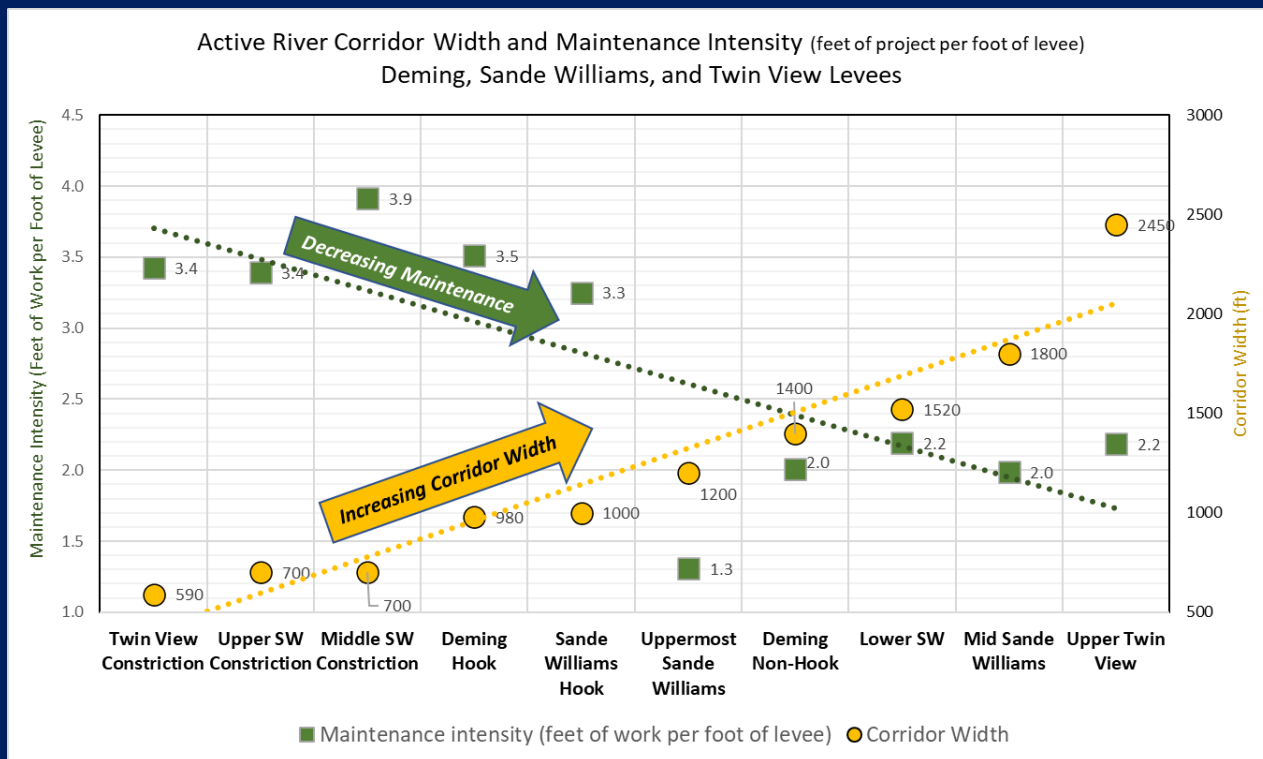
Composite Map

Composite Map



What Can You Do With This Map?

- Assess your risk
- Make informed decisions



Bank Armor Failure/Flanking

174

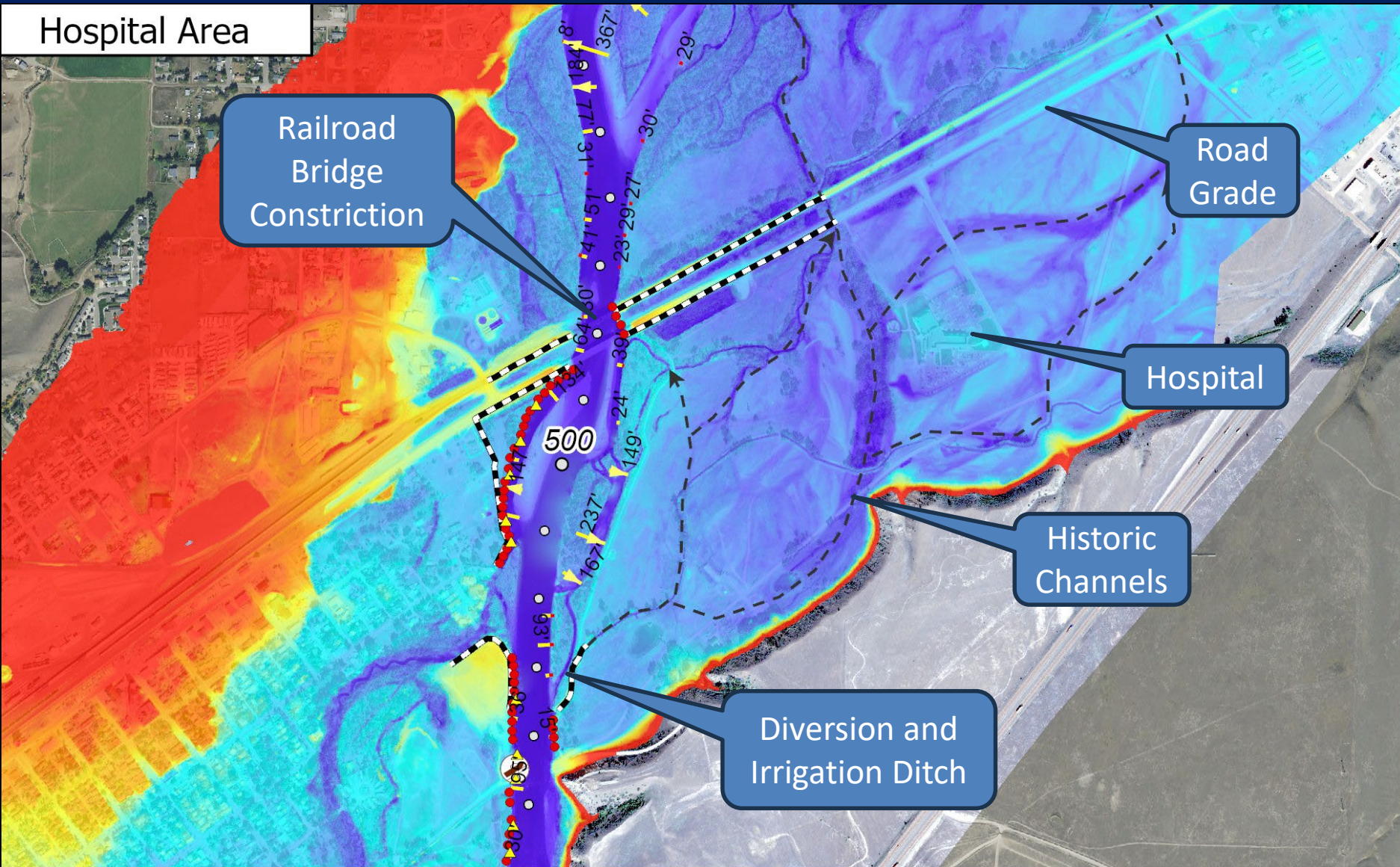


Yellowstone River near Park City



©Chris Boyer/kestrelaerial.com for Montana Freshwater Partners/freshwaterpartners.org

Hospital Area – Relative Elevations



Hospital Area

Railroad
Bridge
Constriction

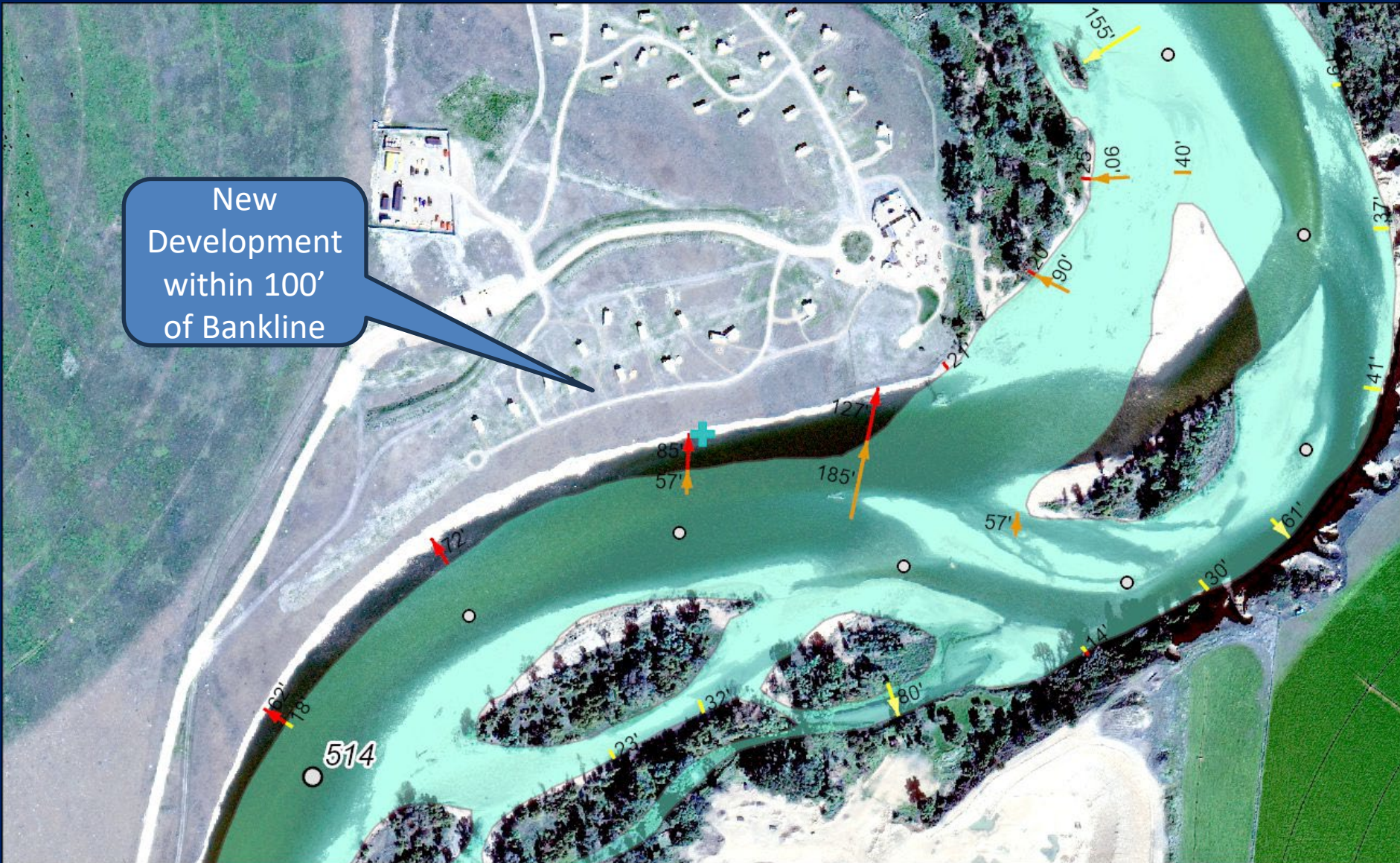
Road
Grade

Hospital

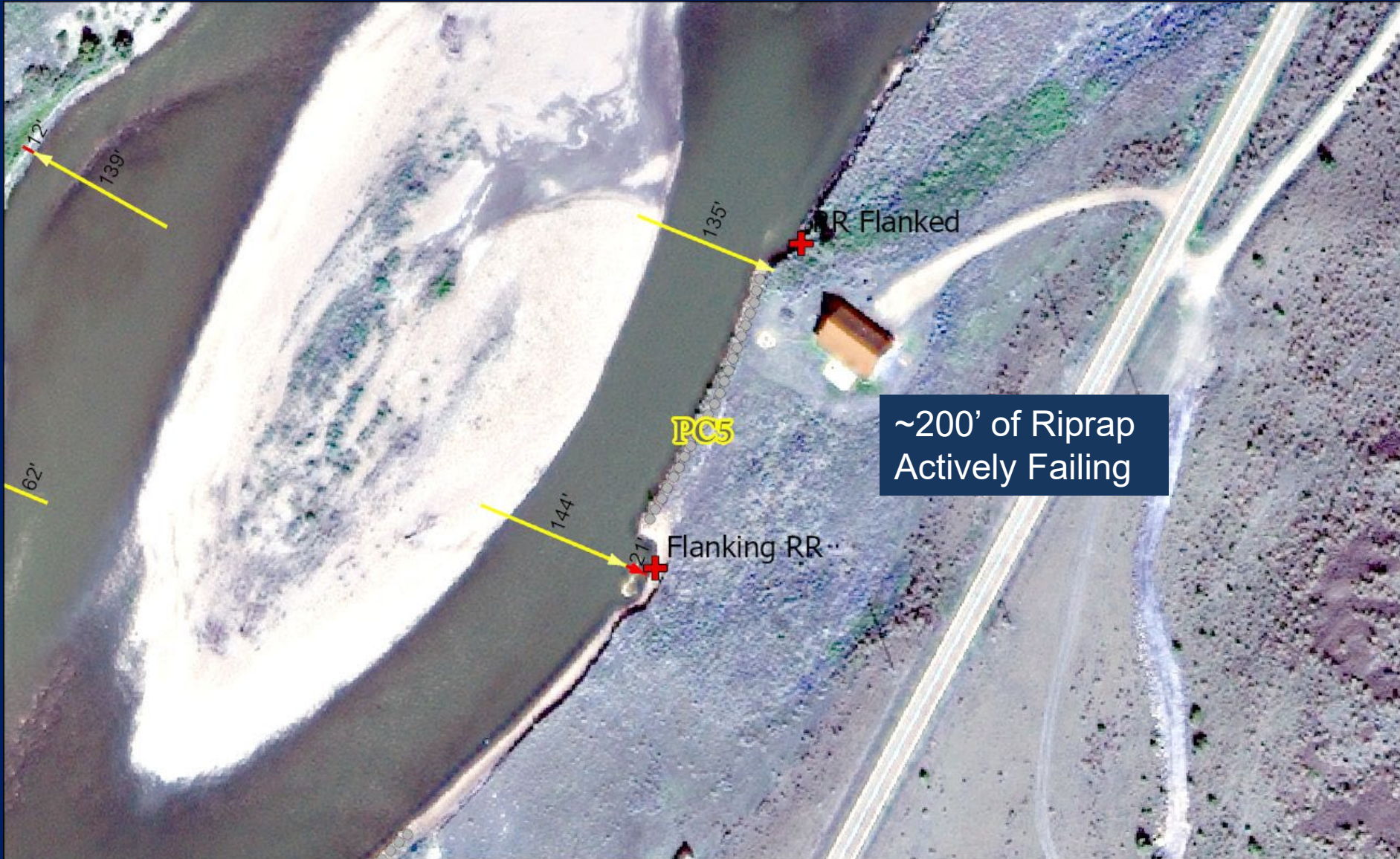
Historic
Channels

Diversion and
Irrigation Ditch

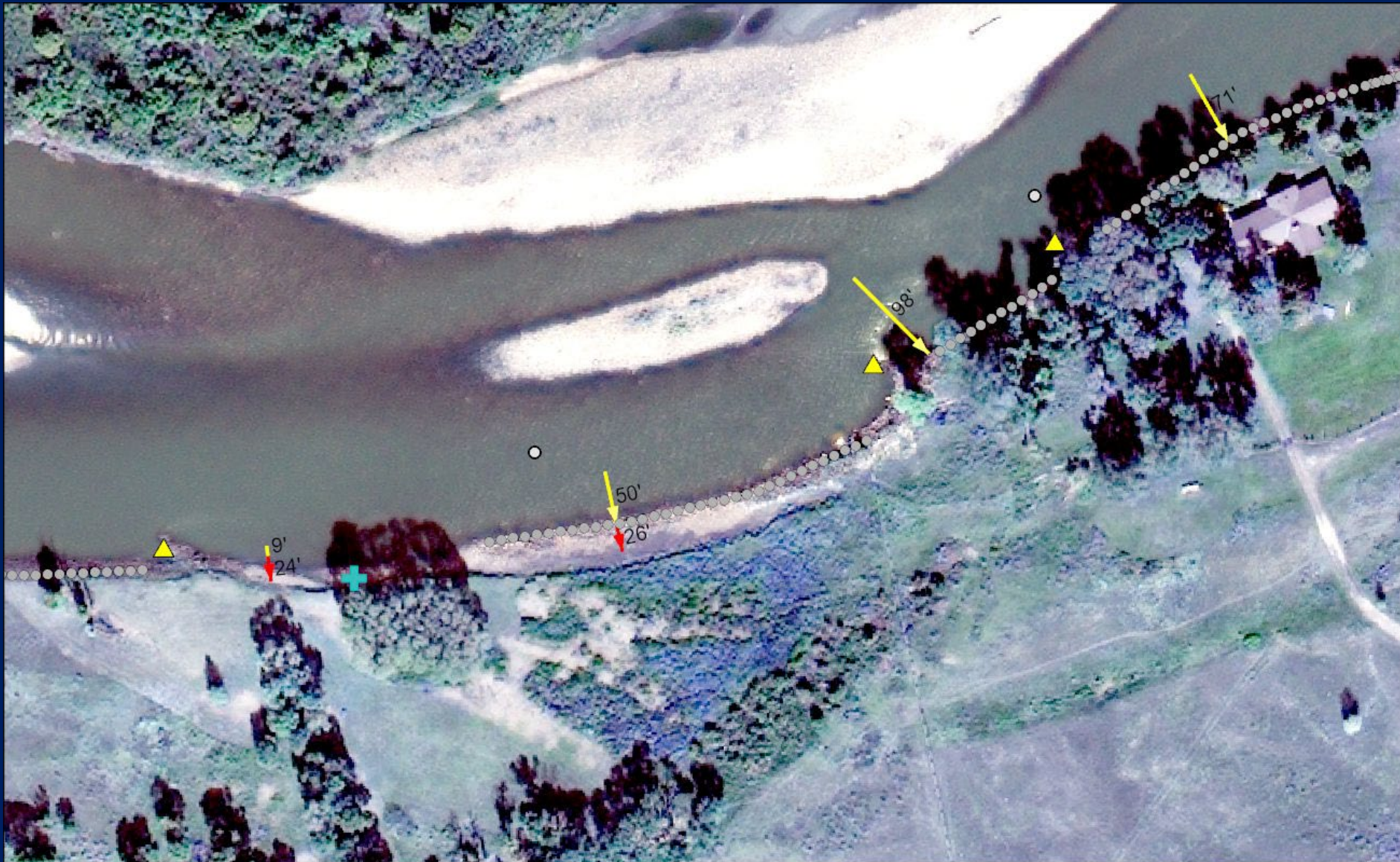
100+ Ft Erosion Example



Riprap Flanking Risk



Failed Riprap - ~30 Ft Erosion Post-Flood



Available Online

- Google “2024 Yellowstone Channel Migration Map” (Montana State Library link)

https://msl.mt.gov/geoinfo/data/montana_channel_migration_zones/projects/yellowstone_river

- Report
- All of the Maps
- GIS Data
- Interactive Web Mapper

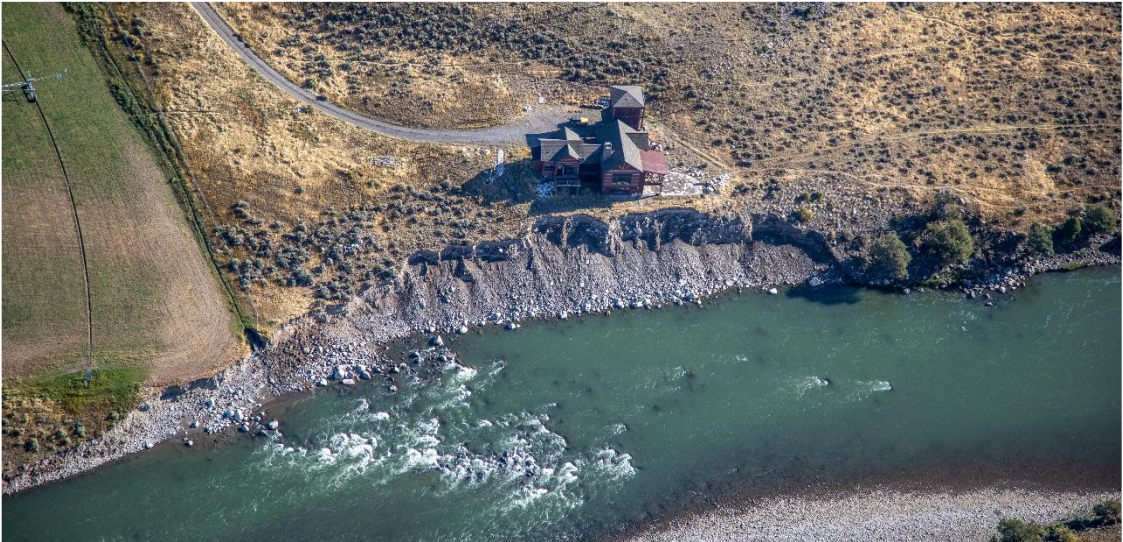
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September 12, 2024

Yellowstone River Channel Migration Zone Mapping Park County Update



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Executive Summary

This report contains the results of a Channel Migration Zone Mapping effort for approximately 86 miles of the Yellowstone River between Gardiner and Springdale, in Park County, Montana. This study was funded through a Montana Department of Natural Resources and Conservation (DNRC) Reclamation and Development Planning Grant (Grant Agreement No. RITP-23-0194), that was awarded to Park County in June 2023. ***The goal of this Planning Grant was to update the Yellowstone CMZ map so that it can be used as a tool to evaluate flood-related impacts in Park County, assist in emergency flood response preparation, and identify projects that will help mitigate future flood risks while also supporting healthy river functions such as floodplain connectivity, flood attenuation, natural channel movement and erosion / sedimentation processes, water quality, and in-stream fisheries habitat.***

From the City of Gardiner, Montana and to the Park County line near Springdale, Montana, the Yellowstone River corridor has multiple transportation lines adjacent to the river and bridge crossings that are critical for accessing emergency services, towns, businesses, and private residences property. Rapid development along the corridor has increased property values and placed additional infrastructure within the corridor that is at risk of both flooding and bankline migration. This section of river was strongly impacted by the June 10 to 16, 2022 Federal Emergency Management Agency (FEMA) declared national disaster flood event, with markedly rapid lateral migration rates in areas that had not previously seen erosion. This is an update to the 2009 Channel Migration Zone Mapping effort and reflects impacts to the corridor from the 2022 flood utilizing availability of higher resolution data, and assesses a new understanding of risks associated with development along the Yellowstone River in Park County, Montana.

The objective with the mapping and interpretations provided in this document is to assist river corridor landowners and other stakeholders in understanding the nature of Yellowstone River lateral migration, focusing not only on the challenges that channel migration creates but also the critical contributions that these processes provide towards long-term river health, resiliency, and ecological vibrancy. The Yellowstone River is critical for the economic health and character of Park County. Adoption of a CMZ approach to management of the river corridor represents an opportunity for the long-term vibrancy of Park County at a reduced cost to landowners.

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Glossary and Abbreviations

Alluvial – Relating to unconsolidated sediments and other materials that have been transported, deposited, reworked, or modified by flowing water.

Avulsion – The rapid abandonment of a river channel and formation of a new channel. Avulsions typically occur when floodwaters flow across a floodplain surface at a steeper grade than the main channel, carving a new channel along that steeper, higher energy path. As such, avulsions typically occur during floods. Meander cutoffs are one form of avulsion, as are longer channel relocations that may be miles long.

Avulsion Hazard Zone (AHZ) – Floodplain areas geomorphically susceptible to abrupt channel relocation. Defined as those areas that are within four vertical feet of the river’s July 2021 surface water elevation.

Avulsion Node – The location where a river splits or relocates from an existing channel into an avulsion path.

Bankfull Discharge – The discharge corresponding to the stage at which flow is contained within the limits of the river channel and does not spill out onto the floodplain. Bankfull discharge is typically between the 1.5- and 2-year flood event, and in the Northern Rockies it tends to occur during spring runoff.

CD – Conservation District.

Channel Migration – The process of a river or stream moving laterally (side to side) across its floodplain. Channel migration is a natural riverine process that is critical for floodplain turnover and regeneration of riparian vegetation on newly created bar deposits such as point bars. Migration rates can vary greatly though time and between different river systems; rates are driven by factors such as flows, bank materials, geology, riparian vegetation density, and channel slope.

Channel Migration Zone (CMZ) – A delineated river corridor that is anticipated to accommodate natural channel migration rates over a given period of time. The CMZ typically accommodates both channel migration and areas prone to avulsion. The result is a mapped “footprint” that defines the natural river corridor that would be active over some time frame, which is commonly 100 years (based on average annual migration rates).

DNRC – Department of Natural Resources and Conservation.

Erosion Buffer – The distance beyond an active streambank where a river is likely to erode based on historic rates of movement.

Erosion Hazard Area (EHA) – Area of the CMZ generated by applying the erosion buffer width to the active channel bankline.

Flood Frequency – The statistical probability that a flood of a certain magnitude for a given river will occur in any given year. A 1% flood frequency event has a 1% chance of happening in any given year and is commonly referred to as the 100-year flood.

Floodplain – An area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding.

Fluvial – Stream-related processes, from the Latin word fluvius = river.

Geomorphology – The study of landforms on the Earth’s surface, and the processes that create those landforms. “Fluvial Geomorphology” refers more specifically to how river processes shape the Earth’s surface.

Geographic Information System (GIS) – A system of hardware and software used for storage, retrieval, mapping, and analysis of geographic data.

Historic Migration Zone (HMZ) – The historic channel footprint that forms the core of the Channel Migration Zone (CMZ). The HMZ is defined by mapped historic channel locations, typically using historic air photos and maps.

Hydrology – The study of properties, movement, distribution, and effects of water on the Earth’s surface.

Hydraulics – The study of the physical and mechanical properties of flowing liquids (primarily water). This includes elements such as the depth, velocity, and erosive power of moving water.

Large Woody Debris (LWD) – Large pieces of wood that fall into streams, typically trees that are undermined on banks. LWD can influence the flow patterns and the shape of stream channels and is an important component of fish habitat.

Median Value – The median is the middle number in a sorted list of numbers (either ascending or descending) that represents the “middle” value in the list.

Meander – One of a series of regular freely developing sinuous curves, bends, loops, turns, or windings in the course of a stream.

Morphology – Of, or pertaining to, shape.

National Agriculture Imagery Program (NAIM) – A United States Department of Agriculture program that acquires aerial imagery during the agricultural growing seasons in the continental U.S.

Planform – The configuration of a river channel system as viewed from above, such as on a map.

Reclamation and Development Grants Program (RDGP) – Grant program administered by the DNRC.

Restricted Migration Area (RMA) – Those areas of the CMZ that are isolated from active river migration due to bank armor or other infrastructure.

Return Interval – The likely time interval between floods of a given magnitude. This can be misleading, however, as the flood with a 100-year return interval simply has a 1% chance of occurring in any given year.

Riparian – Of, relating to or situated on the banks of a river. Riparian zones are the interface between land and a river or stream. The word is derived from Latin *ripa*, meaning river bank. Plant habitats and communities along stream banks are called riparian vegetation, and these vegetation strips are important ecological zones due to their habitat biodiversity and influence on aquatic systems.

Riprap – A type of bank armor made up of rocks placed on a streambank to stop bank erosion. Riprap may be composed of quarried rock, river cobble, or manmade rubble such as concrete slabs.

Sinuosity – The length of a channel relative to its valley length. Sinuosity is calculated as the ratio of channel length to valley length; for example, a straight channel has a sinuosity of 1, whereas a highly tortuous channel may have a sinuosity of over 2.0. Sinuosity can change over time as rivers migrate laterally and occasionally avulse into new channels. Stream channelization results in a rapid reduction in sinuosity.

Stream Competency – The ability of a stream to mobilize its sediment load which is proportional to flow velocity.

Terrace – On river systems, terraces form elongated surfaces that flank the sides of floodplains. They represent historic floodplain surfaces that have become perched due to stream downcutting. River terraces are typically elevated above the 100-year flood stage, which distinguishes them from active floodplain areas.

Wetland – Land areas that are either seasonally or permanently saturated with water, which gives them characteristics of a distinct ecosystem.

1 Introduction

Channel Migration Zone (CMZ) mapping focuses on identifying potential river corridor hazards associated with the lateral migration of stream channels and avulsion into new or reactivated channel pathways. This is a separate risk from flood hazard - or FEMA mapping, but represents a serious risk to public and private infrastructure and safety.

Note: CMZ mapping is non-regulatory in Montana and the inclusion of the word "Zone" should not be interpreted as imparting any sort of regulation on land.

This is an update to the 2009 CMZ Mapping effort and reflects changes in channel locations since then, including impacts of the 2022 flood. High resolution post-2022 flood data were used to better capture the changes associated with that event, and to capture how those changes may pose risks to development projects located within or adjacent to the active stream corridor.

Note: All river mile references in this report are based on the 2009 Yellowstone Cumulative Effects Study stationing.

This report contains the results of a CMZ Mapping effort for approximately 86 miles of the Yellowstone River in Park County, Montana. From the City of Gardiner, Montana and to the Park County Line near Springdale, MT, the river corridor has multiple transportation lines adjacent to the river and bridge crossings that are critical for accessing emergency services, towns, businesses, and private residences property. Recent development along the corridor has increased property values and put additional infrastructure at risk of both flooding and/or channel migration. This section of river was strongly impacted by the June 10 to 16, 2022 FEMA declared national disaster flood event, with markedly rapid lateral migration rates in areas that had not previously seen measurable erosion.

The mapping was not developed to be regulatory in nature and does not create new requirements for landowners. It is intended to assess and present a specific river hazard type, to help individuals and entities associated with the river to make educated decisions regarding development within the river corridor.

This project is based upon work supported by the DNRC under Agreement No. RITP-23-0194 and was administered by Park County, Montana.

1.1 Background and History

The Yellowstone River watershed encompasses approximately 71,000 square miles of area in Montana, Wyoming and North Dakota (Figure 1). It originates in Yellowstone National Park and is considered the longest free-flowing river in the lower 48 of the United States, as the mainstem has no major dams or reservoirs.

The 86 miles of river in Park County (Figure 2) drains an area of 4,716 square miles with the only major tributary being the Shields River, which enters the Yellowstone River below the City of Livingston. There are several major irrigation diversions, including the Park Branch Canal and Livingston Ditch. With no dams on the river or major tributaries and only a few significant diversions, it behaves as a snow melt system with a natural hydrograph that tends to peak during late spring and early summer months.

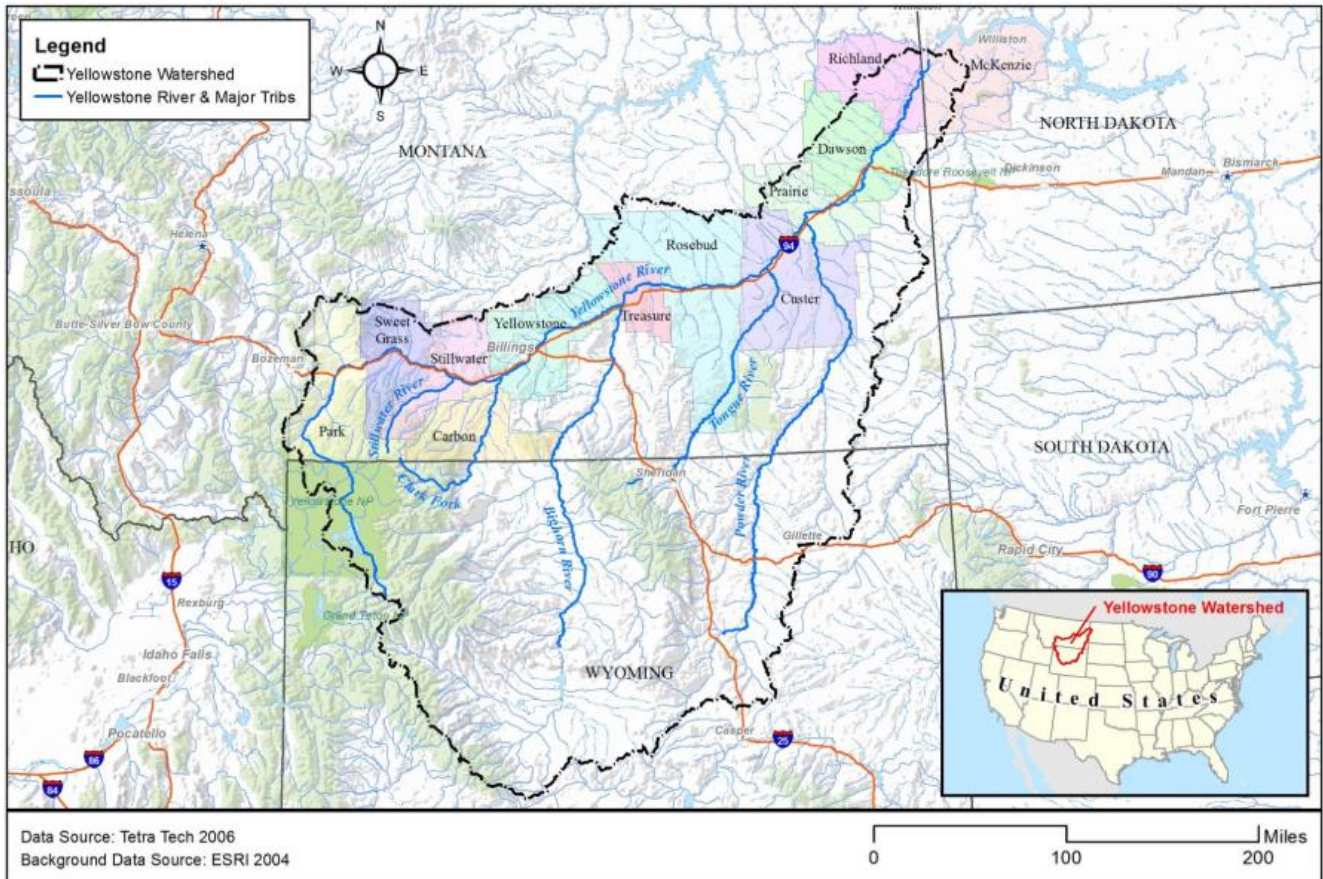


Figure 1. The Yellowstone River watershed.

In 1996 and 1997, the Yellowstone River was subjected to back-to-back “near” 100-year flood events. In response to extensive bank erosion, numerous erosion control projects (primarily rock riprap) were permitted, and installed, to protect both public and private infrastructure along the river. Subsequently, the US Army Corps of Engineers (USACE) was sued for failing to assess the cumulative impacts of the installation of the bank armor. The result of this lawsuit was an approximate 15-year effort to study and assess the river from the town of Gardiner where the river exits Yellowstone National Park to its confluence with the Missouri River in North Dakota, a total river distance of 565 miles.

The resulting Cumulative Effects Analysis (CEA)(USACE, 2015) for the Yellowstone River Corridor Study was led jointly by the Yellowstone River Conservation District Council and the USACE, with participation from multiple federal, state and local agencies as well as several non-profit organizations and private businesses. The study was undertaken as a result of public attention and concerns about the combined effects of damaging flood events and increased development pressures along the Yellowstone River Corridor.

The CEA Study focuses on numerous physical, biological and social components of the Yellowstone River. Extensive mapping of historic banklines were digitized from georeferenced imagery starting in 1948 and continuing up to 2001. Understanding the rates and characteristics of the river’s movements through time led to including a CMZ Mapping effort for the entire Yellowstone River study area which was released in 2009 (Boyd and Thatcher, 2009).

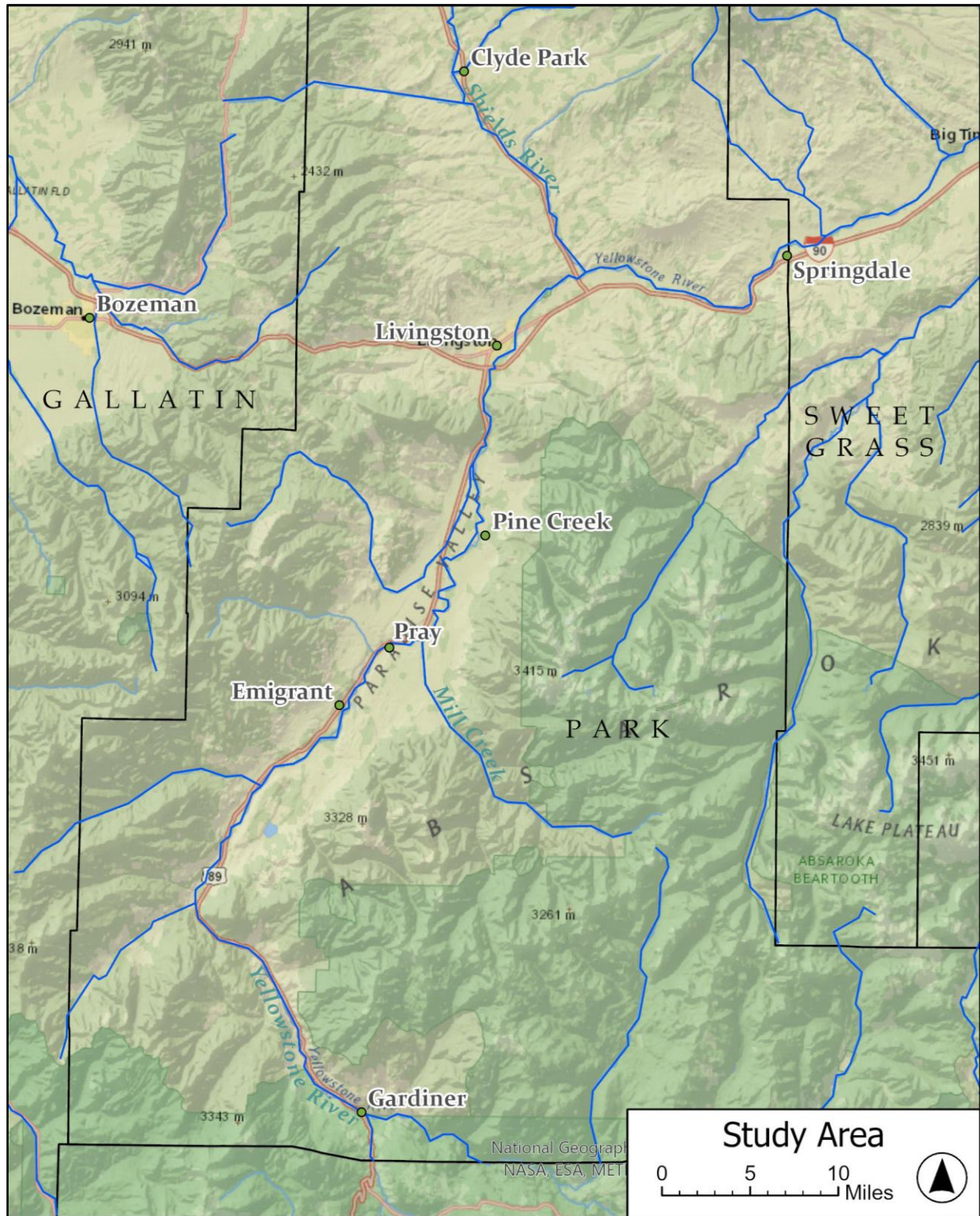


Figure 2. CMZ Mapping extent on the Yellowstone River.

1.2 Other Relevant Studies

In addition to the Cumulative Effects Analysis, the 1996-1997 Yellowstone floods, Montana’s Governor convened a group of diverse stakeholders into the Upper Yellowstone Governor’s Task Force to discuss the issues, competing values, and uses that impact the Yellowstone River. The recommendations generated by this group are captured in the [2003 Governor’s Upper Yellowstone River Task Force Final Recommendations Report](#). In this report, the task force identified the need for Channel Migration Zone Mapping and provided recommendations to address ongoing issues like bank stabilization, bridges, public infrastructure, fisheries, and future river assessment needs.

This work also established the Upper Yellowstone Special Resource Management Zone and Upper Yellowstone Special Resource Management Plan. In 2011, the USACE designated the portion of the Upper Yellowstone between Emigrant and Springdale (approximately) as a Special Resource Management Zone - due to the cumulative impacts in this reach - and developed a [Special Resource Management Plan \(SAMP\)](#) to help address further degradation. The SAMP notes that a major issue for this stretch of the river is ‘forced morphology’, or the transformation of the river from one channel type (i.e. meandering/multi-channel) to another type (i.e. straightened/single-channel) caused by channel modifications like rip-rap (bank armoring) and levees. The SAMP also notes that the projects that have the greatest potential to negatively impact channel morphology and all associated river functions are: stabilization of riverbanks; confinement of flood flows to channels by disallowing overbank flooding; and removal or addition of sediment from or to the channel network.

The 2023 Park County Hazard Mitigation Plan lists CMZ map updates, and flood mitigation project assessment and implementation as necessary actions to reduce flood hazard risks in Park County.

Other ongoing studies related to the 2022 flood event include a levee breach analysis for the City of Livingston to evaluate potential impacts and costs associated with levee breach scenarios, and FEMA floodplain map updates along the mainstem of the Yellowstone River in Park County.

1.3 The Project Team

This project work was performed by Tony Thatcher of DTM Consulting (DTM), Jeannette Blank of Montana Freshwater Partners (MFP) and Karin Boyd of Slough Creek Consulting (SCC). Over the past 18 years, the team has been collaborating to develop Channel Migration Zone maps for over 1,500 miles of channel on numerous rivers in Montana, to provide rational and scientifically-sound tools for river management. It is the overall goal to facilitate the understanding of rivers regarding the risks they pose to infrastructure, so that those risks can be managed and hopefully avoided. Furthermore, the project team believes the mapping supports the premise that managing rivers as dynamic, deformable systems contributes to ecological and geomorphic resilience while supporting sustainable, cost-effective development.

1.4 What is Channel Migration Zone Mapping?

The goal of CMZ mapping is to provide a cost-effective and scientifically based tool to assist land managers, property owners, agency personnel, and other stakeholders in making sound land use decisions along river corridors. Typically, projects constructed in stream environments such as bank stabilization, homes and outbuildings, access roads, pivots, and diversion structures are built without a full consideration of site conditions related to river process and associated risk. As a result, projects commonly require unanticipated and costly maintenance or modification to accommodate river dynamics. CMZ mapping is therefore intended to identify those areas of risk, to reduce the risk of project failure while minimizing the impacts of development on natural river process and associated ecological function. The mapping is also intended to provide an educational tool to show historic stream channel locations and rates of movement in any given area.

CMZ mapping is based on the understanding that rivers are dynamic and move laterally across their floodplains through time. As such, over a given timeframe, rivers occupy a corridor area whose width is dependent on rates of channel shift. The processes associated with channel movement include lateral channel migration and more rapid channel avulsion (Figure 3).

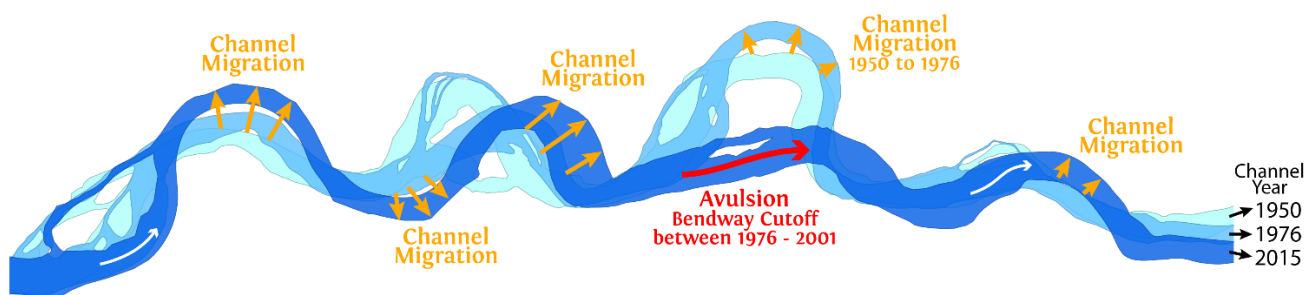


Figure 3. Typical patterns of channel migration and avulsion evaluated in CMZ development.

The fundamental approach to CMZ mapping is to identify the corridor area that a stream channel or series of stream channels can be expected to occupy over a given timeframe – typically 100 years based on average annual rates of movement. This is defined by first mapping historic channel locations to define the Historic Migration Zone, or HMZ (Figure 3). Using those mapped banklines, migration distances are measured between suites of air photos to generate a migration vector dataset that is exported from the GIS project for analysis. The measurements are evaluated statistically to determine mean migration rates for any given river segment (reach). The mean rates are then extended to the life of the CMZ, which in this case is 100 years. This 100-year mean migration distance defines the Erosion Buffer, which is added to the modern bankline to define the Erosion Hazard Area, or EHA.

Note: The word “Zone” is used within the context of Channel Migration Zone Mapping and does not relate to regulatory zoning.

Although the mean migration rate is the most commonly used to develop the EHA, there may be substantial data outliers, unique physical or hydrologic conditions, or intended uses that would warrant using a different statistic to capture a wider range of potential risk (e.g. 90th percentile value). These more conservative values are provided in this report in the event a user would like to adopt a wider EHA buffer at any given site.

Channel migration rates are affected by geomorphic influences such as geology, channel type, stream size, sediment volume, sediment size, flow patterns, slope, bank materials, and land use. For example, an unconfined meandering channel with high sediment loads would have higher migration rates than a geologically confined channel flowing through a bedrock canyon. This is why the EHA buffers are developed at a reach scale, as it best addresses natural variability. To that end, the study area has been segmented into a series of reaches that are geomorphically similar and can be characterized by average migration rates. Reach breaks can be defined by changes in flow or sediment loads at tributary confluences, changes in geologic confinement, or changes in stream pattern. In Park County, reaches are on the order of two to twelve miles long. Within any given reach, dozens to hundreds of migration measurements may be collected.

Avulsion-prone areas are mapped where there is evidence of geomorphic conditions that are amenable to new channel formation on the floodplain. This would include meander cores prone to cutoff (Figure 3), historic side channels that may reactivate, and areas where the modern channel is perched above its floodplain. Avulsions can also occur due to channel blockages (ice, landslides, or debris), however those events are rare and impossible to predict.

Additionally, for this study, a generalized geotechnical setback area was developed for areas with over-steepened banks due to the 2022 flooding. A 2:1 slope was defined from the 2023 channel outer banklines to reflect the likelihood of the bank laying back and assuming a more natural angle of repose. This geotechnical setback is overlain on the final CMZ mapping to highlight at risk areas. Note that this geotechnical assessment is not intended to replace site-specific assessment of materials and stability, but rather is intended to highlight areas that may need additional attention due to bankline adjustments in response to channel migration.

The following map units collectively define a Channel Migration Zone map (Rapp and Abbe, 2003):

- Historic Migration Zone (HMZ) – the area of historic channel occupation, usually defined by the available photographic record.
- Erosion Hazard Area (EHA) – the area outside the HMZ susceptible to channel occupation due to channel migration.
- Avulsion Hazard Zone (AHZ) – floodplain areas geomorphically susceptible to abrupt channel relocation.
- Restricted Migration Area (RMA) – areas of CMZ isolated from the current river channel by constructed bank and floodplain protection features. The RMA has been referred to in other studies as the DMA-Disconnected Migration Area.

The individual map units comprising the CMZ are as follows:

$$CMZ = HMZ + EHA + AHZ$$

The Rappe and Abbe (2003) guidance for CMZ mapping includes the removal of the RMA from the CMZ such that areas that are “no longer accessible” by the river are not identified on the maps. In our experience, identifying those areas that have become restricted due to human activities like levee building or bank armoring provides insight as to the extent of overall encroachment into the CMZ and highlights potential restoration sites where there may be opportunity for floodplain reconnection or CMZ restoration. It is also important to note that these restricted areas are not protected by fail-proof treatments. There are numerous examples of bank armor failure along the Yellowstone River in Park County that serve as a reminder that properties within the

mapped CMZ will continue to have some level of risk despite efforts to control channel movement with bank stabilization treatments. For this reason, the areas of the natural CMZ that have become isolated are contained within the overall CMZ boundary and highlighted as “restricted” within the natural CMZ footprint.

Each map unit listed above is individually identified on the maps to show the basis for including any given area in the CMZ footprint (Figure 4).

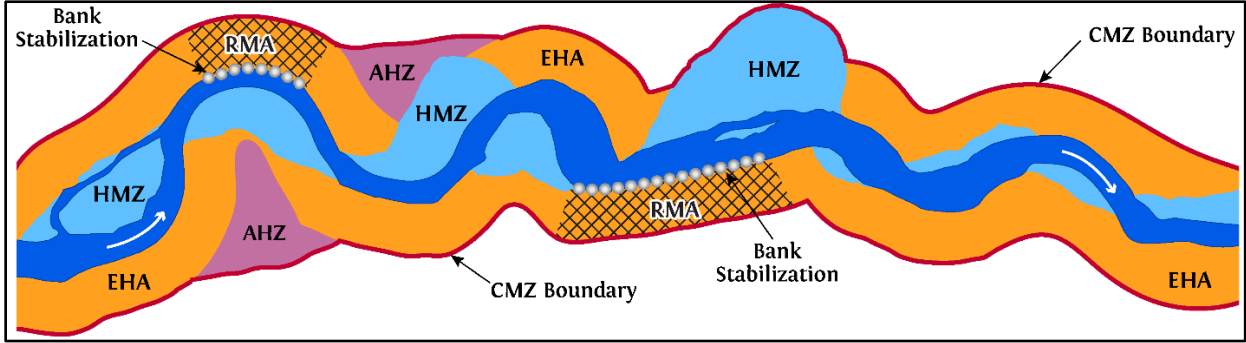


Figure 4. Channel Migration Zone mapping units.

