

Kip & Terri Hill

2023

Permit to Develop in a Flood Plain Area
Supplement and Floodplain Report



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Clearwater Reserve

Supplementary Information Application for Permit to Develop in a Flood Plain Area and Flood Plain Report

Introduction

Clearwater Reserve is located approximately four miles east of Tetonia, Idaho. The property is an 79 acres parcel that is being divided into two separate lots with lot 1 containing 54 acres and lot 2 containing 25 acres. The property is traversed by the North Leigh Creek along the southern section of the property. Lot 1 of the proposed plat would contain the North Leigh Creek and the associated flood mapping.

PERSONAL AND PROPERTY RELATED DATA

Owners: Terri Hill

Parcel Number(s): RP06N46E303750

Acres: 79

Legal Description: SEC 30 T6N R46E

Zoning: A/RR – 2.5 acres

Access Roads: North 1000 East

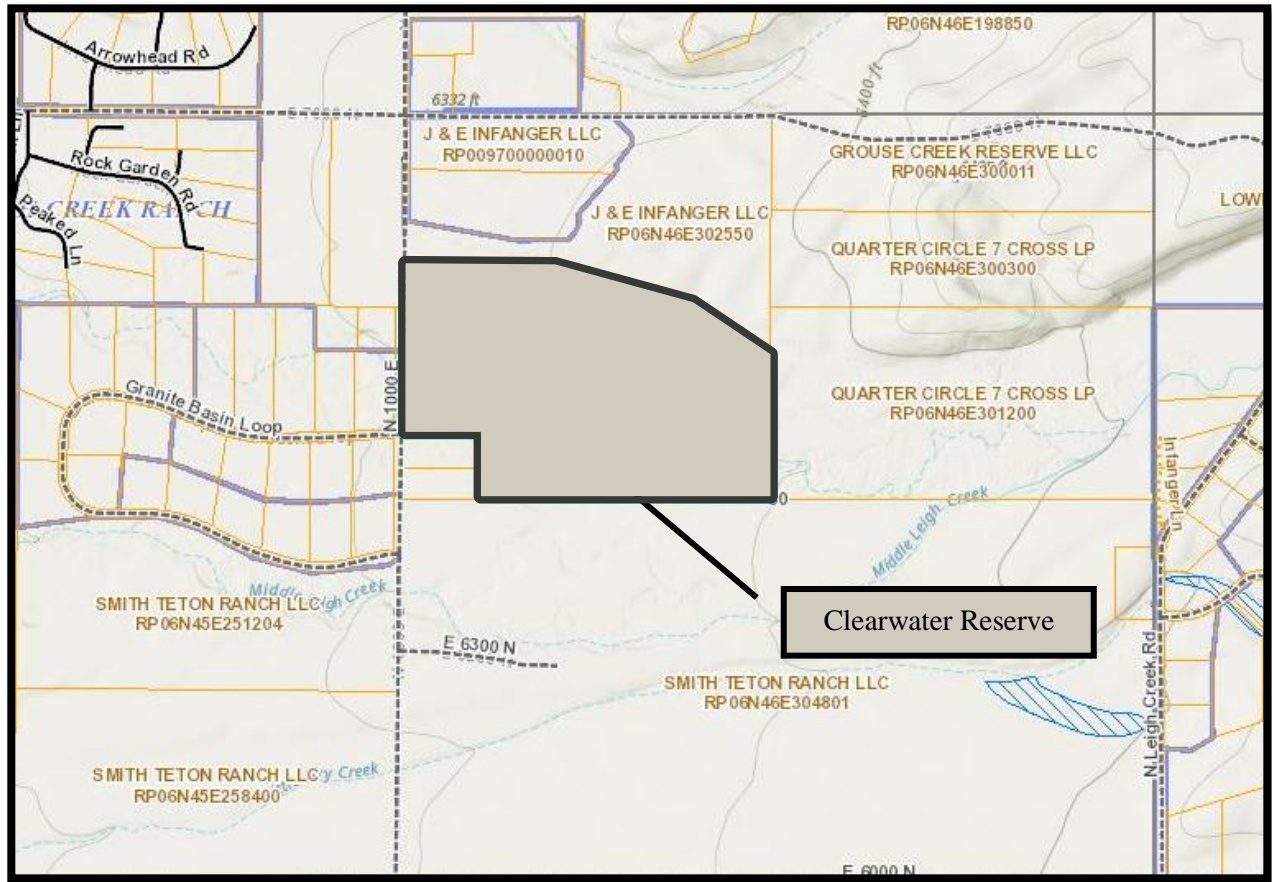


Figure 1: Vicinity Map for Clearwater Reserve.

DESCRIPTION OF WORK

1. Proposed Development Description

The proposed development description is a two-lot subdivision previously known as a lot split.

2. Size and location of proposed development (attach site plan)

The parcel listed as number RP06N46E303750 is a 79-acre parcel located approximately four miles east of Tetonia, Idaho. The address is 6705 North 1000 E, in Tetonia, Idaho 83452. The legal description is listed as TAX #6903 SEC 30 T6N R46E. The site plan is attached on the appendix.

3. Is the Proposed Development in a Special Flood Hazard Area (Zones A, AE, A1-A30, AH or AO?)

The proposed development is in a special flood hazard area zone A. The FIRM map with the site location can be found on the appendix.

4. Per the flood plain map, what is the zone and panel number of the area of the proposed development?

a. Zone

Zone A

b. Panel Number

FIRM Teton County, Idaho and Incorporated Areas Panel 100 of 175. The panel is provided in the appendix with the location of the property provided on the FIRM map.

