

An aerial photograph showing a river corridor. The river flows from the top left towards the bottom center, surrounded by dense green trees and vegetation. To the right of the river, there is a parking lot with several cars parked. The background shows a mix of green fields, more trees, and some residential buildings in the distance.

River Corridor Protection Ordinances

BRAG Assistance to Logan
City and Cache County, 2021

A scenic photograph of a river flowing through a wooded area. A wooden bridge with railings spans the river in the middle ground. The trees are lush and green, with some showing hints of autumn color. The foreground shows a rocky riverbank with some vegetation. The overall atmosphere is peaceful and natural.

Recent Logan
City Projects
Along the
Logan River
Corridor

**LOGAN
RIVER
REGIONAL
TRAIL**

**RIVER
RESTORATION**

**PARK
CONNECTIVITY**



Logan River Trail System

LOGAN CITY TRAILS

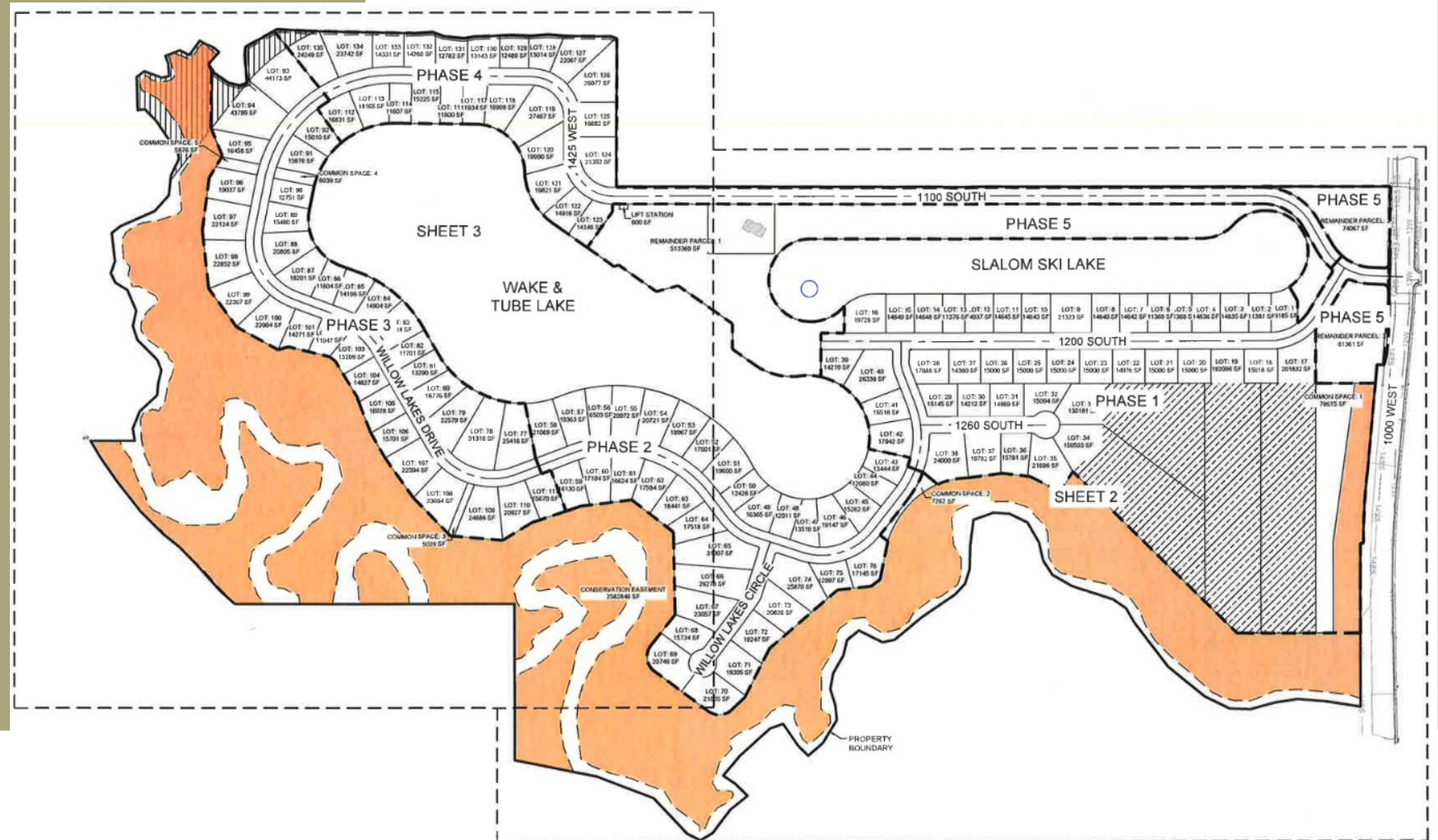
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|---------------------------------|------------------------|-------------------------|--------------------------------|
| Paved Shared Use Trail | Unpaved Trail | Sidewalk Route | Interior Park Walkway |
| Proposed Paved Shared Use Trail | Proposed Unpaved Trail | Proposed Sidewalk Route | Proposed Interior Park Walkway |