Although the basic concept for CMZ mapping efforts is largely the same throughout the country, different approaches to defining and presenting CMZ boundaries are used depending on specific needs and situations. These differences in assessment techniques can be driven by the channel type, different project scales, the type and quality of supporting information, the intended use of the mapping, etc. For this study, the CMZ is defined as a composite area made up of the existing channel, the collective footprint of mapped historic channel locations shown in the 1948, 1999, 2011, 2015, 2021, and 2023 imagery (HMZ), and an EHA, that is based on reach-scale average migration rates. Areas beyond the Erosion Buffer that pose risks of channel avulsion are identified as Avulsion Hazard Areas or AHZ. This approach generally falls into the minimum standards of practice for Reach Scale, Moderate to High Level of Effort mapping studies as defined by the Washington Department of Ecology (www.ecy.wa.gov).

1.5 Relative Levels of Risk

The natural processes of streambank migration and channel avulsion both create risk to properties within stream corridors. Although the site-specific probability of any area experiencing either migration or an avulsion during the next century has not been quantified, the characteristics of each type of channel movement allow some relative comparison of the type and magnitude of their risk. In general, the EHA delineates areas that have a demonstrable risk of channel occupation due to channel migration over the next 100 years. Such bank erosion can occur across a wide range of flows, and the risk of erosion into this map unit is relatively high. In contrast, avulsions tend to be a flood-driven process; the AHZ delineates areas where conditions may support an avulsion, although the likelihood of such an event is highly variable between sites and typically depends on floods, debris jams, landslides, or ice jams. Large, long duration floods have the potential to drive extensive avulsions, even after decades of no such events. During the spring of 2011, for example, the Musselshell River flood drove 59 avulsions in three weeks, carving 9 miles of new channel while abandoning about 37 miles of old river channel (Boyd et al, 2012).

1.6 Uncertainty

The adoption of a 100-year period to define the migration corridor on a dynamic stream channel requires the acceptance of a certain amount of uncertainty regarding those discrete corridor boundaries. FEMA (1999) noted the following with respect to predicting channel migration:

...uncertainty is greater for long time frames. On the other hand, a very short time frame for which uncertainty is much reduced may be useless for floodplain management because of the minimal erosion expected to occur.

The Yellowstone River shows historic patterns of lateral migration and avulsions locally within a complex mix of geomorphic settings, including broad floodplains with a network of historic channels, high and low alluvial terraces, and confined canyons. With potential contributing factors such as woody debris jamming, sediment slugs, landslides, or ice jams, dramatic change could potentially occur virtually anywhere in the stream corridor or adjacent floodplain. As the goal of this mapping effort is to highlight those areas most prone to either migration or avulsion based on specific criteria, there is clearly the potential for changes in the river corridor that do not meet those criteria and thus are not predicted as high risk.

Uncertainty also stems from the general paradigm that “the past is the key to the future.” As predicted future migration is based on an assessment of historic channel behavior, the drivers of channel migration over the past 72 years – the span of the historic imagery - are assumed to be relatively consistent over the next century. If conditions change significantly, uncertainty regarding the proposed boundaries will increase. These conditions include system hydrology, sediment delivery rates, climate, valley morphology, riparian vegetation densities and extents, and channel stability. Bank armor and floodplain modifications, such as bridges, dikes, levees, or structures could also affect map boundaries.

It should be noted that recent flood events on the Yellowstone River, throughout Montana, the United States and globally point towards increased levels of uncertainty in terms of climate and the resulting hydrology, and the impacts associated with seemingly extreme, yet frequent events. Given this uncertainty and noting recent flood-related damages, it may be time to adopt more conservative approaches to living with river systems such as stepping back from the river’s edge and allowing the corridor to adapt to an uncertain future.

1.7 Potential Channel Migration Zone Applications

CMZ mapping is intended to support a range of applications, but the mapping should be primarily viewed as a tool to support informed management decisions throughout a river corridor. Potential applications for the CMZ maps include the following:

- Identify specific problem areas where migration rates are notably high and/or infrastructure is threatened.
- Strategically place new infrastructure to avoid costly maintenance or loss of capital.
- Strategically place new infrastructure to minimize impacts on channel process and associated ecological function.
- Develop river corridor best management practices.
- Identify CMZ restoration opportunities in support of system resilience.

- Improve the understanding of the risks and benefits of channel movement.
- Facilitate productive discussion between regulatory, planning, and development interests active within the river corridor.
- Help communities and developers integrate dynamic river corridors into land use planning.
- Assist long-term residents in conveying their experiences of river process and associated risk to newcomers.
- Develop project priorities, timelines, and funding mechanisms.

Note:

The CMZ mapping developed in this study was developed without any explicit intent of either providing regulatory boundaries or overriding site-specific assessments. Any future use of the maps as a regulatory tool should include a careful review of the mapping criteria to ensure that the approach used is appropriate for that application.

1.8 Other River Hazards

The CMZ maps identify areas where river erosion can be expected to occur over the next century. It is important to note that river erosion is only one of a series of hazards associated with river corridors. Flooding, ice jams, and landslides are other significant hazards associated with rivers like the Yellowstone River.

1.8.1 Flooding

The CMZ maps do not delineate areas prone to flooding. The difference between mapped flood boundaries (i.e. FEMA floodplain maps) and CMZ boundaries can be substantial. In cases where the floodplain is broad and low, the CMZ tends to be narrower than the flood corridor (left schematic on Figure 5). In contrast, where erodible terrace units bound the river corridor, the CMZ is commonly wider than the floodplain, because the terraces may be high enough to escape flooding, but not resistant enough to avoid erosion (right schematic on Figure 5). This is a common problem in Montana because of the extent of high glacial terraces that are above base flood elevations, but not erosion-resistant.

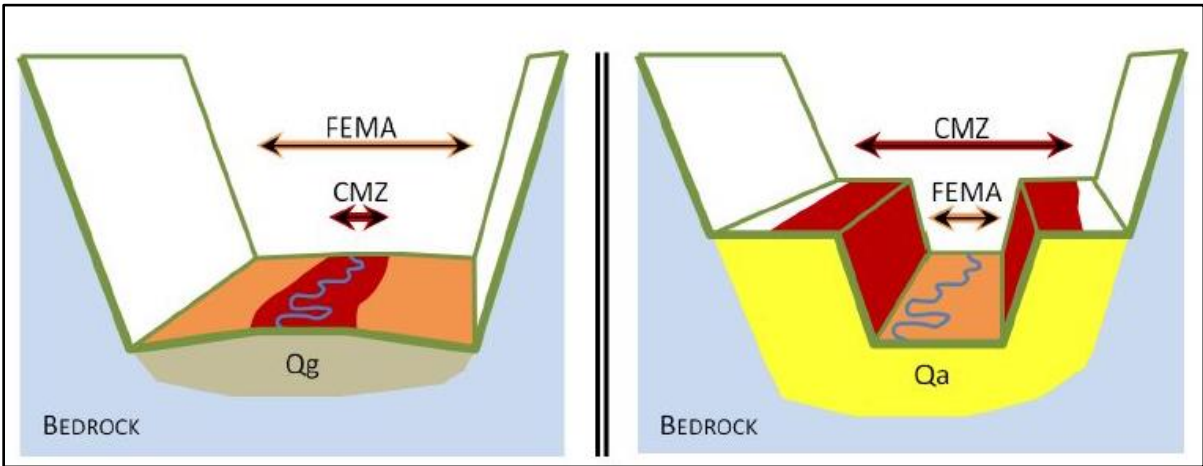


Figure 5. Schematic comparisons between CMZ and flood mapping boundaries (Washington Department of Ecology).

Figure 6 and Figure 7 show a National Park Service housing structure on the Yellowstone River in Gardiner, Montana that was undermined during the 2022 flood. This has been a chronic problem in river management, as landowners assume that if their home is beyond the mapped floodplain margin, it is safe from all river hazards. In 2005, after experiencing massive flood damages in St. George, Utah (Figure 8), several property owners reflected on this issue (www.Utahfloodrelief.com):

We knew the river was there. We were 3 feet above the 100-year flood plain and made sure we were well above the flood plain. It was surveyed and the engineers told us where we had to put it and no, we don't have flood insurance or any kind of insurance that is going to reimburse us for anything.

Our property was not located within the 500-year flood plain or was it adjacent to it. The river simply took a new route that went right through our property.

I knew we were in big trouble. The river was raging and making a sharp "S" turn right behind our home. Our property seemed to take the full force of the river turning against the bank. Large chunks of earth were being swallowed up into the river. We watched 20 feet erode in less than two hours. We knew if it continued at that pace, we'd lose our house. Our contractor contacted an excavation company early that morning, but they said there was nothing they could do for us. We were also informed that our contractor's insurance was not covered for floods.



Figure 6. A National Park Service housing structure in Livingston, MT shown moments before falling into the Yellowstone River on June 13, 2022 (Gina Riquier / NPS).



Figure 7. The same structure is shown floating downstream before eventually breaking up and depositing significant piles of debris on downstream properties (Gina Riquier / NPS).



Figure 8. Photos from a 2005 flood event in Saint George Utah, where homes several feet above the mapped floodplain were destroyed by channel migration (originally sourced from Utahfloodrelief.com).

An example floodplain map for the City of Livingston is shown in Figure 9. The floodplain boundaries cover much of the valley bottom, and the regulatory floodway, which is crosshatched in red, identifies the area of river and adjacent land areas that “must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height” (www.fema.gov). Communities are responsible for prohibiting encroachments including fill and new construction in floodway areas unless hydrologic and hydraulic analyses show that it will not increase flood levels in the community. The combined risks of flooding and channel migration on the Yellowstone River should both be considered threats to human health and safety.

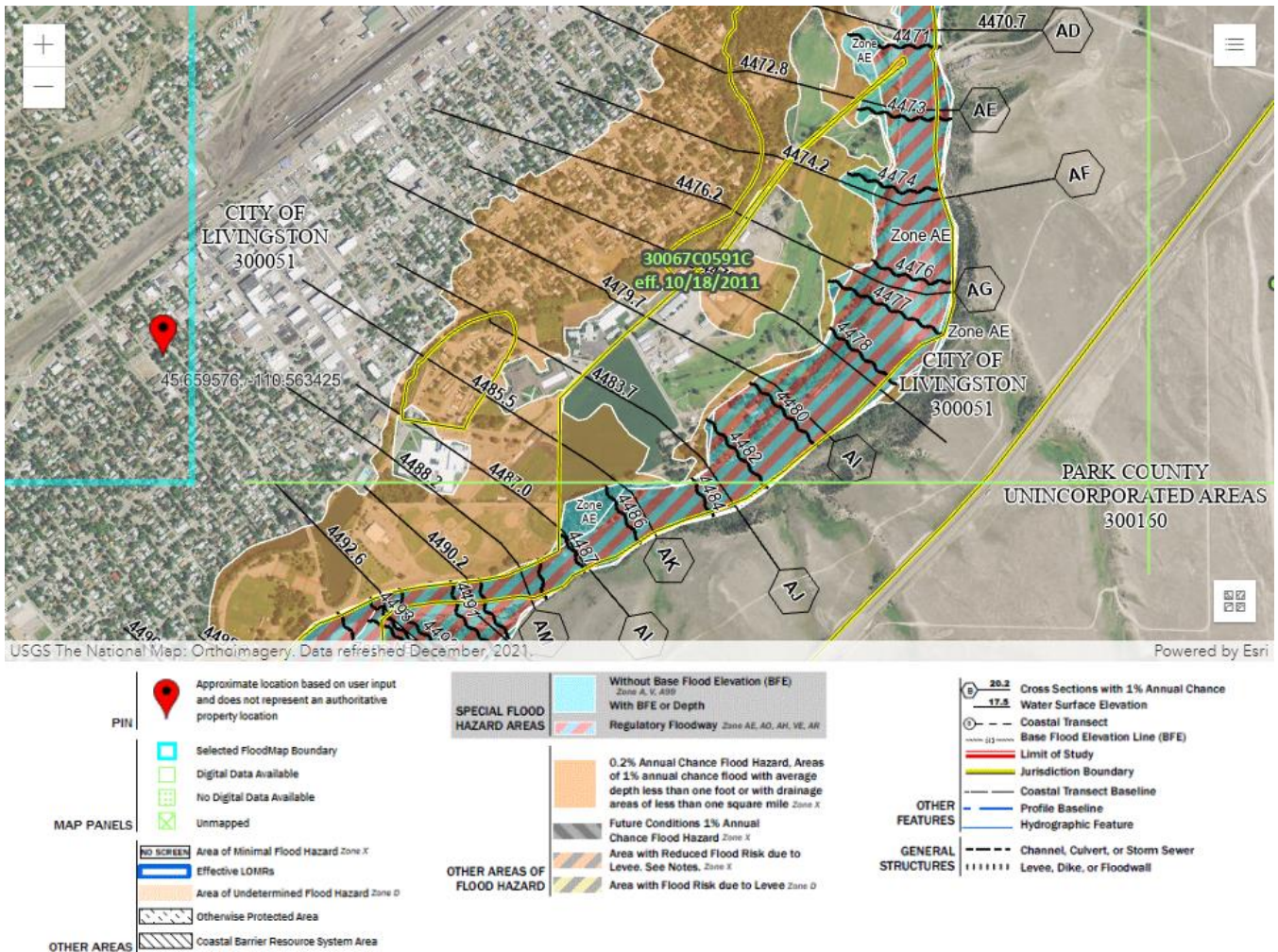


Figure 9. FEMA flood map in Livingston, MT (fema.gov).

1.8.2 Ice Jams

Another serious river hazard, especially in Montana, is ice jamming. Over 4,559 ice jams have been recorded in Montana since 1894, which is the most in the United States (CRREL Ice Jam Database), with 219 jams located on the Yellowstone River. Although ice jams are most common in Montana during February and March, ice jam flooding has happened on the Yellowstone River as early as November and as late as May. Ice dams can cause flooding upstream due to backwatering, and downstream of the jam, ice chunks mobilized by breakups can cause damage. Breakups can occur rapidly, and it generally takes water that is almost two to three times the thickness of the ice to mobilize the jammed ice. Ice jams can also cause avulsions by entirely blocking channels and forcing flows onto the floodplain.



Figure 10. Yellowstone River ice jam near Mill Creek, January 2024 (Livingston Enterprise).

1.8.3 Landslides

The Yellowstone River in Park County is bounded in several areas by mapped historic landslides. Though no recent slide activity has impacted the river corridor, the potential for landslides is real if the conditions are appropriate. If any of these areas should fail, there is potential for either deflection of the river channel or damming of the river in the most severe case. The Yellowstone region is also known for earthquake risk. Earthquake activity, when combined with landslide potential can be catastrophic, as witnessed by the 1959 Hebgen Lake earthquake which triggered a massive landslide and formed Earthquake Lake, nearby, on the Madison River. That said, even relatively small hillslope failures can deflect stream courses and create hazards that may exceed the boundaries of the mapped CMZ.

1.9 Disclaimer and Limitations

The boundaries developed on the CMZ mapping are intended to provide a basic screening tool to help guide and support management decisions within the mapped stream corridor and were not developed with the explicit intent of providing regulatory boundaries or overriding site-specific assessments. The criteria for developing the boundaries are based on reach scale conditions and average historic rates of change. The boundaries can support river management efforts, but in any application, it is critical that users thoroughly understand the process of the CMZ development and its associated limitations.

Primary limitations of this reach-scale mapping approach include a potential underestimation of migration rates in discrete areas that are eroding especially rapidly, which could result in migration beyond the mapped CMZ boundary. Additionally, site-specific variability in alluvial deposits may affect rates of channel movement. Mapping errors introduced by the horizontal accuracy of the imagery, digitizing accuracy, and air photo interpretation may also introduce small errors in the migration rate calculations. Future shifts in system hydrology, climate, sediment transport, riparian corridor health, land use, or channel stability would also affect the accuracy of results, as these boundaries reflect the extrapolation of historic channel behavior into the future. As such, we recommend that these maps be supplemented by site-specific assessment where near-term migration rates and/or site geology create anomalies in the reach-averaging approach, and that the mapping be revisited in the event that controlling influences change dramatically. A site-specific assessment would include a thorough analysis of site geomorphology, including a more detailed assessment of bank material erodibility, both within the bank and in adjacent floodplain areas, consideration of the site location with respect to channel planform and hillslope conditions, evaluation of influences such as vegetation, nearby bank armor, and land use on channel migration, and an analysis of the site-specific potential for channel blockage or perching that may drive an avulsion.

1.10 Acknowledgements

We would like to extend our gratitude to Greg Coleman (Park County Office of Emergency Management Director), Kristen Galbraith (Park County Director of Grants & Special Projects), and their supporting staff of Park County for their assistance in data transfer, contract management, scheduling, and document review. Additional review and input from the City of Livingston, state agencies and members of the Upper Yellowstone River Assessment Committee were critical for reviewing the revised mapping and providing input on areas of concern. Finally, thanks to Headwaters Economics for providing funding for hi-resolution satellite imagery to assess post-flood impacts.

2 Physical Setting

The following section contains a general description of the geographic, hydrologic, and geologic influences in the project area, to highlight how those influences affect stream corridor morphology. The size and shape of the river bottoms are largely controlled by project area geology and alluvial deposition, creating a high degree of variability in stream corridor width. Human development, including extensive river corridor transportation infrastructure and floodplain development, is superimposed on that natural variability to create channel migration corridors that range from largely unconfined to virtually locked in place.

2.1 Geography

The headwaters of the Yellowstone River are on the Yellowstone Plateau within Yellowstone National Park, about 85 miles south of Gardiner (Figure 11). The Yellowstone Plateau averages about 8,000 feet in elevation with some mountains reaching over 12,000 feet. The upper Yellowstone River above the Park/Sweet Grass County line near Springdale has a watershed area of approximately 4,716 square miles with one large contributing watershed of the Shields River that is 853 square miles in size.

As the Yellowstone River flows northward out of Yellowstone National Park and into the project area, it flows through a moderately confined valley from Gardiner to Yankee Jim Canyon (Figure 12). As the river exits the canyon, it enters the Paradise Valley, an approximately 30-mile-long north-south trending valley that is bound by high mountains of the Absaroka Range on the east and the Gallatin Range on the west (Figure 12). The highest peak near the valley is Mount Cowan which reaches 11,212 feet in elevation. The Paradise Valley ends abruptly near Carter's Bridge, where a bedrock constriction narrows the valley just upstream of Livingston. Below Livingston, the river swings to the east and past the Shields River confluence to Springdale which is near the Park/Sweet Grass County line. The complex watershed geography includes snowcapped peaks, steep mountain tributary streams, confined canyons and broad alluvial valleys.

2.2 Geology and Geomorphology

The character of the Yellowstone River and its host valley is strongly controlled by local geology. In the uppermost project area near Gardiner, glacial deposits form high terraces adjacent to the river that underlie much of the town of Gardiner (Figure 13 and Figure 14). About 14 miles downstream, Yankee Jim Canyon forms a tight constriction through Archean-age gneissic rocks that create a steep channel with rapids that are a popular recreational float (Figure 15).

As the river exits Yankee Jim Canyon, it enters a broad alluvial valley, the upstream half of which was overrun by the Northern Yellowstone Glacier; a Pinedale-age (20,000-15,000 years ago) feature that flowed from the Yellowstone Plateau ice sheet for about 40 miles into the Yellowstone River valley (Figure 16). The ice was over 2,000 feet thick and extended downstream to the Eightmile terminal moraines, which are near Mill Creek and Chico Hot Springs (Pierce, 1979). Several tributary glaciers joined the much larger ice flow.

The glacial imprint on the Yellowstone River valley imparts a strong influence on river behavior. From Yankee Jim Canyon to Mill Creek, the valley was under ice and thus did not receive high volumes of glacial outwash gravels. In this section, the width of the river corridor varies substantially over small stream segments, and relatively low floodplain surfaces are common (Figure 17). Below Mill Creek, conditions change dramatically as large braided stream outwash channels drained the glacier, creating high gravel terraces that border the stream

channel in places like the Weeping Wall and Mallard’s Rest, contributing large quantities of gravel to the river that contribute to point bar formation and channel migration (Figure 18).

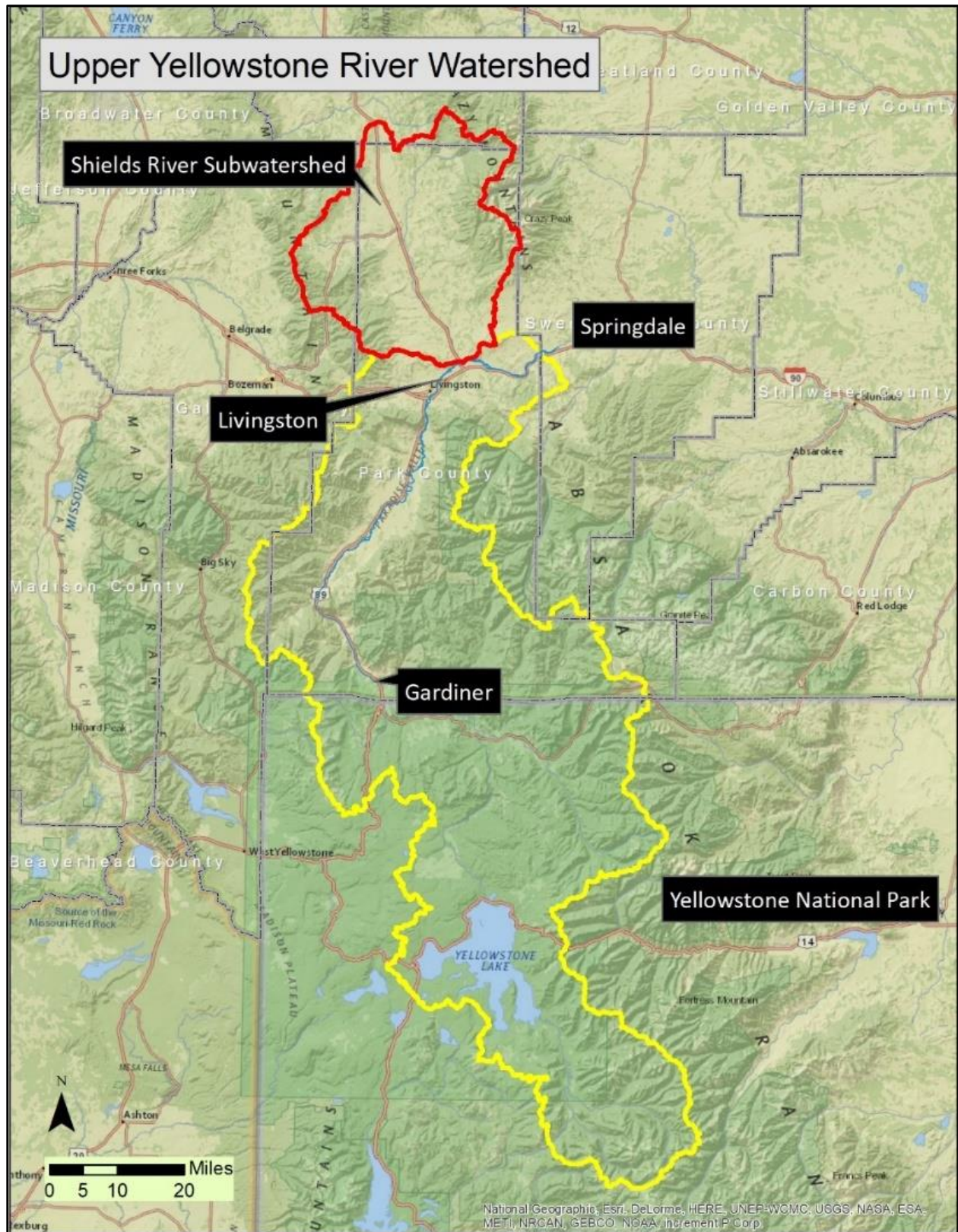


Figure 11. Watershed boundaries for Upper Yellowstone and Shields Rivers.

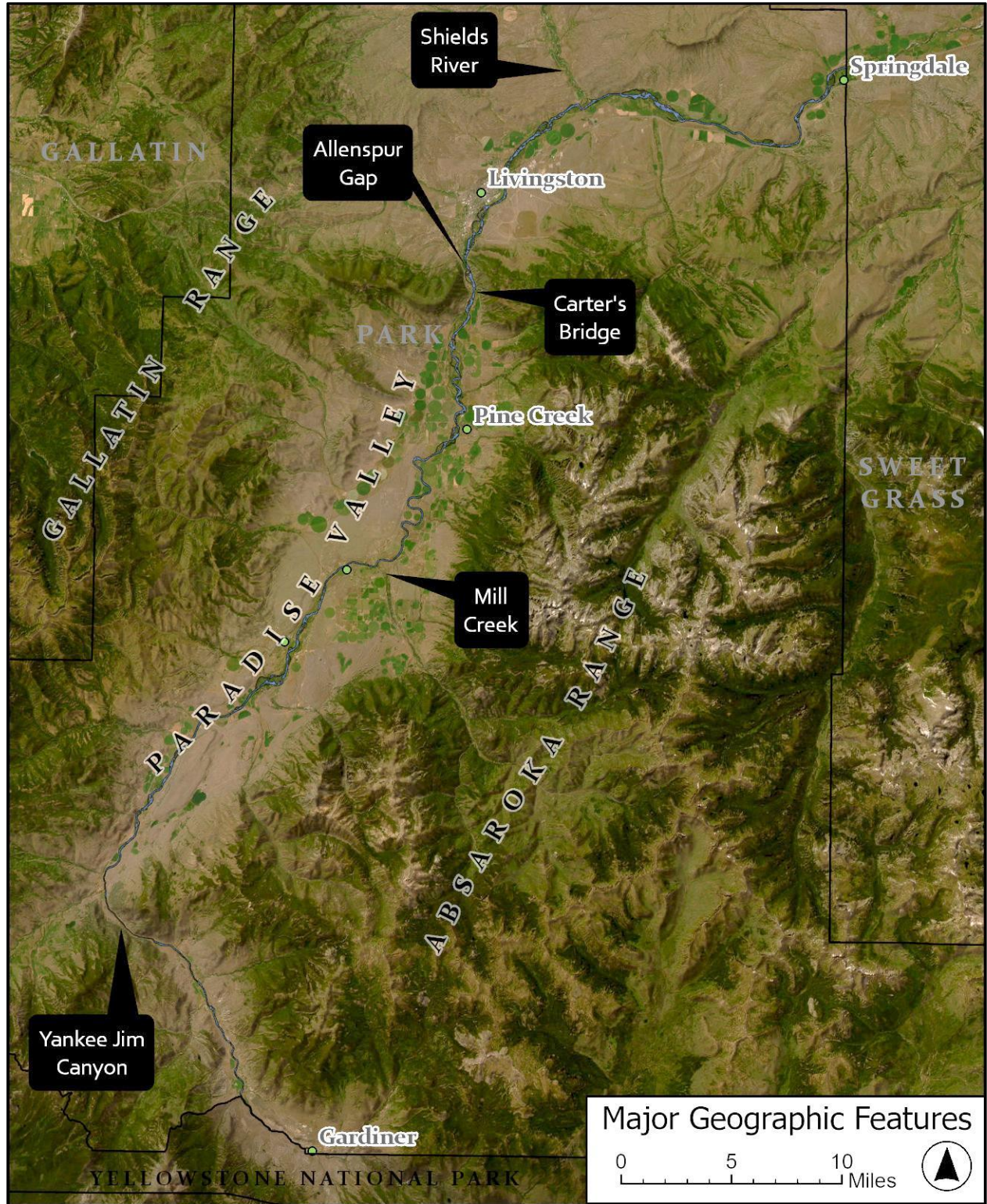


Figure 12. Major geographic features of project area.

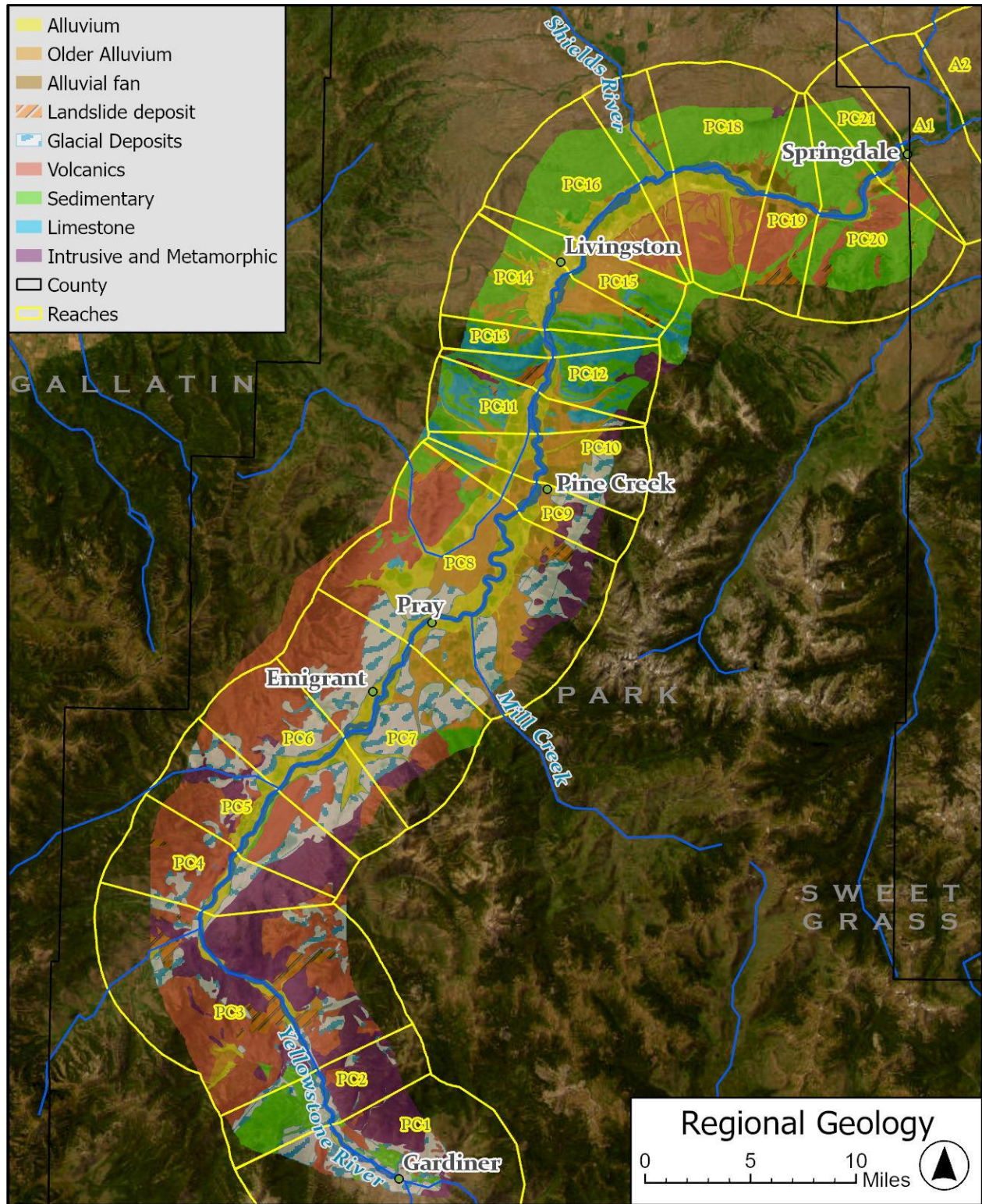


Figure 13. Simplified geologic map of the project area.

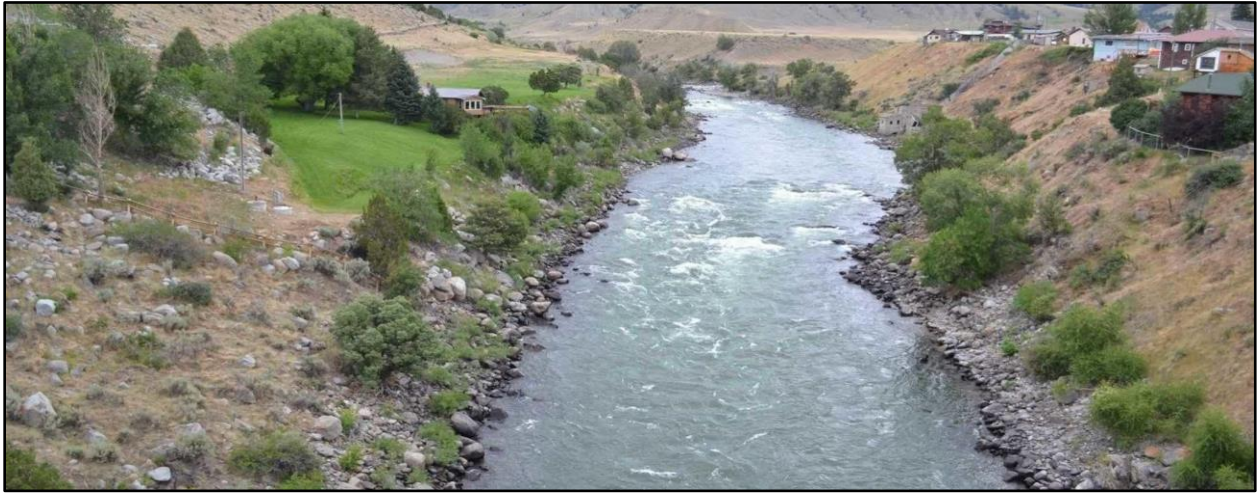


Figure 14. View upstream from Gardiner bridge showing flat glacial terrace on right.



Figure 15. View upstream of bedrock geology of Yankee Jim Canyon (Montana Angler).

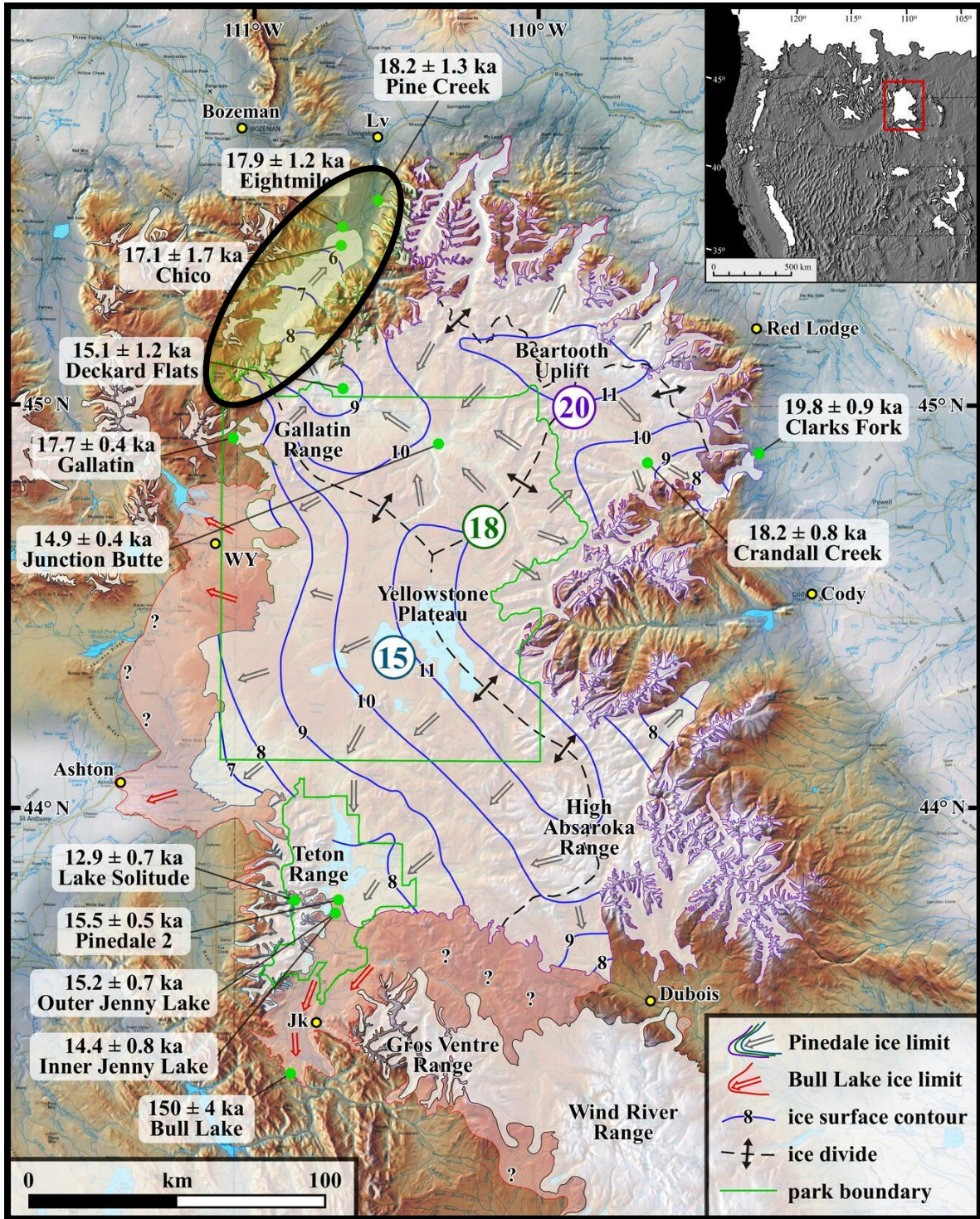


Figure 16. Map showing ice cover in the Yellowstone Region during the Pinedale and Bull Lake Glaciations. Blue lines are contours in thousands of feet showing the reconstructed ice surface. The Yellowstone River valley north of Gardiner is highlighted in the black circle (USGS).



Figure 17. View downstream from 2 miles upstream of Emigrant Bridge showing active narrow corridor in foreground widening out to an approximate 1/2 mile wide riparian corridor; note low adjacent floodplain surfaces; Sixmile Creek is on right of photo (Kestral Aerial Services).



Figure 18. High eroding outwash terrace against river at the Weeping Wall below Pine Creek (Kestral Aerial Services),

The Paradise Valley rapidly tapers near Carter’s Bridge where bedrock exposures of limestone and other sedimentary rocks form a valley bottom constriction (Figure 19). This is known as Allenspur Gap, which is a notch carved through a limestone and sandstone ridge that runs perpendicular to the river. Within this notch, the river bottom is 1,000 to 1,800 feet wide, so that the river is not entirely confined. In the early 1970’s, a dam was proposed for Allenspur Canyon but was ultimately defeated largely due to local resistance. Allenspur Dam was proposed as a 380-foot tall dam with a 250,000 watt power plant that would have inundated the Paradise Valley up to 30 miles upstream.



Figure 19. View downstream showing Allenspur Gap bedrock constriction near Carter’s Bridge - photo center (Kestral Aerial Services).

From Allenspur Gap to the mouth of the Shields River, the town of Livingston has expanded on both sides of the river resulting in a highly developed river segment. Bank armor is extensive. Below the Shields River the stream corridor widens with long multi-thread channel segments supporting broad riparian forests (Figure 20).



Figure 20. Wide active stream corridor below Shields River confluence (Kestral Aerial Services).

2.3 Flood History

Park County sits near the headwaters of the Yellowstone River and maintains a natural spring snowmelt hydrograph, typically peaking in mid-June. There have been seven 10-year or greater flood events on the river in the past 28 years. For many decades the peak flood of record was the event of 1918, when the river peaked at about 30,000 cfs in early June. No additional major floods occurred until 1971, when flows exceeded a 25-year event (Figure 21).

The floods described as Q10, Q50, and Q100 (“100-year flood”) have a 10%, 2%, and 1% probability of occurring in any given year, respectively.

Major geomorphic work was done on the river in 1996 and 1997 when sequential years of heavy snowmelt runoff created two 25-year plus flood events in early June. These floods were followed by a rash of 310 permits to armor banklines through the project reach. The spring of 2011 saw an even larger event that was just over a 50-year flood at Corwin Springs. This was a system-wide event that caused a major oil pipeline rupture downstream near Laurel.

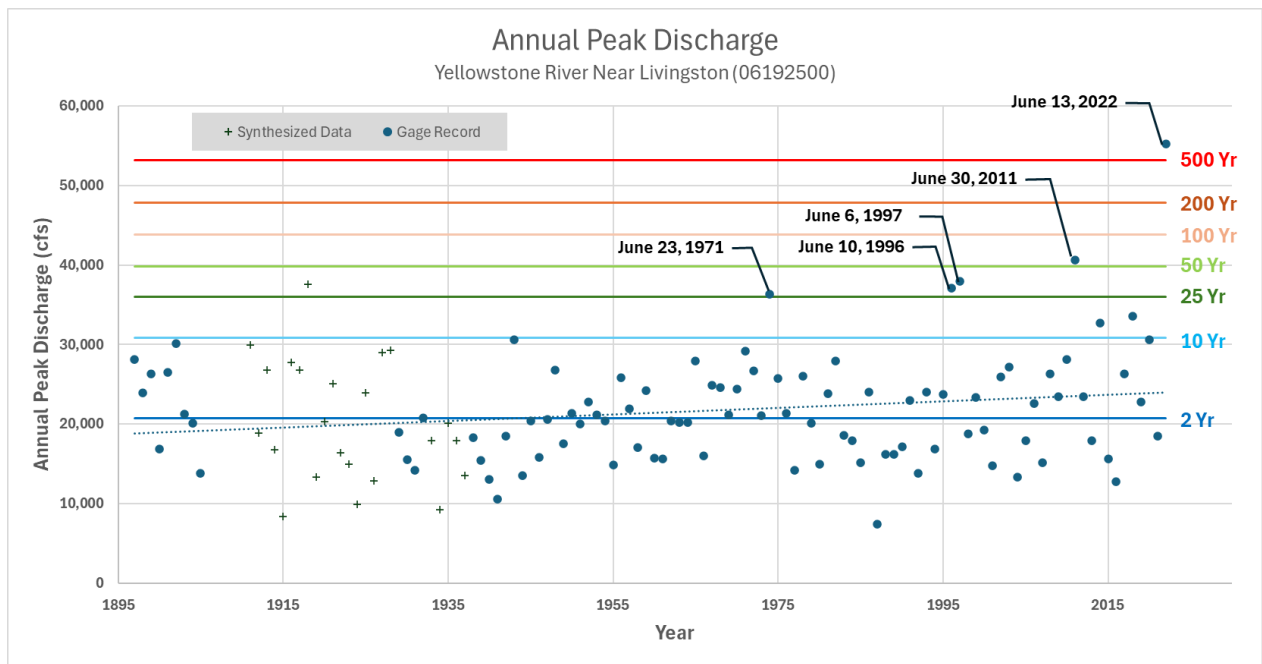


Figure 21. Annual peak floods for USGS 06192500 Yellowstone River near Livingston (Carter’s Bridge).

In late May and early June of 2022, an atmospheric river that had soaked the Pacific northwest dropped several inches of rain in southern Montana and northern Wyoming. The rainfall event coincided with a warm spell that sped up snowmelt. The Absaroka and Beartooth Ranges received up to 5 inches of rain, which was combined with up to an additional 5 additional inches of snowmelt coming off saturated soils (nasa.gov). On Monday, June 13, 2022, the stage of the Yellowstone River at Corwin Springs rose rapidly, reaching a record elevation that was about 2.5 feet higher than the previous record which was set in 1918. The peak discharge at Corwin Springs was estimated by the USGS to be 54,700 cfs.

The flooding was extensive. Yellowstone National Park was closed on June 13 and over 10,000 visitors were evacuated due to safety concerns (Figure 22).



Figure 22. 2022 flood destruction of the Highway 89 North Entrance Road to Yellowstone National Park on the Gardner River, which joins the Yellowstone River at Gardiner.

Although the 2022 event was extreme, it was also short, with flows exceeding 30,000 cfs for about a day. Whereas the instantaneous peak on July 13 was 54,700 cfs, the mean daily flow value on that day was 47,200 cfs. Figure 23 shows mean daily flow hydrographs at Corwin Springs for all the major floods since 1971; the very sharp rise and fall of flows during 2022 was extremely unusual as can be seen by the shapes of the hydrographs.

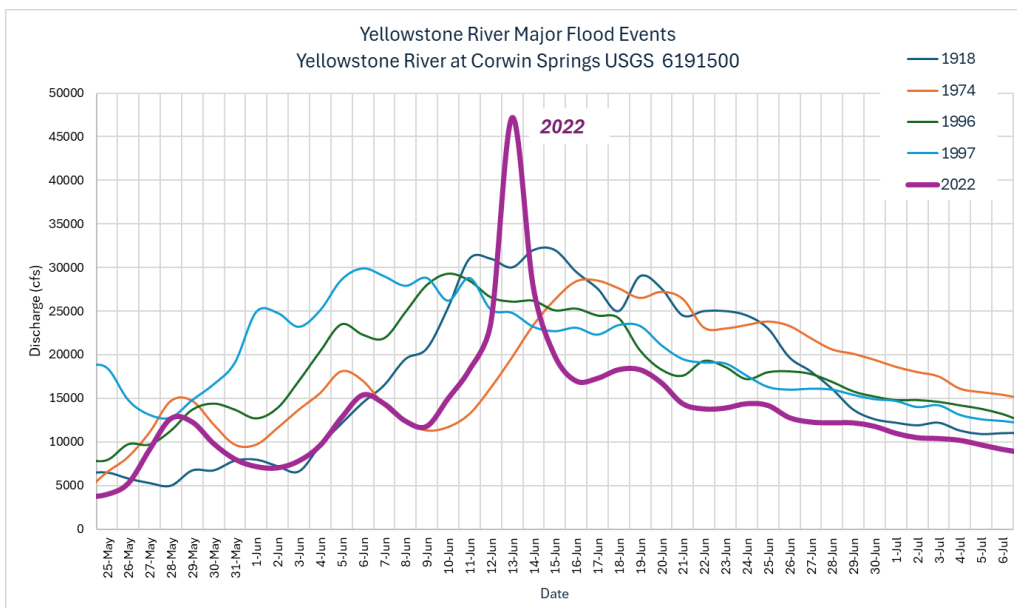


Figure 23. Spring snowmelt hydrographs for major floods on at Corwin Springs. Flows are mean daily values; note short duration of 2022 flood.

The short duration of the 2022 flood made it a different type of event than the previous floods shown in Figure 23. While the magnitude of the flood event is important for evaluating rates of channel change, it is also important to put the duration of the events into perspective (Figure 24). For example, a 25-year flood that lasts for weeks may result in more geomorphic changes than a more extreme but short duration event that may primarily cause flood damage. In 2011, a three-week runoff event on the Musselshell River resulted in 59 avulsions and 37 mile shortening of the river, completely changing its geomorphic form (width, slope, pattern). In 1997, the Yellowstone River stayed above 20,000 cfs on the Corwin Springs USGS gage for almost three weeks, causing extensive bank erosion and channel movement. The June 2022 event peaked quickly before dropping back down, only exceeding a mean daily flow of 20,000 cfs for 3 days. Bank erosion was common, but a longer duration flood would have created much more damage. That said, the rapidly rising flows created extensive floodplain damage due to high volumes of wood and sediment entering in the river (Figure 25 to Figure 27). That material will continue to be reworked in coming years, creating a potentially long adjustment period post-2022.

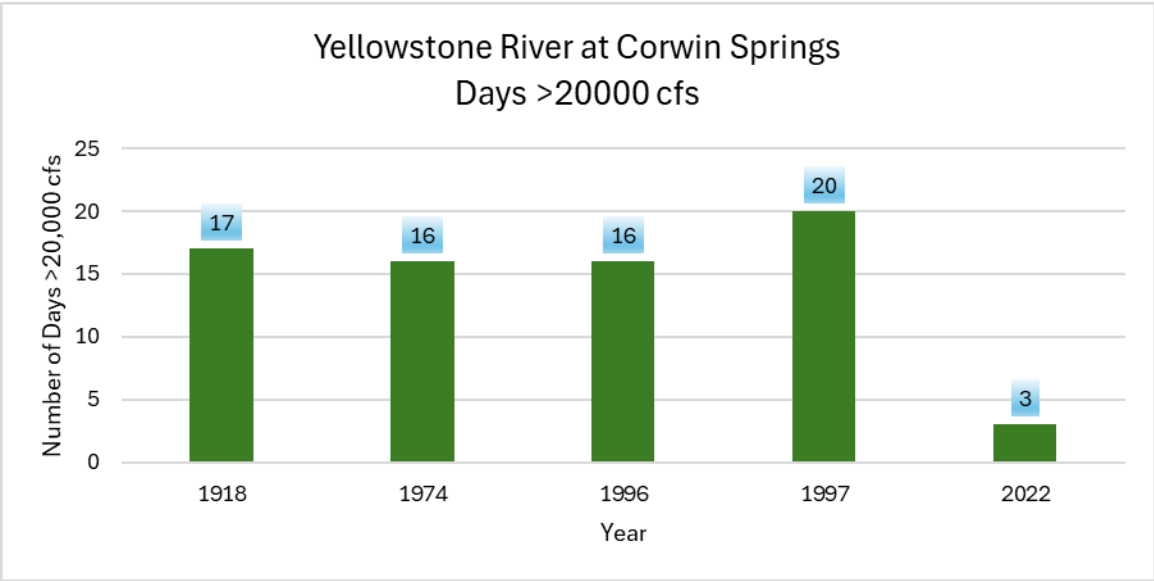


Figure 24. Number of days mean daily flows exceeded 20,000 cfs at Corwin Springs for major flood events.



Figure 25. Woody debris removal from Yellowstone River floodplain following 2022 flood (Kestrel Aerial Services).



Figure 26. High terrace erosion at Mallards Rest that threatened the access road behind the photographer and resulted in closure.



Figure 27. Miles of fencing were destroyed during the 2022 flood.