5. Are other federal, state, or local permits obtained?

No

6. Is the proposed development in an identified floodway?

Yes, The Teton County, Idaho Effective Floodplains does identify the floodway around the North Leigh Creek. The Floodplain overlay can be found in the appendix with the property identified.

7. If yes to #6, is a No Rise Certificate with supporting data attached?

No

COMPLETE FOR NEW STRUCTURES AND BUILDING SITES

1. Base Flood Elevation at the site: (Feet NGVD)

Not applicable to this permit application.

2. Required lowest floor elevation (including Basement): (Feet NGVD)

Not applicable to this permit application.

3. Elevation to which all attendant utilities, including all heating and electrical equipment, will be protected from flood damage: (Feet NGVD)

Not applicable to this permit application.

COMPLETE FOR Alterations, Additions, or Improvements to Existing Structure

1. What is the estimated market value of the existing structure? (\$)

Not applicable to this permit application.

2. What is the cost of the proposed construction? (\$)

Not applicable to this permit application.

3. If the cost of the proposed construction equals or exceeds 50% of the market value of the structure, then the substantial improvement provisions shall apply.

Not applicable to this permit application.

COMPLETE FOR Non-Residential Flood Proofed Construction

1. Type of flood proofing method

Not applicable to this permit application.

2. The required flood proofing elevation (Feet NGVD)

Not applicable to this permit application.

3. Flood proofing certificate by a registered Engineer is attached.

Not applicable to this permit application.

COMPLETE FOR Subdivisions and Planned Unit Developments

a) Will the subdivision or other development contain 50 lots or 5 acres?

Yes, the proposed subdivision is only two lots falling well under the 50 lots but does contain 79 acres.

b) If yes, does the plat or proposed development clearly identify base flood elevations?

The site plan in the appendix does include base flood elevations clearly identified.

c) Are the 100-year flood plain or floodway delineated on the site plan?

The site plan in the appendix does include the 100-year flood plain.

Floodplain Report

As defined in Chapter 2 of Title 8

Local, State, and Federal Regulations

Various regulations govern development within a floodplain including local, state, and federal laws. Those deemed most applicable are discussed in the ensuing paragraphs.

Federal Regulations, National Flood Insurance Program

The National Flood Insurance Program (NFIP) floodplain management criterion that is adopted by all participating communities in their local ordinances, as described in Title 44 of the Code of Federal Regulations, Section 60.3(d)(3), states:

“A community shall prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.”

To understand the implications of this regulation, we need to define the floodway. The FEMA document entitled Guidance for Flood Risk Analysis and Mapping: Floodway Analysis and Mapping published in November of 2019 provides some guidance. It defines the floodway as:

A regulatory floodway is defined as the channel of a river or other watercourse and the adjacent land area that is reserved from encroachment in order to discharge the base flood without cumulatively increasing the water-surface elevation by more than a designated height.

Floodway

The floodway is part of the floodplain. A primary function of the floodplain is to convey flood water from upstream to downstream. The floodway is the portion of the floodplain that conveys the majority of the flood water. Obstructions in the floodway can increase the elevation of the flood water upstream of the obstruction and increase the velocity of the water at, or near, the obstruction, both of which have the potential to adversely impact other properties.

The National Flood Insurance Program (NFIP) defines “regulatory floodway” as the channel of a river or other watercourse and the 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. This designated height is one foot for most NFIP communities. Typically, FEMA develops a floodway for a community as part of a Flood Insurance Study (FIS). Floodways are usually shown on the community’s Flood Insurance Rate Map (FIRM).