Recent Development Proposal(s)

- **Willow Lakes**

- 135 homes
- waterskiing/
wakeboarding lakes
- 47 acres of
conservation
easement along
Logan River (down
from ~80+)

- Logan City Council concerns
- Logan River Task Force
- Floodplain/wetland Issues





Additional
River Corridor
Development
Concerns

**PUBLIC
SAFETY/
LIABILITY -
FLOODPLAIN**

**CRITICAL
WILDLIFE HABITAT**

**WATER QUALITY/
QUANTITY**

**ANNEXATIONS
FROM COUNTY
INTO CITIES**

Logan City Recently Approached BRAG for Technical Assistance

Local Working Group

Jeannie Simmonds
Logan City Council

Frank Howe
USU/UDWR/Logan River Task Force

Bill Young
Logan City Engineer and Floodplain Mgr.

Sam Odd
Logan City

Matt Philips
Cache County Public Works Director

Russ Holley
Logan City Senior Planner

Lauren Ryan
Cache County Planner

Tim Watkins
Cache County Planning Manager

Chris Harrild
Cache County Director of Development Services

Zac Covington & Matt Starley
BRAG Regional Planners

Experts/Advisory Individuals & Organizations:

- **Jamie Huff**
Utah DEM/RiskMAP
- **Kevin Barjenbruch**
NOAA
- **Will Lusk**
Cache County Emergency Management
- **Angelia Crowther**
Utah DEM/State Floodplain Manager
- **Kathy Holder**
Utah DEM/Hazard Mitigation
- **Diane Menuz (& Pete Goodwin)**
UGS/State Wetlands Coordinator
- **Gabe Murray**
Bear River Watershed Coordinator
- **Nathan Daus**
Cache Water District
- **Aubrey Larsen & McKenna Marchant**
Utah Community Dev. Office
- **Rachael Orellana**
U.S. Army Corps of Engineers, Silver Jackets Program
- **Matt Buddie**
FEMA Region 8
- **Pam Kramer**
Utah Division of Wildlife Resources
- **Ann Neville**
The Nature Conservancy
- **Bill Morris**
Marriott-Slaterville
- **Scott Baird**
Salt Lake County
- **Danny White**
JUB Engineers
- **Max Pierce**
CRS Engineers

- Local Land Use Ordinances (no-build, lower densities, building location specific, federal/state regs., etc.)

- Floodplains
- Wetlands
- Riparian Corridor

2021 BRAG assistance

- Comprehensive Sensitive Lands Overlay Zoning
- Conservation/Cluster Development Density Bonuses
 - Negotiation before annexation
- Transfer of Development Rights (TDR)
- Purchase of Development Rights (PDR)
- Conservation Easements (using TDR and/or PDR)
- Land Purchase (fee simple)
- Landowner Donations

Future project (Army Corps/BRAG?)