Although the short duration 2022 flood did not completely alter the form of the river system-wide, the very high peak caused different processes to occur, creating major changes in certain areas. One of the most striking changes was where the river is deeply entrenched in coarse outwash material upstream of Yankee Jim Canyon. In these sections, coarse boulders accumulated from the high banks had been naturally protecting the bank toes, forming a natural riprap that helped stabilize the channel during previous floods. Although the 2022 event was relatively short, its extreme magnitude caused that material to mobilize, destabilizing those banks which resulted in extensive erosion, channel widening, and downstream sediment delivery. Figure 26 shows one area near Gardiner where the river almost doubled in width from 120 to 220 feet.



Figure 28. Time series of channel segment near Gardiner showing relatively stable channel form from 1948-1973 followed by about 100 feet of widening during the 2022 flood; the house circled in the 2021 image was lost during the flood.

2.4 Dikes and Levees

There are approximately 18.5 miles of floodplain dikes and levees on the Yellowstone River in Park County, including those in the City of Livingston and along the private spring creeks at the northern end of Paradise Valley. These features are maintained to limit floodwater in adjacent land area and reduce channel migration, though none are certified floodplain levees.

2.5 Bank Armor

Bank armor locations and extents were compiled from a variety of sources including field mapping, interpretation of aerial photography, and third-party reports. No on-the-ground mapping of armor was performed, so the mapped features likely underestimates the amount of actual armor within the system on current and active channels. Some of the armor has failed since the mapping and that “lost” armor has not been completely removed from the current data set. Additionally, the bank armor inventory has no assessment of condition or functionality. The bank armor consists of rock riprap, barbs, and other revetments such as root wad structures and concrete rubble.

Based on the 2015 Cumulative Effects Assessment (USACE, 2015), there were approximately 23.1 miles of armor on the Yellowstone River in Park County in 2001. This armor inventory was updated for this study to include 2011 and 2023 conditions, noting both new and lost armor at each time period. By 2011, the amount of armor had increased to 28.9 miles and by 2023 there were 31.5 miles of armor. Another way to look at this is in terms of the percent of bankline that is armored, not including levees. From 2001 to 2023 the percentage of armored bankline has increased from 13% to 18%. Some reaches are upwards of 25% armored (USACE, 2015).

This is in addition to approximately 18.5 miles of levees along the Yellowstone River in Park County.

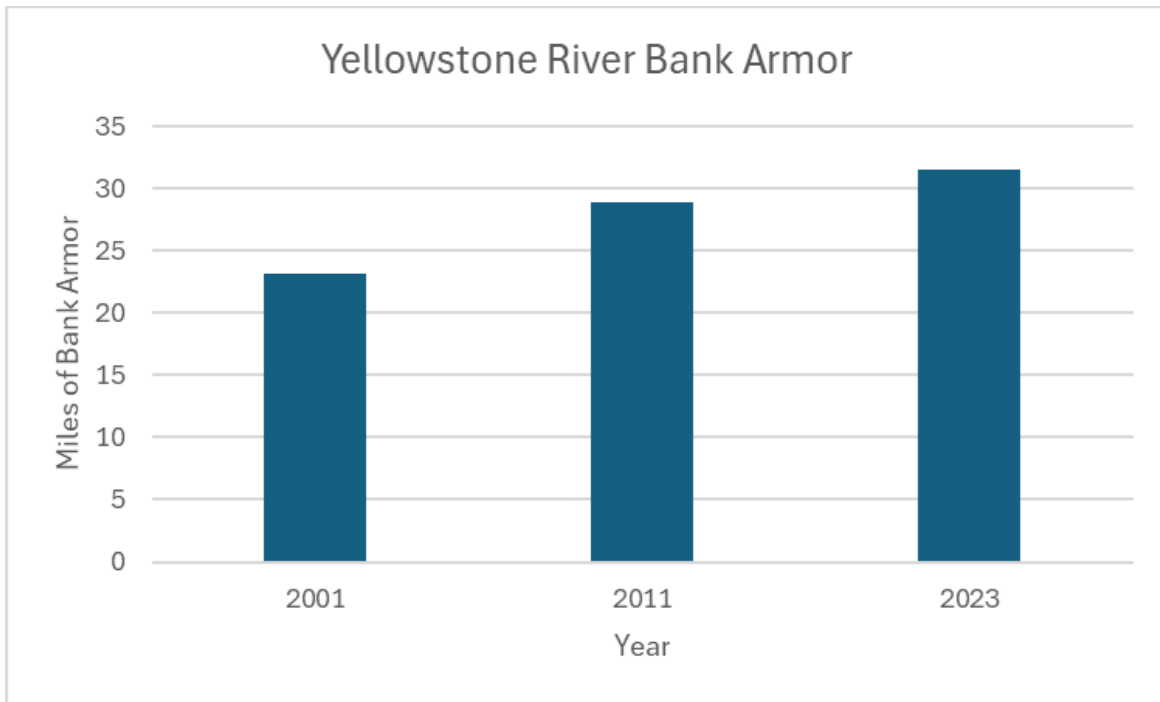


Figure 29. Growth in mapped bank armor in Park County, 2001-2023.

3 Methods

The development of the Park County Yellowstone River Channel Migration Zone (CMZ) mapping is based on established methods used by the Washington State Department of Ecology (Rapp and Abbe, 2003), and closely follows methodologies used on over 1,300 miles of rivers in Montana to date.

3.1 Project Reaches

Since the approach to CMZ mapping used here includes a reach-scale evaluation of channel migration rates, the project was subdivided into reaches based on fundamental aspects of geomorphology including valley type, geologic controls, river pattern, and rates of change (Table 1 and Figure 30). These reaches were developed for the 2015 Cumulative Effects Study and were not revised for this mapping effort. There are 21 reaches defined for the 86 miles of Yellowstone River in the county. The reaches are numbered from upstream to downstream starting in Gardiner, MT and ending at the county line near Springdale, MT.

Table 1. Park County Mapping Project reaches from 2015 Cumulative Effects Assessment.

Reach	General Location	Upstream RM	Downstream RM	Length (mi)
PC01	Gardiner to Little Trail Creek	564.7	560.2	4.5
PC02	Devil’s Slide area	560.2	557.1	3.1
PC03	Corwin Springs to Carbella; Yankee Jim Canyon	557.1	546.8	10.3
PC04	Carbella to Hwy 89 Bridge	546.8	543.2	3.6
PC05	Hwy 89 Br. to Big Creek	543.2	539.3	3.9
PC06	Big Creek to Six Mile Creek	539.3	535.1	4.2
PC07	Six Mile Cr to Grey Owl	535.1	528.1	7
PC08	Grey Owl to just below Mallard’s Rest	528.1	516.3	11.8
PC09	To Pine Creek	516.3	514.4	1.9
PC10	To downstream of Deep Creek; Weeping wall, Jumping Rainbow; onset of spring creeks	514.4	510.9	3.5
PC11	To near Suce Creek, Wineglass Mountain to west	510.9	508.6	2.3
PC12	To Carters Bridge	508.6	506.6	2
PC13	Through Allenspur Canyon upstream of Livingston	506.6	505.0	1.6
PC14	To Livingston	505.0	501.6	3.4
PC15	To Mayor’s Landing	501.6	499.8	1.8
PC16	To just upstream of Hwy 89 Bridge	499.8	495.5	4.3
PC17	Through Hwy 89 Bridge crossing to Shields River	495.5	493.5	2
PC18	To below Mission Creek	493.5	488.2	5.3
PC19	To near Locke Creek	488.2	485.5	2.7
PC20	To Irrigation Diversion on River Left	485.5	481.0	4.5
PC21	To County Line near Springdale	481.0	478.4	2.6

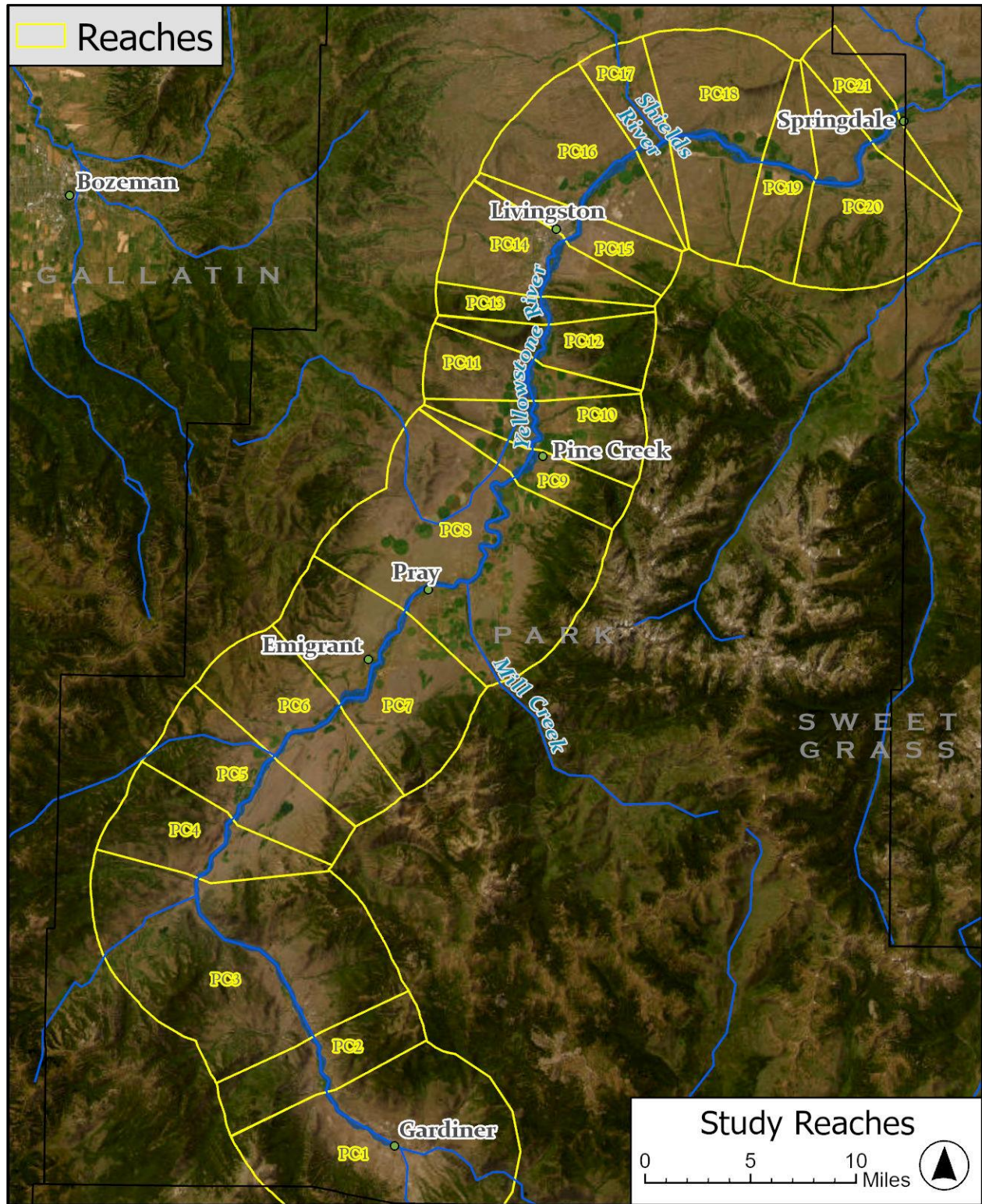


Figure 30. Yellowstone River CMZ Mapping project reaches.

3.2 GIS Project Development

All project data was compiled using ESRI’s ArcGIS Pro Geographic Information System (GIS) utilizing a common coordinate system - Montana State Plane NAD83 Meters. The orthorectified air photos provide the basis for Channel Migration Zone mapping. Other existing datasets included roads, 2020 LiDAR, flood studies, scanned General Land Office Survey Maps obtained from Bureau of Land Management, and geologic maps produced by the United States Geological Survey. Stream stationing at tenth-of-a-mile increments and reaches developed for the Yellowstone River Cumulative Effects Study are used as the linear and spatial referencing for all discussions.

3.3 Aerial Photography

CMZ development from historic imagery is dependent on the availability of appropriate imagery that covers the required time frame (50+ years), the spatial coverage of that imagery, and the quality of the photos. It is important to use imagery with the best possible quality, scale, extent, and dates so that historic and modern features can be mapped in sufficient detail.

This project is an update and integration of the 2009 channel migration study which utilized river locations as defined by bankfull channel extents digitized from imagery between 1948 and 1999. This update includes river locations from four newer suites of imagery, including pre-flood (2021 NAIP) and post-flood (2023 50cm satellite) imagery. General information for each of the imagery suites are shown in Table 2 and discussed below. In general, the imagery spans from 1948 to 2023. Additionally, there are several partial imagery suites available for Park County which were used to refine the channel migration history, though no banklines were mapped for these imagery suites.

Table 2. Aerial photography used for the Yellowstone River Channel Migration Mapping Study.

Year	Source	Scale	Image Date(s)	Notes
1948	USDA	1:20,000	NA	Georeferenced
1999 DOQQ	USDA	~ 1 meter resolution	NA	
2011 NAIP	USDA	~ 1 meter resolution	NA	No Islands were mapped.
2015 NAIP	USDA	~ 1 meter resolution	NA	Digital Download, Compressed County Mosaics (color)
2021 NAIP	USDA	~ 1 meter resolution	NA	Digital Download, Compressed County Mosaics (color)
2023	WorldView2 / WorldView3	50-cm	July 12, Sept 19, and Sept 24, 2023	Processed by LandInfo Worldwide Mapping, LLC

The 1948 imagery consists of high-resolution scans from archival imagery from the USDA. The individual images were merged into a single georeferenced mosaic for each time period. Starting with the Digital Orthophoto Quad imagery from the 1990s and continuing with the National Agricultural Imagery Program (NAIP) in 2005, the USDA provides orthorectified images for download. NAIP is generally flown every two years in Montana on odd numbered years. The 2023 NAIP imagery was not collected for Park County, likely due to cloud cover or wildfire

smoke impairing the image quality. To capture the impacts of the 2022 flood the missing 2023 imagery was replaced with WorldView-2/3 archived satellite imagery acquired through Land Info Worldwide Mapping. The imagery was delivered 50-cm pan-sharpened mosaic tiles (Figure 31). The mosaic was visually assessed for spatial accuracy using 2021 NAIP imagery.



Figure 31. Example 50-cm WorldView 2/3, ~0.5 miles below Pine Creek Bridge.

Figure 32 to Figure 37 provide imagery examples at the same location along with the associated digitized bankfull channel boundaries.



Figure 32. Example 1948 imagery at Point of Rocks.



Figure 33. Example of 1999 DOQQ imagery at Point of Rocks.

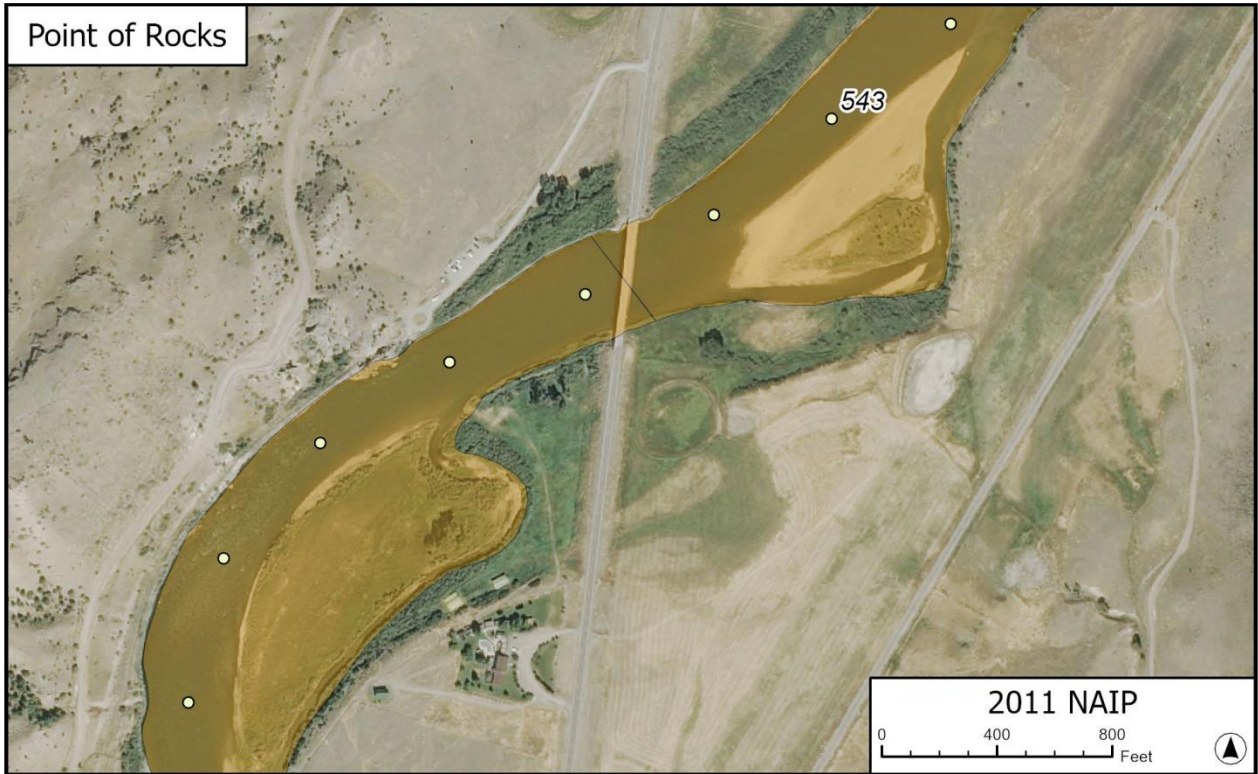


Figure 34. Example of 2011 NAIP imagery at Point of Rocks.

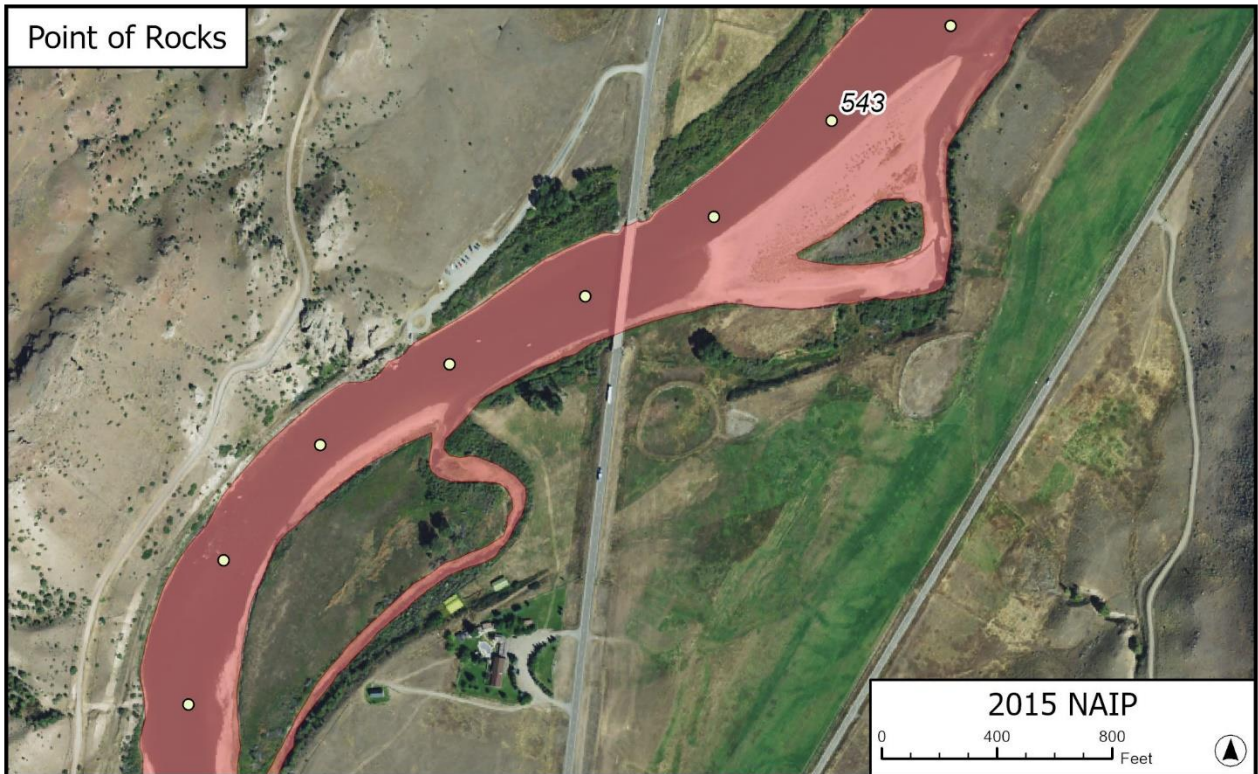


Figure 35. Example of 2015 NAIP imagery at Point of Rocks.



Figure 36. Example of 2021 NAIP imagery at Point of Rocks.

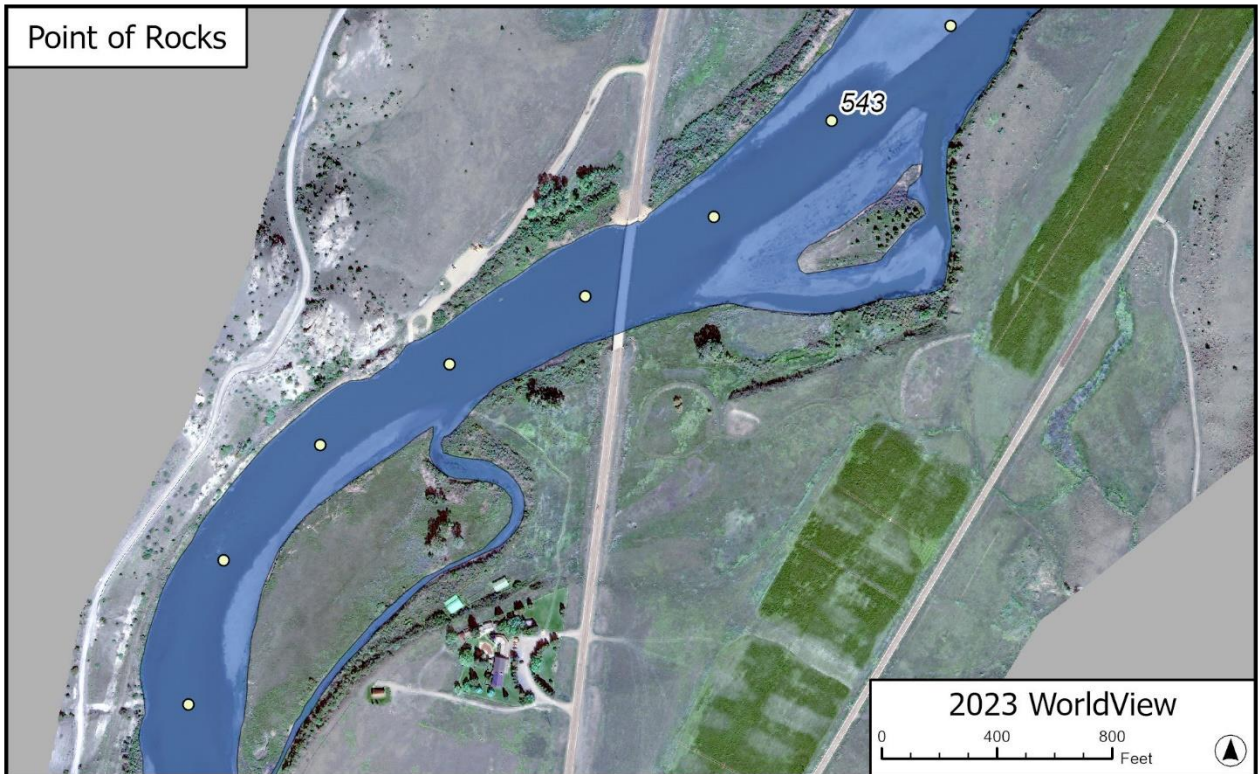


Figure 37. Example of 2023 50-cm WorldView imagery at Point of Rocks.

3.4 Bankline Mapping

Bankline mapping was developed for each suite of imagery to approximate bankfull conditions. Banklines prior to 2015 were developed for the Yellowstone River Cumulative Effects Assessment. All banklines were digitized at a scale of ~1:3,000. Bankfull is defined as the stage above which flow starts to spread onto the floodplain. Although that boundary can be identified using field indicators or modeling results (Riley, 1972), digitizing banklines for CMZ development requires the interpretation of historic imagery. Therefore, we typically rely on the extent of the lower limit of perennial, woody vegetation to define channel banks (Mount & Louis, 2005). This is based on the generally accepted concept that bankfull channels are inhospitable to woody vegetation establishment. Fortunately, shrubs, trees, terraces, and bedrock generally show distinct signatures on both older black-and-white as well as newer color photography. These signatures, coupled with an understanding of riparian processes, allow for consistent bankline mapping through time and across different types of imagery.

Examples of the bankline mapping can be found in Section 3.3.

3.5 Migration Rate Measurements and the Erosion Hazard Area (EHA)

Once the banklines were digitized, they were evaluated in terms of discernable channel migration between 1948 and 2023. Where migration was clear, vectors (arrows with orientation and length) were drawn in the GIS to record that change. At each site of bankline migration, measurements were made in the GIS approximately every 500-700 feet (Figure 38). A total of 1,382 measurements were made along the length of the Yellowstone River in Park County. These measurements were then summarized by reach. The results were then used to define a reach-scale erosion buffer width to allow for likely future erosion.

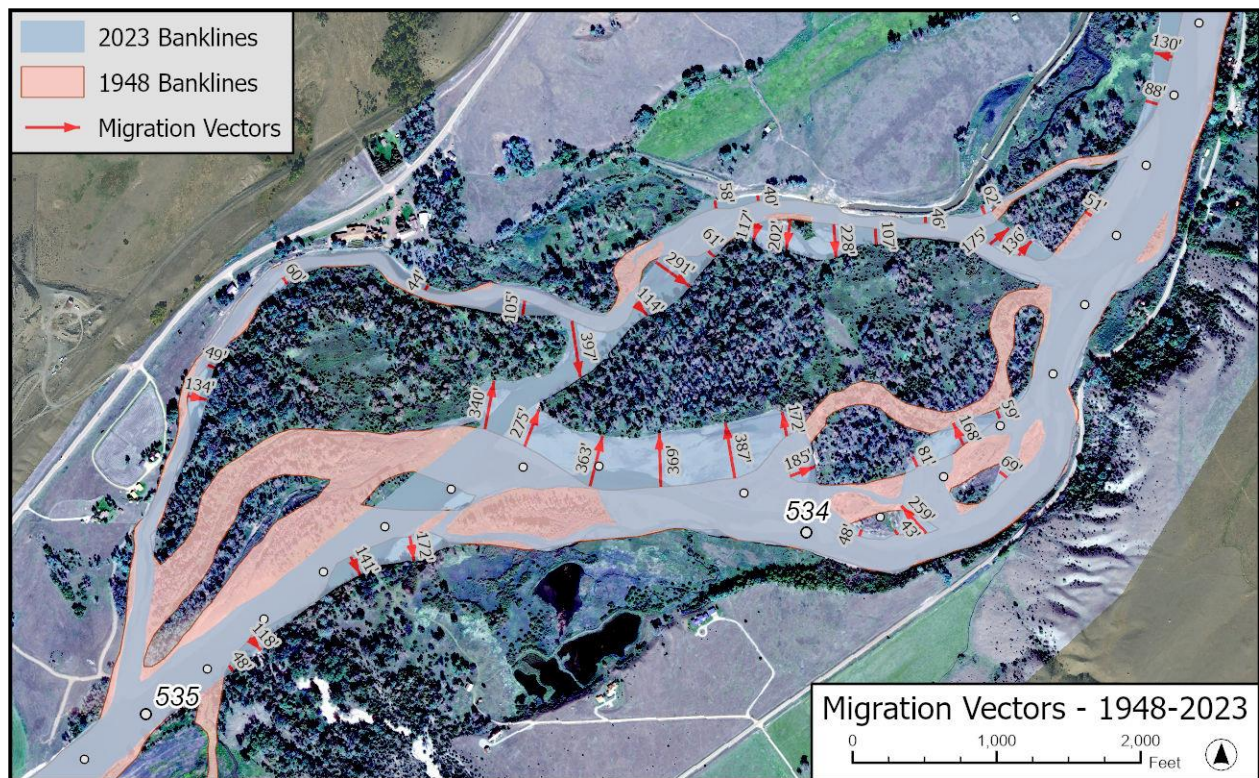


Figure 38. Example of migration measurements between 1948 and 2023 (migration distance in feet).

The Erosion Hazard Area (EHA) is based on measured migration rates, which are derived from measured migration distances. Migration distances between the 1948 and 2023 banklines were measured where it was clear that the channel movement was progressive lateral movement and not an avulsion. Measurements were collected at a spacing of 500-700 feet along eroding banklines to capture the entire range of migration distances at a given site. The minimum amount of movement captured is 40 feet, as this proved to be an easily measurable distance that is not compromised by the resolution or spatial accuracy of the data. Using this approach, a total of 1,382 measurements were made, with 651 measurements being greater than 40 feet. The migration measurements were also attributed with whether they are measuring migration through valley bottom alluvium (Qal) or through terrace materials. Note that terrace migration rates were not summarized by reach due to a similarity between rates on terraces for all reaches.

Error! Reference source not found. shows the distribution of measurements for each reach. On these plots, the “box” is defined by the 25th and 75th percentile values. The median value is a horizontal line in the box and the average is denoted by an “X”. Statistical outliers are shown as individual dots above the boxes. The results show that 10 of the 21 reaches have individual areas of markedly high migration rates that show up as outliers on the plot.

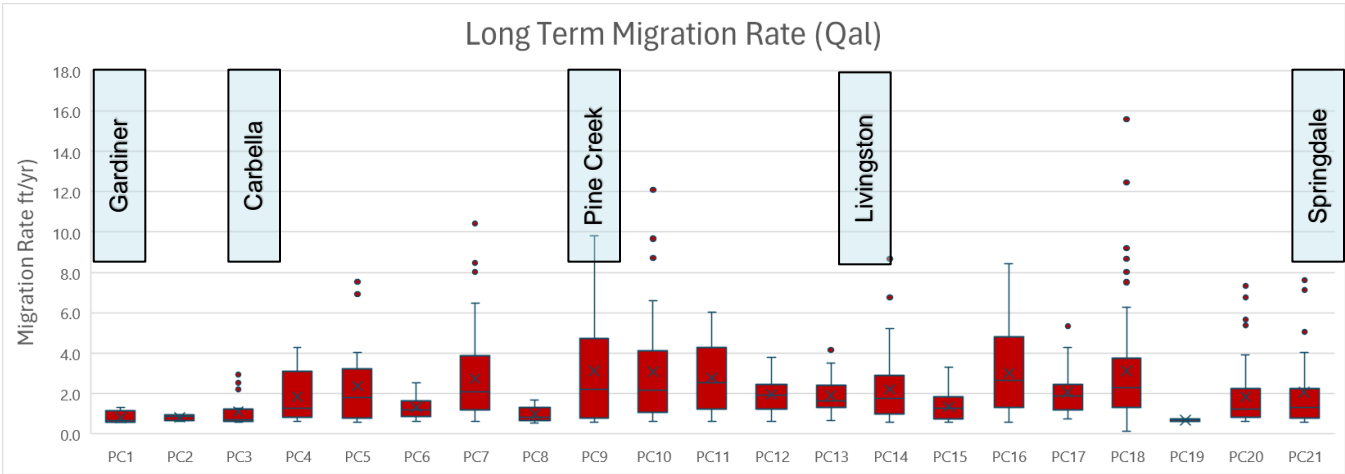


Figure 39. Annual migration rate box and whisker plots.

This provides an indicator of the maximum migration rates each reach has experienced in the past so that landowners and agencies alike can account for typical (median) rates and/or extreme rates of movement when appropriate.

The objective of the migration rate analysis is to generate an empirical value that can be used to define the erosion buffer for each reach; that is, the distance the river is reasonably expected to migrate in a defined future time period – generally 100 years. In many systems where the migration rates cluster and show limited variability, the mean value is used to define the buffer. This was the case with the Yellowstone River. For terraces, a 100-year buffer of 80 feet was used for low and high terraces (Qt1 and Qt2), while 69 feet was used for the glacial outwash terraces (Qg) in the uppermost reaches.

Table 3 shows the resulting 100-year erosion buffer distance values for each reach. They range from about 80 feet in the more confined reaches, to over 300 feet in less confined reaches. These buffer widths were placed on the landward edge of the 2023 banklines and are shown as “Erosion Hazard Area” on the CMZ maps. If the buffer is partly or fully within the Historic Migration Zone (HMZ), it is trumped by the HMZ map unit and thus underlies it. As a result, the buffer is not always visible on the maps.

Table 3. Mean migration annual rate and 100-year EHA buffer by reach for alluvium.

Reach	Number of Measurements	Mean Annual Migration Rate (ft/yr)	90 th Percentile Annual Migration Rate (ft/yr)	100- Year Buffer Width (ft)
PC1	4	0.80	1.12	80
PC2	4	0.80	0.91	80
PC3	20	1.10	2.35	110
PC4	17	1.83	4.01	183
PC5	26	2.36	5.47	236
PC6	14	1.30	2.10	130
PC7	87	2.71	5.61	271
PC8	12	0.96	1.45	96
PC9	26	3.11	6.54	311
PC10	32	3.07	6.43	307
PC11	20	2.76	4.84	276
PC12	31	1.95	3.43	195
PC13	23	1.89	3.40	189
PC14	50	2.19	4.09	219
PC15	23	1.35	2.07	135
PC16	64	3.01	6.09	301
PC17	24	2.06	3.22	206
PC18	81	3.11	7.51	311
PC19	2	0.66	0.71	66
PC20	59	1.83	3.58	183
PC21	32	2.06	4.93	206

Since the location and intensity of bank erosion shifts with time on dynamic rivers, the erosion buffer is assigned to all banks, even those not currently eroding, to allow future bank movement at any given location. This is consistent with the Reach Scale approach outlined by the Washington State Department of Ecology (WSDE, 2010). The general approach to determining the Erosion Buffer (using the annual migration rate to define a 100-year migration distance) is similar to that used in Park County (Dalby, 2006), on the Tolt River and Raging River in King County, Washington (FEMA, 1999), and as part of the Forestry Practices of Washington State (Washington DNR, 2004).

An example of EHA mapping is shown in Figure 40. If the EHA extends into the Historic Migration Zone, it is masked by the HMZ so that areas of historic channel locations are prioritized in the mapping hierarchy. As a result, the EHA is typically discontinuous along the river.

Once the buffers are placed on the 2023 banklines, areas of bedrock geology are clipped out (Figure 41) to reflect the likely lack of lateral channel migration in those areas during the 100-year life of the CMZ.

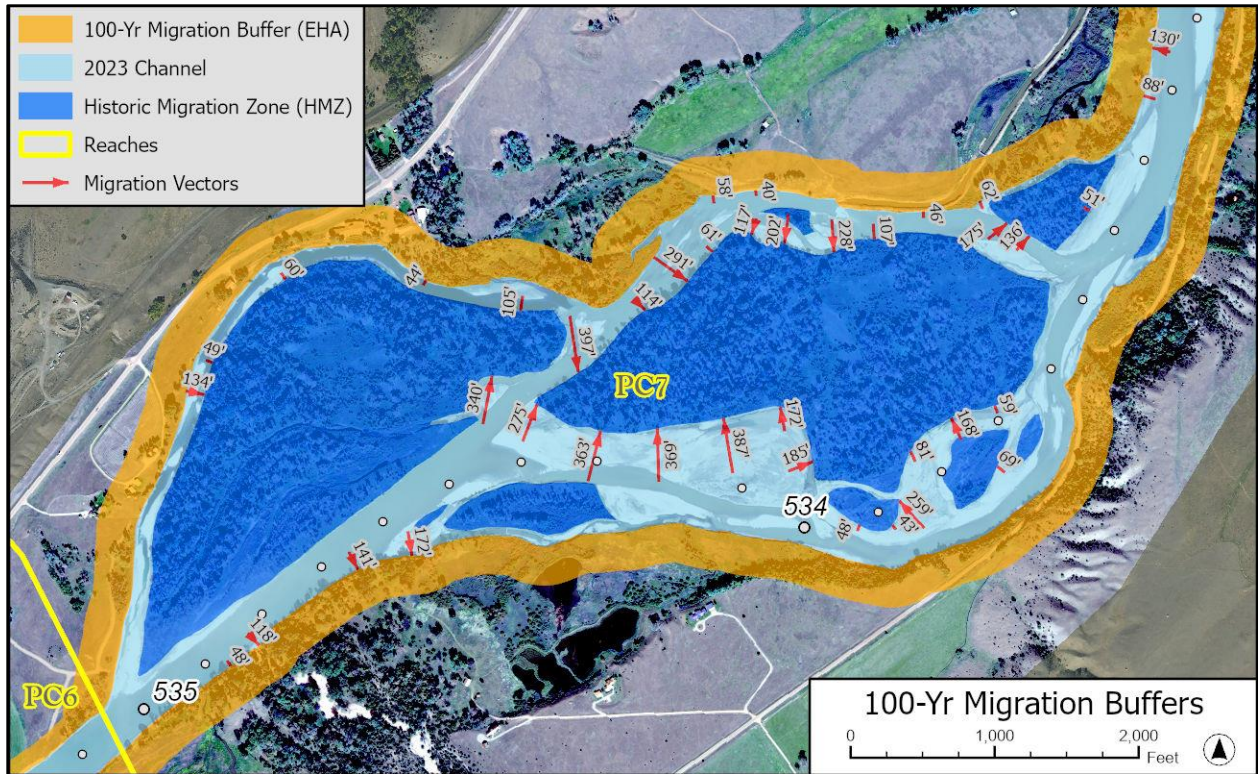


Figure 40. The Erosion Hazard Area (EHA) is a buffer placed on the 2023 banklines based on 100 years of channel migration for the reach.

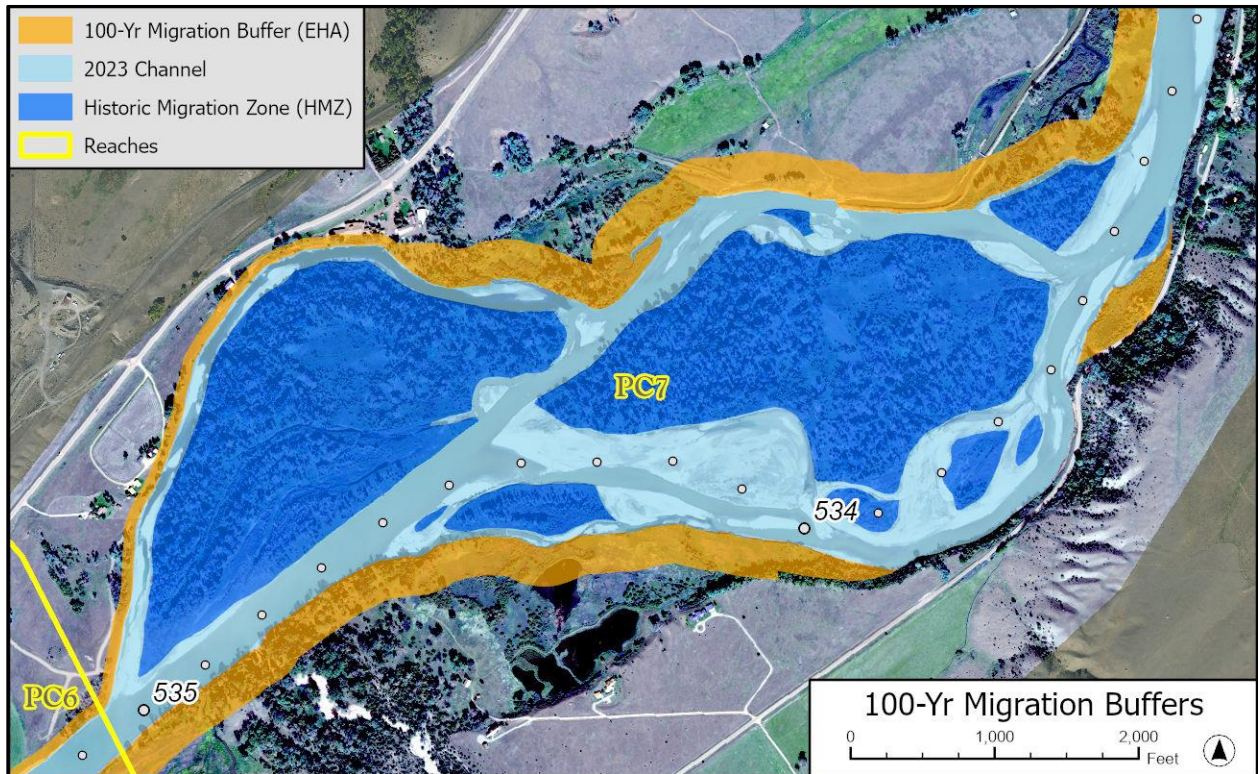


Figure 41. 100-year migration buffers clipped for geology and erosion resistant terraces.

3.6 Avulsion Hazard Mapping

The avulsion hazard mapping captures areas beyond the core CMZ (HMZ + EHA) that show some propensity for developing new active channels in floodplain areas, such as at meander cores or continuous abandoned channels. It does not imply that the entire river will be captured by these channels, just that they could become more geomorphically active in the event of channel migration into a given area, intense flooding, or due to flow deflections out of the main channel due to wood or ice jams. In a broad sense, avulsions could occur virtually anywhere on the entire floodplain if the right conditions were to occur. As such, avulsion pathways were identified and mapped using criteria that reflect an increased potential for floodplain channel activation. These criteria include:

- Potential flow paths on the floodplain that are substantially steeper than the existing channel slope. This commonly occurs through the cores of meander bends, where the potential flow route through the meander is shorter and steeper than the route along the longer channel course.
- Floodplain swales that are vertically connected to the river; typically no more than four feet above the LiDAR water surface elevation.
- Swales carrying concentrated floodwaters during the 2022 flood.
- Well-defined continuous flow paths that intersect the core CMZ (HMZ and EHA) boundaries

The Yellowstone River floodplain generally has a well-defined boundary as defined by terrace margins that creates a complex riparian corridor. While there are areas with networks of floodplain swales, such the spring creeks immediately upstream of Carter’s Bridge, the area around the Livingston HealthCare hospital in Livingston, and several areas around the Hwy 89 Bridge, many of these areas are captured by the HMZ and thus do not have a mapped avulsion hazard.

The Avulsion Hazard Zone (AHZ) includes the areas of the river landscape, such as relic channels and swales that are at risk of channel occupation outside of the Historic Migration Zone (HMZ). These areas are identified using a Relative Elevation Model derived from the 2020 hi-resolution LiDAR elevation collected between Sept 13 - Oct 9, 2020. REM models depict the elevations adjacent to the river channel and are critical for identifying potential avulsion pathways. Figure 42 shows an example of the REM downstream of the Hwy 86 Bridge. Historic river channels show up as dark blue pathways in the floodplain, with warmer colors (yellows and reds) indicating areas above the river channel. Potential flow paths are shown in dashed lines.

The AHZ is defined by the outer most flow pathway that has potential connectivity to the main channel either by overtopping the bank or by erosion through the bank to connect to the swale. A minimum difference in elevation of four feet between the river and the head of the swale was required to define a potential avulsion path. The AHZ is placed beyond any Erosion Hazard Area (EHA) buffer (Figure 43).

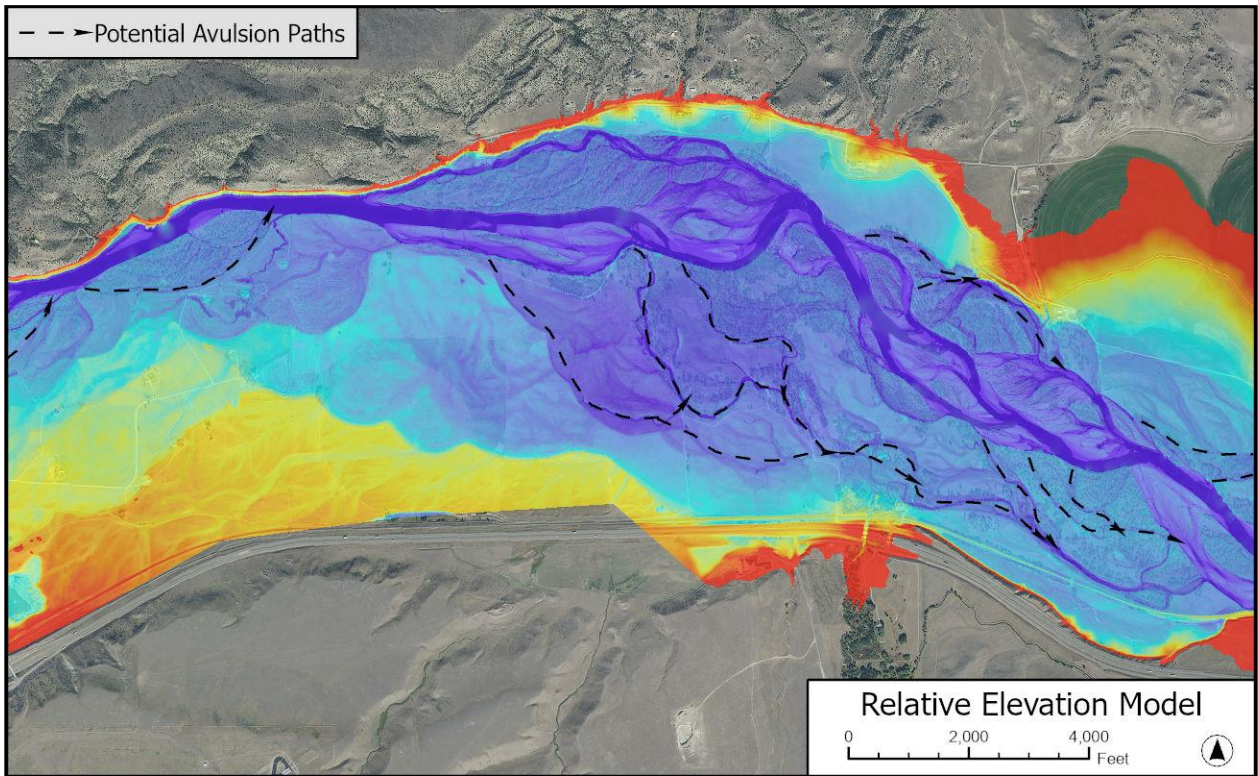


Figure 42. Example Relative Elevation Model and potential avulsion pathways downstream of Hwy 89 Bridge.

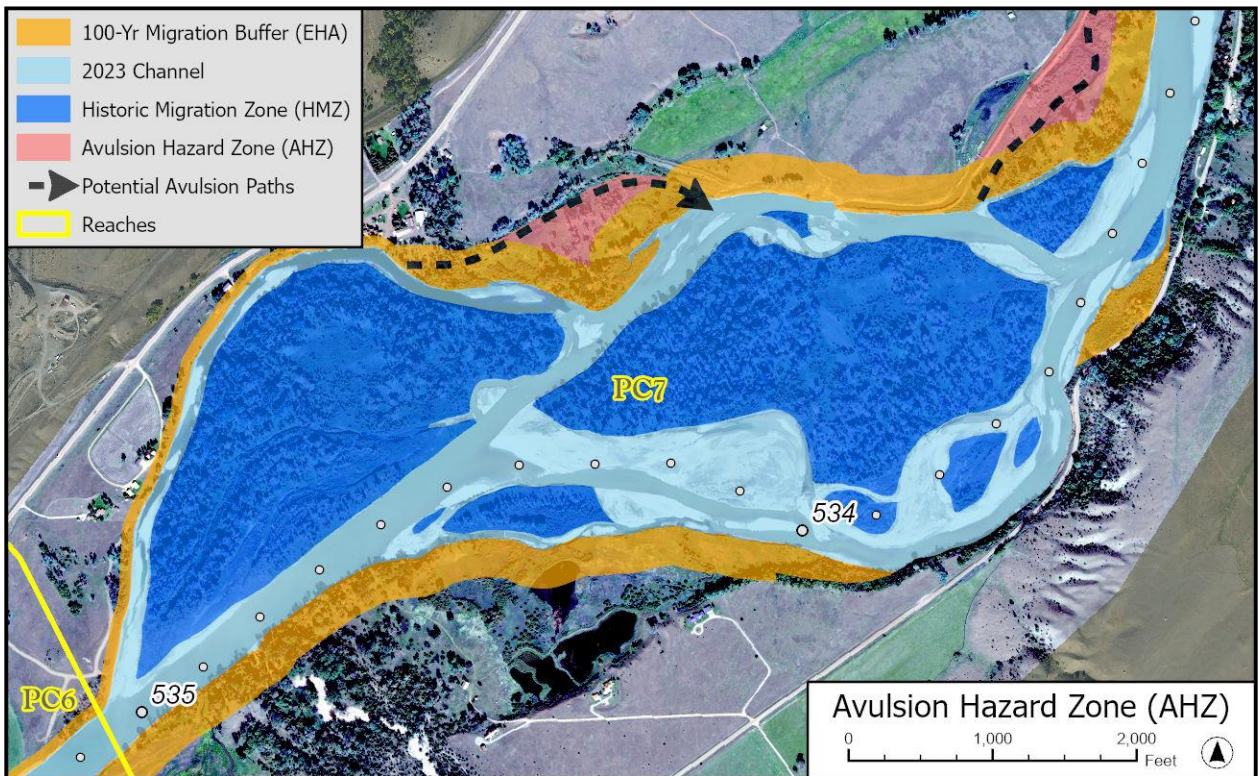


Figure 43. Example avulsion pathways.