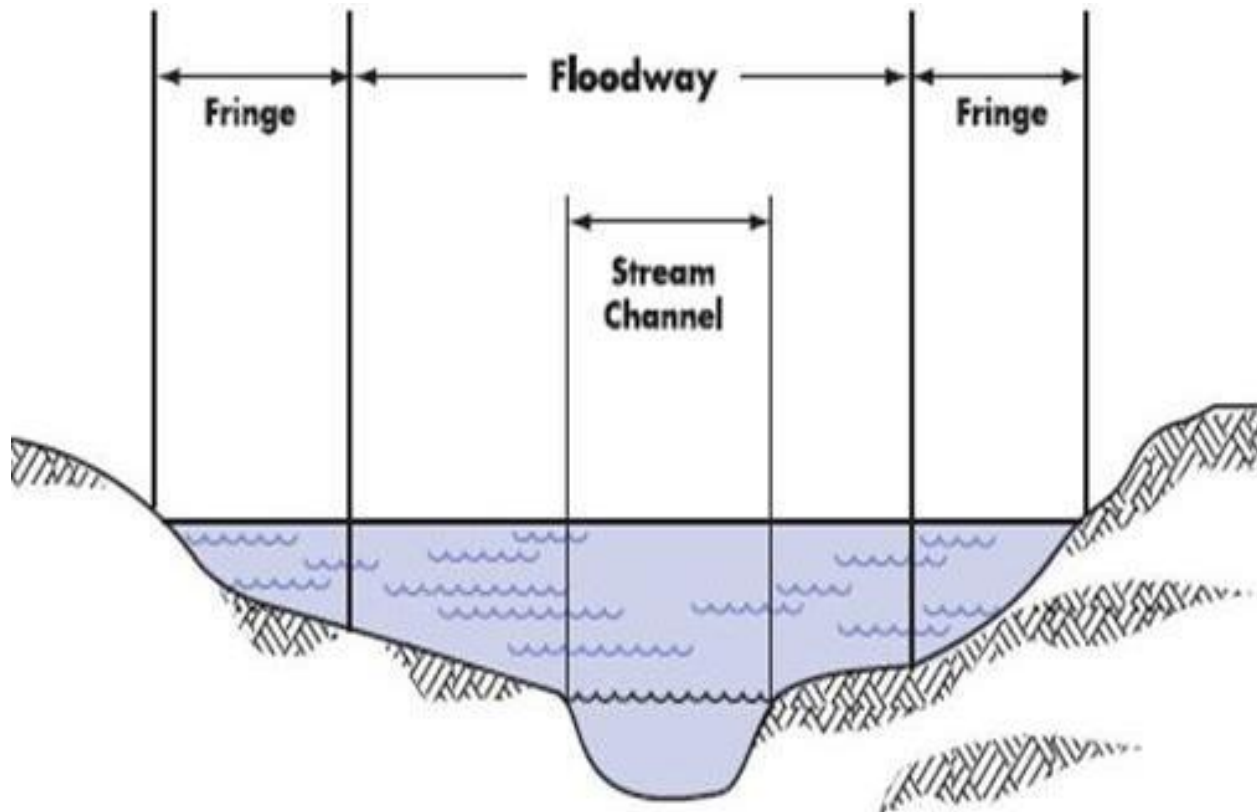


Figure 2: Components of the Floodplain.

Floodway Fringe

The floodway fringe is the area of the floodplain that falls outside of the floodway and is less important in conveying the flood water.

Community Participation in the NFIP

Communities that participate in the NFIP that have been provided with floodway data by FEMA are required to adopt a floodway that causes no more than one foot increase in the base flood elevation at any point in the community. They can adopt a floodway more stringent than required by FEMA, but not one that exceeds the one-foot surcharge described in the NFIP regulations and Standard SID 69 and 70.

Communities that participate in the NFIP are required to enforce the provisions of the NFIP including restricting development within the designated floodway. If development is permitted in the floodway, prior to issuing any development permits involving activities in a regulatory floodway, the community must obtain a certification stating the proposed development will not impact the pre-project base flood elevations, regulatory floodway elevations, or regulatory floodway widths. The certification should be obtained from the permittee and be signed and sealed by a professional engineer in accordance with State Licensing Board specifications.

Zero Rise Certification

The engineering or “No-Rise / No-Impact” certification must be supported by technical data. The supporting technical data should be based upon the standard step-backwater hydraulic model utilized to develop the regulatory floodway shown on the community’s effective Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM) and the results tabulated in the community’s Flood Insurance Study (FIS).

Development in the Floodway and Floodway Fringe

Designating a floodway is a compromise that allows development to occur within the floodplain while limiting its impact to convey the flood by requiring no increase in the flood elevation based on development within the floodway. In other words, development in the floodway is prohibited unless an engineer models the waterway in accordance with FEMA protocols and issues a certification that the elevation of the flood will not increase, while development within the flood fringe is allowed as it assumes that obstructions in the flood fringe, such as fill, will not increase the flood elevation by more than one foot.

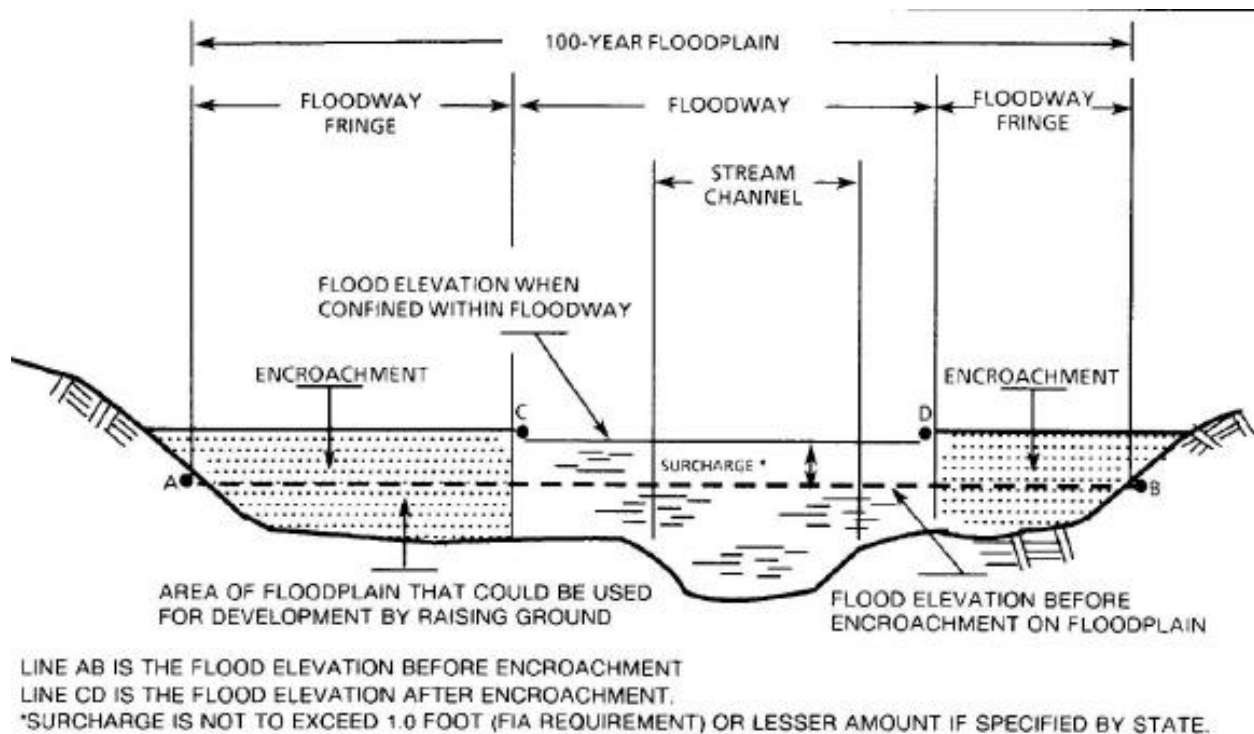


Figure 3: Development Within the Floodplain (Floodway Analysis and Mapping, Guidance Document 79), FEMA, November 2019.