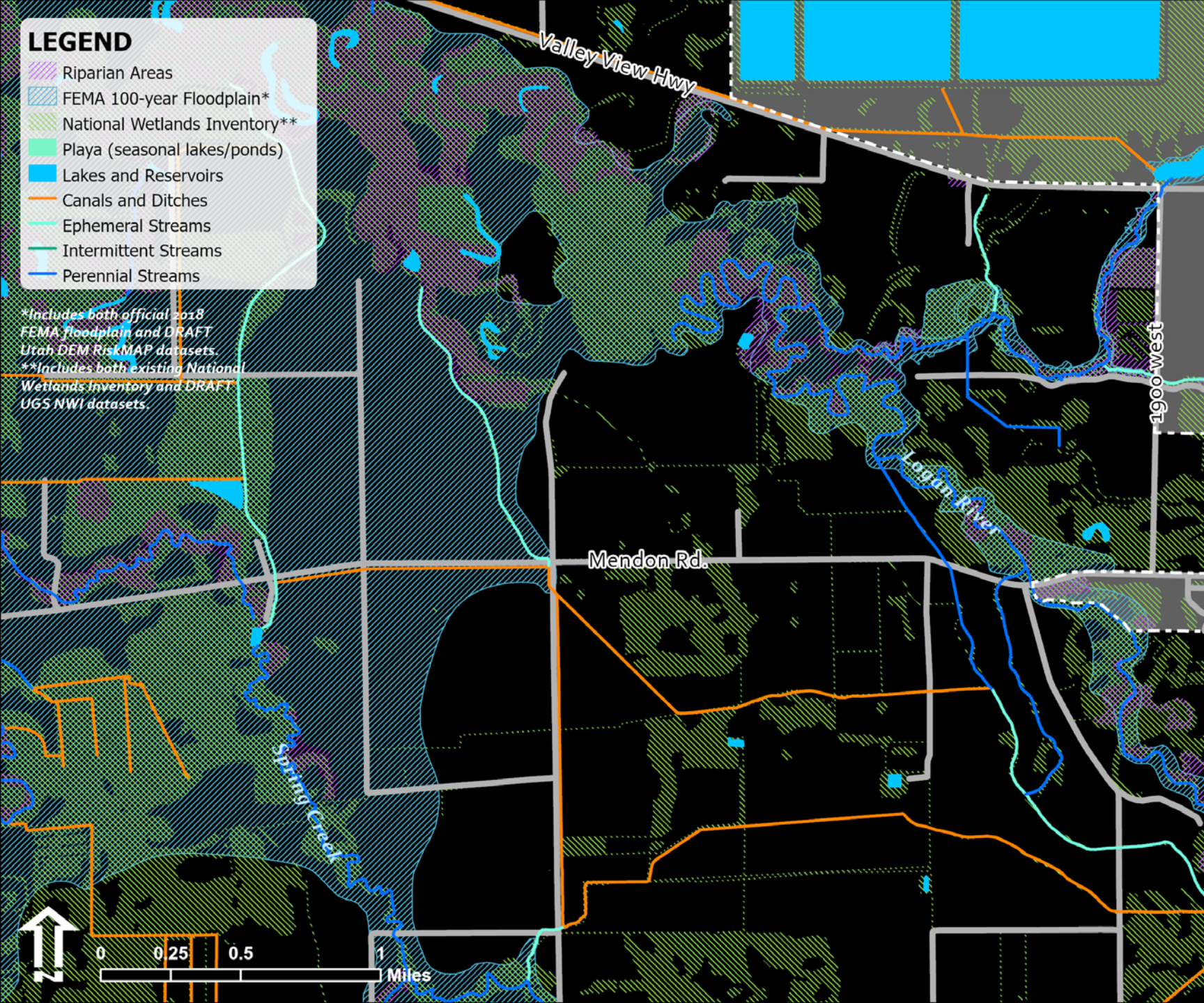
Multi-
faceted
Approach
is Best!

Local river
corridor land
use ordinances
are usually
divided up
into:

FLOODPLAINS

WETLANDS

**RIPARIAN
AREAS**



Floodplains,
wetlands, and
riparian areas
don't always
overlap....

One of the
perceived
dilemmas....

Can you do
both?

Science-based

vs

Realistically
Enforceable

Another perceived dilemma....

Takings definition –When government “takes” property without just compensation (5th Amendment). “Taking” is defined as removing all possibility of “beneficial use.” According to the Utah Office of the Property Rights Ombudsman, “To begin with, an owner must have a protectable property interest. Expectations or future development plans are not considered property interests. Second, there must be an action that substantially interferes with the property interest.”

However:

“...legislature may, in the exercise of the police power, restrict personal and property rights in the interest of public health, public safety, and for the promotion of the general welfare.” – Virginia Supreme Court, 1926.

*There always needs to be logical exceptions/variances/allowances....

Snapshot of Recommended Ordinance Updates

Floodplain Recommendations:

OPTION 1 – Add “no build” provision to existing ordinance stating no disturbance or structure is allowed in the Special Flood Hazard Area (100-yr floodplain) with a 100ft -250ft buffer (variances/incentives could apply).

Wetlands Recommendations:

OPTION 1 - No-build provision – all wetlands delineated according to Army Corps standards with 100ft -250ft buffer (not necessarily jurisdictional wetlands; variances could apply).

Riparian Area Recommendations:

OPTION 1 - No-build provision – 100ft -250ft buffer of all streams and canals (perennial, intermittent, and ephemeral streams and canals; variances could apply).

Everyone loves
buffets!



Floodplain Option 1:

OPTION 1 – Add “no build” provision to existing ordinance stating no disturbance or structure is allowed in the Special Flood Hazard Area (100-yr floodplain) with a 100ft -250ft (variances/incentives could apply).