3.7 Rapidly Eroding Bankline Assessment

The June 2022 Yellowstone River flood resulted in unique impacts to some of the banklines where they were over steepened due to rapid erosion. This was most evident in the confined upper reaches between Gardiner, MT and Yankee Jim Canyon where banklines that were naturally armored experienced erosion where the natural armor was mobilized. This resulted in banklines that were steeper than their natural angle of repose (Figure 44). These banklines will continue to “lay back” over time to reach a more natural slope angle, even if the toe of the bank experiences no more lateral movement.

To help identify this hazard, a 2:1 (2 horizontal to 1 vertical) surface was created from the mapped 2023 banklines. A 2:1 slope angle is consistent with FWP and CD assessment criteria for projects and permitting. Areas that were identified as exceeding the 2:1 surface were highlighted if they were greater than 10 feet high (Figure 45). This overlay on the CMZ maps indicates areas that will likely see continued adjustment to the top of bank, independent of any natural channel movement.



Figure 44. A bankline with a vertical scarp associated with 2022 bankline erosion.

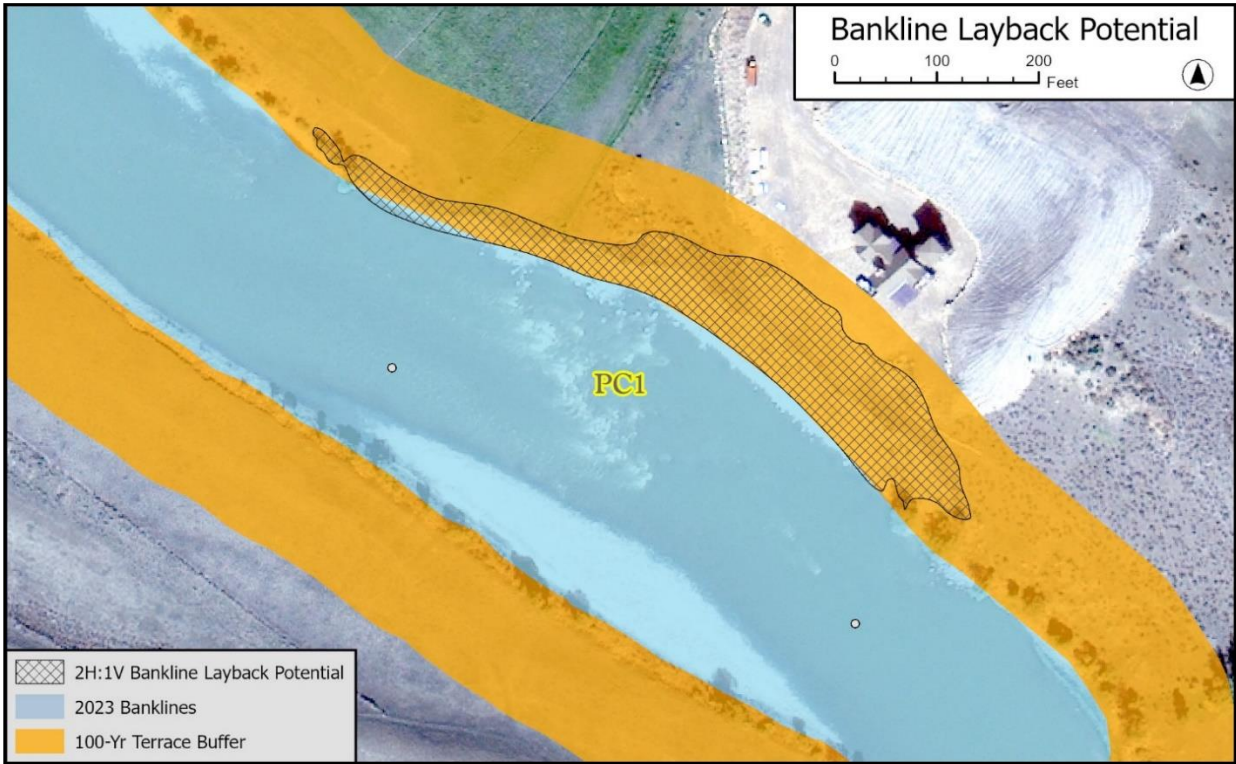


Figure 45. High, overly-steepened banklines resulting from the 2022 flooding were identified as at risk of continued layback as the bankline adjusts to the new channel location. Note that the home was moved back ~100' after the flood.

3.8 Composite Map

The composite map integrates all elements of the Channel Migration Zone map.

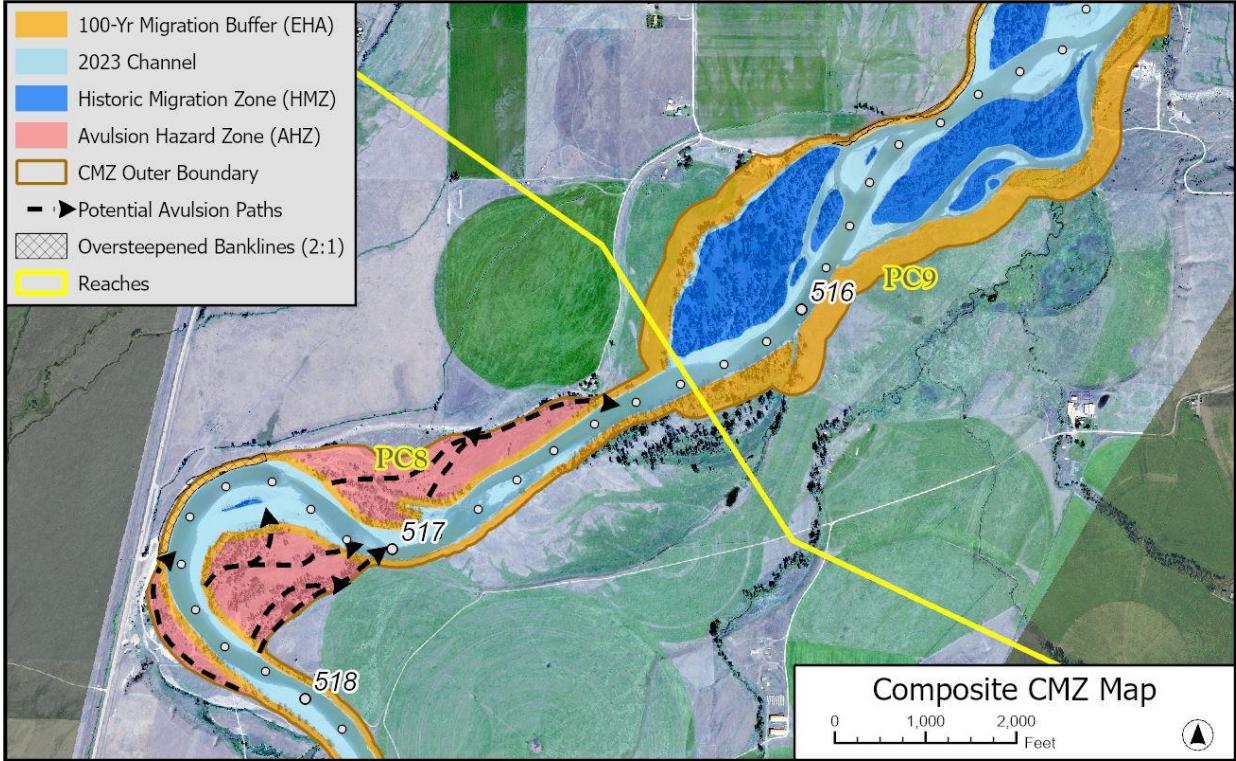


Figure 46. The composite CMZ map.

4 Channel Migration Concerns for the Yellowstone River in Park County

The following sections describe areas of concern on the Upper Yellowstone River resulting from channel migration and in some cases the 2022 flood. The descriptions are organized either by geography, as in the Gardiner area, or by topic. Several of the areas of concern identify specific locations identified by Park County personnel, internal review and public outreach, where channel migration or flooding are impacting existing infrastructure.

Note: All references to River Miles (RMs) reflect the river stationing used in the Yellowstone Cumulative Effects Assessment and differ from the Fish Wildlife and Parks river stationing. Wherever streambanks or floodplain areas are described as “right” or “left”, that refers to the side of the river as viewed in the downstream direction. For example, “RM 492.4R” refers to the right streambank located 492.4 miles upstream of the river’s mouth.

4.1 Gardiner and the Upper River

The area around Gardiner, MT deserves special attention due to the unique flood impacts in that area. In the 2009 CMZ mapping, the area through Gardiner displayed no evidence of lateral channel migration between 1948 and 1998. The high terraces on either side of the river were naturally armored with large glacial boulders and had been stable for the period of photographic record that included multiple 25-year plus flood events (Table 4). The 2022 flood mobilized this natural toe armor in several locations, resulting in channel migration towards roadways, structures, and completely undermining one structure. This erosion widened the channel and left vertical banks in several locations once the floodwaters receded.

The only roads in and out of Gardiner are either south through Yellowstone National Park to Mammoth or north on Hwy 89 through Yankee Jim Canyon. The flood destroyed access roads into Yellowstone National Park by washing out the North Entrance Road to Mammoth in several locations. Access from the south into Gardiner was not reestablished until October 29, 2024 after a 4-mile, \$21 million dollar new access road was completed. To the north, flood waters eroded towards Hwy 89 and covered the highway roadbed through Yankee Jim Canyon and it was not known if the road had been lost until the floodwaters receded. Gardiner was largely inaccessible immediately following the flood.

Continued adjustments of the channel are visible in several locations (Figure 47), though currently they are not placing infrastructure at immediate risk.

Table 4. Locations of significant post-flood erosion between Gardiner and Yankee Jim Canyon.

Location (River Mile/Bank)	Impact	Threat/Description
RM564.0/Left	Up to 80 feet of erosion	None. Undeveloped.
RM563.9/Right (NPS Housing)	Up to 125 feet of erosion	NPS housing undermined and lost to the river. Continued erosion towards Hwy 89, homes and trailer court possible if the bankline continues to erode.
RM563.5/Left	Up to 75 feet of erosion	Undeveloped, though the old stage road could be impacted.
RM562.9/Right	Up to 50 feet of erosion	No immediate threat.
RM562.3/Left (below Treatment Plant)	Up to 65 feet of erosion into high terrace	None. Though the old stage road could be impacted.
RM56.9/Right	85 feet of erosion into high terrace	Home was moved back 100 feet to accommodate the new bank location.
RM560.0/Left	Up to 60 feet of erosion into low bench	River has widened significantly and post-flood erosion towards Yellowstone Riverside Lodge presents risk to the structures.
RM558.9/Left	Up to 55 feet of erosion into terrace	None. Though the old stage road could be impacted.
RM558/Left (Below La Duke Picnic Area)	Up to 50 feet of erosion into high terrace.	None
RM557.3/Right (Gravel Pit)	Up to 80 feet of post-flood erosion into gravel pit.	Unconsolidated banks in the gravel pit area (now occupied by cabins) present risk of continued erosion. Extensive new riprap is present.
RM556.4/Left (Below Yellowstone Hot Springs)	Over 100 feet of post flood erosion into low terrace	Erosion is approaching Old Yellowstone Trail
RM555.2/Left	Up to 75 feet of erosion into bench below Mulherin Creek	None.



Figure 47. Bankline below La Duke Picnic Area showing actively eroding banklines where the river moved up to 50 feet. Photo is at peak runoff on June 10, 2024.

4.2 Threats to Transportation Infrastructure

The transportation infrastructure along and passing over the Yellowstone River provides critical access to communities, emergency services, recreation, commercial transport, residential properties and businesses. While the roads, bridges and rails in Park County weathered several significant flood events, especially those in the mid-90s, the system was strained to the limit during the June 2022 flood. There were numerous instances of road and bridge damage and loss on public and private property away from the Yellowstone River due to the 2022 flood. The Montana Floods 2022 Park County Damage Assessment Reports (Park County, 2022) document notes that while some major roads experienced debris on the road and in guard rails, no major damage or closures to the roads due to the flood. Exceptions to this such as the Carbella and Point of Rocks bridges are discussed below.

The bridges appeared to take the greatest impact of the transportation network. Of the fifteen bridges over the Yellowstone in Park County, there were two full failures resulting from the flood - Carbella Bridge and the old railroad bridge paired just upstream of the Hwy 89 Bridge (Table 5).

Hwy 89, Interstate 90, East River Road and the railroad are the major transportation corridors in Park County, often running parallel to the river and acting as the bankline. Where this occurs, there is usually a significant amount of armoring to restrict channel migration into the road or railway, though there are several places where the river has moved laterally and is beginning to encroach into the transportation corridor.

A discussion of key issues with the transportation infrastructure follows, starting in Gardiner and moving downstream to Springdale.

Table 5. List of bridges and impacts.

Bridge	Roadway	RM	Impact
Gardiner Bridge	Hwy 89	564.7	No significant impacts
Corwin Springs	Cinnabar Basin Road	556.6	No significant impacts
Carbella Bridge	Tom Miner Basin Road	547.4	Complete failure during the flood. Replacement is under construction with a summer 2024 target completion.
Point of Rocks Bridge	Hwy 89	543.2	The river left end was flanked. The road approach was rebuilt after the flood.
Emigrant Bridge	Murphy Lane	531.5	No significant impacts
Mill Creek Bridge	Mill Creek Road	525.0	No significant impacts
Pine Creek Bridge	Pine Creek Road	514.4	No significant impacts
Carter’s Bridge	East River Road	506.6	No significant impacts
Interstate Bridges	I-90	502.7	Some damage to pylons on 9 th St Island Road
9th Street Bridge	9th Street Island Drive	502.2	No significant impacts
Veteran’s Bridge	Hwy 89	499.8	No significant impacts
Railroad Bridge	BNSF Railroad	499.8	No significant impacts, but caused significant backwatering during flood event.
Old Railroad Bridge		494.5	Partial failure resulting in removal.
Hwy 89 Bridge	Hwy 89	494.5	Continued degradation of the alignment to flow with the loss of the upstream railroad bridge.
Springdale Bridge	Convict Grade Road	479.0	No significant impacts

There was no notable erosion where the Gardiner Bridge crosses the river. If this bridge were to fail, though, it would bisect the town and completely cutoff access to the north entrance of Yellowstone National Park with no viable options for alternative routes. There has been some discussion of improving the old stagecoach road on the west side of the river down through Yankee Jim Canyon to provide critical access should bridge or road failures isolate Gardiner. The 2022 flood did erode towards the old stagecoach road in several places, making it less of an option as an emergency corridor in the future.

At the downstream end of Gardiner (RM 563.8R), there was approximately 125 feet of erosion into the right bankline during and in the year after the flood. This is the site where the National Park Service housing structure famously fell into the river at the peak of the flood. The current bankline is now approximately 160 feet from the roadway, with the road grade approximately 75 feet above the river surface. Work to terrace and stabilize the bank was performed, though no new armoring of the toe was included.

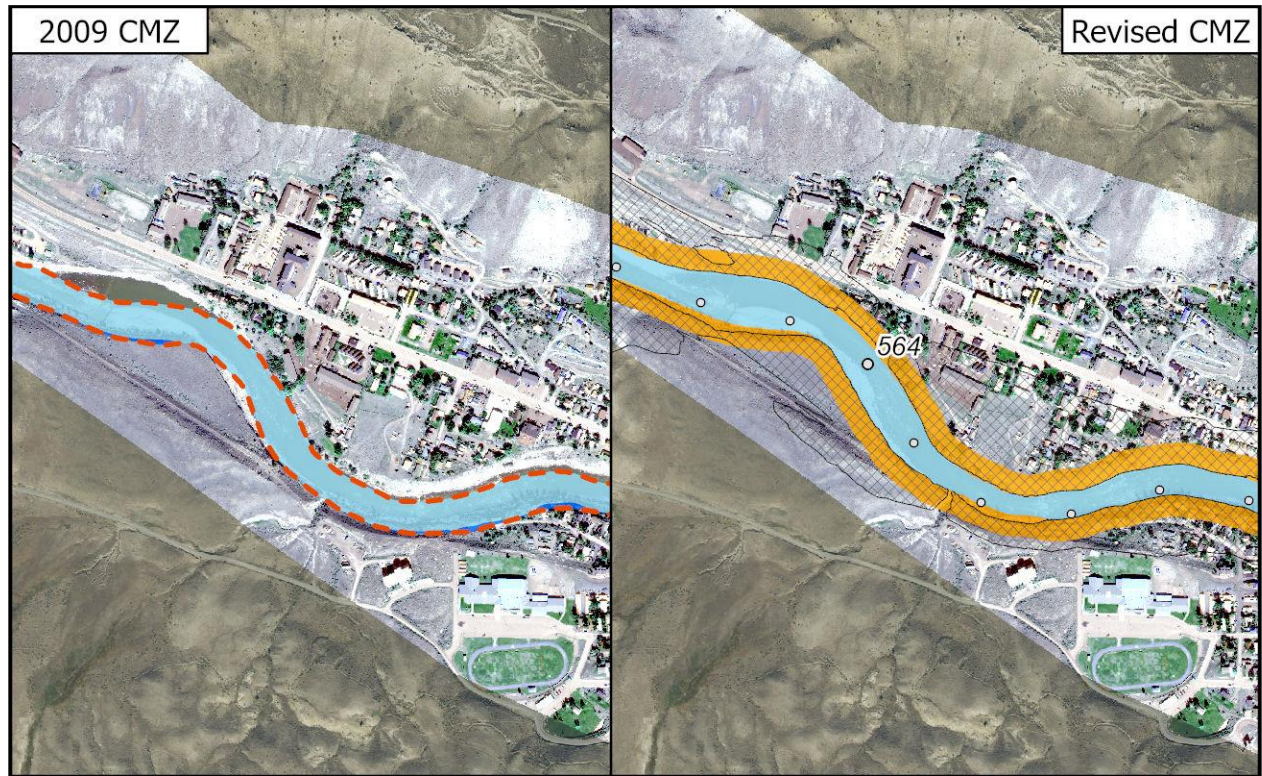


Figure 48. Terrace erosion at the northwest end of Gardiner, MT.

Between Gardiner and Yankee Jim Canyon there are several locations where Hwy 89 runs alongside the river and forms its right bank, though no significant damage to existing bank stabilization along the roadway was noted with our remote review (Note: there are locations of significant erosion in this reach, though it did not impact the roadway). During the peak of the flood, Hwy 89 was completely inundated with floodwater as it passed through Yankee Jim Canyon, temporarily cutting off all road access to Gardiner. There was concern that as the water receded there would be damage to the road or even complete loss, again isolating Gardiner. The old stagecoach road located across the river from Hwy 89 may have been the only emergency access, but this road was also unsafe for travel during the flood and had areas of significant erosion along portions of the bluffs that stabilize the roadbed. Alternate travel routes south through Yellowstone National Park were also not an option due to damage to the South Entrance Road to Mammoth.

The Carbella Bridge at RM 547.4 was completely destroyed as floodwaters overtopped the decking and washed the historic structure downstream. The crossing provides the primary access to homes, ranches and recreation in the Tom Miner Basin. The Old Yellowstone Trail Road has been providing access during the reconstruction of the bridge. Note that the bridge failure was not due to channel migration, but rather an undersized bridge restricting floodwater passage.



Figure 49. The Carbella Bridge seen as it collapsed into the river (source unknown).



Figure 50. Reconstruction of the Carbella Bridge following the flood (Stahly Engineering).

The Point of Rocks Bridge (RM 543.2) on Hwy 89 is located in a relatively stable section of river where the river follows a section of Hyalite Peaks volcanic bedrock on river left. No notable bankline erosion was mapped for nearly a mile upstream and a half a mile downstream of the bridge. The bridge is oriented slightly askew to the river channel, with the left (northern) end downstream of the right end. The bridge was flanked on the northern end, eroding out the northern approach. No damage to the bridge structure itself was noted. The approach was repaired quickly once the flood water receded.

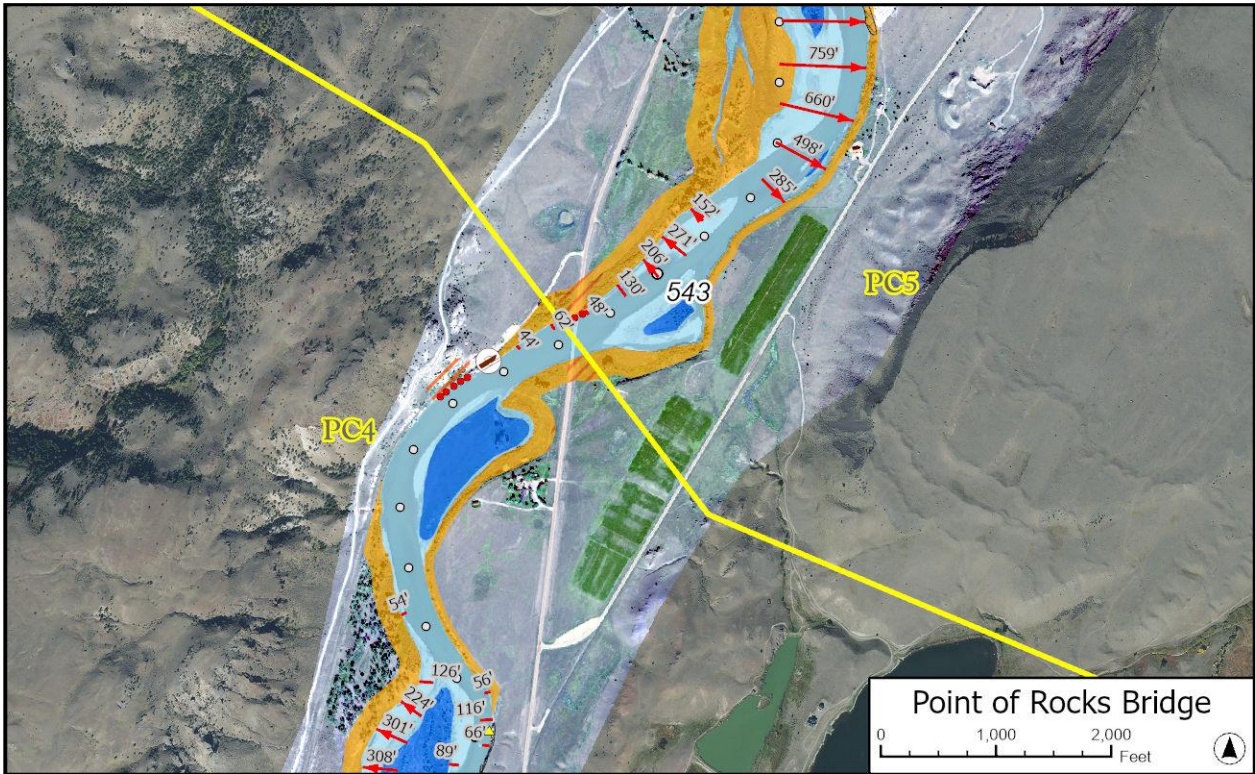


Figure 51. Point of Rocks Bridge showing significant erosion above and below the bridge, but a stable area at the bridge crossing.



Figure 52. Point of Rocks Bridge showing where the northern approach was flanked during the flood. (Samuel Wilson/Chronicle/Report for America).

Between the Point of Rocks and Emigrant Bridges there are two areas of concern where erosion is approaching roadways. Upstream of the rest area at RM 539.7 the river is bounded on the left side by Hwy 89 for approximately 0.25 miles (Figure 53). Though the river closest to the rest area has seen over 200 feet of erosion since 1948, this section of river is now heavily armored, and no notable erosion was measured from the 2022 flood. This section should be monitored to ensure a failure does not impact the highway.

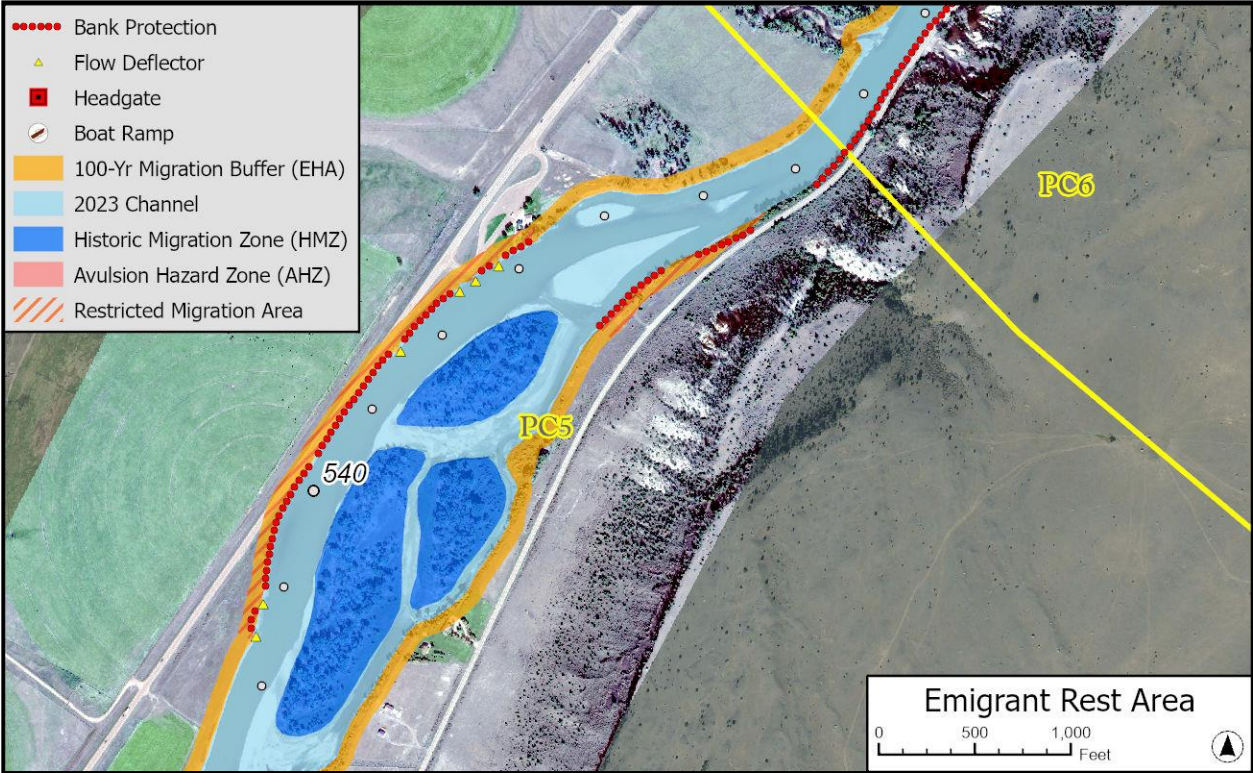


Figure 53. Hwy 89 near the Emigrant Rest Area.

A second area of concern is at the Six Mile fishing access site (RM 537.8, left) where there appears to be up to 15 feet of erosion post-flood below where the existing rock bank protection ends (Figure 54). This area did not show significant erosion in the period before the 2022 flood, but should be monitored to see if the erosion continues towards the roadway.

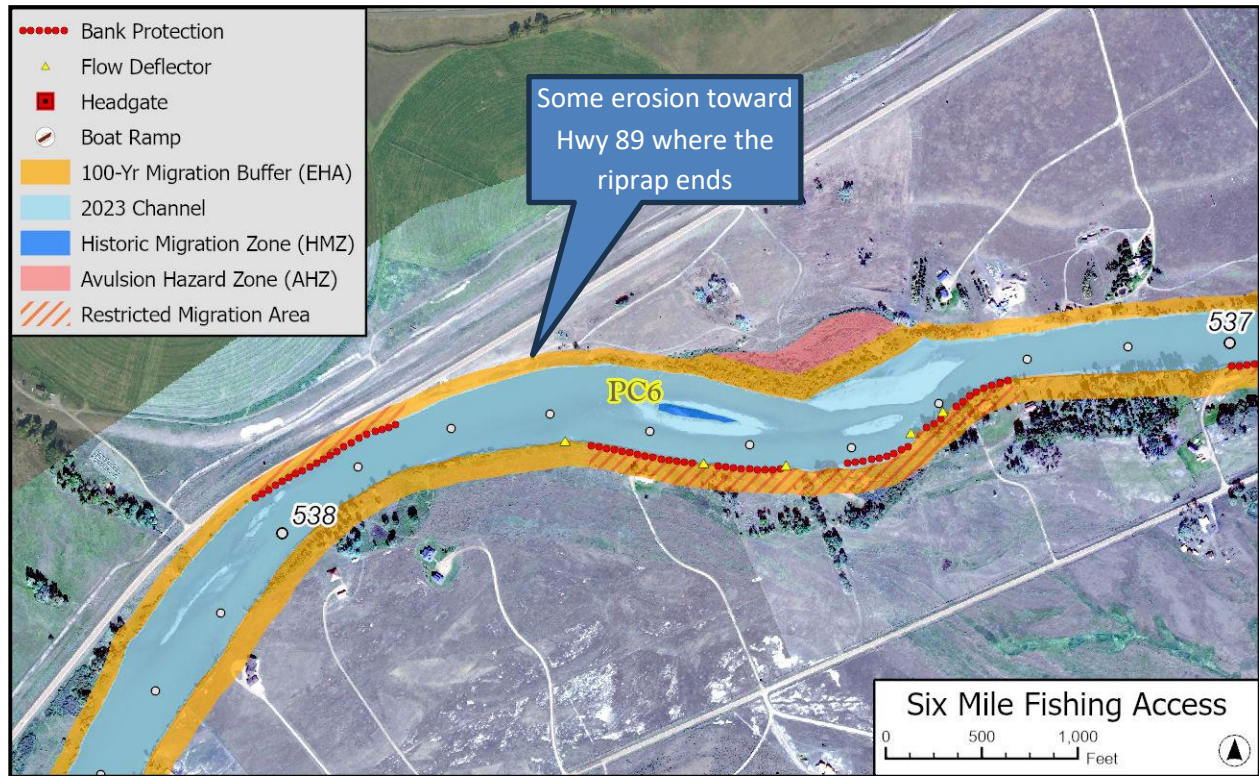


Figure 54. Six Mile fishing access site.

The East River Road closely parallels the river downstream of Point of Rocks and served as a critical route to Gardiner while the Point of Rocks bridge was being repaired. While these sections of road appear to be heavily armored and showed little impact from the 2022 flood, they should be monitored to ensure this important access route is available in emergencies.

The approach to the Emigrant bridge should be closely monitored (Figure 55). There has been over 300 feet of erosion on the left bank just upstream of the bridge, removing most of the mature cottonwood forest that protected the left bank. While the alignment is currently good as the river passes under the bridge, the left bank erosion has taken out mature vegetation that has helped stabilize the bank. Additionally, a large bar has formed upstream on river right, along with low-flow mid-channel bars, concentrating flows against the left bank. The approach may rapidly degrade with loss of mature bankline vegetation. This was a concern noted by the landowners at the Emigrant outreach meeting.

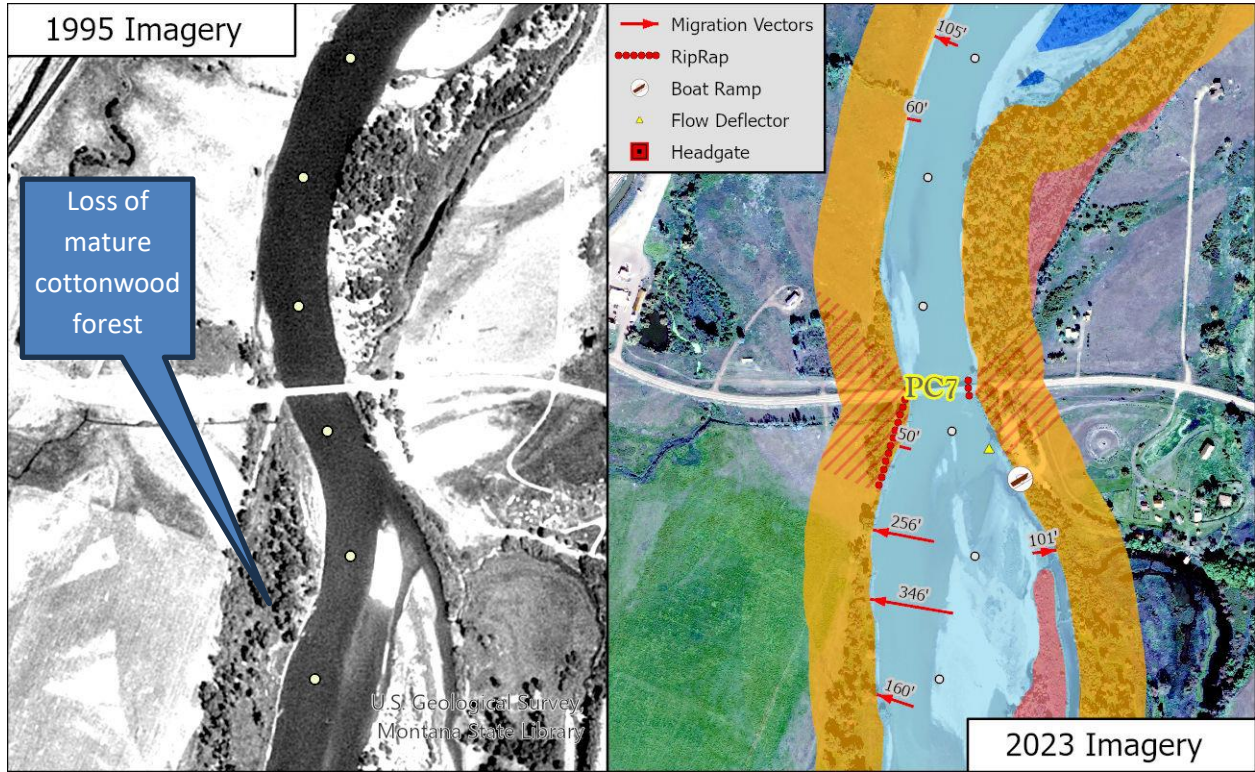


Figure 55. Extensive erosion on the left bank upstream of Emigrant Bridge, removing most of the cottonwood forest.

Downstream of Emigrant at RM 530.5L the river has seen between 350 to 750 feet of erosion to the west in the past 72 years. These are some of the highest erosion rates in the corridor. While in 1948 the river was approximately 650 feet from Hwy 89, it is now less than 60 feet. Over 100 feet of erosion has occurred post-2022 flood. This section of river has a large floodplain creating extensive avulsion hazard areas on either side of the river upstream and downstream. While this will relieve flood pressures on the roadway, the current trend is for continued migration toward Hwy 89.

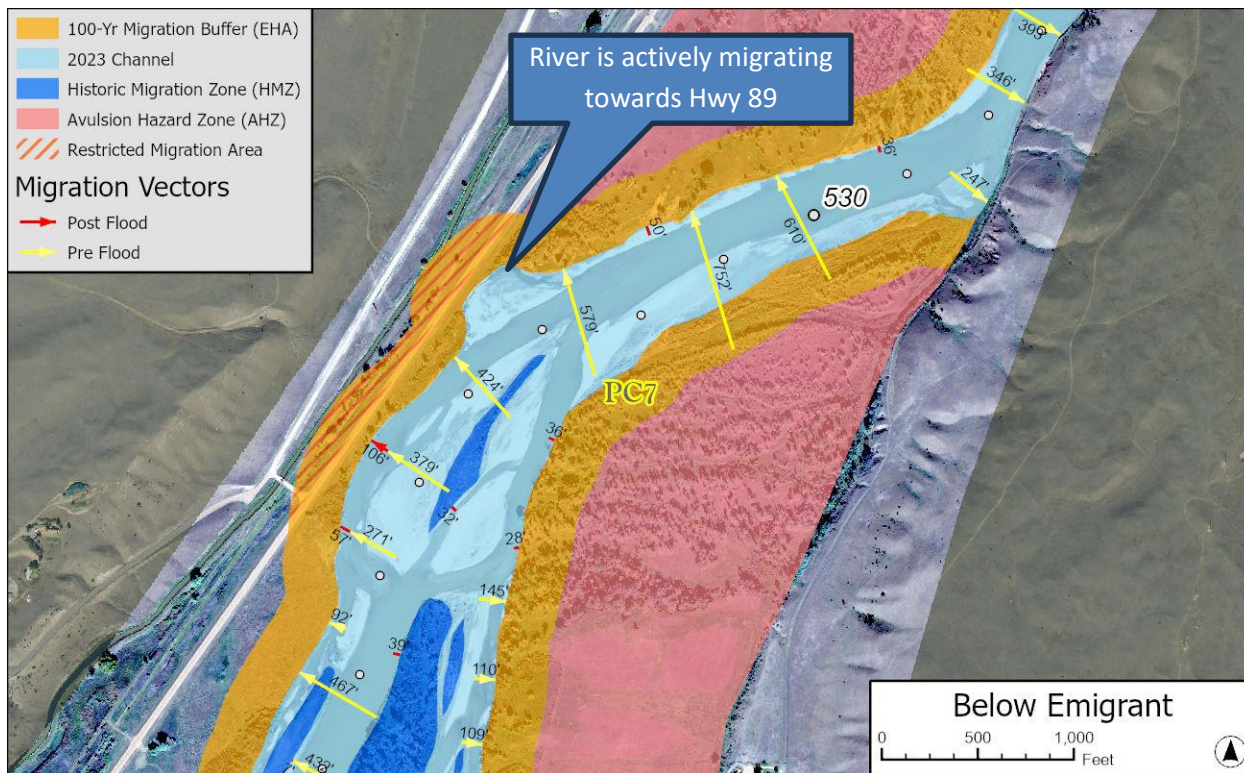


Figure 56. Over 600 feet of erosion towards Hwy 89.

From the Grey Owl Fishing Access Site to Carter’s Bridge there are several sections of Hwy 89 that form the left bank of the river. These sections all appear to be heavily armored and no notable erosion was mapped. One area of concern may be the section of Hwy 89 just upstream of Carter’s Bridge where the Livingston Ditch diversion is located (Figure 57). If this roadway were to be closed along with Carter’s Bridge, there would be no access from Livingston into the Paradise Valley without passing over Trail Creek Road to the west.

At the south end of Livingston, the Yellowstone River passes below a pair of Interstate 90 bridges that form a a constriction between the 9th Street and Seibeck Islands (Figure 58). The right channel on the eastern side of the island currently serves as the primary channel and maintains a good alignment under the bridges. As recently as 2009, however, the western channel carried the primary flows, resulting in a severe more-than-ninety degree left turn in order for the river to pass under the interstate. This channel currently acts as a secondary or overflow channel during high flows. Since acquiring the primary flows, the eastern channel has seen increased lateral movement into both the island and the right bank immediately upstream of the bridges. Some damage to the bridge pylons on the 9th Street Island Road was noted post-flood.

The right bank just upstream of the interstate bridge has seen upwards of 135 feet of post-flood channel migration. If this area continues to erode, the alignment through the bridge will likely degrade, which can create complex hydraulics at bridge piers and abutments that were designed for a different approach angle. This spot is a small piece of floodplain and isolating it to maintain the river alignment through bank stabilization would likely have little impact on river health or process. Further downstream, the 9th Street Drive Bridge which accesses 9th Street Island was replaced in 2011 after it began sagging due to damage, likely by high water (Chronicle, March 15, 2011). The new bridge spans the western secondary channel with one support and provides the only access to the properties on the island.

At the eastern edge of Livingston, the Veteran’s Bridge (Hwy 89, formerly known as the KPRK Bridge) and Railroad Bridge span the Yellowstone, creating another constriction. The Veteran’s was upgraded in 2013 providing proper conveyance under the bridge. Immediately downstream, the railroad bridge is considered to be undersized, resulting in backwatering of flood waters and contributing to flooding on both sides of the river upstream of the bridge. This site will be discussed in greater detail in Section 4.3.

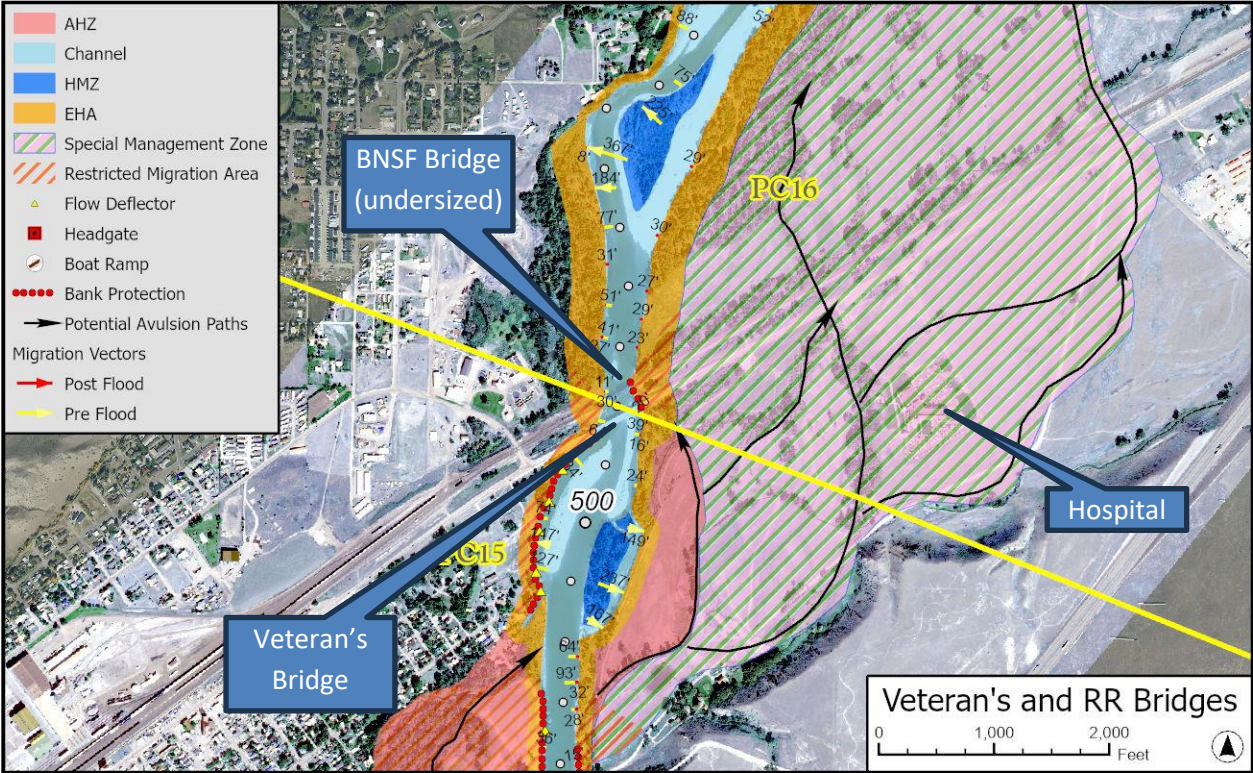


Figure 59. Veteran’s and railroad bridges in Livingston, MT.

At RM 495 the Hwy 89 Bridge site presents one of the most challenging maintenance issues in the corridor. The non-active North Pacific Railway Bridge which was constructed in 1897 was located immediately upstream of the highway bridge (Figure 60). When the rail bridge was constructed, it was built perpendicular to the flow of the river. The Hwy 89 Bridge was co-located in the same location many years later. Over time, the river has shifted to the north and created a pair of 90 degree turns for the river to pass under. For many years northern approach to the railroad bridge acted as protection for the bridge just downstream. After the 2022 flood, the railroad bridge began to sag, resulting in a closure of the Hwy 89 Bridge until the rail bridge could be removed. On August 24, 2022 the railroad bridge was demolished with explosives (Figure 61), resulting in minor damage to the adjacent Hwy 89 Bridge. The damage has been repaired and the highway bridge is open. Given that the northern bridge approach on the left bank and the right bank immediately upstream continue to bear the full force of the river and is forced to make two dogleg turns, one can expect continued challenges in maintaining this bridge, especially during flood events when complex hydraulics through the turn can amplify scour potential. Of note is that the river used to be located to the south as seen in the 1873 and 1888 GLO maps (Figure 60). The former channel is still on the right floodplain and is mapped as an avulsion risk. Should this avulsion occur, proper alignment under the bridge would be restored.

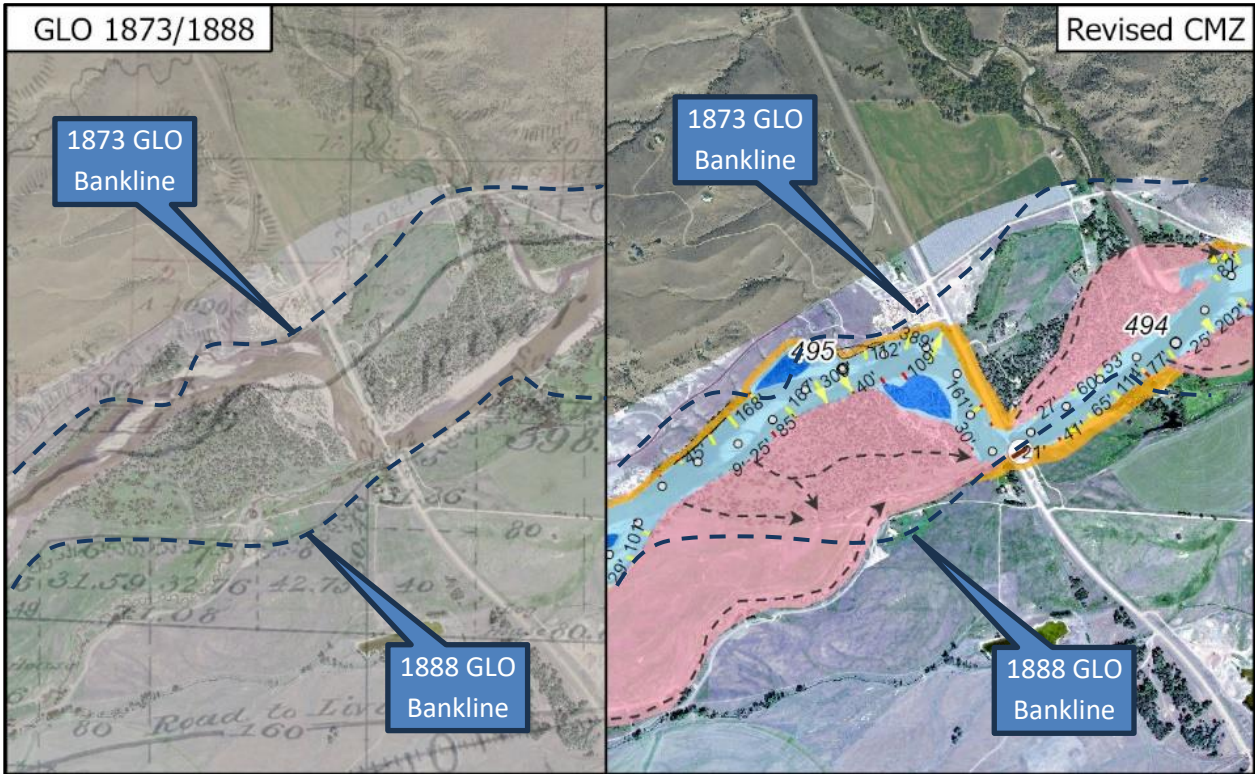


Figure 60. The Highway 99 Bridge site showing the late-1800s channel location.



Figure 61. Implosion of the Northern Pacific Railway Bridge on August 24, 2022 (Bozeman Chronicle).

conveyed by the Sundling Ditch and a network of historic river channel swales, eventually flooding Hwy 89 and surrounding the hospital with water, which cut off access to the hospital and forced an evacuation of the hospital patients. Up to two feet of water covered Swingley Road just east of the hospital and businesses located east of Swingley Road were flooded and sustained significant damage.

While this was not a channel migration issue and the risk of the river avulsing into the swales on the east bank and bypassing the bridges is minimal, a small area of the right bank floodplain upstream of the bridge does meet the criteria of avulsion risk. If the highway and rail grades did not act as a barrier to avulsion, the avulsion risk mapping would extend through the entire right floodplain as defined by the historic swales. As such, this area poses a greater flooding risk than that of avulsion. New FEMA flood hazard mapping is due for release that should help with understanding the unique risks associated with this area. For this CMZ mapping effort we have created a Special Risk Area to highlight the multiple concerns here.

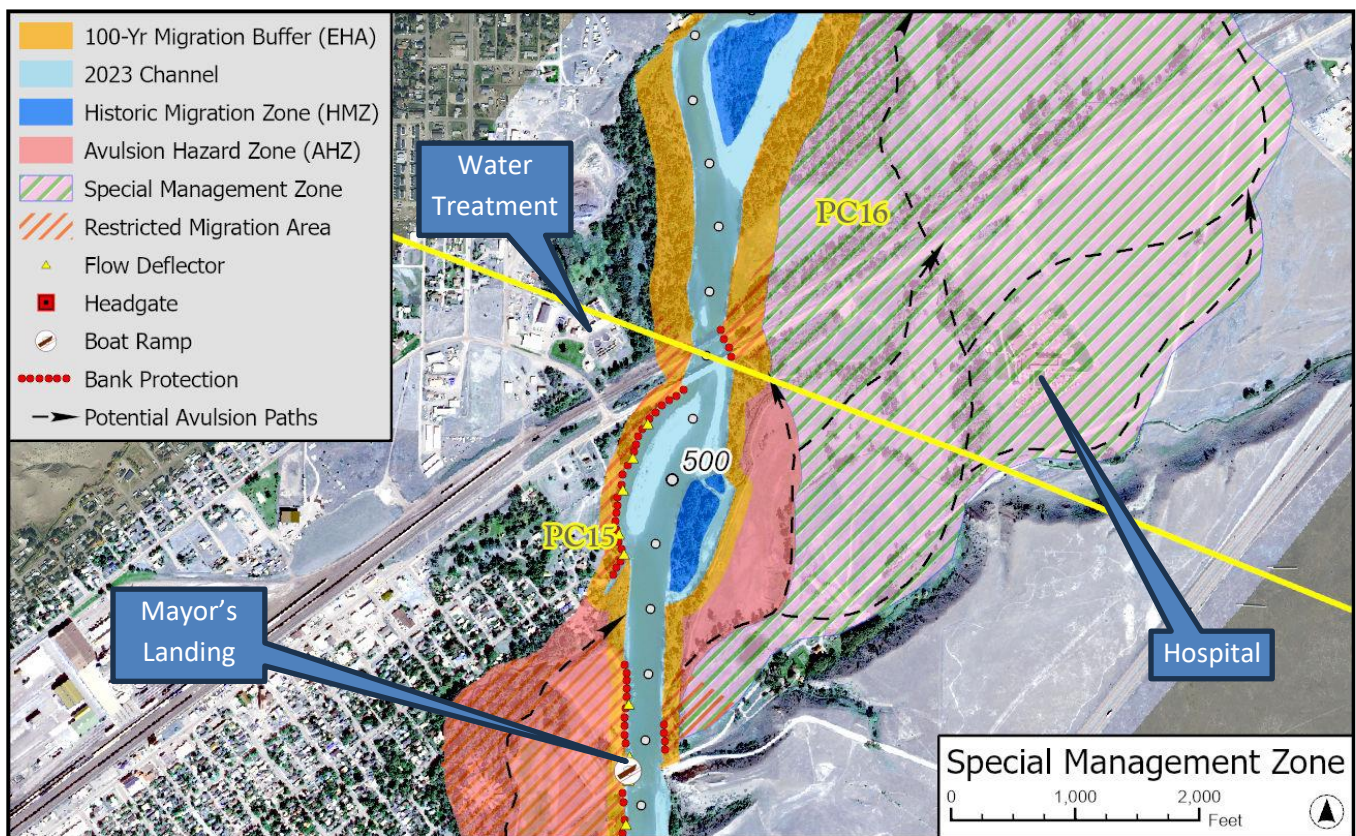


Figure 63. The Special Management area associated with the hospital in Livingston.