State of Idaho Regulations: Executive Order

In 2015, Governor Butch Otter signed an executive order stating Idaho’s compliance with the Federal Code for regulating floodplains under the National Flood Insurance Act of 1968 and as subsequently amended (EXECUTIVE ORDER NO. 2015-06 PROVISIONS FOR STATE COOPERATION WITH THE FEDERAL INSURANCE ADMINISTRATION UNDER THE NATIONAL FLOOD INSURANCE

ACT OF 1968, AS AMENDED). The executive order further identified the Idaho Department of Water Resources as the lead agency for implementing Idaho’s policies.

Department of Water Resource

The floodplain coordinator for IDWR is charged with assisting communities qualify for participation in the NFIP program and writing ordinances that adequately regulate the floodplain and development therein.

Teton County Regulations and Permits

Teton County participates in the National Flood Insurance Program (NFIP) and is therefore obligated to implement the provisions of the National Flood Insurance Act and its subsequent amendments. Teton County has integrated ordinances for management of the floodplain within the *Teton County Land Development Code, 2023* which is codified in Title 12: Flood Damage Prevention.

Teton County – Development Within the Floodplain

Development Provisions

Title 12: Flood Damage Prevention provides regulations pertaining to development within the Floodplain Overlay. The Floodplain Overlay is defined as the Special Flood Hazard Areas (SPHA) mapped on the Flood Insurance Rate Map (FIRM) prepared by FEMA.

12:III.A. Lands to Which this Ordinance Applies. This ordinance shall apply to all Special Flood Hazard Areas within the jurisdiction of Teton County, Idaho. Nothing in this Ordinance is intended to allow uses or structures that are otherwise prohibited by the zoning ordinance.

Title 12 then establishes the basis for the area of Special Flood Hazard.

12:III.B. The Special Flood Hazard Areas identified by the Federal Emergency Management Agency in its Flood Insurance Study (FIS) for Teton County, Idaho and Incorporated Areas, dated August 4, 1988, with accompanying Flood Insurance Rate Maps (FIRM), and other supporting data, are adopted by reference and declared a part of this ordinance.

Title 12 also underscores the need for a permit prior to development in the Special Flood Hazard Areas.

12:III.C. A Floodplain Development Permit shall be required prior to development activities in Special Flood Hazard Areas established in Article III Section B.

Finally, Title 12 allows the County liberal interpretation of the ordinance and explicitly states they have authority to construe the provisions of the ordinance in their favor.

*12:III.D. In the interpretation and application of this ordinance all provisions shall be:
(1) Considered as minimum requirements;*

- (2) *Liberally construed in favor of the governing body, and;*
 - (3) *Deemed neither to limit nor repeal any other powers granted under state statutes.*
-

Provisions for Flood Hazard Reduction

Title 12 identifies the floodplain administrator as the responsible party for applying the provisions of the code related to the floodplain as well as complying with State and Federal floodplain regulations including elevations certificates and.

Subdivision Standards

Section V of Title 12 lists provisions for flood hazard reduction for subdivisions.

12.V.A. Subdivision Standards

- (1) *All subdivision proposals shall be consistent with the need to minimize flood damage.*
 - (2) *All subdivision preliminary plats/development plans shall include the mapped flood hazard zones from the effective FIRM.*
 - (3) *Base flood elevation data shall be generated and/or provided for subdivision proposals and all other proposed development, including manufactured home parks and subdivisions, greater than fifty lots or five acres, whichever is less.*
 - (4) *All subdivisions shall have at least one access road connected to land outside the Regulatory Floodplain with the surface of the road at or above the FPE whenever possible.*
 - (5) *All building envelopes shall be located a distance of at least twice the regular bankfull channel width of the stream or river channel from the ordinary high water mark (or bankfull location), or out of the SFHA boundary.*
 - (6) *All subdivisions shall have public utilities and facilities such as sewer, gas, electric and water systems located and constructed to minimize flood damage.*
 - (7) *All subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.*
 - (8) *The final recorded subdivision plat shall include a notice that part of the property is in the SFHA, as appropriate.*
-

Floodway Standards

Title 12 is largely consistent with State and Federal Law regarding development in the Floodway and reiterates as follows:

12.V.H. The following provisions shall apply in a floodway:

- (1) *A project in the regulatory floodway must undergo an encroachment review to determine its effect on flood flows. An encroachment analysis must include:*
 - (a) *Determination and documentation that the filling, grading or construction of a structure will not obstruct flood flows and will not cause an increase in flood heights upstream or adjacent to the project site;*
 - (b) *Determination and documentation that grading, excavation, channel improvements, bridge and culvert replacements that remove an obstruction, do not cause increases in downstream flood flows;*
 - (c) *Certification and documentation by a licensed professional engineer that the project will not result in a rise in flood heights;*
 - (d) *The Administrator may make the encroachment determination for minor projects, such as projects that do not increase the natural grade (e.g., paving a driveway or parking lot at existing*

grade, bank stabilization or revegetative measures, open fences and small isolated obstructions such as a mailbox or telephone pole).