Note: As long as ordinance complies with NFIP, which it already does, this would not negatively impact NFIP status or insurance costs. It would likely give the city more points in the Community Rating System.

Note: If there is no longer any economic use of the property (rare), allow structure to be built according to current flood protection ordinance standards. https://s3-us-west-2.amazonaws.com/asfpm-library/Legal/ASFPM_Comparative_look_at_pub_liability_for_flood_haz_mitigation_09.pdf

Precedents: Marriott-Slaterville, South Weber City, Midway City, State of Maryland Model Ordinance

Floodplain Option 2:

OPTION 2 – Update existing ordinance with following provisions (or select from options):

- Increase freeboard to 2' above BFE (currently 1')
- Require BFE delineation for every proposed structure and subdivision
- Add damage element, i.e. if existing home has damage at, or in excess of, 50% of home CMV, then structure has to be updated to comply with current city ordinance and new BFE has to be delineated. This could also be more strict – 20% or 30% of CMV, or could have cumulative damage threshold over 5 or 10 years.
- Add a, “No new critical facilities allowed in SFHA” provision.

Wetlands Option 1:

OPTION 1 - No-build provision –wetlands delineated according to Army Corps standards with 100ft -250ft buffer (not necessarily jurisdictional).

- Delineated by city-approved engineer according to Army Corps of Engineers standards for all new development (based soil types, hydrology, and vegetation). Developer pays for “delineation.” Not to be confused with official Army Corps Jurisdictional Wetlands.
- Require delineation for all new developments or structures except for barns, pole barns, etc.
 - Could use current National Wetlands Inventory with buffer as a trigger for delineation (currently being updated by the UGS). *However, NWI data may be incorrect.*
- Require all wetlands in development be preserved in perpetuity (Marriott-Slaterville)
- If property owner can prove there is no economic use of property (rare) default to Army Corps of Engineers permitting process.

Precedents: Corinne, Kamas, Francis, Midway, Park City, Payson, Summit County, Snyderville Basin, Salt Lake County, Marriott-Slaterville

Wetlands Option 2:

OPTION 2 - No-build provision – high value/high function wetlands only.

- No-build on wetlands that only provide certain services for the community such as critical wildlife habitat, flood control, culinary water source protection, bank stabilization, etc.
 - Would need an advisory body made up of experts in watershed sciences, soils, wildlife, hydrology, natural hazards planning, etc. Or, could use updated National Wetlands Inventory designations when complete.
 - Caution: This option allows for removal of wetlands which may provide other unseen benefits, i.e. surface/ground water filtration and groundwater storage.
 - If property owner can prove there is no economic use of property (rare) default to Army Corps of Engineers permitting process.

Precedent: Francis

Wetlands Option 3:

OPTION 3 – No-build provision –larger wetlands only.

- No-build on wetlands that are over a certain size threshold (i.e., 1/10th of an acre similar to Corinne)
- Caution: This option allows for removal of wetlands which may be smaller in area, but could potentially provide many critical ecosystem services (wildlife habitat, water filtration and storage, bank stabilization, etc.
- If property owner can prove there is no economic use of property (rare) default to Army Corps of Engineers permitting process.

Precedent: Corinne

Riparian Option 1:

OPTION 1 - No-build provision – 100ft -250ft buffer on all streams (perennial, intermittent, and ephemeral) and canals.

- Include all perennial, intermittent, and ephemeral streams and canals.
- Buffer starts at annual high water mark/level.
- Could call out specific rivers/streams and require larger buffers if applicable for more protection such as the Logan River, Blacksmith Fork, E.F. of Little Bear, Cub River, etc. (Summit County example).
- If landowner can prove no economic use remains (rare), allow only the immediate area around the structure and the structure footprint to be disturbed. Could have standard buffer of allowed disturbance around structure only in those extreme cases.

Precedents: Salt Lake County, Francis, Corinne, Park City, Eastern Summit County, Snyderville Basin

Riparian Option 2:

OPTION 2 - No-build provision – all “delineated” riparian areas.

- Riparian area delineated by committee made up of experts in watershed sciences, hydrology, soils, wildlife, etc.
 - Could also use existing datasets to trigger, i.e. annual Water-Related Land Use layer from UGRC (AGRC).
- NOTE: Some ordinances say no development within the “high water mark” or within various buffers of stream corridors, but these may or may not include actual riparian areas.
- If landowner can prove no economic use remains (rare), allow only the immediate area around the structure and the structure footprint to be disturbed. Could have standard buffer of allowed disturbance around structure.

Precedents: Missoula, MT; Kamas; Snyderville Basin



Thank you!

Zac Covington

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