Additionally, as pressure for further development in the area is ongoing, there are discussions of additional flood risk studies to better understand the challenges associated with extreme events such as June 2022.

4.4 Impacts to Property

The Park County 2022 flood damage assessment indicates that the greatest impacts from the flood were to residential structures and commercial property (Table 6). While most of the impacts were minor and associated with flooding, numerous structures were impacted by channel migration.

Table 6. Park County 2022 flood damage assessment summary from the DNRC County Assist Team Operations (adapted from Park County Final Damage Assessment Report, June 2022).

Category	Total Assessed	Minor Damage	Partially Destroyed	Completely Destroyed	No Damage
Residential Structures	234	127	76	3	28
Commercial Structures	46	18	16	0	12
Bridges and Roads	40	10	11	15	7
Public Buildings	10	5	3	1	1
Other (debris removal, water control, protective measures, ag equip, utilities)	105	38	21	9	37

As property values increase along river corridors, the desire to protect those investments also tends to increase. This trend is especially true when land is converted from large parcel agricultural use to small parcel private homes. Loss of grazing or hay land bears less financial risk than erosion into a home built on a short section of bankline. This problem is often compounded when bank protection efforts end at either a property boundary or are designed to be short enough to avoid more extensive permitting. Short sections of bank armoring (most commonly referred to as riprap) are problematic for several reasons: a) they provide a false sense of security for property owners who for example build homes much closer to the river than would be otherwise advisable because it is believed that the riprap will provide permanent protection from erosion; b) they often trigger excessive bank erosion immediately upstream and downstream of the armor which can damage neighboring properties and lead to erosion that can eventually undermine the armored section causing it to fail. Figure 64 illustrates two short sections of riprap protecting homes on small parcels and not designed based on river planform and dynamics. Accelerated erosion is evident upstream, downstream and in between segments of armor. Bank armor, whether it be rock riprap, root wads, flow deflectors, or other structures require continued maintenance, and yet still fail on large rivers such as the Yellowstone. Some failures can be on a large scale, as seen downstream of the study area where over 1,000 feet of armor was flanked, abandoning the armor mid-river and the outside bendway eroding hundreds of feet beyond the flanked riprap (Figure 65).

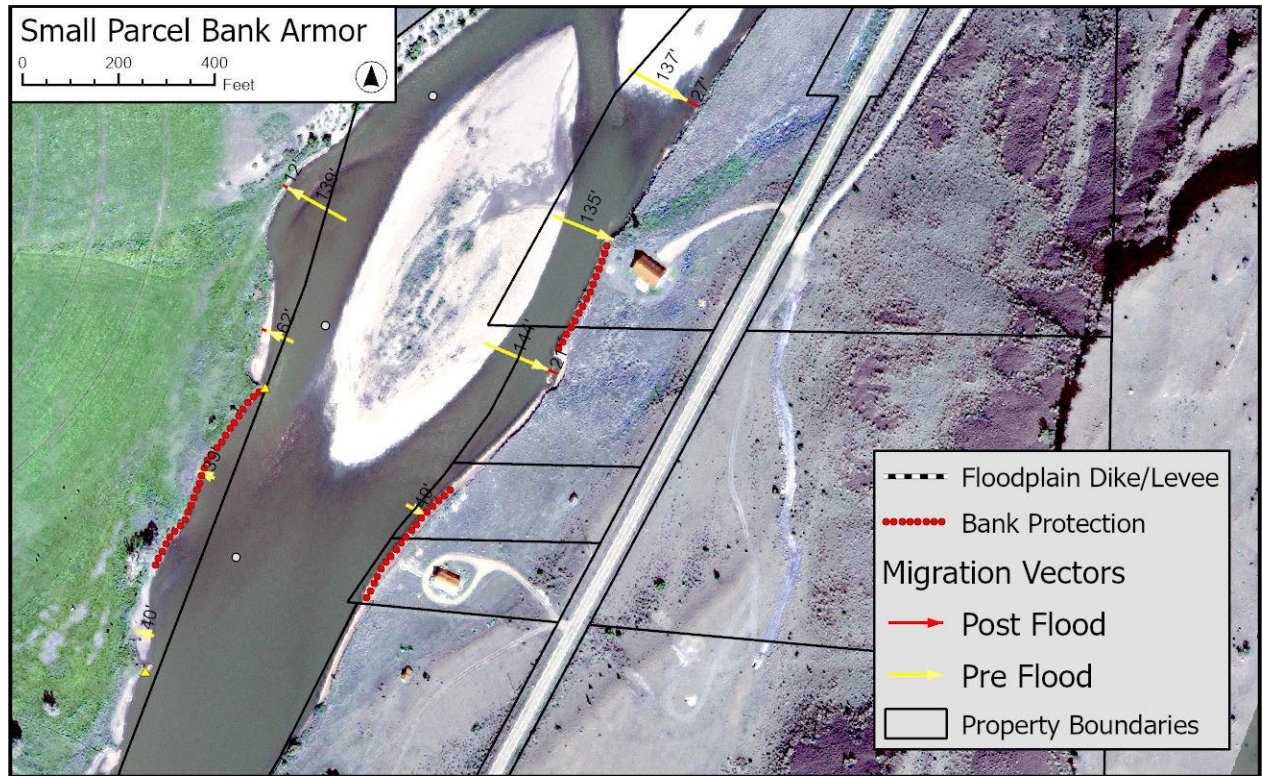


Figure 64. Bank armor is often correlated with land ownership and structure protection.



Figure 65. Failed bank armor (2011) in the middle of the Yellowstone River near Park City, MT where the bankline has rapidly eroded back towards the home in the background.

Below the Pine Creek Bridge fishing access site the river makes a sweeping right hand bend before swinging back left at the Weeping Wall. Prior to the 2022 flood, this left bankline had essentially no measurable lateral erosion. Since the flood, this bendway is now seeing active erosion with up to 127 feet of movement. This bank is up to 20 feet high and is mapped as oversteepened, meaning that it exceeds a 2 to 1 (horizontal to vertical) slope. It is expected that the bendway will continue to move laterally as it adjusts to the steep slopes, potentially encroaching on the newly developed private campground.

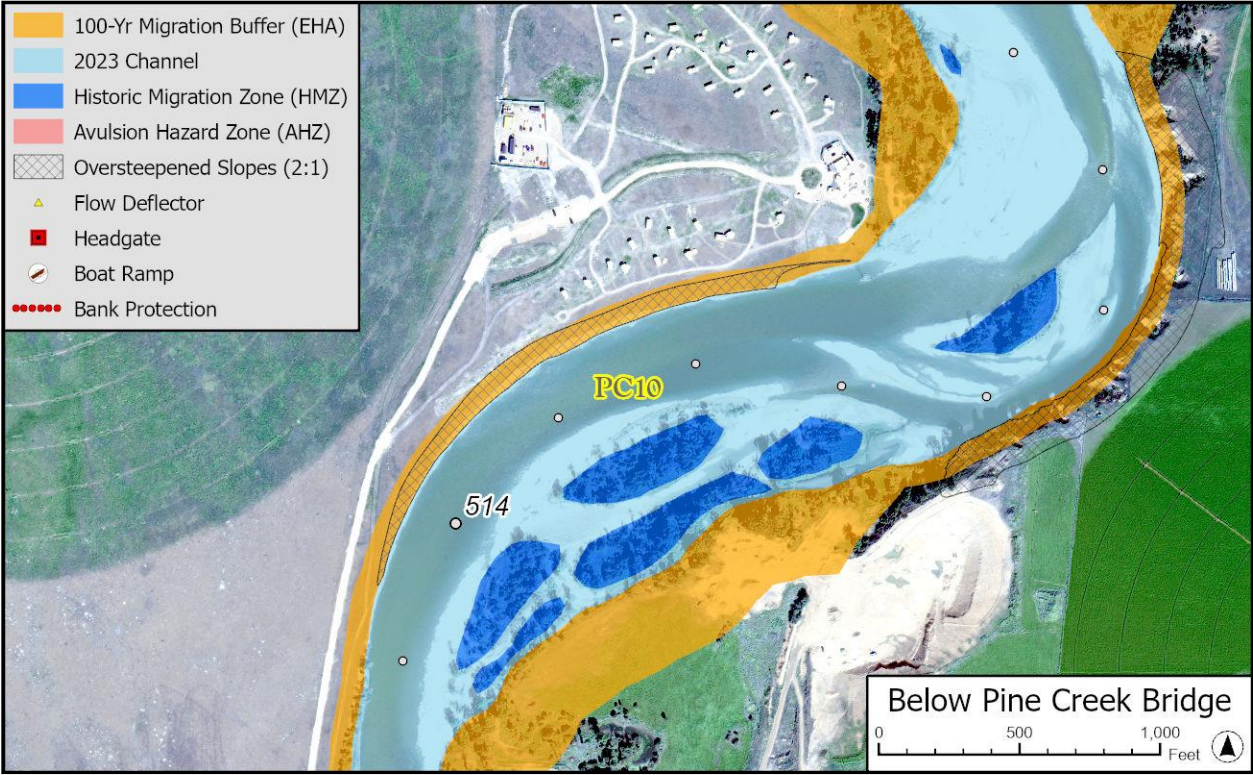


Figure 66. 100 plus feet of post-flood channel erosion below Pine Creek Bridge into new private campground.

4.5 Irrigation Infrastructure

There are six major diversions and associated canals from the Yellowstone River in Park County. For the most part, the irrigation infrastructure was not severely impacted by the flood, though the Montana Floods 2022 Park County Damage Assessment Reports (Park County, 2022) notes several instances where debris accumulated in canals and needed to be removed.

The upper most diversion is the Park Branch Canal on river left (RM 533.6) upstream of Emigrant (Figure 67). This is the primary irrigation canal on the west side of the Paradise Valley, providing water as far north as Allenspur. Until the early 1990s, this canal diversion was located on a small side channel. Local input notes that the upstream end of the side channel was managed with jersey barriers and dredging to maintain flow to the diversion point. Sometime between 1991 and 1995 the large island separating the side channel from the main channel was split, bringing flows more directly to the diversion. Currently this avulsion is the primary flow path, leaving the eastern channel as a secondary/high-flow channel. Recreational boaters have noted that the

diversion dam poses a navigation risk as flows drop in the summer. If the new channel continues to expand and capture more of the primary flows, maintaining this diversion point will become more challenging.

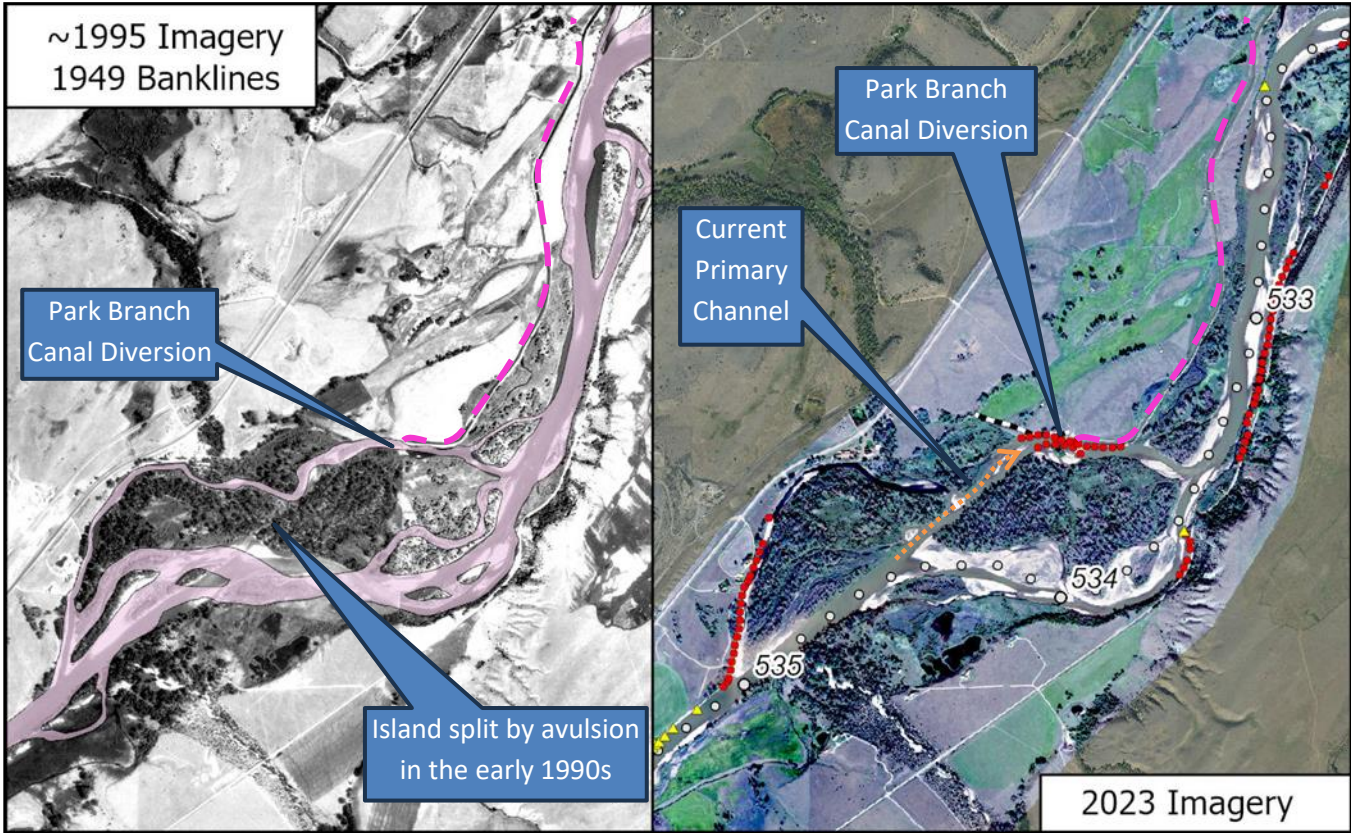


Figure 67. The Park Branch Canal diversion.

On the right bank at RM518.5 above Mallard’s Rest, a cobble diversion structure is maintained that routes water to a pump site (Figure 68). This reach is relatively stable and this diversion does not appear to have any concerns in terms of channel migration.

The Livingston Ditch diversion is on river left at RM 507 where Hwy 89 pulls away from the river above Carters Bridge (Figure 69). This major canal wraps around the west and north sides of Livingston before terminating near the Hwy 89 Bridge. This reach has the highest density of armor and levees of any on the Yellowstone River. The diversion site is on a historic side channel separated from the main channel by a relatively stable island and contains a diversion dam that spans the side channel. There is rapid channel turnover above Carter’s Bridge has trimmed the lower end of the island since 1948. If the island were to be lost, more flows would be concentrated at the diversion requiring additional maintenance or reconfiguration of the diversion.

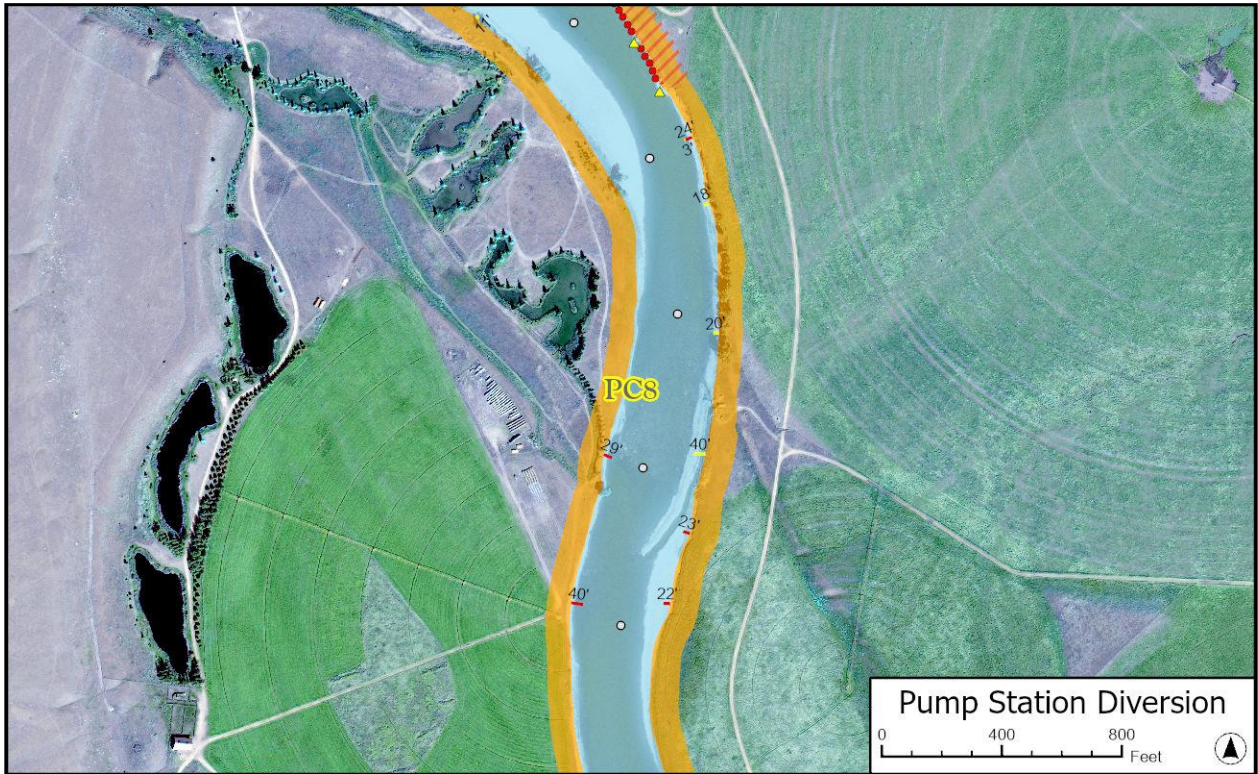


Figure 68. Cobble diversion for pump station above Mallard's Rest (RM 518.4).

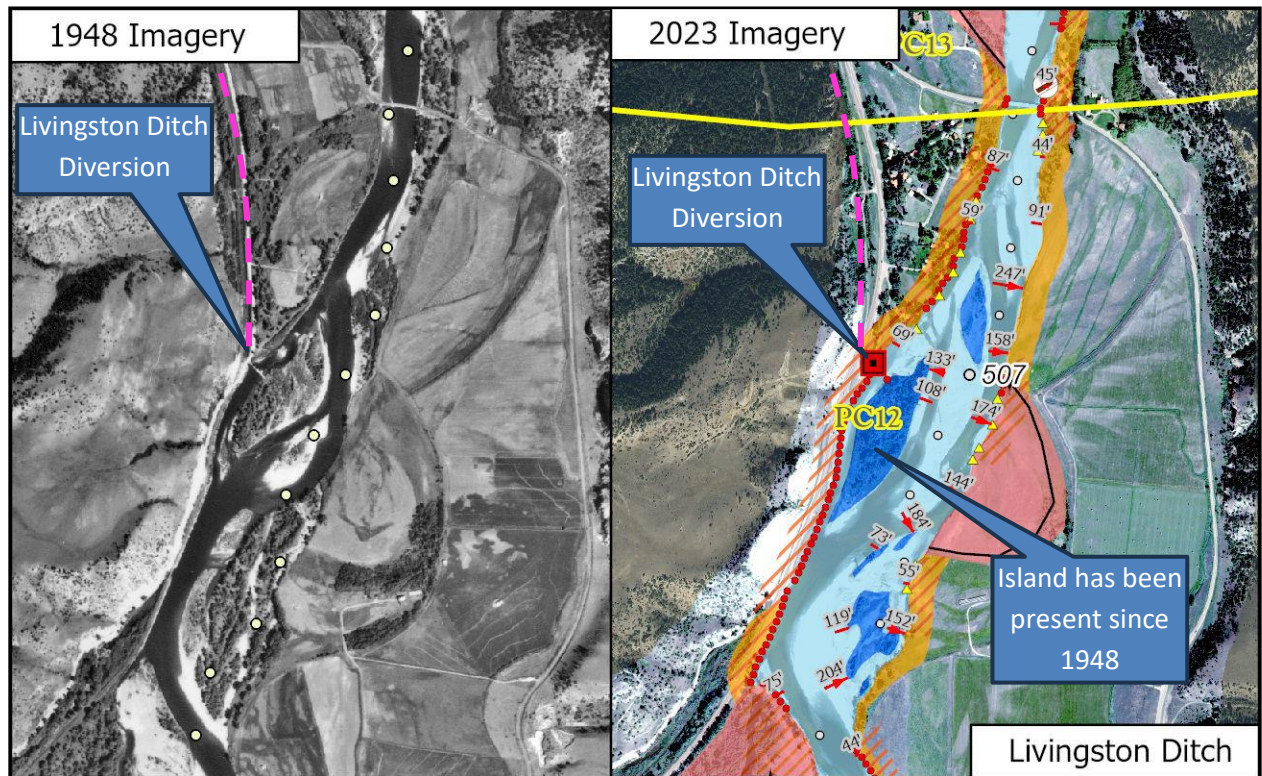


Figure 69. Livingston Ditch diversion above Carter's Bridge.

Just above Veteran's Bridge the Sundling Ditch exits on river right (RM500.4R). This is a relatively small diversion, though during the 2022 flood it served as the weak point in this bankline. The diversion failed near

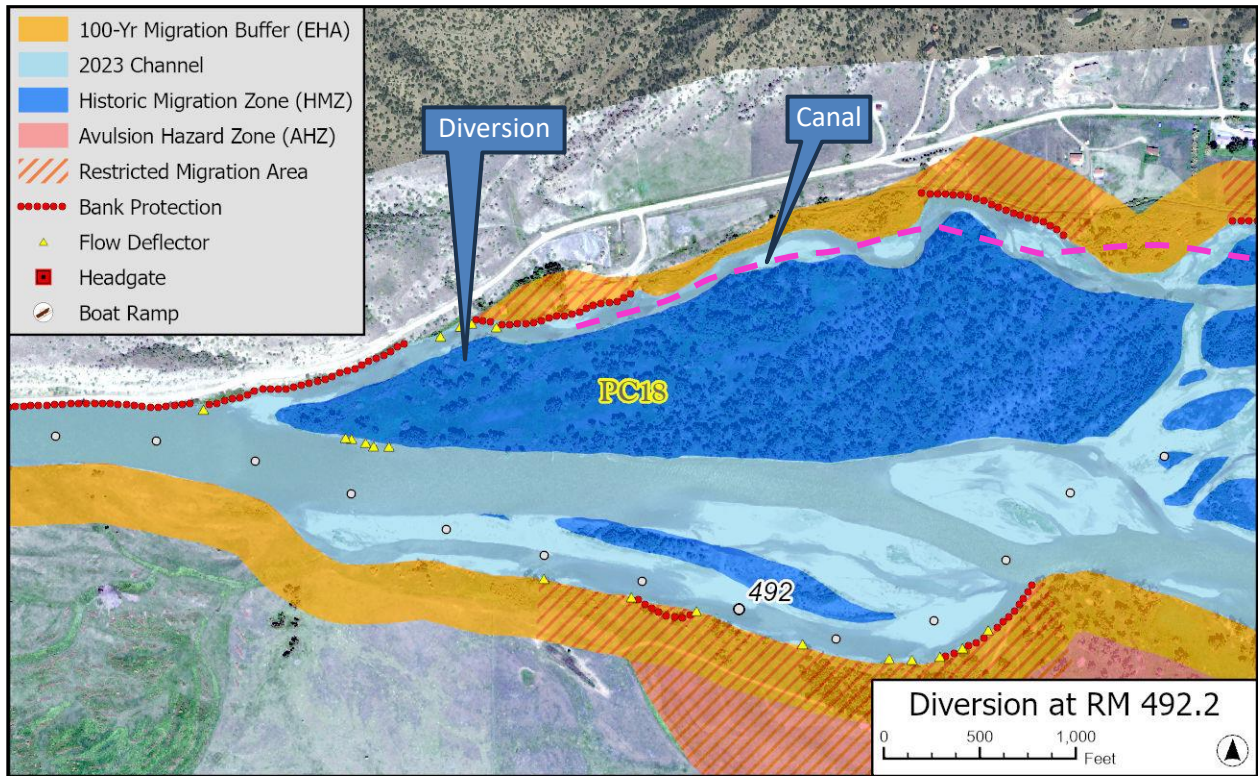


Figure 71. Diversion at RM 492.2L.

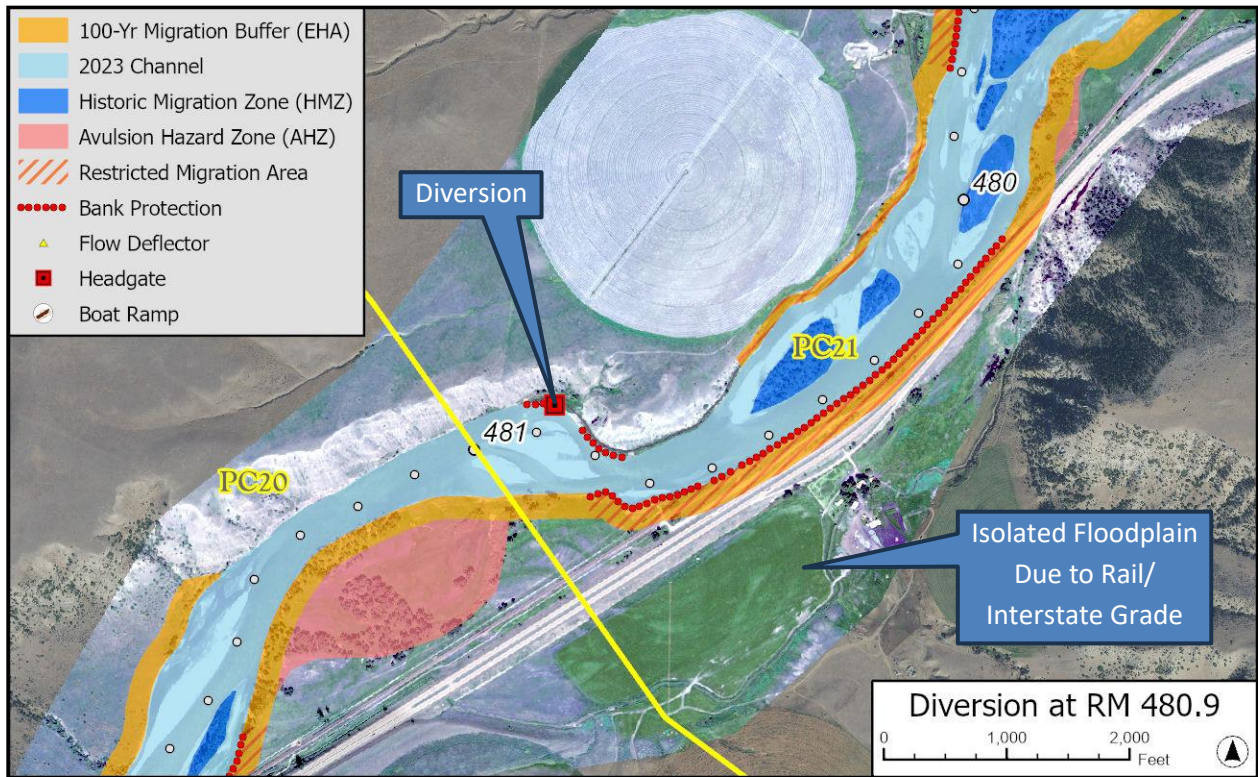


Figure 72. Diversion at RM 480.9L.

5 Public Outreach and Review

The draft CMZ map for this project was reviewed by multiple people representing local government offices, elected officials, natural resource experts, as well as local landowners and residents before it was finalized and published in this report. The draft map and report did not go through a formal 30-day public review period as this was not necessary given that the map is non-regulatory, however, County protocols were followed to properly notice all public meetings.

Public outreach activities included 3 focus-group meetings; 3 public meetings; a published article in the Livingston Enterprise newspaper; social media outreach; and meeting announcements via newsletters, emails, websites and newspaper publications.

Focus group meetings were held early in the draft CMZ map development process to present the material to local government office leads who would be most engaged in City and County leadership, planning, emergency response, public safety, public works, engineering and roads. The City focus-meeting was held on April 25, 2024 at the City conference room and was attended by the City Planner/Floodplain Administrator, City Engineer, City Building Director, and Fire Chief. The County focus-meeting was held on April 26, 2024 at the County meeting room and was attended by the County Public Works Engineer, the County's consulting engineer, County Finance Director, County Emergency Management Director, and two County Commissioners (note that this meeting was publicly noticed because elected officials were in attendance). These meetings were held in person and CMZ concepts, mapping methods, and draft map results were present in a slide presentation format. Hardcopy maps were provided and used to facilitate a discussion about City and County concerns for critical infrastructure and public safety within the mapped CMZ. These discussions provided input for the project database described in the next section.

The draft CMZ map was presented at a third focus-group meeting for the members of the Upper Yellowstone River Assessment Committee on May 13, 2024. This meeting was held at the USDA meeting room in Livingston and was attended by members of the committee, including individuals from the Conservation District, Fish Wildlife and Parks, County Planning/Floodplain Administration, US Army Corps of Engineers, local non-profit organizations, local landowners, and technical experts. This was an in-person meeting with several individuals participating remotely. The format of the meeting included a slide presentation of CMZ concepts, mapping methods and the draft map results, followed by a group discussion to answer questions and identify areas of concern and project needs to address risk.

The focus-group meetings provided very good technical input on the map itself and served as an opportunity to understand how the map could be improved for public consumption and use. Based on this feedback, the map and presentation materials were updated in preparation for three public meetings. Public meetings were held from 6-7:30pm in Livingston at the County meeting room on June 3, 2024; in Emigrant at the Community Hall on June 6, 2024; and in Gardiner at the Community Center on June 10, 2024. The meetings were announced in four Livingston Enterprise publications, County Newsletter, Upper Yellowstone Watershed Group newsletter, County social media, Montana Freshwater Partners social media, and via email. The meetings followed the same presentation and discussion format and was attended by local landowners and residents.

6 Projects Database

Table 7 presents a list of specific projects or project concepts identified during the CMZ update process. Where possible, it includes specific locations, features and problematic areas within the mapped CMZ that were raised during the focus-meetings and public meetings. The summary data serves as a potential project list that could be used in future funding requests that would specifically address hazards associated with the channel migration zone and associated flood-induced impacts. Each ‘project’ is categorized into the following flood risk mitigation strategies to provide additional clarification on the purpose and intent of the potential project as they relate to channel migration processes:

1. Hazard avoidance via preservation, open spaces, voluntary easements
2. Building energy dissipation and sediment storage into the system
3. Mitigating flooding in constrained areas
4. Infrastructure considerations and retrofits; and
5. Community Planning

Table 7. Project List.

Project Type	Issue, Location, Strategy, and Primary Benefits
<p>Over Steepened High Terraces Gardiner to Tom Miner</p>	<p>Hazard: 2022 flood eroded and exposed previously stable banks and terrace walls to increased erosion risks. Terraces are too tall and steep for most traditional bank armoring treatments to be effective.</p> <p>Locations: The following locations show significant post-flood erosion and potential risk to infrastructure.</p> <ul style="list-style-type: none"> • RM563.9/Right – North end of town and site of lost NPS housing structure. Up to 125 feet of erosion. Continued erosion towards Hwy 89, homes and trailer court possible if the bankline continues to erode. • RM563.5/Left - Up to 75 feet of erosion. No current threat to infrastructure, but the old stage road could be impacted. • RM562.3/Left (across and below Treatment Plant) - Up to 65 feet of erosion into high terrace. No current threat to infrastructure, though the old stage road could be impacted. • RM56.9/Right - 85 feet of erosion into high terrace. A home was moved back 100 feet to accommodate the new bank location. • RM560.0/Left - Up to 60 feet of erosion into low bench. The river has widened significantly and post-flood erosion towards Yellowstone Riverside Lodge presents risk to the structures. • RM558.9/Left - Up to 55 feet of erosion into terrace. No current risk to infrastructure, though the old stage road could be impacted. • RM557.3/Right (Gravel Pit) - Up to 80 feet of post-flood erosion into gravel pit bankline. Unconsolidated banks in the gravel pit area (now occupied by cabins) present risk of continued erosion. Extensive new riprap is present. • RM556.4/Left (Below Yellowstone Hot Springs) - Over 100 feet of post flood erosion into low terrace. Erosion is approaching Old Yellowstone Trail Road.

Project Type	Issue, Location, Strategy, and Primary Benefits
	<p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Community planning/hazard avoidance to discourage further development w/in CMZ & geotechnical setback • Move/retrofit public infrastructure, utilities to avoid hazard areas. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health and safety • Natural river processes supported by removing structures from risk and eliminating the need for engineered armoring of riverbanks, which in turn, allows for natural river processes associated with channel migration, floodplain access, and sediment transport to continue unimpeded.
<p>Primary & Secondary Access Routes to Gardiner & Yellowstone NP North Entrance</p>	<p>Hazard: Hwy 89 and Old Yellowstone Trail Road access routes encroach into CMZ & geotechnical setback corridor, placing critical primary and secondary access routes to Gardiner/Yellowstone NP at significant risk of erosion/flooding.</p> <p>Locations: These locations include those listed in the Over Steepened High Terraces section, above, plus areas between Carbella and Gardiner where Hwy 89 parallels the river and forms the riverbank.</p> <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Infrastructure considerations and retrofits for road alignment to maintain roadway integrity (i.e. roadway armoring/structural engineered alternatives, re-alignment away from CMZ). • 3:1 slopes are recommended over steeper 2:1 slopes to increase stability and provide the potential for vegetation growth. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety and the ability to maintain emergency access to and from the community of Gardiner is critical. Engineered armoring to would be necessary for long-term protection of current roadbed and alignment but would likely impact natural river processes to some degree. • Alternatively, aligning portions of roadway away from CMZ/Geotech corridor would reduce risk significantly and maintain river functions.
<p>Other Hwy 89 CMZ Encroachment</p>	<p>Hazard: Hwy 89 encroaches into the CMZ/Geotech setback corridor in multiple locations, primarily between Gardiner and Livingston.</p> <p>Locations:</p> <ul style="list-style-type: none"> • RM539.9L - Emigrant Rest Area • RM537.9L – Six Mile Fishing Access • RM530.5L – One mile downstream of Emigrant • RM536.9L – Below Yellowstone’s Edge RV Park • RM507.3L – Above Carter’s Bridge

Project Type	Issue, Location, Strategy, and Primary Benefits
	<p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Infrastructure considerations and retrofits for alignment to maintain roadway integrity. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety/emergency access routes • Transportation corridor integrity • Realignment away from CMZ would benefit natural river processes such as channel migration, floodplain access, and sediment transport to continue unimpeded
<p>At-Risk Bridges</p>	<p>Hazard: Several bridges show deficiencies in terms of floodwater conveyance and/or channel alignment.</p> <p>Locations:</p> <ul style="list-style-type: none"> • Emigrant Bridge – natural channel migration has shifted the upstream channel alignment such that the channel may not align properly with existing bridge span • Carters Bridge – bridge span is undersized causing excess backwater and erosion upstream during large flood events • BNSF Railroad Bridge – bridge is undersized causing excess backwater and erosion upstream during large flood events • Hwy 89 Bridge – natural channel migration has shifted the upstream channel alignment such that the channel does not align properly with existing bridge span <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Infrastructure considerations and retrofits to increase bridge spans to accommodate large flood events and future channel alignments. • These would include gradually funneling the CMZ to the bridge opening which means identifying problems early and proactively flaring bank protection outward upstream of the bridge. Commonly means working out of the right-of-way. • Increase conveyance by placing culverts on either side of bridge to pass overbank flood water. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety/emergency access routes • Transportation corridor integrity • Improvement alignment and increasing bridge spans allows flood water to pass through unimpeded, reducing backwater and erosive impacts upstream.
<p>At-Risk Irrigation Diversion Structures</p>	<p>Hazard: Three irrigation diversions are of concern as the river adjusts channel position.</p> <p>Locations:</p>

Project Type	Issue, Location, Strategy, and Primary Benefits
	<ul style="list-style-type: none"> • Park Branch Canal Intake – primary river channel has shift towards the intake structure increasing risk to structure’s integrity and increasing risk of boating accidents at intake structure • Livingston Ditch Intake – Hwy 89 and upstream armoring has forced channel alignment toward intake, increasing risk to structure’s integrity • Sundling Ditch – current ditch alignment causes ditch to behave like an active side channel during large flood events and enhances floodwater conveyance into ‘Special Flood Hazard Zone’ around Livingston HealthCare <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Infrastructure considerations and retrofits to improve intake protection/integrity and/or redesign intake structure to reduce current risk exposure • A site-specific hydraulic evaluation is recommended to optimize long-term performance of the diversion. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Irrigation users/local agricultural economy • Public health & safety • Potential to benefit river functions if intake improves reduce armored bank treatments.
<p>Problematic Bank Armor</p>	<p>Hazard: Multiple locations between Gardiner and Springdale where existing bank armor (i.e. riprap, barbs, levees, etc.) have failed or are at risk of failing or being flanked. Problematic bank armor has resulted in excessive erosion to natural banklines upstream and downstream of armored reach and instream hazards for boaters.</p> <p>Locations: A full assessment and listing of failing or at-risk bank armor is beyond the scope of this project. Though there are numerous locations where scalloping above or below existing bank armor indicates potential problems.</p> <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Hazard avoidance (i.e. site new structures outside of CMZ corridor, remove problematic bank armor) • Infrastructure considerations and retrofits (integrate vegetated bank treatments upstream/downstream of bank armor and/or replace bank armor with natural bank treatments that improve bank stability with fewer unintended consequences). • Consider planform dynamics in any bank armor design. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety • Adjacent property owners • River functions associated with channel migration, floodplain accessibility, vegetated bankline integrity, and sediment transport.

Project Type	Issue, Location, Strategy, and Primary Benefits
<p>9th Street Island</p>	<p>Hazard: The 9th Street Island is located within the historic and active CMZ and all of the existing structures on the island are exposed to significant avulsion, erosion and flood risks. These risks cannot be avoided or eliminated because of the location of the island relative to the active Yellowstone CMZ.</p> <p>Locations: Almost all locations on 9th Street and Seibeck Islands are at risk of continued channel migration and/or flooding.</p> <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Hazard avoidance/Mitigating flooding in constrained areas (i.e. prohibit future growth/development, seek funding for voluntary buyouts) • Infrastructure considerations and retrofits (ensure island ingress/egress routes are maintained as emergency evacuation routes) <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety • Prohibit future growth and limit future bank armoring will support natural river functions and reduce additional constraints for river movement and flood conveyance.
<p>Livingston Levee</p>	<p>Hazard: The Livingston levee is a non-FEMA certified levee that protects substantial development within the historic Yellowstone CMZ. The levee’s structural integrity was compromised in several locations during the 2022 flood. Channel migration, the potential for future development to further constrain the river along the levee, and flooding are the biggest hazards to the existing structure.</p> <p>Locations: Left riverbank from just below the Interstate bridges to Mayor’s Landing.</p> <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Mitigating flooding in constrained areas (i.e. maintain open lots/properties, natural banklines within CMZ corridor) • Infrastructure considerations and retrofits for levee structure and setbacks • Build energy dissipation and sediment storage into the system (i.e. seek funding for voluntary buyout/easements for properties providing flood storage and CMZ functions, integrate secondary flood storage capacity into public open spaces in Livingston river corridor reach). <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety • Supports existing river functions associated with flood conveyance, channel movement, sediment transport etc.
<p>Hospital Special Hazard Zone</p>	<p>Hazard: Side channel and Sundling Ditch avulsion risks, coupled with Hwy 89 and BNSF Railroad bridge and track constraints exacerbate backwatering and flooding</p>

Project Type	Issue, Location, Strategy, and Primary Benefits
	<p>across the Special Hazard Zone area and impedes the conveyance of floodwater away from this area resulting in significant flooding damage to the structures and flooding across Hwy 89.</p> <p>Locations: This area extends from RM500.4R to 498.2R and encompasses the entire right floodplain.</p> <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Mitigating flooding in constrained areas (i.e. maintain open lots/properties, natural banklines within CMZ corridor) • Infrastructure considerations and retrofits for levee structure (i.e. BNSF bridge improvements, increase flood conveyance under Hwy 89 and Swingly Rd) by placing additional culverts or increasing the size of existing culverts. • Build energy dissipation and sediment storage into the system (i.e. seek funding for voluntary buyout/easements for properties providing flood storage and CMZ functions, integrate secondary flood storage capacity into public open spaces within the Livingston river corridor reach) • Hazard avoidance/community planning (i.e. evaluate risk to existing and future development under large flood event scenarios, integrate open space into future developments to serve as flood storage and conveyance pathways, site new buildings in locations that will be less prone to flooding, redesign hospital access points to ensure safe access routes will be maintained under large flood events) <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety • Supports existing river functions associated with flood conveyance, channel movement, sediment transport etc.
<p>Critical Locations to Maintain or Re-establish Floodplain Connectivity and Open Space</p>	<p>Hazard: Open space and floodplain connectivity within the CMZ corridor are critical for dissipating the erosive forces of the river during large flood events and are imperative for supporting a healthy functioning river corridor. The following locations are relatively undeveloped with limited bank armoring or may have restoration opportunities that could improve floodplain connectivity. These undeveloped and unarmored properties are especially important because they provide the necessary space for river movement and flooding that reduces flood impacts on nearby infrastructure.</p> <p>Locations:</p> <ul style="list-style-type: none"> • RM560.0L - Yellowstone Riverside Lodge – floodplain access. • RM552.0L – Across from Joe Brown Fishing Access Site – floodplain access. • RM543.5R - Above Point of Rocks Bridge – floodplain access. • RM541.9L - Avulsion Hazard Area is currently diked along a former channel – floodplain connectivity. • RM540.0R – Across from Emigrant Rest Area – floodplain access. • RM534.4L/R –Park Branch Canal area – floodplain access.

Project Type	Issue, Location, Strategy, and Primary Benefits
	<ul style="list-style-type: none"> • RM531.8R - Upstream of Emigrant Bridge – floodplain access. • RM517.5R – Mallard’s Rest inside bendway – floodplain access. • RM514.4 to 507.5 – Avulsion Hazard Zones between Pine Creek Bridge and Carters Bridge – floodplain connectivity. • RM506.6L to 504.0L – Avulsion Hazard Zones between Carter’s Bridge and RY Timber should be maintained for flood mitigation – floodplain access. • RM502.7R to 499.8R - Maintain unrestricted CMZ areas between I-90 Bridge and Veteran’s Bridge – floodplain access. • RM500.0L - KPRK property – floodplain access. • RM496.5R to 494.5R - Heart K property to Hwy 89 Bridge - Maintain Avulsion Hazard Zone – floodplain access. • RM494.4 to 479.0 - Maintain unrestricted CMZ corridor between Hwy 89 Bridge and Springdale Bridge – floodplain access. <p>Hazard Mitigation Strategies:</p> <ul style="list-style-type: none"> • Hazard avoidance via preservation, open spaces, voluntary easements. <p>Primary Benefits:</p> <ul style="list-style-type: none"> • Public health & safety for downstream/adjacent structures • Supports existing river functions associated with floodplain connectivity, channel movement, sediment transport, floodplain regeneration, instream habitat, etc.
<p>Additional Public Outreach/Education Needs</p>	<p>In addition to the projects listed above, there is a significant need for additional public outreach and education about the updated Yellowstone Channel Migration Map and report. Outreach is needed to elevate the awareness of the risks associated with the Channel Migration Zone and educate private property owners, local municipalities and real estate professionals on how to reduce and avoid risks. This in turn, will reduce Park County’s vulnerability to future disasters and costly impacts from flooding and other natural river events.</p> <p>The following outreach efforts are recommended: CMZ presentations to local watershed groups, CD board members, City/County staff, real estate groups and consultants/contractors working on the river. Develop and distribute CMZ property reports to individual property owners within mapped CMZ corridor. Develop a CMZ property report application that integrates with the interactive online CMZ map that would allow users to generate a CMZ report for a selected property or specified reaches.</p>

7 CMZ Management Concepts

This section is included to introduce several key management concepts when working within a Channel Migration Zone that we have developed from experience of mapping over 1,500 miles of river corridor in Montana and the western United States.

The management of the river as a “corridor” is an important first application of CMZ mapping. Minimizing economic losses due to land loss, infrastructure failure, or bank armor loss should consider the following:

- Minimize development encroachment into the CMZ boundaries to maintain system resilience and ecological function. This is most important for the Historic Migration Zone and Erosion Hazard Area. The Avulsion Hazard areas may be at either high or relatively low risk of channel reoccupation, and development in these areas should be based on site-specific conditions.
- Carefully taper the CMZ to bridge openings using bank armor approaches that gradually narrow the stream corridor to the bridge opening.
- Consolidate infrastructure where possible. For example, diversion headgates tend to function well below bridges, which taper the CMZ to the width of the bridge opening.
- Promote woody riparian growth in the corridor, to increase the resiliency of the floodplain during long floods that have the potential to scour floodplain channels and drive cutoffs.
- Place infrastructure such as shallow pipelines or utility towers beyond the margins of the Erosion Hazard Area to reduce the need for near-term bank armoring.
- As possible, minimize bank armoring projects that run at a high angle to the axis of the CMZ. Any channel segments that trend across the CMZ will have increased erosive pressure on the down-valley side, as the armor is disrupting normal down-valley translation of bends. As such, these projects typically fail or require a higher level of maintenance than projects that trend on the edge of the CMZ in a direction parallel to the stream corridor axis.

Whereas CMZ mapping is commonly used to identify development risks, it is also important to recognize the role that channel migration plays in maintaining geomorphic stability and optimizing the ecological function of these rivers. The Yellowstone River has been impacted by development pressures related to transportation, irrigation water delivery, industrial floodplain development and residential expansion, and there has been substantial human encroachment into the CMZ footprint. As a result, there are progressively fewer sections on the river that show largely unimpeded channel movement and resulting complex channel forms, both spatially and temporally. The Yellowstone River corridor is locally thousands of feet wide and supports a broad riparian forest of diverse age classes. The continual turnover of floodplain forest supports long term riparian health as the woody vegetation is constantly regenerating.

7.1 CMZ Management and Maintenance Considerations

The nature of human encroachment into the natural CMZ of a river can sometimes be directly correlated to infrastructure maintenance costs. For example, the Nooksack River in Washington State flows from the northern Cascades westward to Bellingham Bay near Bellingham, Washington. As the river leaves the mountains and crosses the coastal plain near Everson, Washington, it rapidly loses gradient and deposits high volumes of coarse sediment as a result. As this is a productive farming area, armored levees have been constructed along much of the length of this dynamic river, and they require frequent and costly maintenance. As part of a larger geomorphic study of the river completed for Whatcom County, AGI and others (2019)

evaluated the maintenance requirements on the levees as a function of river corridor width. The evaluation was prompted by a perceived correlation between corridor width and cost of maintenance, in that corridor areas that were more confined by levees experienced more erosive damage. Figure 73 show the results of that analysis. First, several levees were segmented in terms how much they impinge into the river corridor. Some areas reflect corridor narrowing in long levee segments and others represent “hooks”, where the lowermost end of a levee turns directly into the stream corridor. The width values range from 590 to 2450 feet and the levees were sorted by width from narrowest (left on graphic) to widest (right on graphic). Second, those levee segments were evaluated for maintenance intensity, which is the length of maintenance that has been recorded per foot of levee segment. In plotting both the width value and maintenance intensity value for each levee segment, and sorting those by corridor width, an inverse relationship between the two can be seen, in that confining levee segments require substantially more maintenance than less confining structures. The primary drivers for this are twofold: first, where the corridor is narrower, the river spends more time flowing directly on the levee resulting in more damage, and second, the hydraulics at narrowing points and hooks can be especially damaging to the levees. These results are relevant to the Yellowstone River, especially in the spring creek area.