(2) Upon demonstrating that there are no alternatives, the applicant may propose an encroachment in the floodway that will cause an increase in the base flood elevation in excess of the allowable level provided that the applicant obtain a Conditional Letter of Map Revision from FEMA before the development can be approved and permitted. .

Federal and State law permit construction in the Floodway Fringe, the boundary of which is established by determining the point where filling the area would result in a rise in the BFE of one foot or less.

Figure 3 below illustrates where development is allowed within the floodplain, under what conditions, and the governing authority.

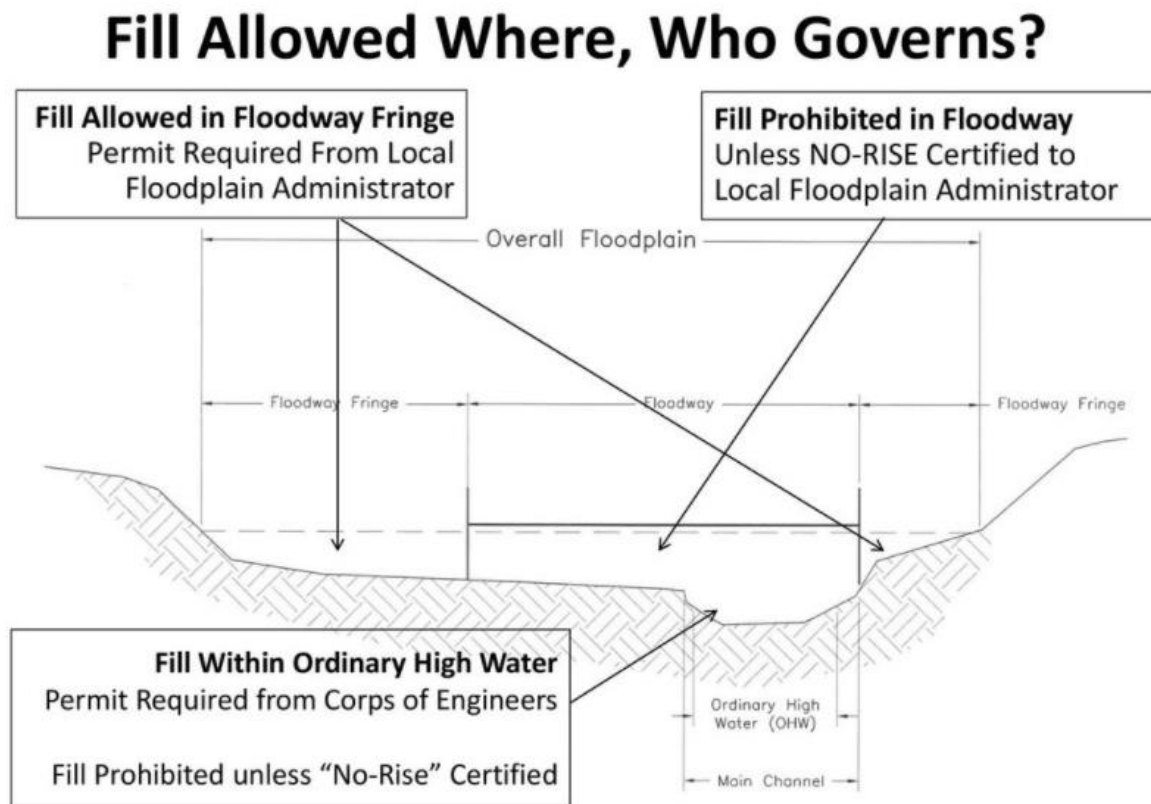


Figure 4: Development and Fill Allowances within the Floodplain.

Standards for Zones with Base Flood Elevations

In Special Flood Hazard Areas, which are the AE and A zones, with Base Flood Elevations, new construction of any residential structure must have the lowest floor, including the basement, constructed at or above the County's Flood Protection Elevation. If the floodway has not been determined, no new construction, substantial improvement, or other development (including fill) shall be permitted in Zones A and AE as depicted on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the County.

Standards for Zones Without Base Flood Elevations and/or Floodway (A Zones)

In zones without a Base Flood Elevation (BFE) and/or a Floodway, which are typically A zones, the Floodplain Administrator shall require, review, and reasonably use scientific or historic database flood elevation and floodway data available from a federal, state, or other source, to administer the ordinance. If such data area available, the applicants of proposed projects that increase the base flood elevation more than one foot shall obtain a Conditional Letter of Map Revision prior to construction an a Letter of Map Revision following completion of construction.

Property Analysis

Location of all planned improvements.

In the context of floodplain management, mapping the location of planned improvements is especially important. It allows for a comprehensive assessment of flood risks and potential impacts on the project. The proximity to rivers, lakes, coastal areas, or other water bodies, as well as the area's historical flood patterns, can influence the design, elevation, and other considerations for the improvements.

Clearwater Reserve

The proposed development does not contemplate any new structures at the time of this application.

Location of existing structures.

The location of existing structures within the context of floodplain management is a critical element in understanding and addressing flood-related risks. This process involves identifying and mapping buildings and infrastructure already situated in areas susceptible to flooding. This mapping is fundamental for evaluating the potential vulnerabilities and guiding decisions surrounding land use and development in flood-prone regions. Mapping existing structures within floodplains offers a comprehensive view of the potential risks they face. This assessment helps authorities and stakeholders prioritize efforts to mitigate potential damage and losses.

The FIRM map depicts the flood risk zones and their boundaries. It may also show the floodways, and the Base Flood Elevations (BFEs) depending upon the risk zone designation. Per FEMA, the flood zones on the FIMR map are defined as follows:

Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded). (<https://www.fema.gov/glossary/flood-zones>)

Zone A is a Special Flood Hazard Area wherein the flood risk is considered high and has at least a 1 in 4 chance of flooding during a typical 30-year mortgage.