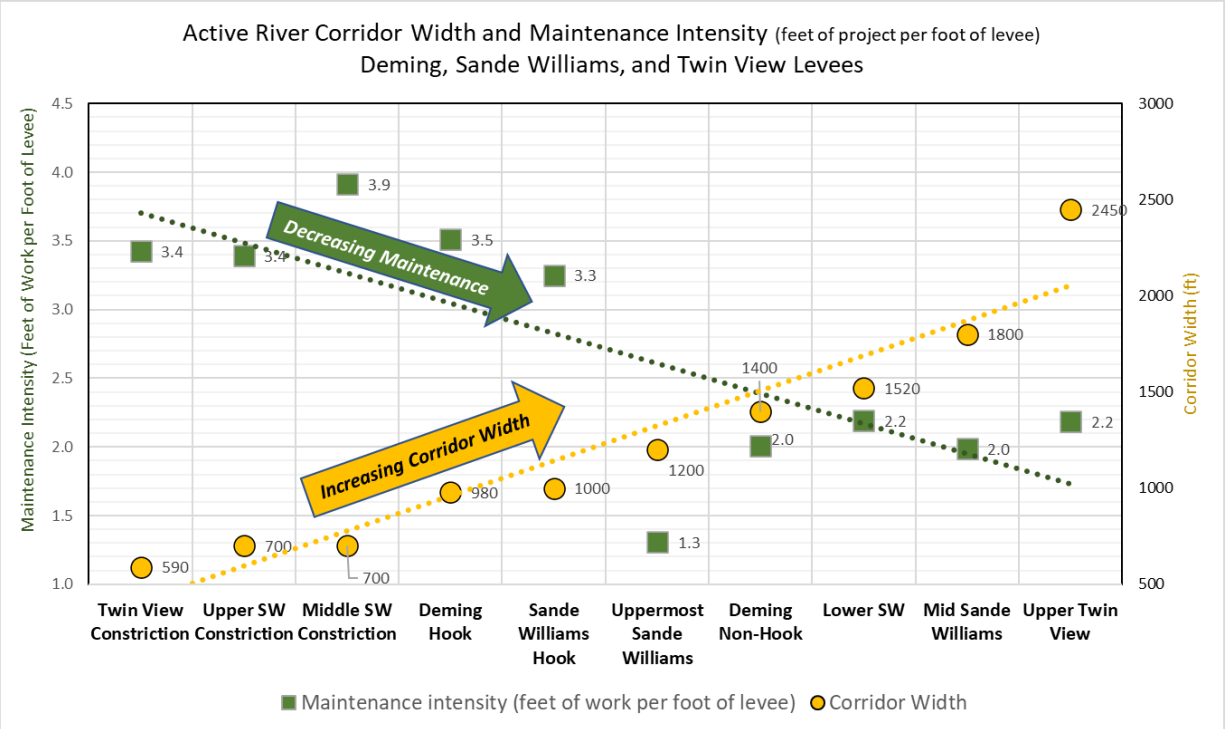


Figure 73. Nooksack River levee segments sorted by corridor width showing reduced maintenance intensity in wider sections.

7.2 Roads and Bridges

The CMZ mapping area includes transportation features that encroach into the CMZ footprint. The main issues with bridges are twofold: 1) alignment of the river to the bridge crossing; and 2) consolidation of multiple stream channels at a bridge crossing. Bridges are typically designed at a right angle to stream flow, so that the bridge is perpendicular to flow paths. As the channels migrate laterally, this alignment can decay. It is not uncommon for poor alignments to cause problems at bridges through accelerated scour which can damage bridge piers and embankments. To that end, it is important to consider stream corridor alignment and tolerance for change in both bridge design and management. In general, managing channel alignments at bridges should be considered with CMZ concepts taken into account rather than treated as a late-stage emergency when streams dogleg through bridges, causing scour or deposition problems. The maps can help identify optimal bridge locations, appropriate bridge spans, and define anticipated future alignment issues so support cost-effective risk mitigation.

7.3 Development Pressures

In developing CMZ maps across Montana, it is always striking to see how many structures are at risk of damage due to bank erosion. In CMZ related public outreach meetings that we have held across the state for other projects, we have heard numerous testimonies in which landowners have described their anxiety over river movement and financial stresses of property protection. Bank armoring typically costs on the order of \$90-\$120 per linear foot of bank, so protection of structures on these rivers can easily cost over \$100,000. Yet structures are still constructed close to actively migrating channels. We sincerely hope that this analysis will help landowners make cost-effective decisions in siting homes or irrigation structures. On the Big Hole River, for example, one landowner moved his house site 100 feet back from the top of a terrace edge based on the mapping; subsequent erosion of that terrace has proven that decision to be a major cost saving move.



Figure 74. Residential development within EHA of Clark Fork River during the 2018 flood near Frenchtown (May 10, 2018).

7.4 Long-Term Resiliency

Rivers morphologically respond to changes in inputs, primarily the quantity and caliber of sediment and the quantity and pattern of water delivery from upstream. One challenge in CMZ mapping is that the analysis is based on the historic record of channel form and rates of channel movement, meaning its accuracy in part relies on a presumption that historic inputs will not substantially change in the future. In Section 1.9 we discussed these limitations with a retrospective approach. In a larger sense, however, the CMZ developed in this project reflects numerous floods and decades of channel movement, such that it will allow for substantial flexibility in the system to respond to future impacts such as floods and fires. This concept is commonly referred to as “resiliency”. There is a strong movement in river management to maintain and improve system resiliency, so that either anticipated or unanticipated changes in inputs can be self-managed by the system itself, while ecological functions are maintained. This concept is especially important in the face of climate change.

8 References

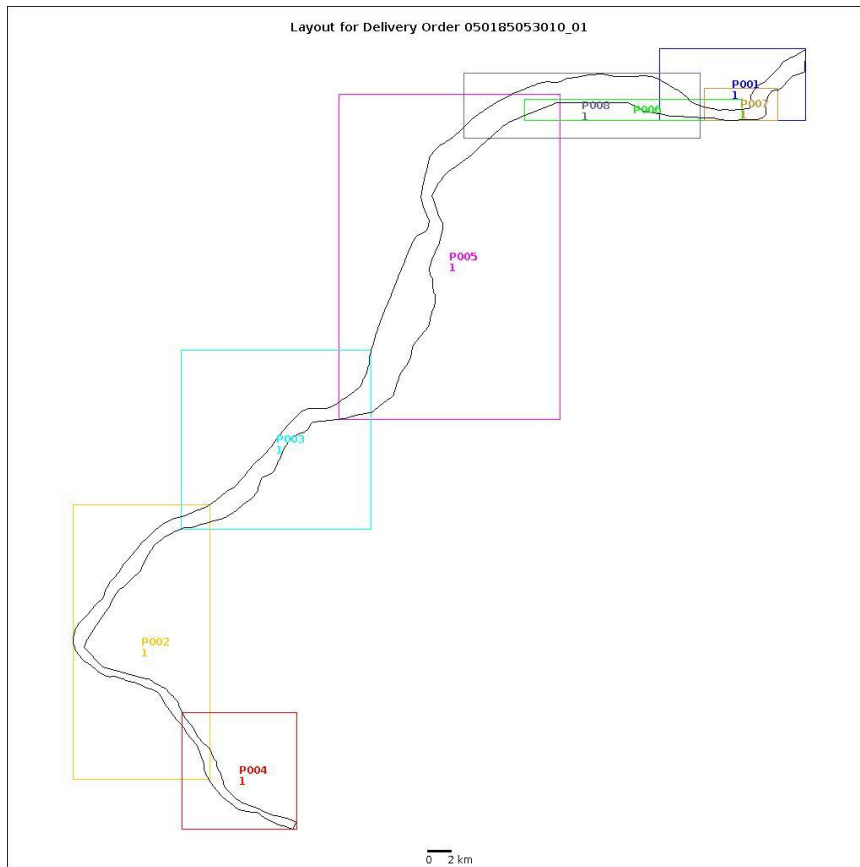
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Appendix A – 2023 Imagery Information

A combined 50-cm mosaic was created from WorldView-2 (50-cm) and WorldView-3 (30-cm) satellite imagery by LandInfo Worldwide Mapping, LLC to represent post-flood conditions. The imagery were orthorectified and delivered as a single 50-cm mosaic image. The mosaic was visually assessed for spatial accuracy using 2021 NAIP imagery.

Source Imagery:

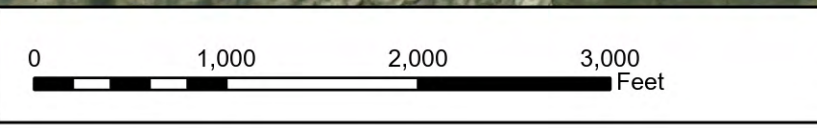
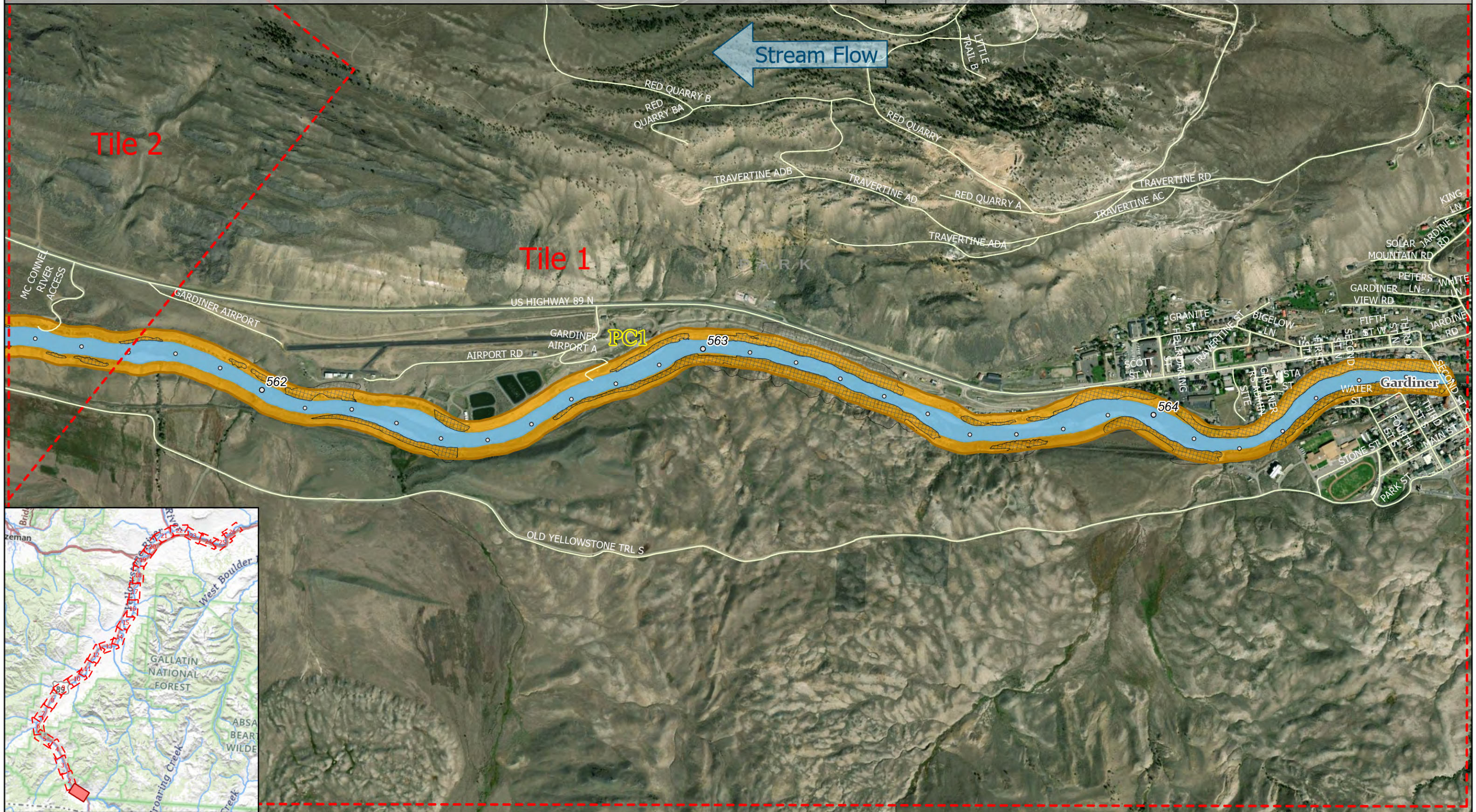
Tile	Date	Source	Resolution
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P002	Sept 24, 2023	WorldView-3	30-cm
P003	Sept 24, 2023	WorldView-3	30-cm
P004	Sept 24, 2023	WorldView-3	30-cm
P005	Sept 19, 2023	WorldView-3	30-cm
P006	Sept 19, 2023	WorldView-3	30-cm
P007	Sept 19, 2023	WorldView-3	30-cm
P008	July 12, 2023	WorldView-2	50-cm



Appendix B: 11x17 CMZ Maps (Separate Document)

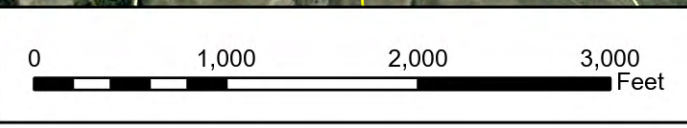
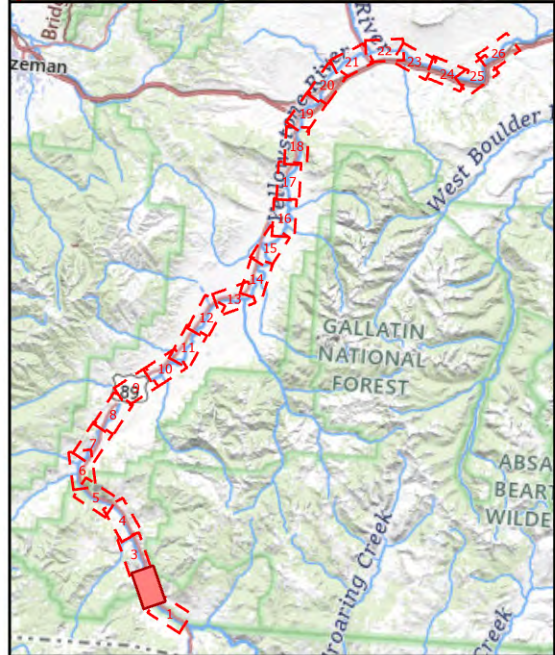
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- Avulsion Hazard Zone (AHZ)
- Special Management Zone
- Restricted Migration Area (RMA)
- CMZ Boundary
- Potential Avulsion Pathways
- Reaches
- Map Tiles

The boundaries on this map are intended to provide a basic screening tool to help guide management decisions on the Yellowstone River and ARE NOT intended to provide regulatory boundaries or override site-specific assessments. This map identifies a migration corridor for the Yellowstone River based on measured migration rates between 1948 and 1923. It includes the 2023 channel, historic channel locations since 1948, and an erosion buffer based on measured rates of lateral movement. Also identified are areas with relic channels prone to reactivation (Avulsion Potential Zone). This map was revised in 2024 to incorporate changes from the June 2022 flooding.



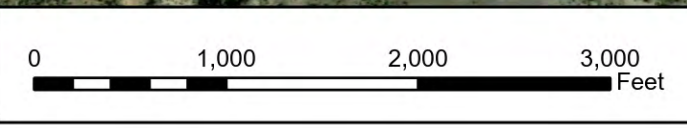
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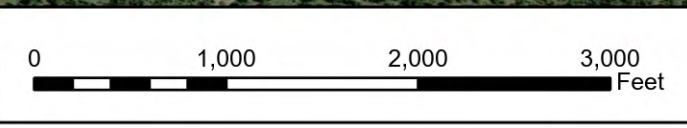
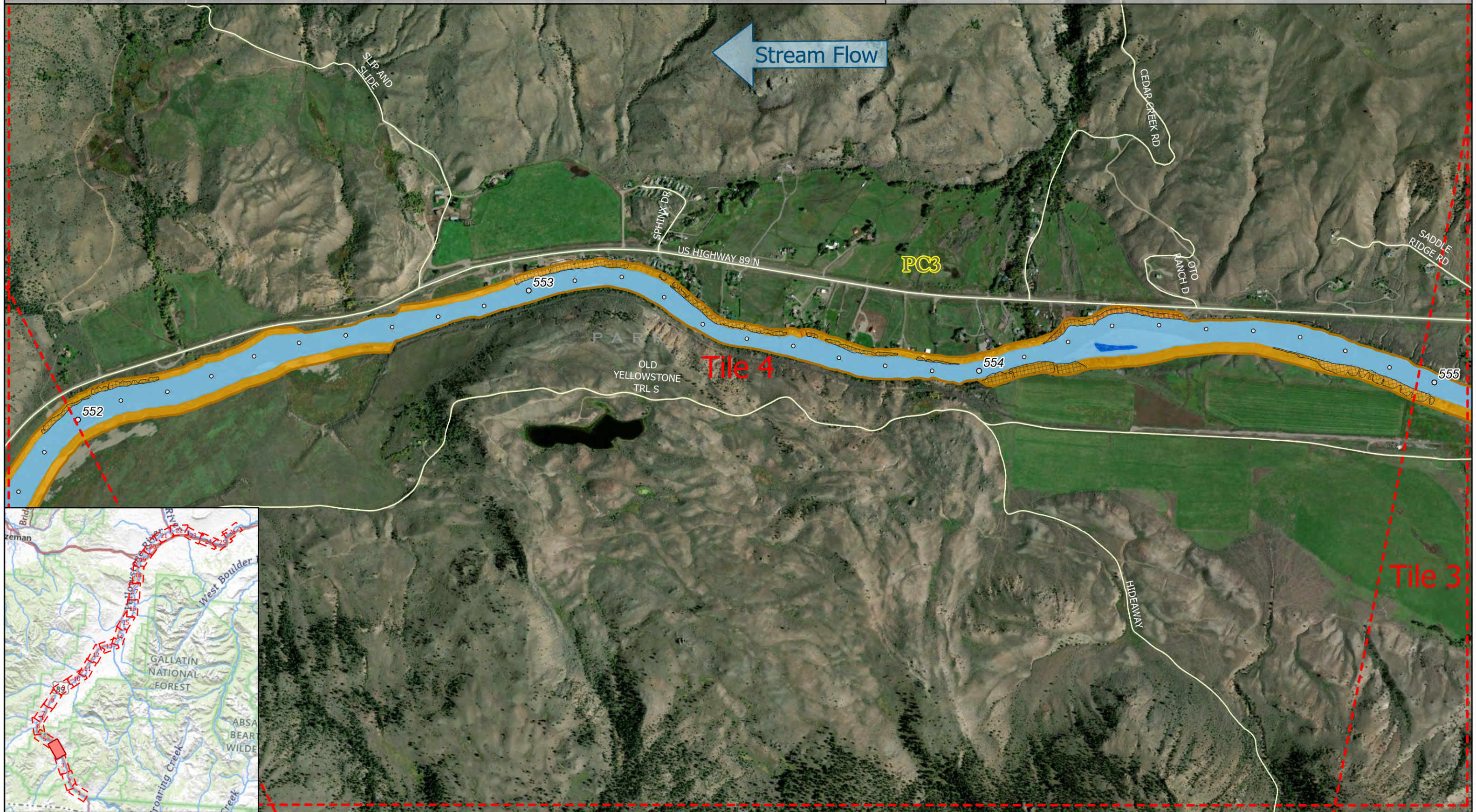
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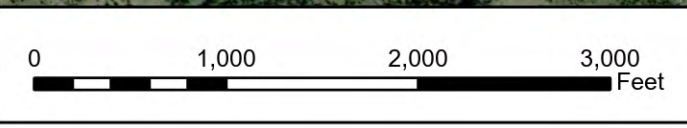
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









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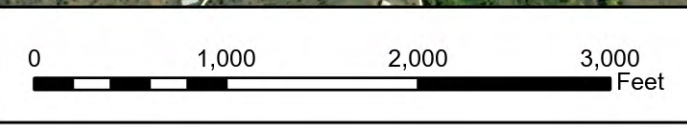
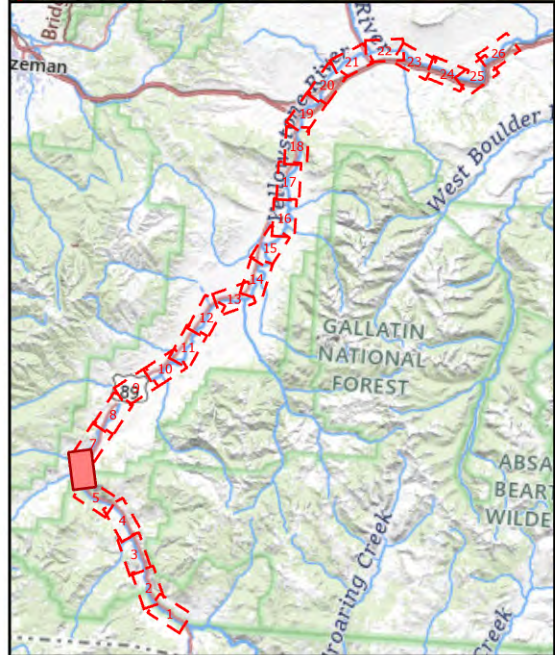
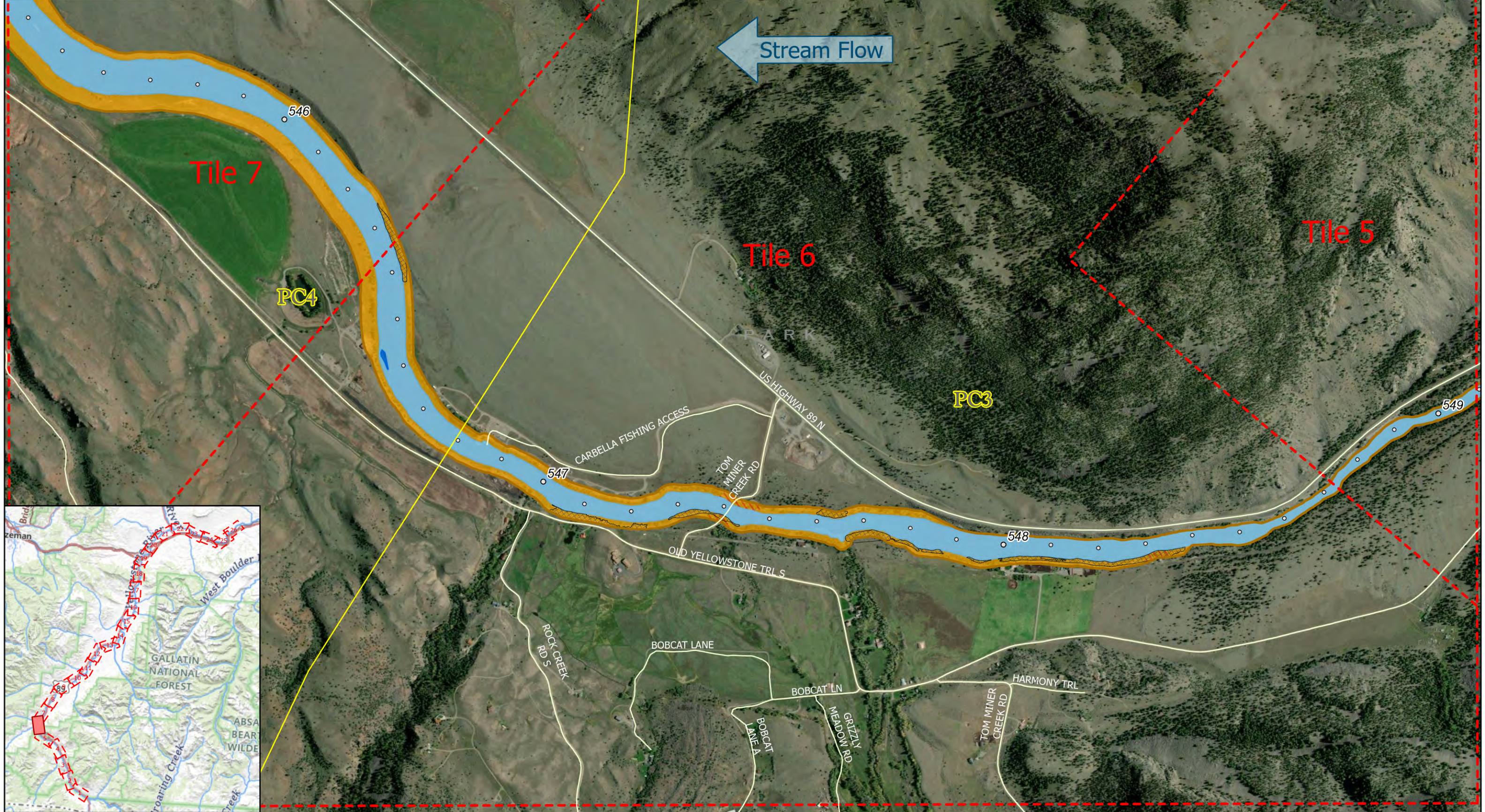
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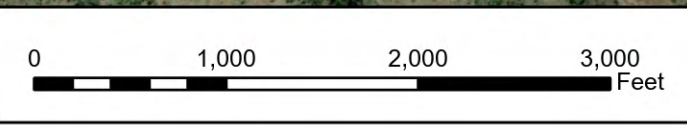
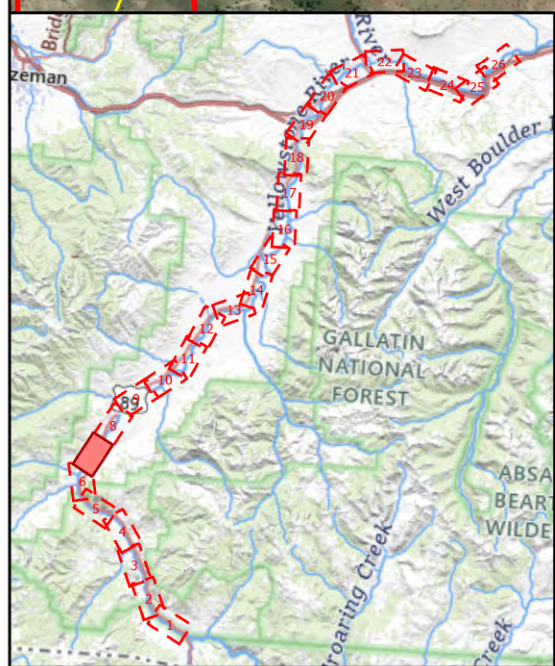
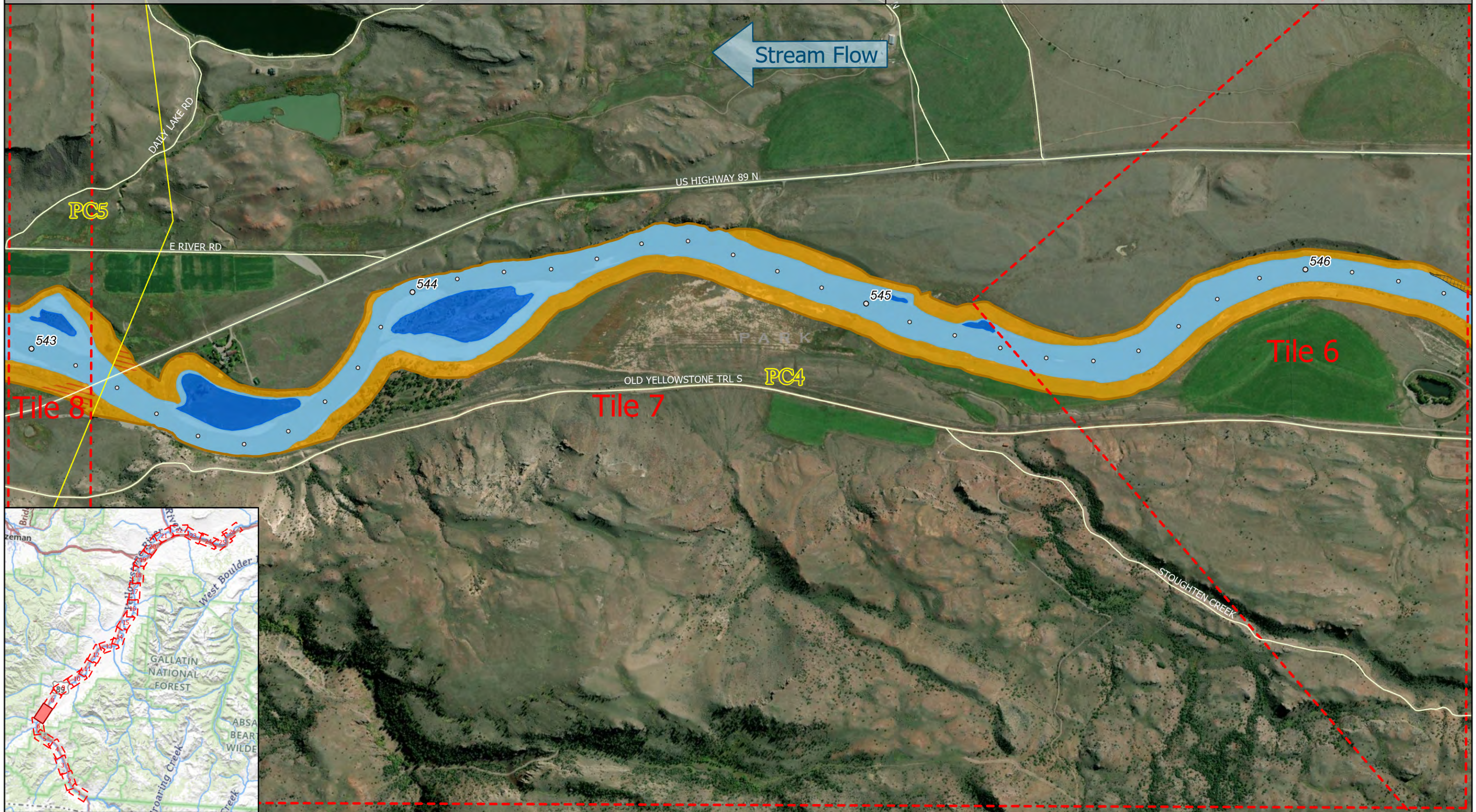
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 Historic Migration Zone (HMZ)	 Special Management Zone	 Potential Avulsion Pathways	
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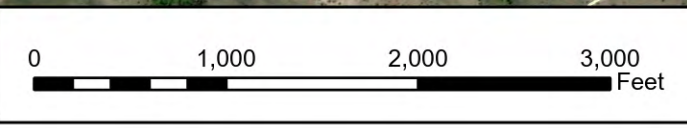
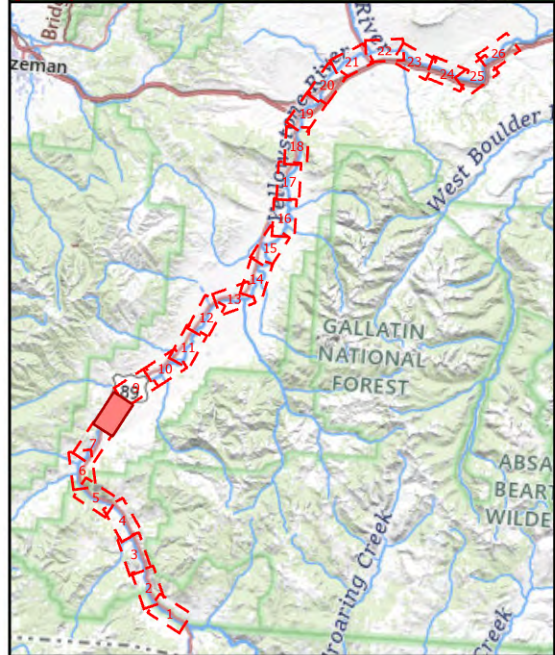
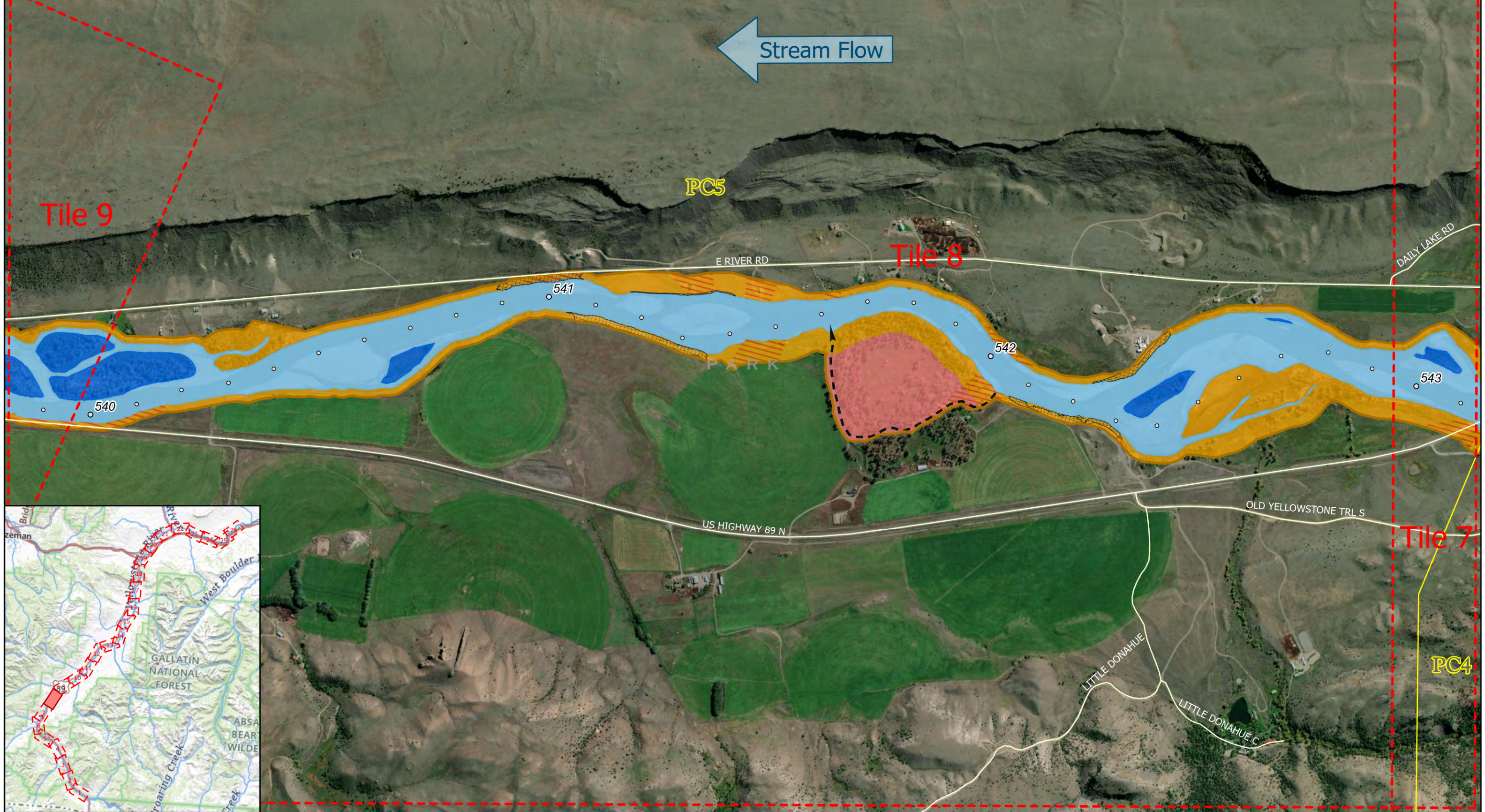
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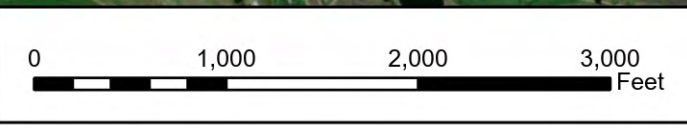
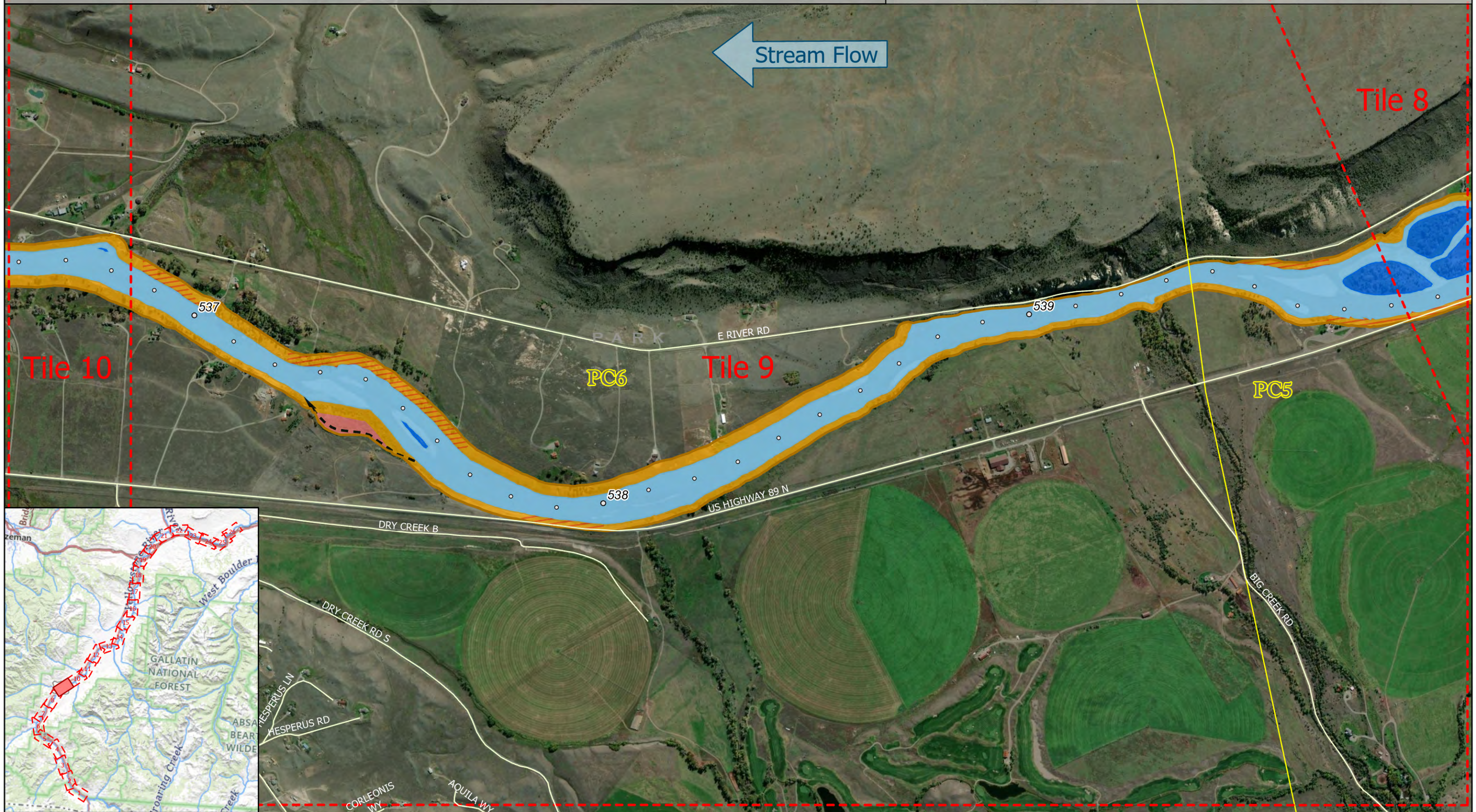
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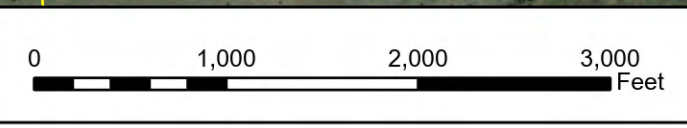
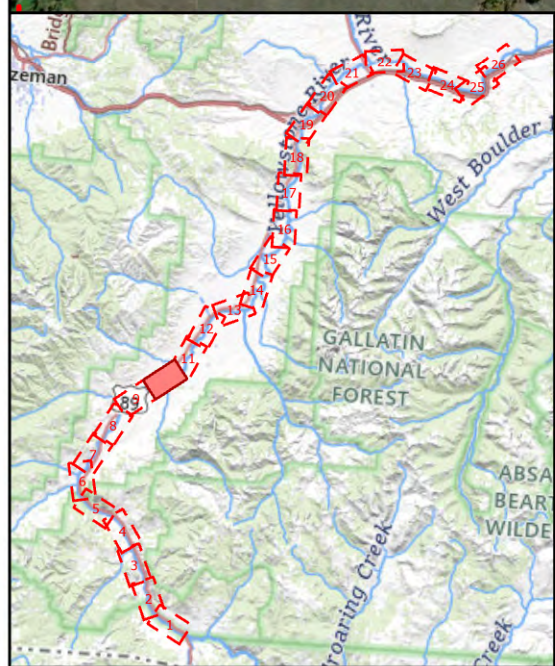
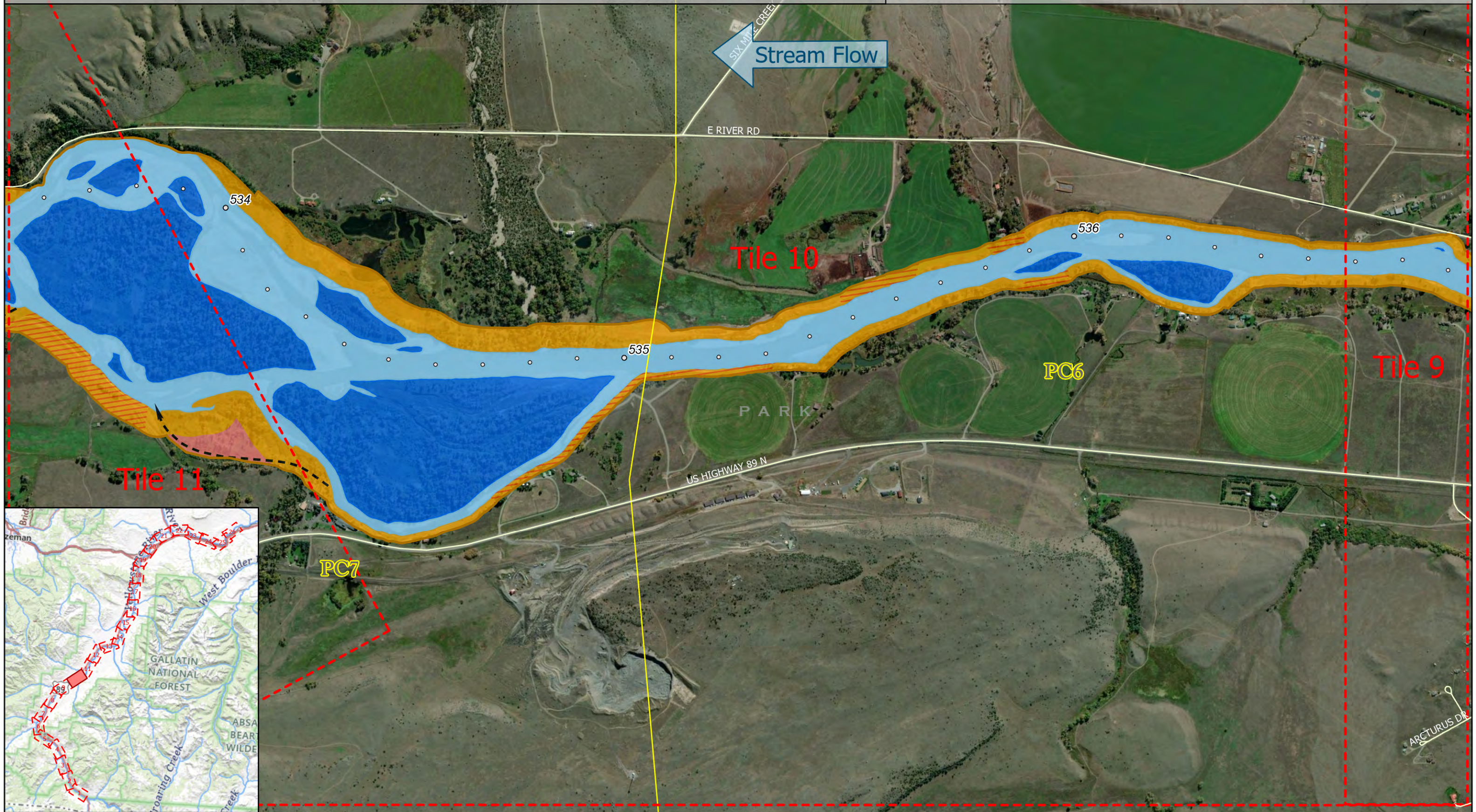
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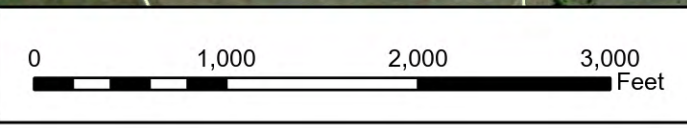
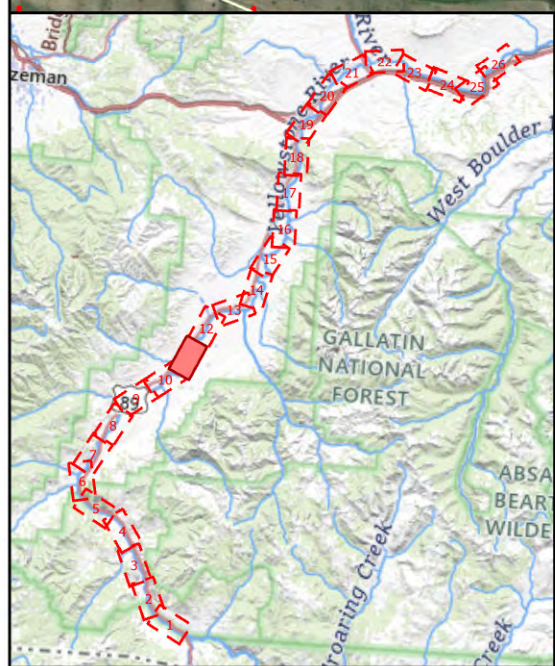
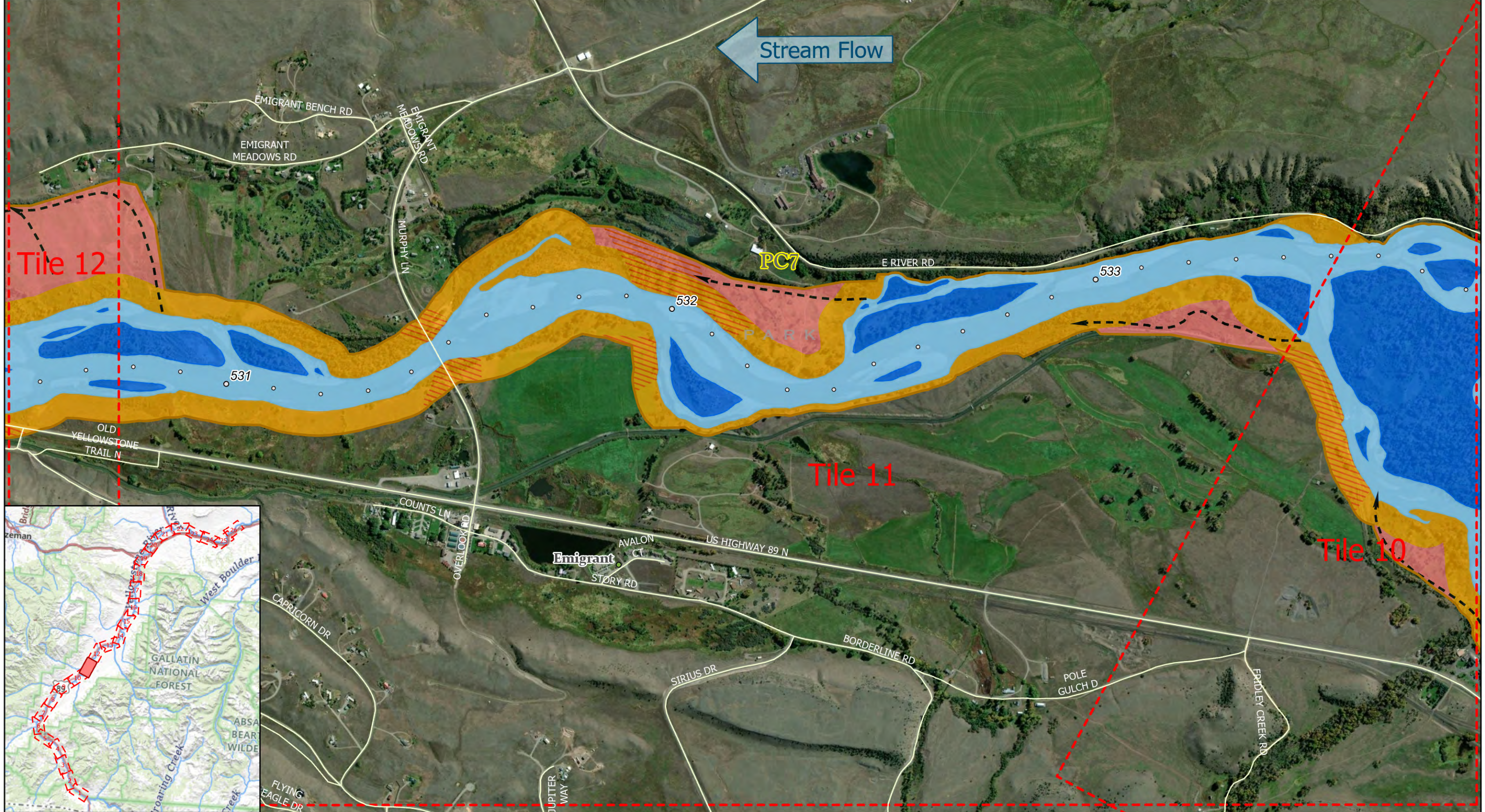
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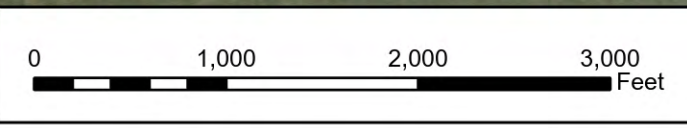
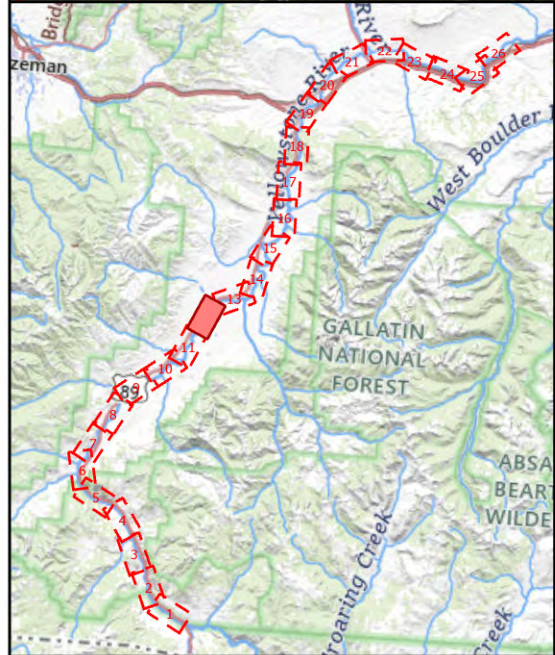
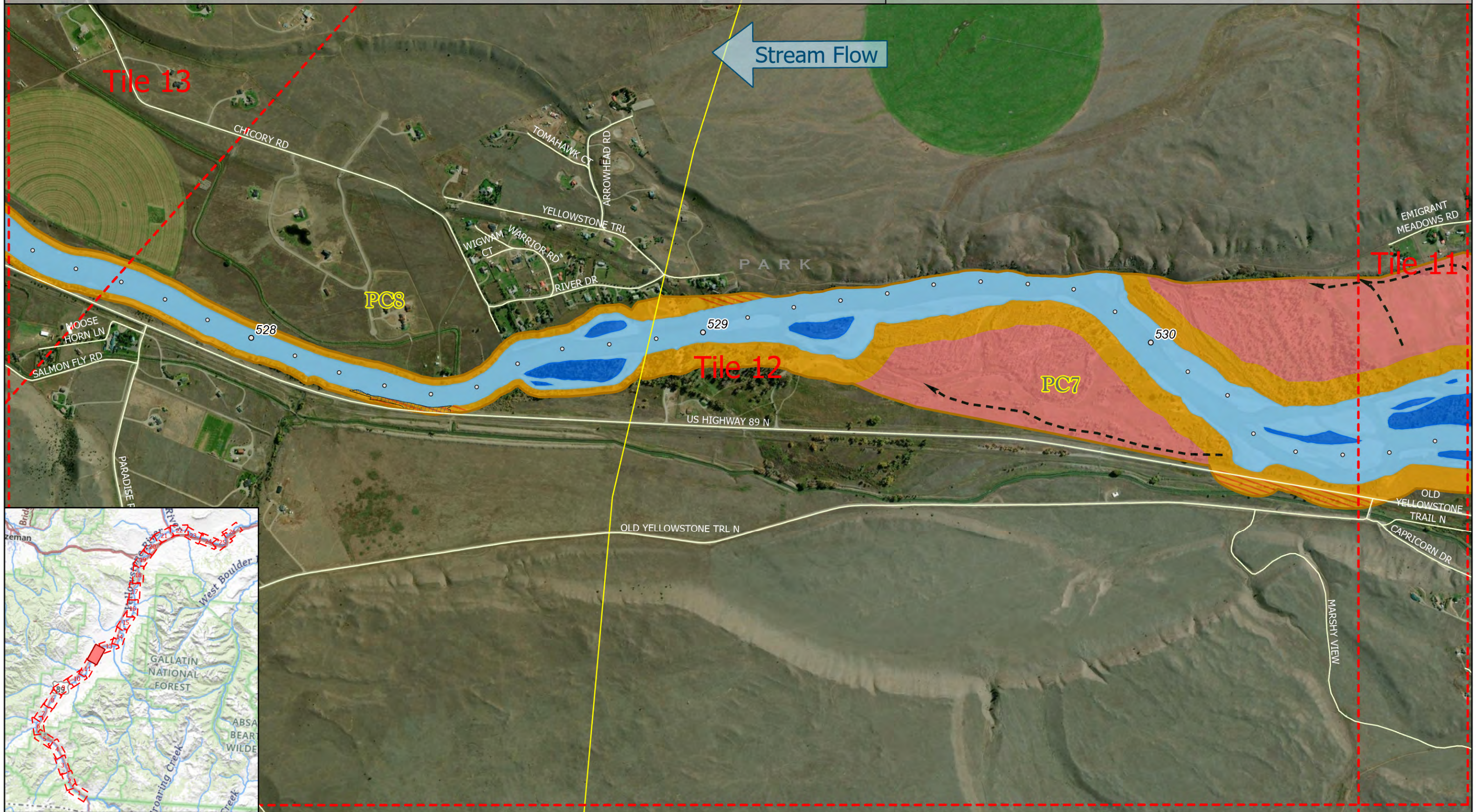
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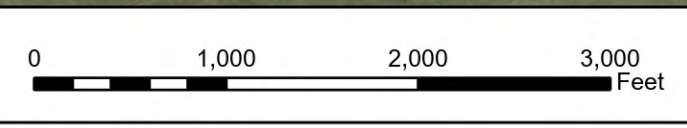
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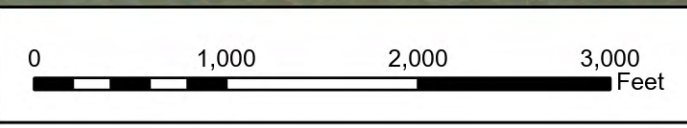
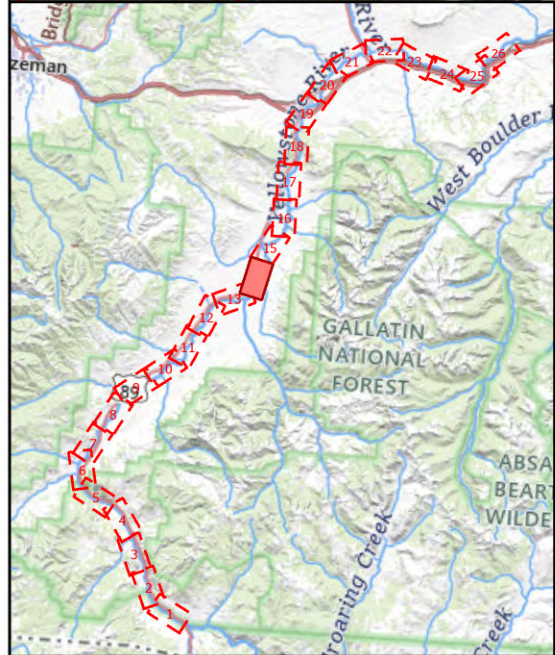
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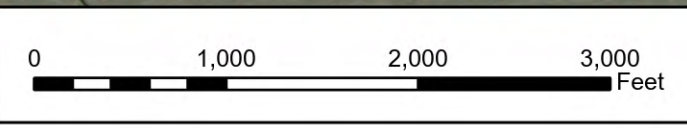
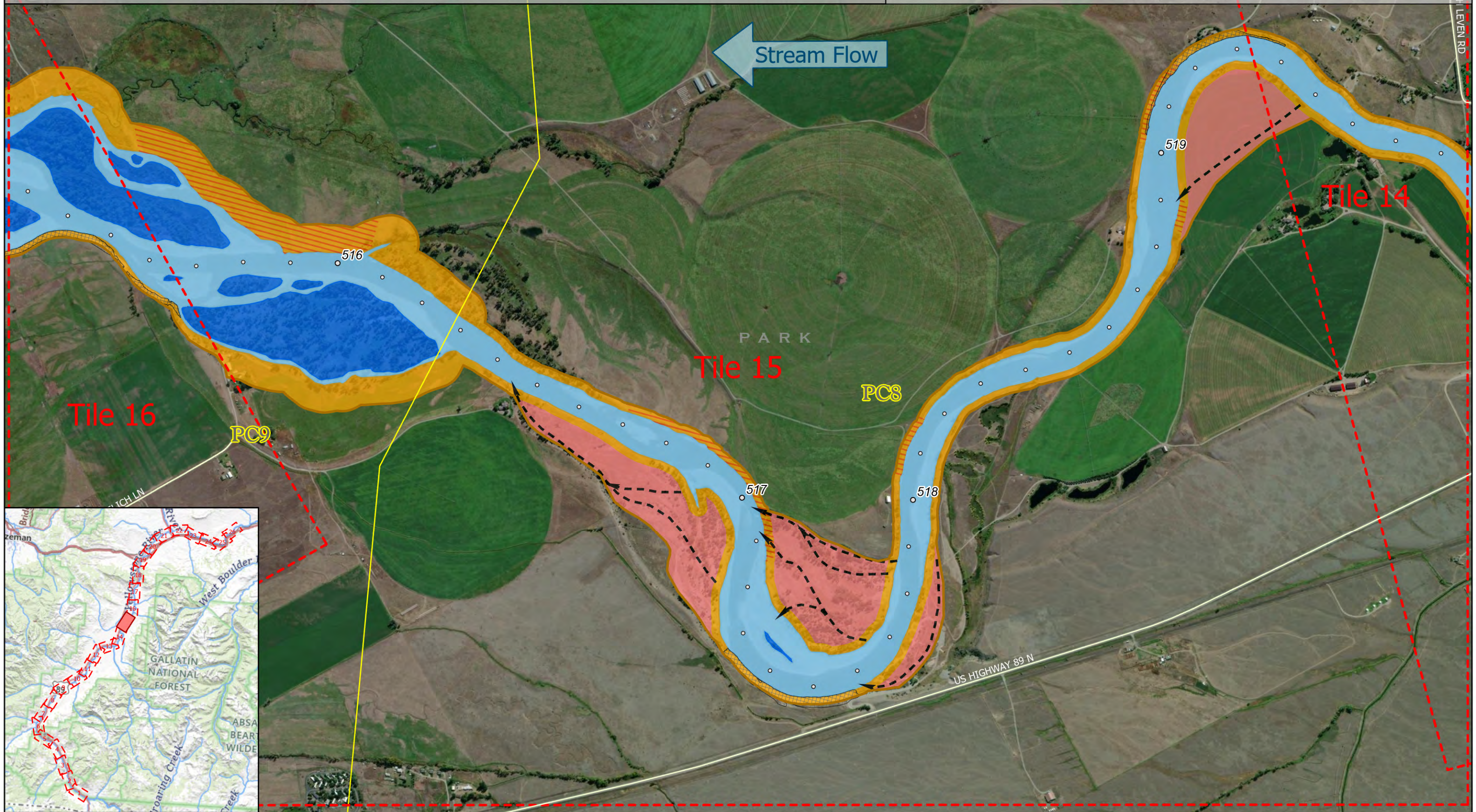
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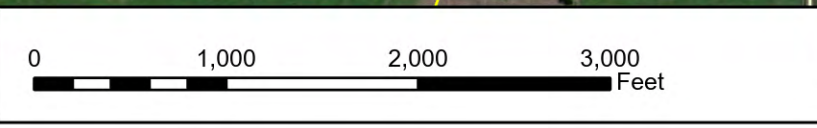
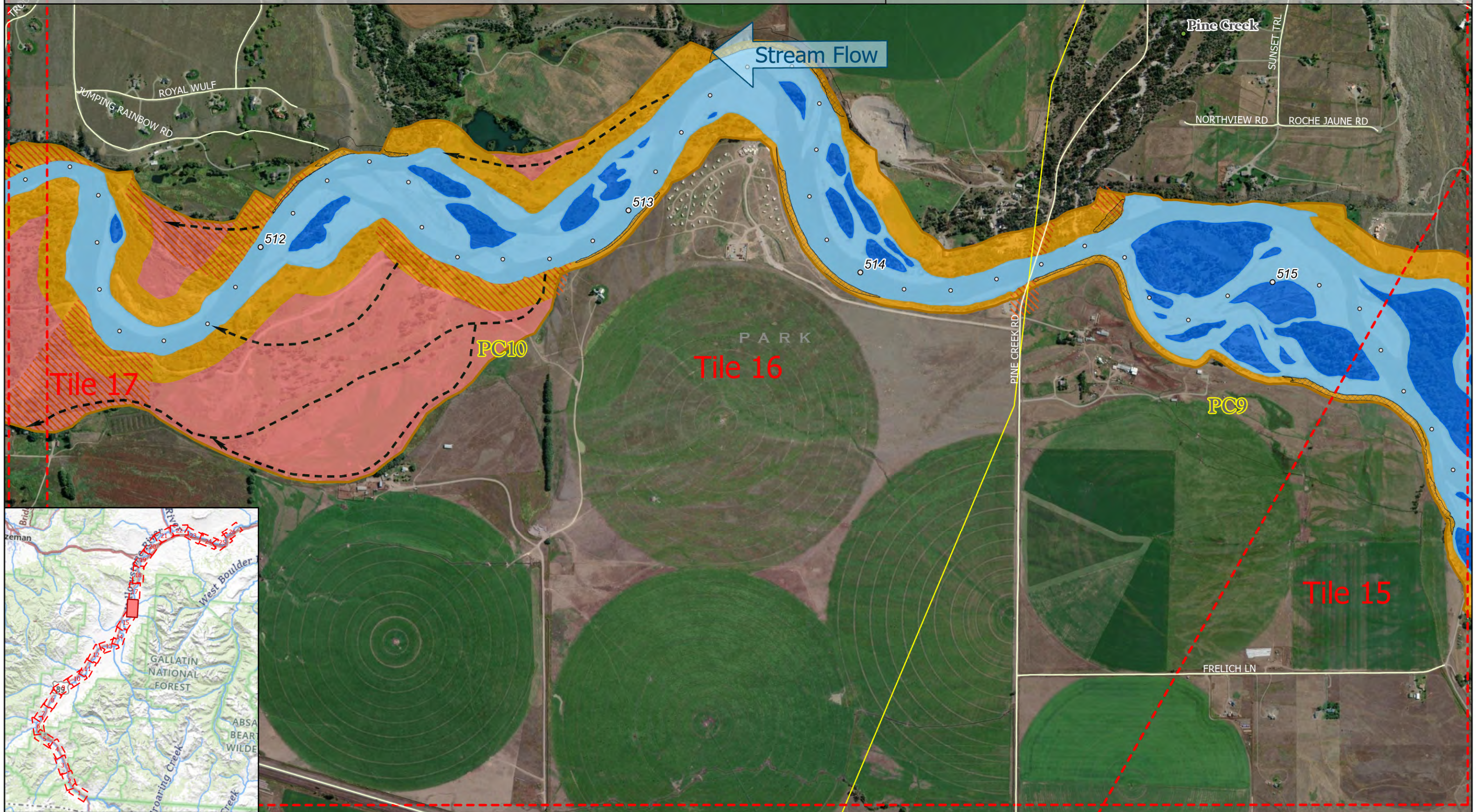
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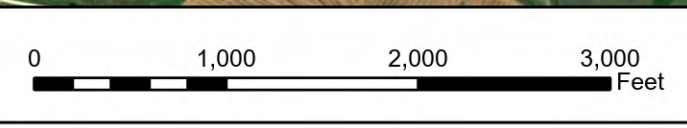
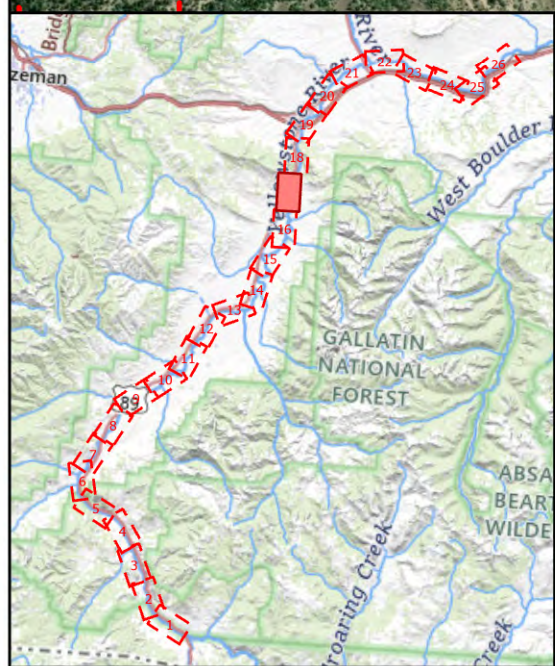
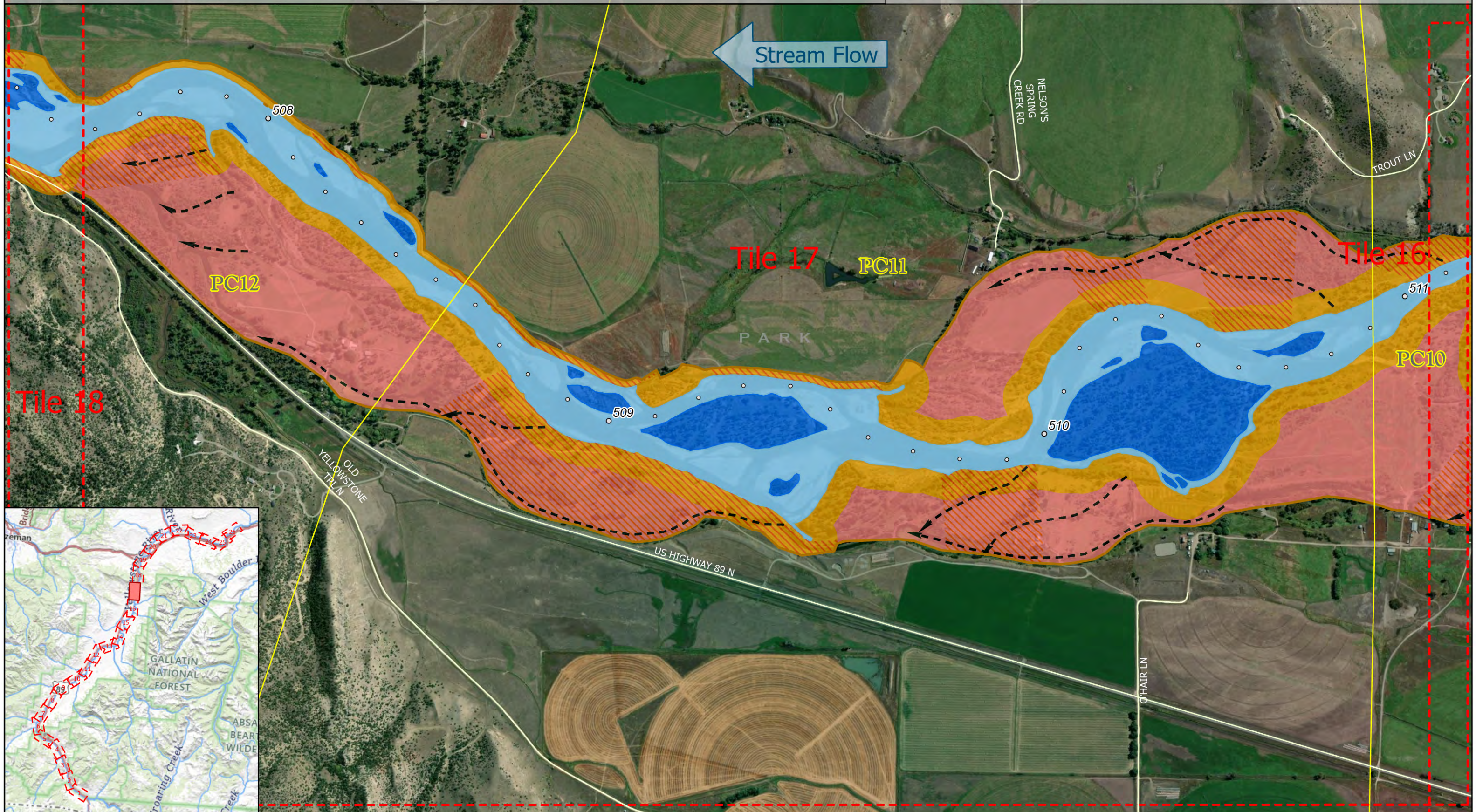
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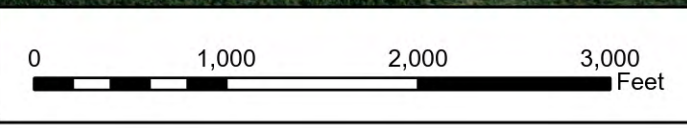
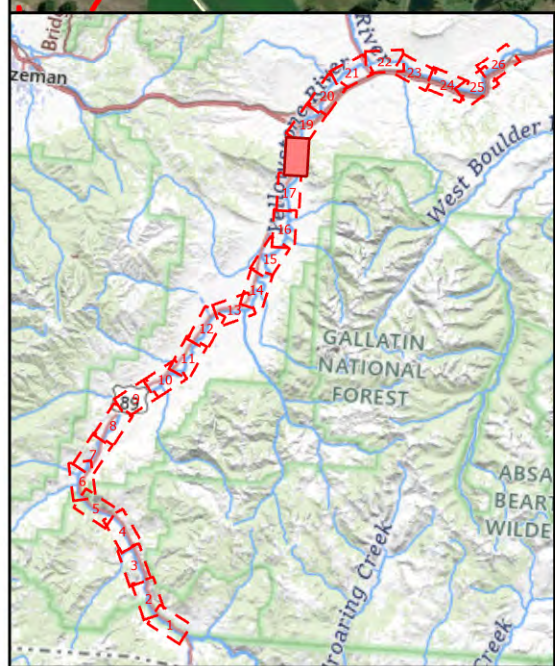
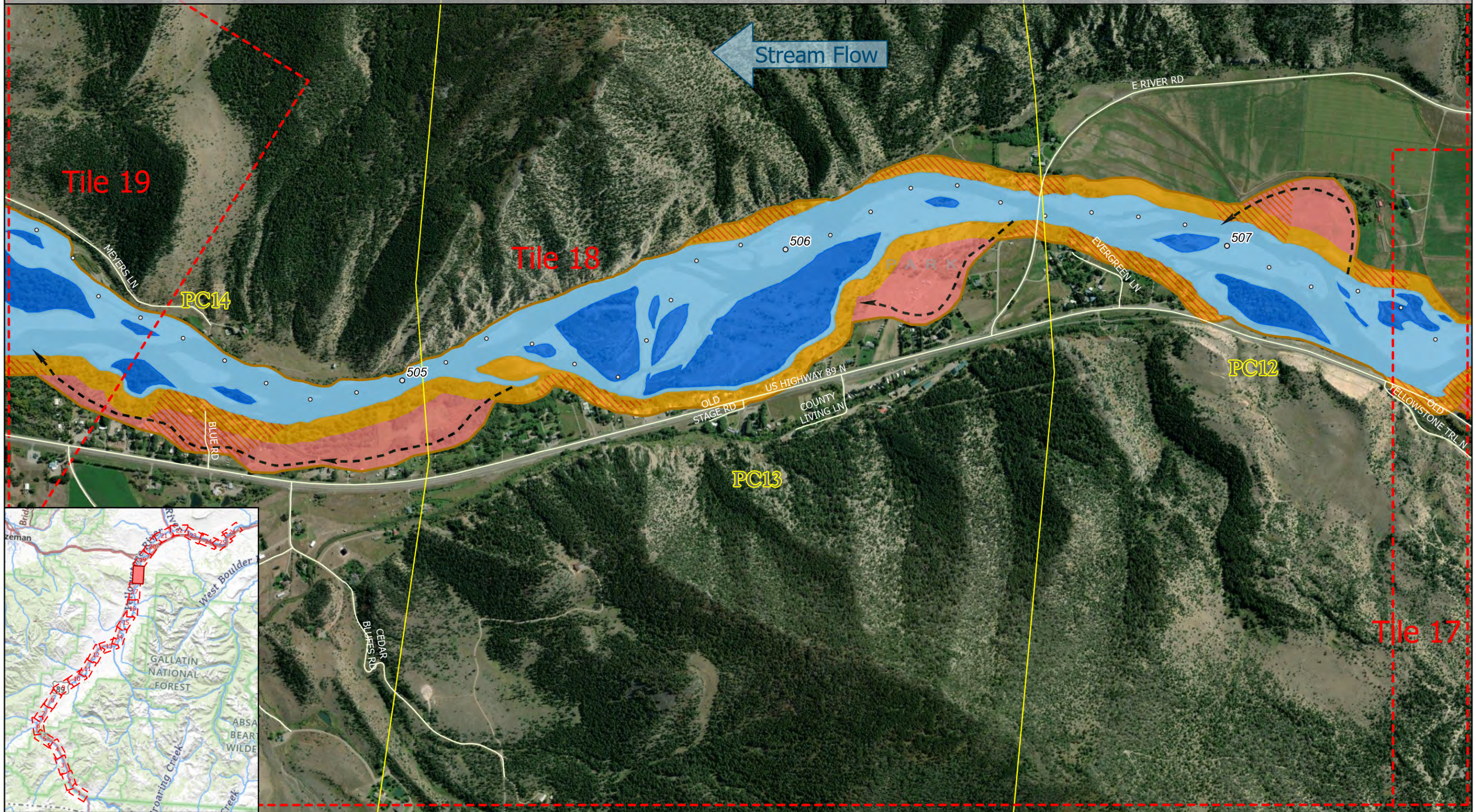
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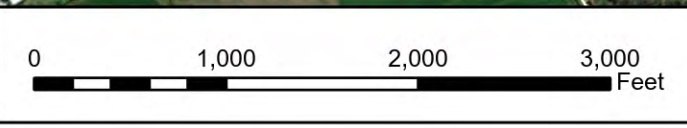
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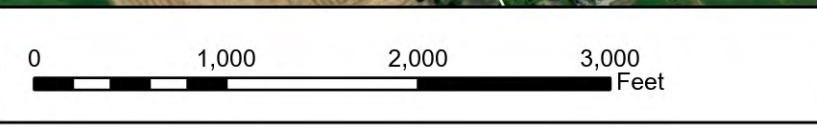
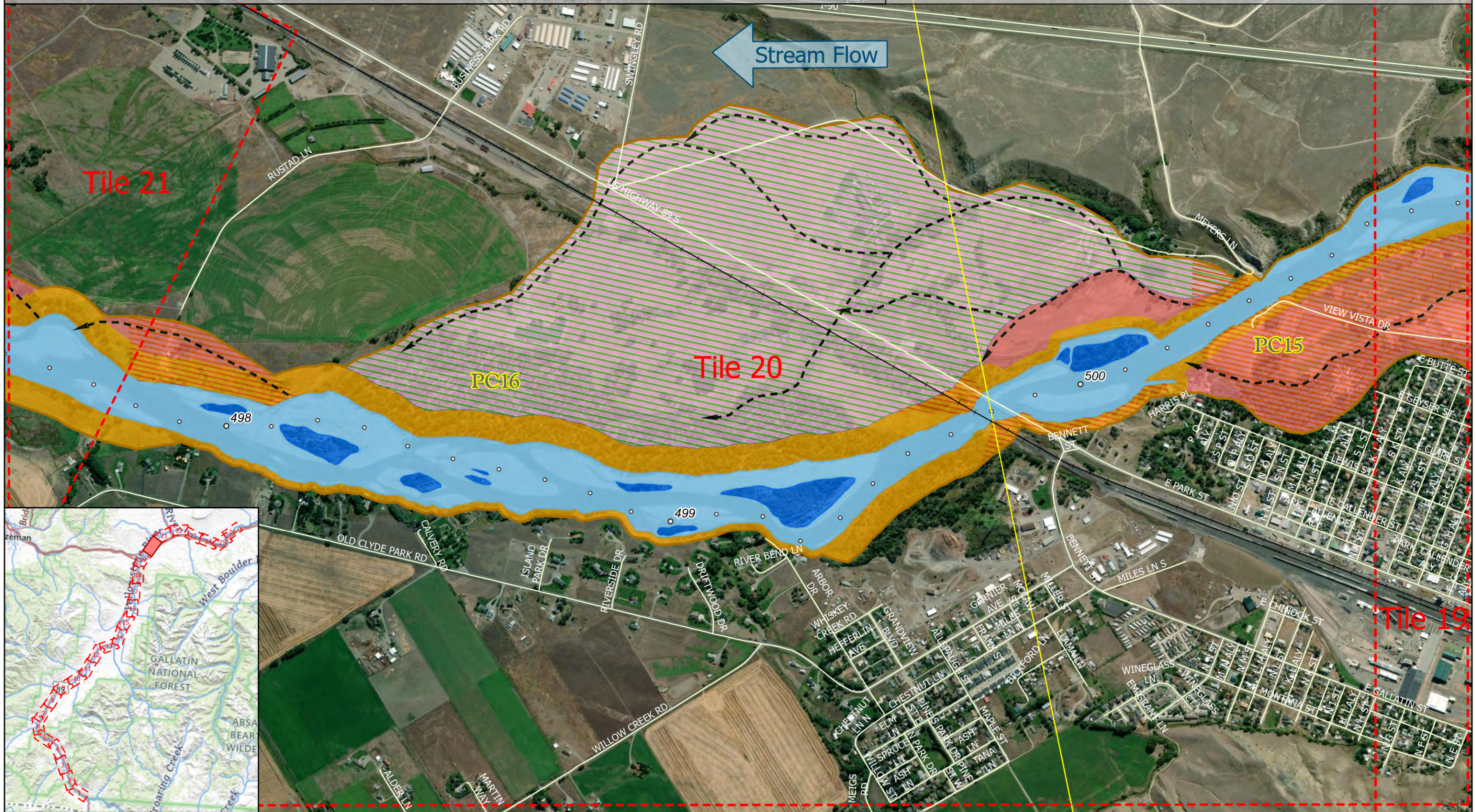
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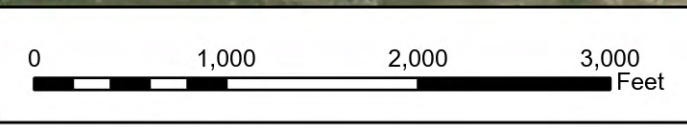
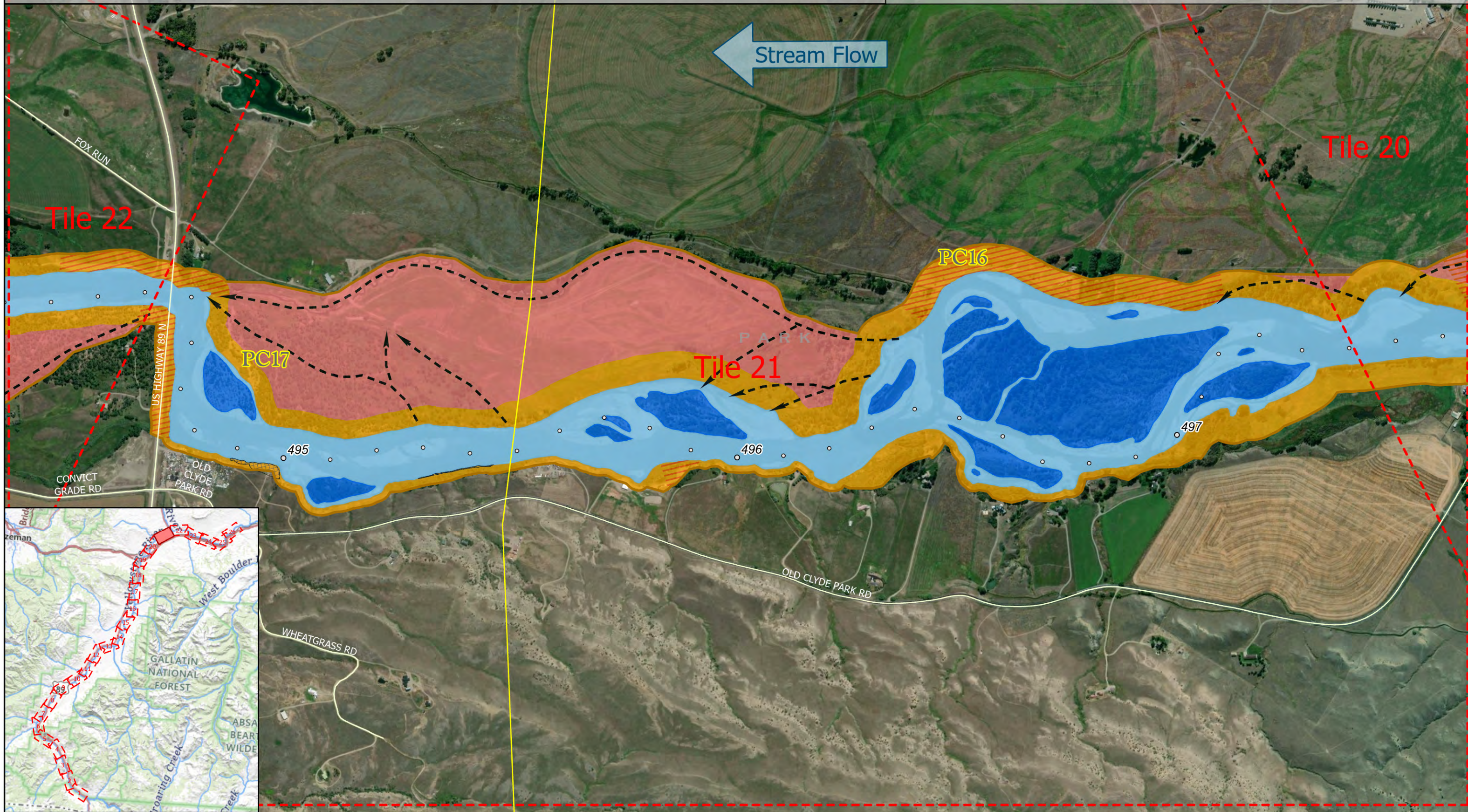
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









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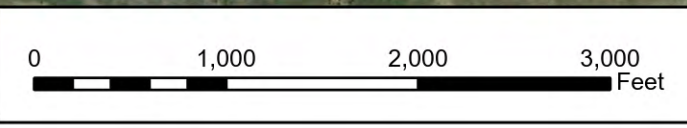
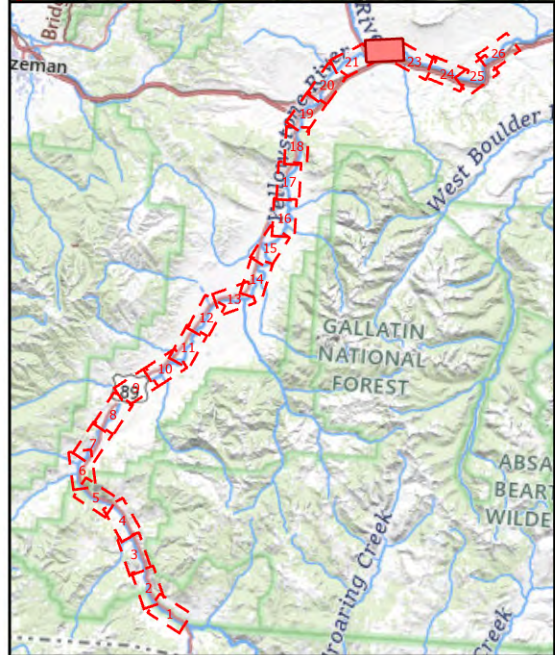
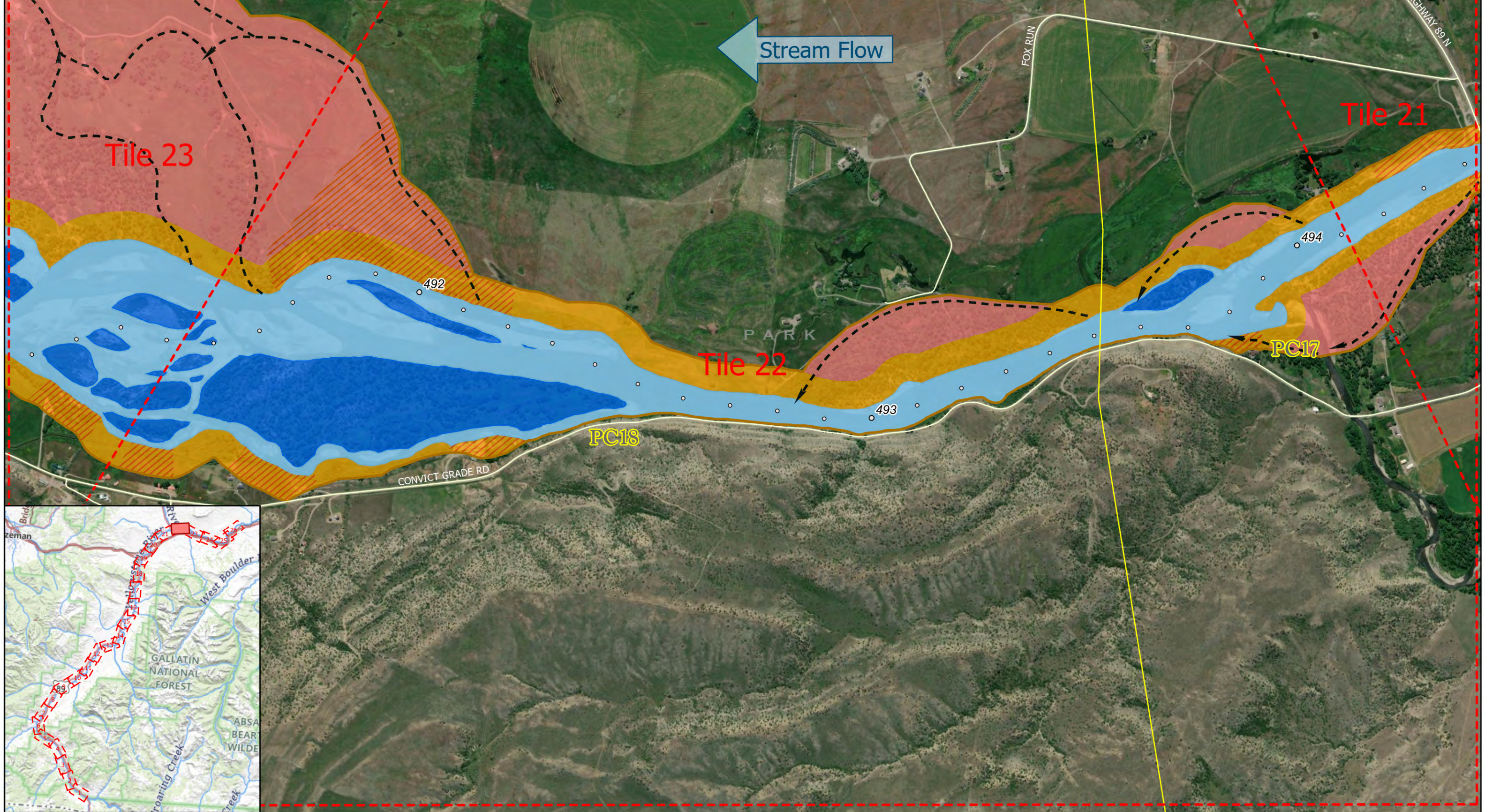
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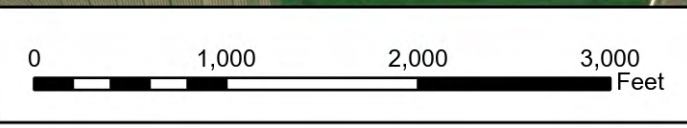
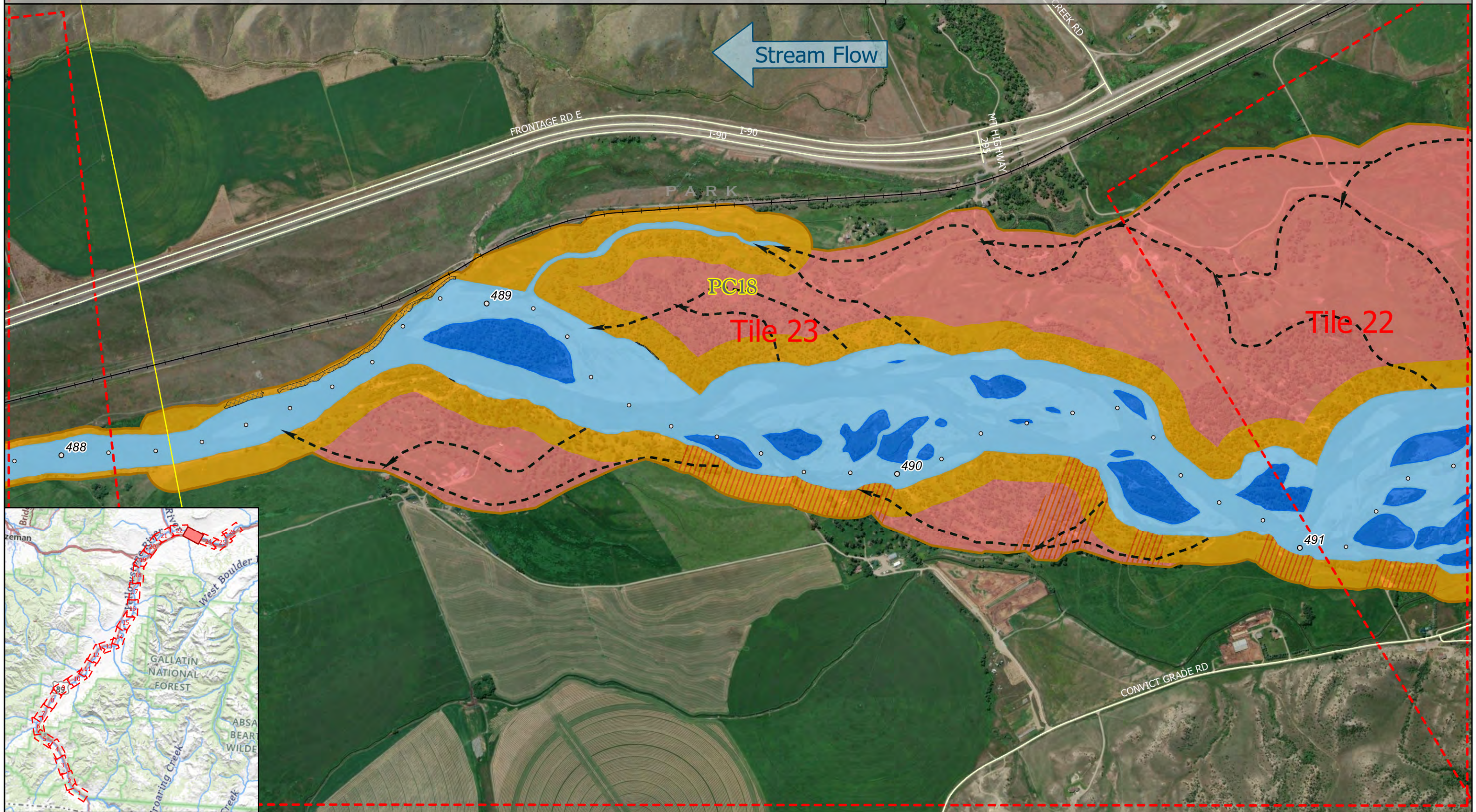
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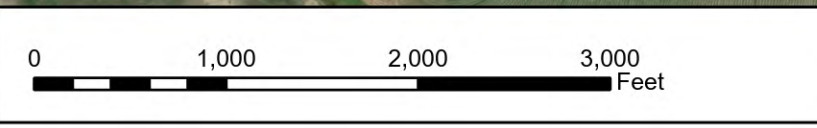
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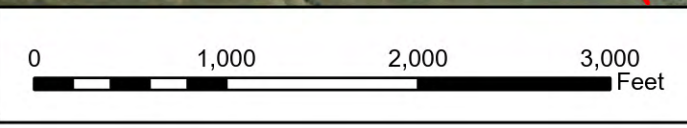
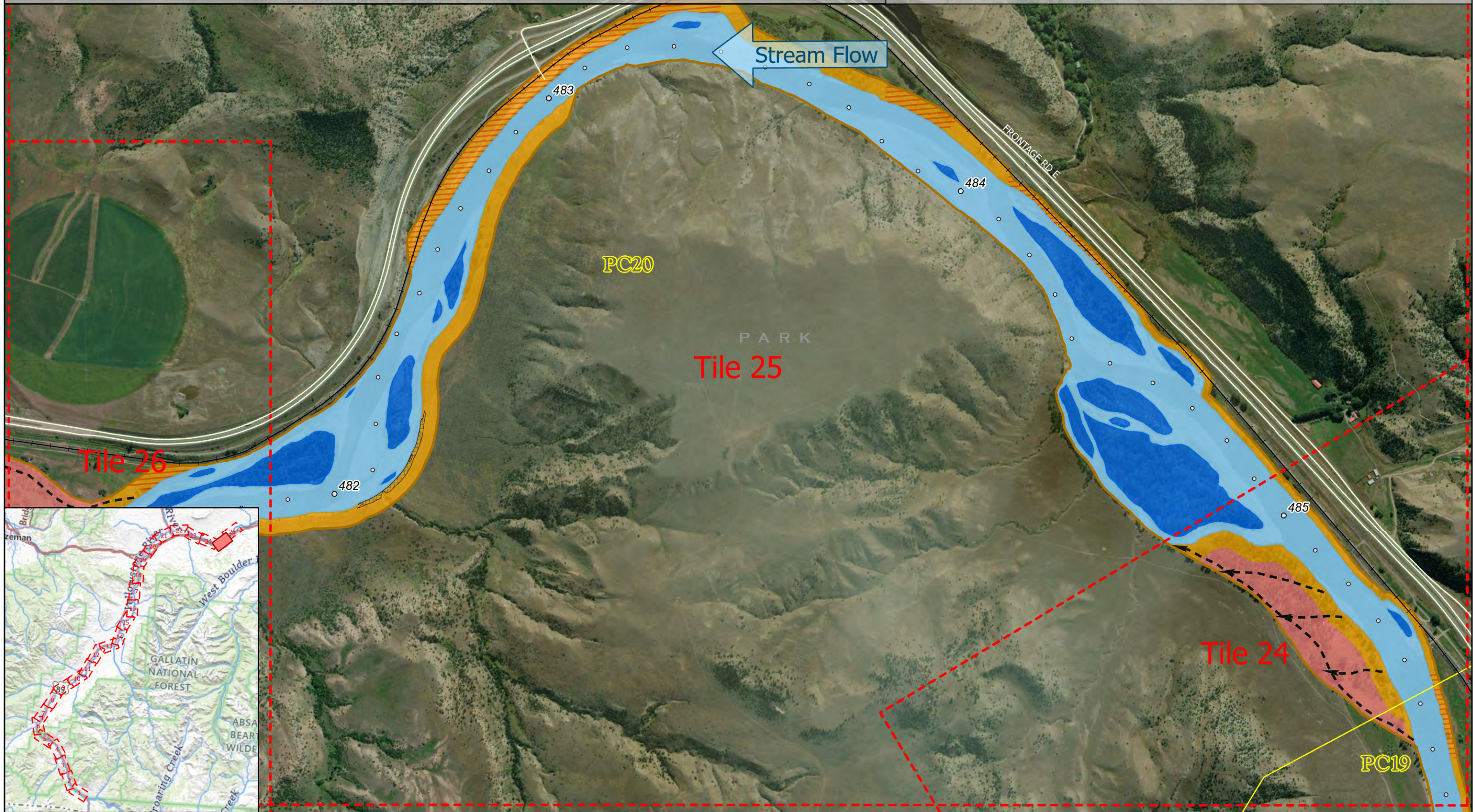
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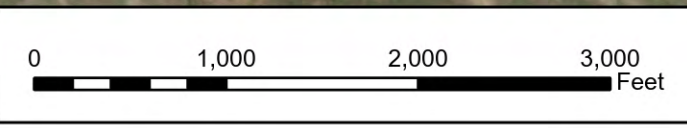
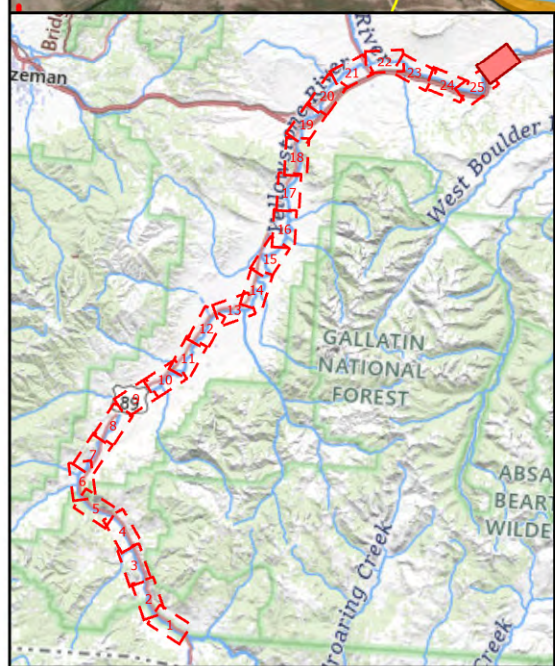
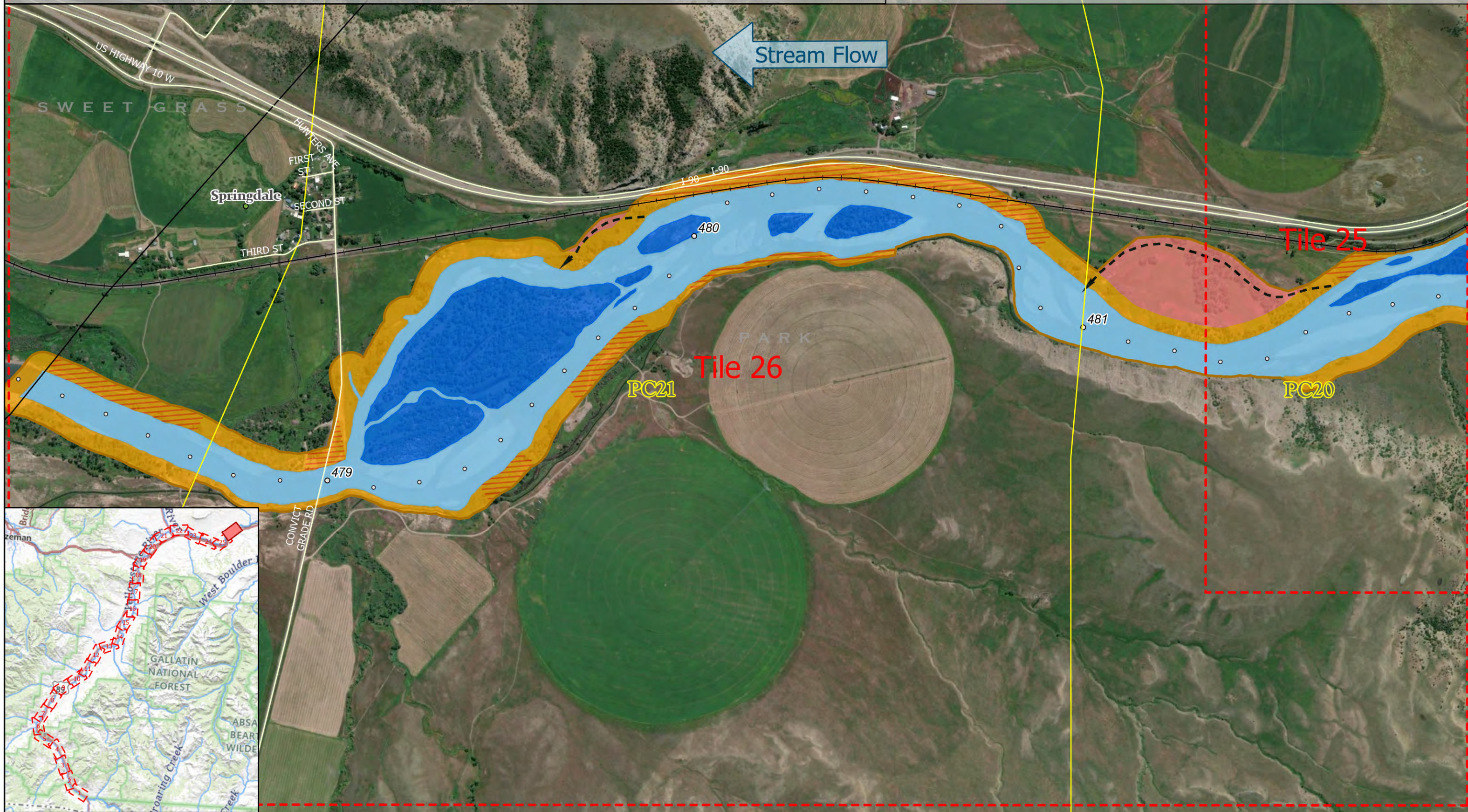
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File Attachments for Item:

A. RESOLUTION 5154: A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, DECLARING CERTAIN ITEMS AS SURPLUS AND DIRECTING THAT SAID PROPERTY BE DONATED, SOLD OR DISPOSED OF.