Clearwater Reserve

The site plan located in the appendix depicts the existing improvements which includes a home on each of the two proposed lots along with outbuildings. Lot 1 also includes a manufactured home that lies within the flood fringe of Zone A of the mapped floodplain per the FEMA Flood Insurance Rate Map (FIRM) Panel 16081C0100C.

The location of the floodway and the floodway fringe per engineering practice as specified by the Army Corps of Engineers.

The location of the floodway and the floodway fringe, as defined by engineering practices specified by the Army Corps of Engineers, is a critical consideration in floodplain management and development. These terms refer to specific zones within a floodplain that have distinct regulations and implications for construction and land use.

The floodway is the central channel of a river or watercourse and the adjacent land areas that must be reserved to efficiently convey floodwaters. It's a critical component for preventing excessive floodwater buildup and reducing potential damage downstream. The Army Corps of Engineers defines strict regulations regarding construction and development within the floodway to maintain its capacity for floodwater conveyance.

The floodway fringe, on the other hand, encompasses the area surrounding the floodway. It's less prone to high-velocity floodwaters and can accommodate development under certain conditions. However, this area still carries flood risks and requires careful planning and design to ensure that structures and activities do not obstruct floodwater flow or contribute to flood hazards. Accurate mapping of the floodway and the floodway fringe is essential for effective floodplain management. The floodway and floodway fringe if applicable are mapped and labeled on the site plan.

Clearwater Reserve

The FIRM Panel 16081C0100C does not show the Floodway boundary in the area of the Clearwater Reserve.

Base flood elevation.

The base flood elevation (BFE) is a critical concept in floodplain management and flood risk assessment. It refers to the computed elevation to which floodwater is anticipated to rise during a base flood, which is typically a 1% annual chance flood or a flood with a 1% probability of occurring in any given year, often referred to as the "100-year flood." The BFE serves as a reference point to determine flood risk, design flood-resistant structures, and establish regulations for development in flood-prone areas. It is typically measured in relation to a specific vertical datum, such as mean sea level.

The BFE is used in conjunction with floodplain maps to indicate the extent of flood hazard areas. These maps, often created by entities like the Federal Emergency Management Agency (FEMA), outline various flood zones, including areas of different flood risk levels. The Special Flood Hazard Area (SFHA), also

known as the 100-year floodplain, is the zone where structures have a 1% chance of being flooded in any given year.

Clearwater Reserve

Base flood elevations have been calculated for North Leigh Creek and are provided on the site plan.

Delineated 100-year Floodplain and Floodway.

The delineated 100-year floodplain and floodway refer to specific zones within flood-prone areas that are identified based on their susceptibility to flooding events with a 1% annual chance of occurrence, commonly known as the "100-year flood." These zones are established through careful analysis, hydraulic modeling, and engineering practices to manage flood risk and guide development in floodplain management efforts. The delineated 100-year floodplain represents the geographical area that has a 1% chance of being inundated by floodwaters in any given year

The floodway, within the context of the delineated 100-year floodplain, is the defined channel of a river or watercourse and the adjacent land areas that must be kept clear to allow floodwaters to flow unobstructed. The floodway is designed to ensure the efficient conveyance of floodwaters and prevent potential downstream impacts. Engineering practices, often specified by organizations like the Army Corps of Engineers, regulate construction and development within this critical area.

Clearwater Reserve

The 100-year floodplain and floodway are labeled and mapped on the site plan provided in the appendix.

a) The location of the present water channel.

The location of the present water channel within the floodplain holds a pivotal role in floodplain management and understanding flood dynamics. This refers to the current course and boundaries of water bodies like rivers or streams within flood-prone areas. This information is of paramount importance for several key reasons. Location directly influences flood hazard assessment by dictating how floodwaters are likely to flow during inundation events. This knowledge contributes to accurate predictions of flooding extent and depth.

Clearwater Reserve

The location of the North Leigh Creek water channel is presented on the site plan provided in the appendix.

b) Any planned rerouting of waterways.

Planned rerouting of waterways involves intentional alterations to the natural course of water bodies like rivers and streams. This process is undertaken to achieve specific objectives, such as flood mitigation, erosion control, habitat restoration, improved water quality, or accommodating infrastructure development. By changing the path or direction of the watercourse, rerouting aims to address various challenges and needs within the surrounding environment.

Rerouting waterways can serve multiple purposes. It can help mitigate the risk of flooding by redirecting floodwaters away from vulnerable areas. Additionally, rerouting can combat erosion, preserving the stability of both the watercourse and the adjacent land. Habitat restoration is another key benefit, as rerouting can recreate natural flow patterns, contributing to ecosystem health. This process can also improve water quality by promoting the natural filtration of pollutants. Moreover, planned rerouting might be necessary to accommodate new infrastructure projects or align with urban development strategies.

Rerouting waterways requires meticulous planning, thorough environmental assessments, and engineering expertise. The ecological impact, hydrological effects, and downstream consequences must be carefully considered. Collaboration with regulatory bodies and stakeholder engagement is crucial to ensure that rerouting projects adhere to environmental regulations and community needs.

Clearwater Reserve

No rerouting of waterways for the proposed project is planned.

All major drainage ways.

No major drainage ways were determined for the site.

Areas of frequent flooding.

No areas of frequent or recurring flooding were located on the property.

Means of floodproofing buildings.

Floodproofing buildings involves employing a range of measures to mitigate the risks and potential damages associated with flooding. These strategies can be tailored to the specific characteristics of the building and the flood-prone area it's located in. One common approach is to elevate structures above flood levels using techniques like stilts or piers, effectively minimizing the risk of water damage. Another tactic involves wet and dry floodproofing: designing buildings to allow water to flow through without causing harm (wet floodproofing), or sealing structures to prevent water infiltration (dry floodproofing). Such measures may entail the installation of barriers, floodwalls, and watertight seals for doors and windows. Deployable flood barriers and gates can also be set up around buildings in advance of flood events to block floodwaters.

Selecting flood-resistant materials, such as water-resistant walls, floors, and finishes, is another effective strategy to reduce damage from water exposure. Similarly, equipping buildings with sump pumps and drainage systems can swiftly remove floodwater that enters the structure. Sealing openings with waterproof coatings or sealants helps to prevent water intrusion. Flood vents, placed in lower portions of walls or foundations, facilitate the controlled movement of floodwater in and out of buildings, reducing potential structural damage. Landscaping and grading the surroundings can help divert floodwaters away from the building, while the installation of backflow prevention valves safeguards plumbing systems from contamination during flooding. In cases of occasional flooding, temporary measures like sandbags and flood barriers can provide interim protection.

Building design plays a pivotal role too. Incorporating flood-resistant design elements into initial construction or renovation projects, such as elevating electrical systems and opting for moisture-resistant materials, enhances a building's resilience. Lastly, having sufficient flood insurance is essential for covering repair expenses and losses in the event of a flood. It's important to bear in mind that the effectiveness of these floodproofing measures hinges on various factors like flood severity, building structure, location, and maintenance. A comprehensive approach often involves combining several strategies to ensure optimal flood protection for a building.

Clearwater Reserve

Any structures within the Floodplain will be required to utilize flood-resistant design elements and flood-resistant materials.

Means of ensuring loans for improvements within the floodplain.

Securing loans for improvements within a floodplain can be challenging due to the heightened risk associated with such areas. Lenders are often concerned about potential flood damage that could impact the borrower's ability to repay the loan. However, there are several means and strategies that can help individuals obtain loans for improvements within a floodplain.

Firstly, having flood insurance in place is a crucial step to demonstrate to lenders that you are taking proactive measures to manage the risk. Flood insurance provides financial protection in the event of flood-related damages and can increase your credibility as a borrower. Government assistance programs can also play a significant role. Entities like the Federal Emergency Management Agency (FEMA) offer various resources, including the possibility of obtaining a FEMA No Rise Certificate. This certificate confirms that the proposed improvements will not contribute to a rise in the base flood elevation, thereby reducing the risk of flooding. This can be reassuring for lenders and may improve your chances of loan approval.

In addition to federal programs, exploring local and state initiatives is essential. Many regions have their own incentives, grants, or low-interest loans for floodplain improvements. These programs often come with specific criteria and requirements, so thorough research is key. Forming partnerships with lenders that have relationships with government agencies focused on flood risk mitigation can also be advantageous. These partnerships might lead to more favorable lending terms or access to specialized loan products tailored for floodplain projects. Implementing flood mitigation measures on your property demonstrates a proactive stance on risk reduction. Building flood barriers, elevating structures, and improving drainage systems show lenders your commitment to safeguarding against potential flood-related challenges.

Clearwater Reserve

Flood insurance will be required if any habitable structures are located within the Floodway Fringe.

APPENDIX A

FEMA Flood Hazard Mapping

Overview Fact Sheet

APPENDIX B

Site Plan

OVERVIEW

FLOOD HAZARD MAPPING UPDATES

The Federal Emergency Management Agency (FEMA) partners with Tribal nations, States, and communities through the Risk Mapping, Assessment, and Planning (Risk MAP) program to identify flood hazards, assess flood risks, and provide accurate data to guide stakeholders in taking effective mitigation actions that result in safer and more resilient communities. This data is incorporated into flood maps, known as Flood Insurance Rate Maps (FIRMs), that support the National Flood Insurance Program (NFIP) and provide the basis for community floodplain management regulations and flood insurance requirements.

Flood hazards are dynamic and can change frequently because of a variety of factors, including weather patterns, erosion, and new development. FEMA, through the Risk MAP program, works with communities to collect new or updated flood hazard data and periodically updates flood maps to reflect these changes.

What Happens When A Flood Map Changes?

When a new map is issued or an effective map is revised, your mapped flood hazard, as well as building or insurance requirements, may change. An effective map is one that has been through the public review and appeal process and has been adopted as a regulatory FIRM. Therefore, it is important for users to check FEMA's Map Service Center (MSC) or the local community map repository for current, effective information.

What May Affect or Change a Flood Map?

FIRM updates can occur in a variety of ways, including Flood Risk Projects, Physical Map Revisions (PMRs), and Letters of Map Revision (LOMRs). Letters of Map Amendment (LOMAs) and Letters of Map Revision Based on Fill (LOMR-Fs) can change flood hazard designations for specific structures or properties. Each of these processes is discussed in more detail in the table on page 2.

Helpful Flood Map Information

What Goes into a Flood Map, an infographic, is available at <http://www.fema.gov/blog/2014-02-21/what-goes-flood-map-infographic>.

Mapping Terminology

Flood Insurance Rate Map (FIRM) –

The official flood map that shows a community's different flood hazard areas. These may include high-hazard (Special Flood Hazard Areas), moderate- to low-hazard, and undetermined areas. Different flood insurance and building requirements apply to these flood hazard areas.

Flood Insurance Study (FIS) Report –

A compilation and presentation of flood hazard data and analysis for specific watercourses, lakes, and coastal flood hazard areas within a community.