DATE: February 4, 2025
TO: Chair Schwarz and City Commissioners
FROM: Grant Gager, City Manager
RE: Staff Report for Resolution 5154

Recommendation and Summary

Staff recommends the Commission approve Resolution 5154 declaring certain items surplus and authorizing their disposal by adopting the following motion:

"I move to approve Resolution 5154 and authorize the Chair to sign."

The reasons for the recommendation are as follows:

- Montana Code Annotated establishes certain requirements for disposal of public property.
- The City has identified a partner to exchange several obsolete items for models in current service.

Introduction and History

Montana Code Annotated has established requirements for the disposal of municipally owned property in Section 7-8-4201 which provides that "the lease, donation, or transfer must be made by an ordinance or resolution passed by a two-thirds vote of all members of the council." In the case of a Commission-Manager form of government, it is the responsibility of the Commission to make such a decision.

Analysis

The City of Livingston's Fire and Rescue Department has identified a medical provider that desires to receive three obsolete Phillips cardiac monitors from the City in exchange for providing three new Zoll cardiac monitors. The Zoll monitors the same model used by the City currently.

Fiscal Impact

There is no fiscal impact arising from this exchange.

Strategic Alignment



Aligning physical assets with operations ensures efficient operation of government services.

Attachments

- Attachment A: Resolution 5154

RESOLUTION NO. 5154

A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, DECLARING CERTAIN ITEMS AS SURPLUS AND DIRECTING THAT SAID PROPERTY BE DONATED, SOLD OR DISPOSED OF.

WHEREAS, The City of Livingston has procured certain items to enable its ability to provide statutorily required services to its residents and taxpayers; and

WHEREAS, Montana Code Annotated 7-8-4201, and its subparts, establishes requirements for the disposal of municipal property; and

WHEREAS, a two-thirds vote of all members of the City Commission is required to lease, donate or transfer municipal property; and

WHEREAS, The City of Livingston has identified a medical provider to take receipt of three of the City’s obsolete Phillips cardiac monitors in exchange for three new Zoll cardiac monitors that are of the same model currently used by the City;

NOW, THEREFORE, BE IT RESOLVED, by the City Commission of the City of Livingston, Montana, that the following items are declared surplus and are authorized to be disposed of by the City Manager:

- Three Phillips Cardiac Monitors, serial numbers:
 - Monitor: 615320, D-FIB: 7022.002658
 - Monitor: 615311, D-FIB: 7022.000424
 - Monitor: 615315, D-FIB: 7022.000422

QUENTIN SCHWARZ, Chair

ATTEST:

EMILY HUTCHINSON
City Clerk

APPROVED TO AS FORM:

JON HESSE
City Attorney

File Attachments for Item:

B. RESOLUTION 5155: A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, ADOPTING THE 2024 WESTERN MONTANA HAZARD MITIGATION PLAN



DATE: February 4, 2025
TO: Chair Schwarz and City Commissioners
FROM: Grant Gager, City Manager
RE: Staff Report for Resolution 5155

Recommendation and Summary

Staff recommends the Commission approve Resolution 5155 adopting the Western Montana Region Hazard Mitigation Plan by adopting the following motion:

"I move to approve Resolution 5155 and authorize the Chair to sign."

The reasons for the recommendation are as follows:

- The City and County have partnered to develop projects for the regional hazard mitigation plan.
- In order to be eligible for certain federal funds, a hazard mitigation plan must be adopted.

Introduction and History

In the aftermath of the 2022 floods, the City and County have worked with Montana Disaster & Emergency Services (MT DES) to update the regional hazard mitigation plan (RHMP) that covers the City of Livingston to include relevant projects.

Analysis

The MT DES is encouraging local jurisdictions to adopt the RHMP. Doing so will allow jurisdictions to have their plans adopted and approved in time for upcoming funding application deadlines.

Fiscal Impact

There is no fiscal impact arising from adoption of the plan

Strategic Alignment

Adoption of a plan will enable the City to apply for funding to support initiatives.

Attachments



- Attachment A: Resolution 5155
- Attachment B: [Regional Hazard Mitigation Plan](#)

RESOLUTION NO. 5155

A RESOLUTION OF THE CITY OF LIVINGSTON, MONTANA, ADOPTING THE 2024 WESTERN MONTANA REGION HAZARD MITIGATION PLAN

WHEREAS, the City of Livingston recognizes the threat that natural hazards pose to people and property within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

WHEREAS, an adopted Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple Federal Emergency Management Agency pre- and post-disaster mitigation grant programs; and

WHEREAS, the City of Livingston resides within the Planning Area, and fully participated in the mitigation planning process to prepare this Hazard Mitigation Plan; and

NOW, THEREFORE, be it resolved, that the Livingston City Commission, hereby adopts the Western Montana Region Hazard Mitigation Plan, as an official plan; and

BE IT FURTHER RESOLVED, the City of Livingston will submit this Adoption Resolution to the Montana Disaster & Emergency Services and Federal Emergency Management Agency, Region VIII officials to enable the Plan’s final approval. While some content may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Livingston to re-adopt any further iterations of the plan.

QUENTIN SCHWARZ, Chair

ATTEST:

APPROVED TO AS FORM:

EMILY HUTCHINSON
City Clerk

JON HESSE
City Attorney

File Attachments for Item:

C. RESOLUTION 5156: A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LIVINGSTON, MONTANA, ACCEPTING UTILITY AND ACCESS EASEMENTS GRANTED BY LIVINGSTON WEST LLC FOR THE MOUNTAIN VIEW SUBDIVISION AND AUTHORIZING CITY MANAGER TO SIGN ASSOCIATED DOCUMENTS.

Return to:
City Clerk
City of Livingston
220 E. Park St.
Livingston, MT 59047

PUBLIC ROAD AND UTILITY EASEMENT

The GRANTOR, **Livingston West LLC**, a Montana Limited Liability Company, whose address is Box 500, Emigrant, MT 59027, for and in consideration of One and No/100 - Dollars, and other valuable consideration, in hand paid, conveys and grants to the GRANTEE, the **City of Livingston**, a municipal corporation and political subdivision of the State of Montana, of the address of 220 E. Park St., Livingston, Montana 59047, a perpetual public road and utility easement in, over, along, through, under, and across the following described real property located in Park County, Montana:

A tract of land described as Phase 3 (Remainder) of Mountain View Subdivision, Phase 1, situated in the NW1/4 of Section 22, Township 2 South, Range 9 East, of the Principal Meridian, Montana, in Park County, Montana, on file in the office of the Clerk and Recorder of said County.

Said public road and utility easement is depicted on **Exhibit A** attached hereto and more particularly described as:

Commencing at the southeasterly corner of Phase 3 (Remainder) Tract; thence N 00° 51' 10" W, 160.93 feet along the easterly line of said Tract to the **Point of Beginning**; thence N 86° 35' 01" W, 207.14 feet to the westerly line of said Tract; thence N 23° 24' 22" E, 63.85 feet along the westerly line of said Tract; thence S 86° 35' 01" E, 180.83 feet to the easterly line of said Tract; thence S 00° 51' 10" E, 60.17 feet along the easterly line of said Tract to the **Point of Beginning**. Containing 11,639 sq. ft., more or less, as shown on **Exhibit A**.

This perpetual easement to GRANTEE is for the purpose of constructing, reconstructing, maintaining, operating, servicing, repairing, and replacing road and utility facilities in, over, along, through, under, and across the said real property; Together with the right of the GRANTEE to enter at all times upon the GRANTOR'S property by using existing roads or trails or otherwise by a route causing the least damage and inconvenience to the GRANTORS in order to gain ingress and egress to said easement.

The GRANTEE agrees to defend, indemnify and hold harmless the GRANTOR from all claims, demands, damages and causes of action, including reasonable attorney's fees, arising out of the GRANTEE'S use of said easement granted herein. The terms of this easement shall be governed by Montana law.

GRANTORS agree that authorized representatives of the City of Livingston can freely travel within the easement right-of-way with their equipment in the performance of their duties.

The Restrictions, Covenants, and Hold Harmless Agreements herein contained shall attach to and run with the land and shall bind the parties hereto and all persons claiming thereunder.

LIVINGSTON WEST LLC, a Montana Limited Liability Company

Andrew Field
Name: Andrew Field
Title: Managing Partner

ACKNOWLEDGMENT OF GRANTOR

State of Montana
County of Park) ss.

On this ___ day of _____, 20___, before me, the undersigned, a Notary Public in and for the said State, personally appeared the GRANTOR, Andrew Field, the Managing Partner of **Livingston West LLC**, a Montana Limited Liability Company, known to me to be the identical individual who executed the foregoing instrument, who acknowledged to me that the individual executed the same as the free and voluntary act of said GRANTOR, with full authority to do so and with full knowledge of its contents, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this day and year above written.



Angela S Tinsley
Notary Signature Line
ANGELA STINSLEY
Notary Printed Name

Notary Public for the State of Montana
Residing at: Livingston
My Commission Expires: 11 / 04 / 2025

CITY OF LIVINGSTON

By: *Paul Gage*
City Manager

ATTEST:

By: *Emily Hutchings*
City Clerk

State of Montana)
) ss.
County of Park)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__ by _____ and _____, known to me to be the City Manager and City Clerk for the City of Livingston and the persons whose names are subscribed to this instrument, and acknowledged to me that they executed the same for and on behalf of the City of Livingston.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this day and year above written.

(Seal)

Notary Signature Line

Notary Printed Name

Notary Public for the State of _____

Residing at: _____

My Commission Expires: _____ / _____ / 20__

EXHIBIT A

PUBLIC ROAD AND UTILITY EASEMENT

WITHIN

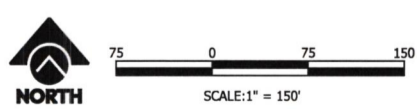
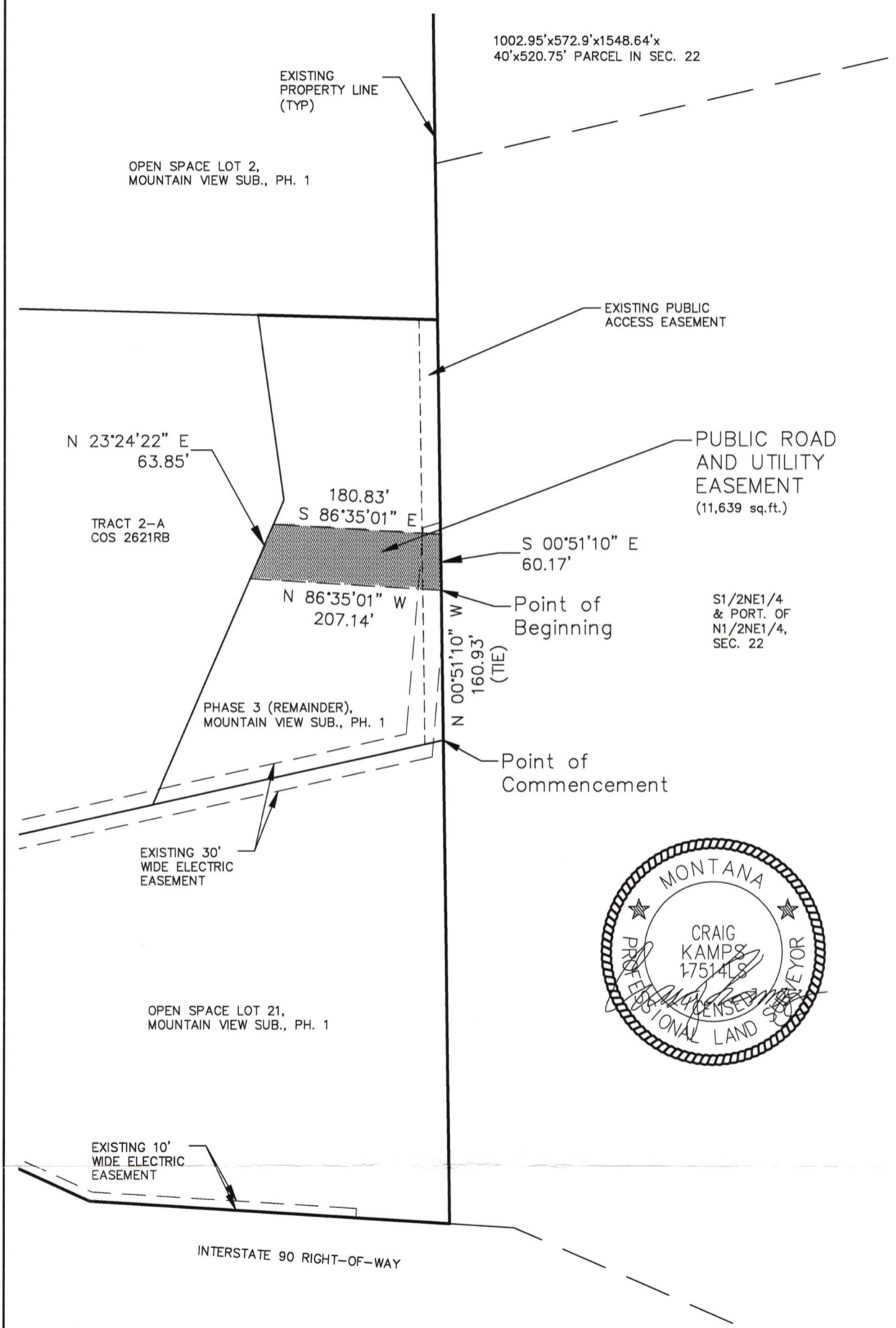
PHASE 3 (REMAINDER), MOUNTAIN VIEW SUB. PH. 1,
LOCATED IN S22, T2S, R9E, P.M.M.

PREPARED FOR : LIVINGSTON WEST LLC

JANUARY, 2025

PREPARED BY : **sanbell**

BOZEMAN, MONTANA



Return to:
City Clerk
City of Livingston
220 E. Park St.
Livingston, MT 59047

PUBLIC UTILITY EASEMENT

The GRANTOR, **Livingston West LLC**, a Montana Limited Liability Company, whose address is Box 500, Emigrant, MT 59027, for and in consideration of One and No/100 - Dollars, and other valuable consideration, in hand paid, conveys and grants to the GRANTEE, the **City of Livingston**, a municipal corporation and political subdivision of the State of Montana, of the address of 220 E. Park St., Livingston, Montana 59047, a perpetual public utility easement in, over, along, through, under, and across the following described real property located in Park County, Montana:

A tract of land described as Lot 8 of Mountain View Subdivision, Phase 1, situated in the NW1/4 of Section 22, Township 2 South, Range 9 East, of the Principal Meridian, Montana, in Park County, Montana, on file in the office of the Clerk and Recorder of said County.

Said public utility easement is depicted on **Exhibit A** attached hereto and more particularly described as:

Commencing at the northeasterly corner of said Lot, also being a point on the southerly right-of-way line of Interstate 90 Business Loop; thence along a curve to the left and said right-of-way and along the northerly line of said Lot, said curve having a radius of 738.60 feet and a chord that bears S 68° 46' 38" W, 10.09 feet; thence along said curve 10.09 feet to the **Point of Beginning**; thence S 28° 57' 17" E, 36.96 feet along an existing public utility easement; thence S 61° 02' 43" W, 20.00 feet; thence N 28° 57' 17" W, 39.26 feet to the northerly line of said Tract; thence along a curve to the right and said right-of-way and along said line of said Lot, said curve having a radius of 738.60 feet and a chord that bears N 67° 36' 18" E, 20.13 feet; thence along said curve 20.13 feet to the **Point of Beginning**. Containing 763 sq. ft., more or less, as shown on **Exhibit A**.

This perpetual easement to GRANTEE is for the purpose of constructing, reconstructing, maintaining, operating, servicing, repairing, and replacing utility facilities in, over, along, through, under, and across the said real property; Together with the right of the GRANTEE to enter at all times upon the GRANTOR'S property by using existing roads or trails or otherwise by a route causing the least damage and inconvenience to the GRANTORS in order to gain ingress and egress to said easement.

The GRANTEE agrees to defend, indemnify and hold harmless the GRANTOR from all claims, demands, damages and causes of action, including reasonable attorney's fees, arising out of the GRANTEE'S use of said easement granted herein. The terms of this easement shall be governed by Montana law.

GRANTORS agree that authorized representatives of the City of Livingston can freely travel within the easement right-of-way with their equipment in the performance of their duties.

The Restrictions, Covenants, and Hold Harmless Agreements herein contained shall attach to and run with the land and shall bind the parties hereto and all persons claiming thereunder.



LIVINGSTON WEST LLC, a Montana Limited Liability Company

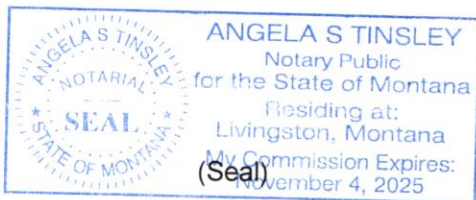
Andrew Field
Name: Andrew Field
Title: Managing Partner

ACKNOWLEDGMENT OF GRANTOR

State of Montana
County of Park) ss.

On this 29th day of January, 2025, before me, the undersigned, a Notary Public in and for the said State, personally appeared the GRANTOR, Andrew Field, the Managing Partner of **Livingston West LLC**, a Montana Limited Liability Company, known to me to be the identical individual who executed the foregoing instrument, who acknowledged to me that the individual executed the same as the free and voluntary act of said GRANTOR, with full authority to do so and with full knowledge of its contents, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this day and year above written.



Angela S Tinsley
Notary Signature Line
ANGELA S TINSLEY
Notary Printed Name

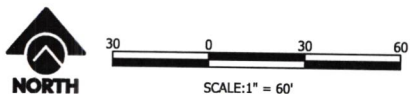
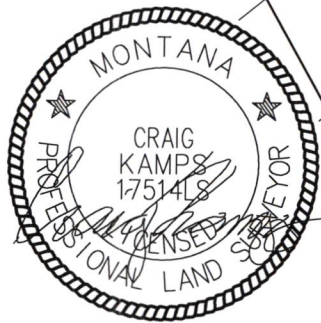
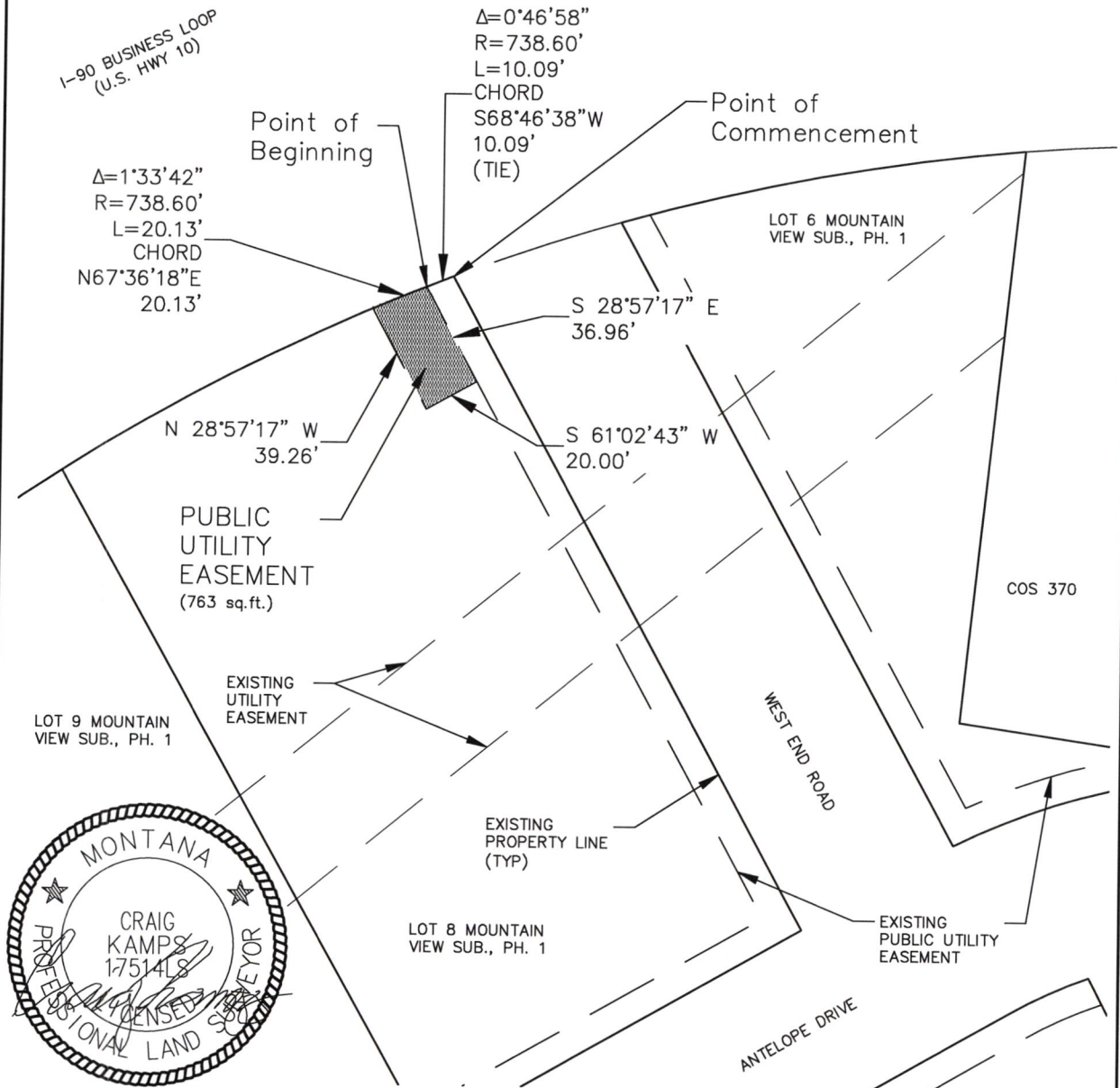
Notary Public for the State of Montana
Residing at: Livingston
My Commission Expires: 11 / 04 / 2025

EXHIBIT A PUBLIC UTILITY EASEMENT

WITHIN
LOT 8, MOUNTAIN VIEW SUB. PH. 1, LOCATED IN S22, T2S, R9E, P.M.M.

PREPARED FOR : LIVINGSTON WEST LLC
PREPARED BY : **sanbell**

JANUARY, 2025
BOZEMAN, MONTANA





DATE: February 4, 2025

TO: Chair Schwarz and City Commissioners

FROM: Grant Gager, City Manager

RE: Resolution 5156: ACCEPTING UTILITY AND ACCESS EASEMENTS GRANTED BY LIVINGSTON WEST LLC FOR THE MOUNTAIN VIEW SUBDIVISION AND AUTHORIZING CITY MANAGER TO SIGN ASSOCIATED DOCUMENTS.

Recommendation and Summary

Staff is recommending the Commission approve Resolution 5156 accepting certain easements by adopting the following motion:

"I move to approve Resolution 5156 and authorize the Chair to sign."

The reasons for the recommendation are as follows:

- The Mountain View Subdivision was required to provide utility and access agreements to the City at its approval.
- It was recently discovered that such easements were not finalized and recorded in 2022 as expected.

Introduction and History

The City Commission has previously approved the preliminary and final plat applications for Mountain View Subdivision. It was recently discovered that certain easements were not finalized and recorded in 2022 as expected.

Analysis

The easements are required to ensure access for both public access and utility works to occur.

Fiscal Impact

There is no fiscal impact to accepting the easements.

Strategic Alignment

The easements will ensure that the City is able to effectively manage its infrastructure.



Attachments

- Attachment A: Public Access and Utility Easement

RESOLUTION NO. 5156

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF LIVINGSTON, MONTANA, ACCEPTING UTILITY AND ACCESS EASEMENTS GRANTED BY LIVINGSTON WEST LLC FOR THE MOUNTAIN VIEW SUBDIVISION AND AUTHORIZING CITY MANAGER TO SIGN ASSOCIATED DOCUMENTS.

WHEREAS Livingston West LLC has extended City utilities to its project located the City of Livingston, Park County, Montana, and known as the Mountain View Subdivision; and

WHEREAS, the City requires utility easements for water and sewer mains as well as access for the maintenance of said mains.

NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City of Livingston, Montana, as follows:

That the City Commission hereby accepts the easements provided in the attached exhibits and authorizes the Commission Chair to sign easement documents.

PASSED AND ADOPTED by the City Commission of the City of Livingston, Montana, this ____ day of January, 2025.

QUENTIN SCHWARZ – Chair

ATTEST:

EMILY HUTCHINSON – City Clerk

APPROVED AS TO FORM:

JON HESSE – City Attorney

File Attachments for Item:

D. DISCUSSION REGARDING DEVELOPMENT OF A CONFLICT OF INTEREST POLICY



DATE: February 4, 2025
TO: Chair Schwarz and City Commissioners
FROM: Grant Gager, City Manager
RE: Discussion Regarding Conflict of Interest Policy Development

Recommendation and Summary

The City Manager seeking direction from the City Commission regarding the development of a conflict of interest policy. As such, no motion is required or requested.

The reasons for the recommendation are as follows:

- The City Commission discussed the development of a conflict of interest policy at its meeting on January 7, 2025, with two Commissioners expressing interest in a discussion at a coming meeting.

Introduction and History

Montana Code Annotated (MCA) includes certain provisions related to the standard of conduct of public officers and employees. Those provisions are located in Chapter 2 of Title 2 and, more specifically:

- [MCA 2-2-104](#) entitled "Rules of conduct for public officers, legislators, and public employees."
- [MCA 2-2-105](#) entitled "Ethical Requirements For Public Officers And Public Employees"
- [MCA 2-2-121](#) entitled "Rules Of Conduct For Public Officers And Public Employees"

The City Commission has included several of these MCA provisions in its Handbook that was most recently updated in December 2024. The City Commission discussed the development of a more robust conflict of interest policy at its meeting on January 7, 2025. At that meeting two Commissioners expressed interest in a discussion at a coming meeting and the City Manager has included this item pursuant to Livingston Municipal Code Section 2-16.

In addition to the requirements in MCA, certain Montana cities have adopted additional conflict of interest disclosure policies, a selection of which are presented as attachments.

Analysis



If the City Commission wishes to create a more robust conflict of interest policy, items for consideration include:

- Scope of Coverage: Consideration of what needs to be disclosed.
- Disclosure Process: Establish when a disclosure should be made and what process occurs after a disclosure. Procedurally, after a disclosure may a person participate in a conversation, abstain or physically leave.
- Applicability: Determine who the policy applies to, possibly including City Commission, Advisory Boards and/or Staff.
- Codification: Decide how the policy should be implemented with options including in an existing handbook, within the Livingston Municipal Code or as a separate policy.

Fiscal Impact

There is no fiscal impact from creating a disclosure policy.

Strategic Alignment

This item was initiated by the City Commission at a request during a meeting pursuant to the Livingston Municipal Code.

Attachments

- Attachment A: MCA Code Sections
- Attachment B: Montana Municipal Conflict of Interest Policy Examples
- Attachment C: [City of Livingston Commission Handbook](#)

Montana Code Annotated 2023

TITLE 2. GOVERNMENT STRUCTURE AND ADMINISTRATION

CHAPTER 2. STANDARDS OF CONDUCT

Part 1. Code of Ethics

Rules Of Conduct For Public Officers, Legislators, And Public Employees

2-2-104. Rules of conduct for public officers, legislators, and public employees. (1) Proof of commission of any act enumerated in this section is proof that the actor has breached the actor's public duty. A public officer, legislator, or public employee may not:

(a) disclose or use confidential information acquired in the course of official duties in order to further substantially the individual's personal economic interests; or

(b) accept a gift of substantial value or a substantial economic benefit tantamount to a gift:

(i) that would tend improperly to influence a reasonable person in the person's position to depart from the faithful and impartial discharge of the person's public duties; or

(ii) that the person knows or that a reasonable person in that position should know under the circumstances is primarily for the purpose of rewarding the person for official action taken.

(2) An economic benefit tantamount to a gift includes without limitation a loan at a rate of interest substantially lower than the commercial rate then currently prevalent for similar loans and compensation received for private services rendered at a rate substantially exceeding the fair market value of the services. Campaign contributions reported as required by statute are not gifts or economic benefits tantamount to gifts.

(3) (a) Except as provided in subsection (3)(b), a public officer, legislator, or public employee may not receive salaries from two separate public employment positions that overlap for the hours being compensated, unless:

(i) the public officer, legislator, or public employee reimburses the public entity from which the employee is absent for the salary paid for performing the function from which the officer, legislator, or employee is absent; or

(ii) the public officer's, legislator's, or public employee's salary from one employer is reduced by the amount of salary received from the other public employer in order to avoid duplicate compensation for the overlapping hours.

(b) Subsection (3)(a) does not prohibit:

(i) a public officer, legislator, or public employee from receiving income from the use of accrued leave or compensatory time during the period of overlapping employment; or

(ii) a public school teacher from receiving payment from a college or university for the supervision of student teachers who are enrolled in a teacher education program at the college or university if the supervision is performed concurrently with the school teacher's duties for a public school district.

(c) In order to determine compliance with this subsection (3), a public officer, legislator, or public employee subject to this subsection (3) shall disclose the amounts received from the two separate public employment positions to the commissioner of political practices.

History: En. 59-1704 by Sec. 4, Ch. 569, L. 1977; R.C.M. 1947, 59-1704; amd. Sec. 3, Ch. 562, L. 1997; amd. Sec. 1, Ch. 243, L. 1997.

Montana Code Annotated 2023

TITLE 2. GOVERNMENT STRUCTURE AND ADMINISTRATION

CHAPTER 2. STANDARDS OF CONDUCT

Part 1. Code of Ethics

Ethical Requirements For Public Officers And Public Employees

2-2-105. Ethical requirements for public officers and public employees. (1) The requirements in this section are intended as rules of conduct, and violations constitute a breach of the public trust and public duty of office or employment in state or local government.

(2) Except as provided in subsection (4), a public officer or public employee may not acquire an interest in any business or undertaking that the officer or employee has reason to believe may be directly and substantially affected to its economic benefit by official action to be taken by the officer's or employee's agency.

(3) A public officer or public employee may not, within 12 months following the voluntary termination of office or employment, obtain employment in which the officer or employee will take direct advantage, unavailable to others, of matters with which the officer or employee was directly involved during a term of office or during employment. These matters are rules, other than rules of general application, that the officer or employee actively helped to formulate and applications, claims, or contested cases in the consideration of which the officer or employee was an active participant.

(4) When a public employee who is a member of a quasi-judicial board or commission or of a board, commission, or committee with rulemaking authority is required to take official action on a matter as to which the public employee has a conflict created by a personal or private interest that would directly give rise to an appearance of impropriety as to the public employee's influence, benefit, or detriment in regard to the matter, the public employee shall disclose the interest creating the conflict prior to participating in the official action.

(5) A public officer or public employee may not perform an official act directly and substantially affecting a business or other undertaking to its economic detriment when the officer or employee has a substantial personal interest in a competing firm or undertaking.

History: En. 59-1709 by Sec. 9, Ch. 569, L. 1977; R.C.M. 1947, 59-1709; amd. Sec. 4, Ch. 562, L. 1995.

Montana Code Annotated 2023

TITLE 2. GOVERNMENT STRUCTURE AND ADMINISTRATION

CHAPTER 2. STANDARDS OF CONDUCT

Part 1. Code of Ethics

Rules Of Conduct For Public Officers And Public Employees

2-2-121. Rules of conduct for public officers and public employees. (1) Proof of commission of any act enumerated in subsection (2) is proof that the actor has breached a public duty.

(2) A public officer or a public employee may not:

(a) subject to subsection (6), use public time, facilities, equipment, state letterhead, supplies, personnel, or funds for the officer's or employee's private business purposes;

(b) engage in a substantial financial transaction for the officer's or employee's private business purposes with a person whom the officer or employee inspects or supervises in the course of official duties;

(c) assist any person for a fee or other compensation in obtaining a contract, claim, license, or other economic benefit from the officer's or employee's agency;

(d) assist any person for a contingent fee in obtaining a contract, claim, license, or other economic benefit from any agency;

(e) perform an official act directly and substantially affecting to its economic benefit a business or other undertaking in which the officer or employee either has a substantial financial interest or is engaged as counsel, consultant, representative, or agent; or

(f) solicit or accept employment, or engage in negotiations or meetings to consider employment, with a person whom the officer or employee regulates in the course of official duties without first giving written notification to the officer's or employee's supervisor and department director.

(3) (a) A candidate, as defined in **13-1-101(8)(a)**, may not use or permit the use of state funds for any advertisement or public service announcement in a newspaper, on radio, or on television that contains the candidate's name, picture, or voice except in the case of a state or national emergency and then only if the announcement is reasonably necessary to the candidate's official functions.

(b) A state officer may not use or permit the use of public time, facilities, equipment, state letterhead, supplies, personnel, or funds to produce, print, or broadcast any advertisement or public service announcement in a newspaper, on radio, or on television that contains the state officer's name, picture, or voice except in the case of a state or national emergency if the announcement is reasonably necessary to the state officer's official functions or in the case of an announcement directly related to a program or activity under the jurisdiction of the office or position to which the state officer was elected or appointed.

(4) A public officer or public employee may not participate in a proceeding when an organization, other than an organization or association of local government officials, of which the public officer or public employee is an officer or director is:

(a) involved in a proceeding before the employing agency that is within the scope of the public officer's or public employee's job duties; or

(b) attempting to influence a local, state, or federal proceeding in which the public officer or public employee represents the state or local government.

(5) A public officer or public employee may not engage in any activity, including lobbying, as defined in **5-7-102**, on behalf of an organization, other than an organization or association of local government officials, of which the public officer or public employee is a member while performing the public officer's or public employee's job duties. The provisions of this subsection do not prohibit a public officer or public employee from performing charitable fundraising activities if approved by the public officer's or public employee's supervisor or authorized by law.

(6) A listing by a public officer or a public employee in the electronic directory provided for in **30-17-101** of any product created outside of work in a public agency is not in violation of subsection (2)(a) of this section. The public officer or public employee may not make arrangements for the listing in the electronic directory during work hours.

(7) A department head or a member of a quasi-judicial or rulemaking board may perform an official act notwithstanding the provisions of subsection (2)(e) if participation is necessary to the administration of a statute and if the person complies with the disclosure procedures under **2-2-131**.

(8) Subsection (2)(d) does not apply to a member of a board, commission, council, or committee unless the member is also a full-time public employee.

(9) Subsections (2)(b) and (2)(e) do not prevent a member of the governing body of a local government from performing an official act when the member's participation is necessary to obtain a quorum or to otherwise enable the body to act. The member shall disclose the interest creating the appearance of impropriety prior to performing the official act.

History: En. 59-1706 by Sec. 6, Ch. 569, L. 1977; R.C.M. 1947, 59-1706; amd. Sec. 1, Ch. 59, L. 1991; amd. Sec. 7, Ch. 562, L. 1995; amd. Sec. 3, Ch. 42, L. 1997; amd. Sec. 3, Ch. 122, L. 2001; amd. Sec. 1, Ch. 58, L. 2003; amd. Sec. 1, Ch. 145, L. 2005; amd. Sec. 3, Ch. 173, L. 2005; amd. Sec. 1, Ch. 437, L. 2005; amd. Sec. 1, Ch. 386, L. 2011; amd. Sec. 1, Ch. 14, L. 2013; amd. Sec. 1, Ch. 259, L. 2015; amd. Sec. 3, Ch. 156, L. 2019; amd. Sec. 4, Ch. 559, L. 2023.

Missoula Municipal Code

Chapter 2.88

CODE OF ETHICS

2.88.010 Purpose. It is the intent of the City of Missoula to establish a code of ethics. This code protects and encourages impartial and independent judgment ensuring that the private conduct and financial interests of public officers, officials and employees do not present a real conflict of interest in their responsibilities to serve the public.

The Code establishes minimum standards of conduct and is designed to assist public officers, officials and employees in understanding their obligations. This Code of Ethics applies to all officers, officials and city employees, whether full-time, part-time, seasonal or temporary.

Public confidence in government is essential and the City can help sustain it by establishing and enforcing rules to assure the impartiality and honesty of officials and employees in all public transactions and decisions. Each affected agency of city government should inform its employees of the provisions of this chapter and strive to effectively enforce its requirements by seeking appropriate assistance from the City Attorney, Mayor's office or Personnel office. (Ord. 3110, 1999)

2.88.020 Organizational Responsibility. The administrative and legislative affairs of the city shall be conducted in a manner free from influences and/or activities that compromise the integrity of the process. Services and goods procured by and for the city shall be done so in a fair and unbiased manner. (Ord. 3110, 1999)

2.88.030 Definitions. Unless the context specifically indicates otherwise, the meanings of terms used in this ordinance shall be as follows:

- A. Department shall mean and include all divisions, agencies, offices, departments, boards and commissions, authorities or committees of the city.
- B. Employee shall mean and include any person in the employ of the city or of any agency or department thereof, whether receiving compensation or not.
- C. Gift shall mean any benefit, favor, service, privilege, or thing of value which could be interpreted as influencing an employee's impartiality. Gifts include, but are not limited to: trips, money, merchandise, foodstuffs, and tickets to sports, civic or cultural events; services or work provided by City suppliers and offers of future employment from City suppliers. Gifts do not include items that would not ordinarily be interpreted as affecting an employee's impartiality; such as an occasional business lunch, potted plants or flowers, boxes of candy for office personnel, "gimme caps" or advertising office supplies, such as pencils, calendars, or pens, or other token gifts of small value.
- D. Immediate and direct official action shall mean any vote, decision, recommendation, approval, disapproval, or other action, including inaction, which involves the use of discretionary authority.
- E. Officer shall mean and include any person in the service or employ of the city whose office is set forth in the City of Missoula Charter.

F. Official shall mean and include any person who individually, or collectively with others, employs the employees or controls the personnel of any group of employees defined by subsection (1) hereof to be a department, together with any person who individually or collectively with others constitutes a “department” as so defined regardless of whether the person is technically deemed an “officer” or “employee” of the city.

G. Substantial conflict of interest shall mean a situation, which is likely to affect the judgment or actions of an officer, official, or employee in the performance of duties as such officer, official, or employee.

H. Financial Interest shall mean any interest which shall yield, directly or indirectly, a monetary or other material benefit (other than duly authorized salary or compensation for services to the City) to the employee or any other person retaining the services of the officer, official or employee. (Ord. 3110, 1999)

2.88.040 Just and equitable treatment.

A. Use of Public Property. No officer, official or employee shall request or permit the use of city-owned vehicles, equipment, materials or property or the expenditure of city funds for personal convenience or profit unless authorized by other agreement. Use or expenditure is to be restricted to such services as are available to the public generally or for such employee in the conduct of official business. Administrative Rule # 11 specifically addresses employees’ use of city-owned vehicles in the course of their work.

B. Obligations to Citizens. No officer, official or employee shall grant any special consideration, treatment or advantage beyond that which is available to every other citizen.

C. Except as authorized by law and in the course of his or her official duties, no officer, official or employee shall use the power or authority of his or her office or position with the city in a manner intended to induce or coerce any other person to provide such officer, official or employee or any other person with any compensation, gift, or other thing of value directly or indirectly.

D. No officer, official or employee may ask for or receive, directly or indirectly, any compensation, gift, or thing of value, or promise thereof, for performing or for omitting or deferring the performance of any official duty, or action by the city other than the compensation, costs or fees provided by law. (Ord. 3110, 1999)

2.88.050 Campaign activities. City employees are encouraged to participate in the political process on their own time, with their own personal resources, and outside of the workplace by working on campaigns for the election of any person to any office or for the promotion of or opposition to any ballot proposition. Employees shall not use or authorize the use of the facility of the City of Missoula for such purposes except as authorized by law. See subsection 2 –2-121 (3) MCA which applies to public officers, officials and employees. City employees may provide neutral, objective, and factual data regarding campaign related issues or individuals. (Ord. 3110, 1999)

2.88.060 Gifts and Things of Value. Officers, officials and employees may not accept gifts or other things of value when given by anyone who does business or seeks to do business with the employee’s

Attachment B
Montana Municipal Examples

agency, if the gift is given for performance, or the failure to perform, one’s duty; or when the gift could appear to be for the purpose of obtaining special consideration or to influence a city action. Pursuant to subsection 45-7-104 (5)(b) MCA, this section does not apply to trivial benefits incidental to personal, professional, or business contacts and involving no substantial risk of undermining official impartiality. A hosting government or agency may sometimes pay for other costs, such as travel expense and hotel accommodation, associated with government-related activities. Gifts of this nature are not a violation of this policy.

Gifts do not include items for which fair market value is paid or which are reimbursed by the city, or items received but donated to a charitable organization within 30 days of receipt of the gift. If the gift is a perishable item, such as flowers or candy, it may be placed on a public counter and shared with the public. Meals are not considered gifts or items of value. (Ord. 3110, 1999)

2.88.070 Conflicts of Interest. In addition to conflicts of interest identified in the City of Missoula’s Personnel Policy Manual, the following rules apply to all officers, officials and employees of the City.

No officer, official or employee shall engage in any act that is in conflict with the performance of official duties. An officer, official or employee shall be deemed to have a conflict of interest if he or she directly or indirectly:

- A. Receives or has any financial interest in any purchase, sale or lease to or by the city of any service or property when such financial interest was received or obtained with the prior knowledge that the city intended to purchase, sell or lease such property or service;
- B. Is beneficially interested, directly or indirectly, in any contract, sale, lease, option or purchase that may be made by, through, or under the supervision of the employee, in whole or in part, or accepts, directly or indirectly, any compensation, gift or thing of value from any other person beneficially interested therein;
- C. Accepts or seeks for others, directly or indirectly, any employment, travel expense, service, information, compensation, gift or thing of value on more favorable terms than those granted to other city employees or the public generally. These favorable terms may not be solicited from any person doing business, or seeking to do business with the city in an area for which the employee has responsibility or with regard to which he or she may participate. This subsection shall not apply to the receipt by elected officials, or by employees who are supervised directly by an elected official, of meals, refreshments or transportation within the boundaries of the city when given in connection with meetings with constituents or meetings which are informational or ceremonial in nature. (Ord. 3110, 1999)

2.88.080 Prior employment. No officer, official, or employee shall be disqualified from employment by the city solely because of his or her prior employment; however such officer, official, or employee shall be disqualified from taking any immediate and direct official action with respect to his or her prior employer for a period of six (6) months from the date of termination of employment. (Ord. 3110, 1999)

2.88.090 Contemporaneous employment Under no circumstances shall any employee engage in an outside business that may cause a conflict of interest with his or her duties at the city. No use should be made of City-owned materials or facilities in performing such outside work nor should such work be done on City time. (Ord. 3110, 1999)

2.88.100 Subsequent employment. No officer, official, or employee shall:

- A. During or for six (6) months following termination of office or employment, obtain employment in which he or she will take direct advantage, unavailable to other, of matters with which he or she took immediate and direct official action during his or her term of employment;
- B. Engage in any action or litigation in which the city is involved, on behalf of any other person or entity, when the action or litigation involves an issue on which the employee took immediate and direct official action while an employee of the city, for one (1) year following termination of service with the city. (Ord. 3110, 1999)

2.88.110 New employee training. Every employee, upon initiating employment with the city, shall receive a copy of the code of ethics as part of the employee's orientation. (Ord. 3110, 1999)

2.88.120 Ethics Advisory Committee. An Ethics Advisory Committee shall be established to provide advice and counsel to officers, officials and employees who may have a question regarding an issue that relates directly to them. The Committee shall consist of the Chair of Administration and Finance Committee or his or her designee, City Attorney, Chief Administrative Officer, and Personnel Director. The recommendations or comments of the committee are only advisory and hold no weight or affect on the direction the officers, officials and employees take with regard to the issue raised. Members of the committee are charged with keeping all information confidential. They shall monitor the Code of Ethics and recommend changes as the need arises. (Ord. 3110, 1999)

2.88.130 Violation of ordinance. Violation of this ordinance shall be ground for discharge or other disciplinary action. Disciplinary action and grievance procedures will be conducted according to the City's Personnel Policies and Montana Code Annotated where appropriate. (Ord. 3110, 1999)

Billings Municipal Code

Sec. 2-702. Conflict of interest.

The mayor and city council, all other elected city officials, appointed city boards and commission members and all city employees shall be subject to the applicable code of ethics provisions in state law including but not limited to all laws governing conflict between public duty and private interest.

(Code 1967, § 2.08.040; Ord. No. 17-5688, § 3, 4-10-17)

Editor's note(s)—Ord. No. 17-5688, §§ 2, 3, adopted April 10, 2017, repealed the former § 2-702, and renumbered the former § 2-704 as § 2-702 as set out herein (see editor's note to § 2-704). The former § 2-702 pertained definitions and derived from Code 1967, § 2.08.020.

Bozeman Municipal Code

Sec. 2.02.100. Rules of debate; reconsideration; conflict of interest.

- A. Every commissioner desiring to speak shall address the presiding officer, and, upon recognition by the presiding officer, shall confine discussion to the question under debate, avoiding all personalities.
- B. A commissioner, once recognized, shall not be interrupted when speaking unless the commissioner is to be called to order, or as herein otherwise provided. If a commissioner, while speaking, is called to order, the commissioner shall cease speaking until the question of order is determined, and, if in order, the commissioner shall be permitted to proceed.
- C. Order of rotation in matters of debate or discussion shall be at the discretion of the presiding officer.
- D. Reconsideration of previous commission action. A motion to reconsider any action taken by the commission must be made on the day such action was taken. It must be made either immediately during the same session, or at a recessed and reconvened session thereof. Such motion shall be made by a commissioner of the prevailing side, but may be seconded by any commissioner, and may be made at any time and have precedence over all other motions or while a commissioner has the floor. It shall be debatable. Nothing herein shall be construed to prevent any commissioner from making or remaking the same or any other motion at a subsequent meeting of the commission, but the matter must be duly scheduled as an agenda item.
- E. **Conflict of interest.** A commissioner may rely upon the advice of the city attorney as to whether the commissioner has a conflict of interest pursuant to law. If the commissioner is advised there is a conflict of interest, the commissioner must recuse themselves, step off the dais, and refrain from discussion and vote except when the commissioner's participation is necessary to obtain a quorum or otherwise enable the commission to act. In such a case, the commissioner shall disclose the interest creating the appearance of impropriety and comply with the disclosure requirements of MCA 2-2-101 et seq., prior to performing the official act.
- F. After a motion, duly made and seconded, by the commission, no person shall address the commission without first securing the permission of the presiding officer.

(Ord. No. 1727, § 1(2.04.170), 12-3-2007; Ord. No. 1757, § 1(2.04.160), 2-23-2009; Ord. No. 1807, § 11(2.04.100), 5-9-2011; Ord. No. 2157, § 5, 6-25-2024)