National Flood Hazard Layer (NFHL) –

A digital database containing the flood hazard mapping information from FEMA's National Flood Insurance Program (NFIP).

Letter of Final Determination (LFD) –

A letter FEMA sends to local officials stating that the process of establishing new flood elevations is complete, and a new or updated FIRM will become effective in 6 months.

Letter of Map Change (LOMC) –

A general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter (LOMA, LOMR-F, LOMR).

Map Service Center (MSC) –

FEMA's official public source for flood hazard information produced in support of the NFIP.
<http://msc.fema.gov>

Special Flood Hazard Area (SFHA) –

The area where the NFIP's minimum floodplain management regulations must be enforced by the community as a condition of NFIP participation, and the area where the mandatory flood insurance purchase requirement applies.

Revalidation Letter –

A letter identifying the previously issued LOMCs that are still valid after the FIRM has been revised.

RISK MAPPING, ASSESSMENT, AND PLANNING PROGRAM (RISK MAP)

The Federal Emergency Management Agency's Risk MAP Program delivers quality data that increases public awareness and leads to action to reduce risk to life and property. Risk MAP is a nationwide program that works in collaboration with states, tribes, and local communities using best available science, rigorously vetted standards, and expert analysis to identify risk and promote mitigation action, resulting in safer, more resilient communities.

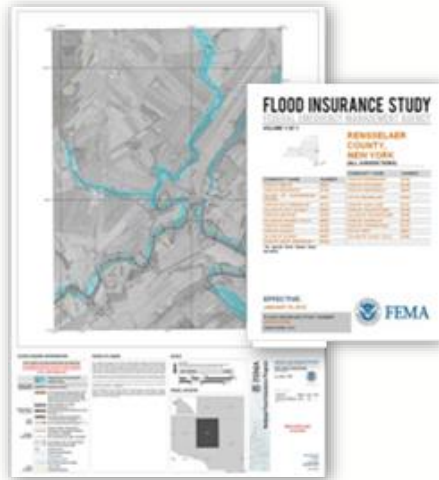
	Flood Risk Project	Physical Map Revision (PMR)	Letter of Map Revision (LOMR)	Letter of Map Revision Based on Fill (LOMR-F)	Letter of Map Amendment (LOMA)
What is it?	Projects implemented under the Risk MAP program to engage with communities and provide flood risk information. Most commonly, these projects are initiated to create new or updated flood maps.	An update to the FIRM to reflect the most current flood hazard data; this results in an update to a portion of a community's map panels.	An official revision to a FIRM that can reflect changes to the floodplains, Base Flood Elevations (BFEs), or regulatory floodways depicted on a community's FIRM. LOMRs most frequently reflect topographic changes and/or construction projects	A letter that provides an official determination on the flood zone for a property or structure that has been elevated by earthen fill to modify the SFHA.	A letter that provides an official determination on the relation of a property or structure to the SFHA. LOMAs are most frequently issued when a property has inadvertently been mapped within the floodplain, but is on naturally high ground.
What is revised?	Revises FIRM panels and FIS reports, or publishes new panels and reports for areas that were not previously mapped.	Physically revises and supersedes at least an entire FIRM panel and the FIS report.	Revises (normally a portion of) an existing FIRM panel (does not supersede the panel) and possibly portions of the FIS report.	Flood hazard designations for properties within an SFHA on a FIRM can be changed, and an effective FIRM can be amended, but the map is not physically changed unless the area is large enough to be reflected in future updates.	
Is there an appeal* period?	Yes, there is a 90-day appeal period for affected communities.		Yes, all LOMRs are subject to a 90-day appeal period when changes to BFEs, floodplain and/or floodway boundaries occur.	No.	
What is the output?	New or updated preliminary FIRM panel(s), LFD, final FIRM panel(s) and FIS report, and LOMC Revalidation Letter.	New or updated FIRM panel(s), FIS report, and LOMC Revalidation Letter.	A LOMR Determination Document that includes a revised area of a FIRM panel(s) and/or revised FIS report (flood profiles).	A LOMR-F Determination Document.	A LOMA Determination Document.
When does it become effective?	Six months after the Letter of Final Determination		A LOMR becomes effective 120 days after the date of the second local newspaper publication is issued, unless an appeal is submitted to FEMA.	On the date of the letter.	
Where to find it?	<ul style="list-style-type: none"> Digital copies can be found on the MSC. Hard copies of community FIRM panels are available at the community's map repository. 		<ul style="list-style-type: none"> Digital copies can be found on the MSC. Hard copies are mailed to the applicant and the community's map repository. 		
What is uploaded to the MSC?	Map panels, FIS report, and FIRM/NFHL database.	Map panel(s), FIS report, and FIRM/NFHL database.	A determination document, the revised portion of the map panel(s), and updated portions of the FIS report (profiles, tables, etc.) and NFHL database.	A determination document.	
Where can it be found on the MSC?	<i>On http://msc.fema.gov, after a 'Search for All Products' under a jurisdiction, the paths below will provide the corresponding items.</i>				
	<ul style="list-style-type: none"> Effective and Pending Products> FIRM Panels and FIS Reports 	<ul style="list-style-type: none"> Effective and Pending Products>FIRM Panels and FIS Reports 	<ul style="list-style-type: none"> Effective and Pending Products> LOMC> LOMR Effective Products>FIRM Panels>click on the LOMC Button for a specific panel 	<ul style="list-style-type: none"> Effective Products>LOMC>LOMA Effective Products>FIRM Panels>click on LOMC Button for a specific panel 	

*Appeal Period Links:

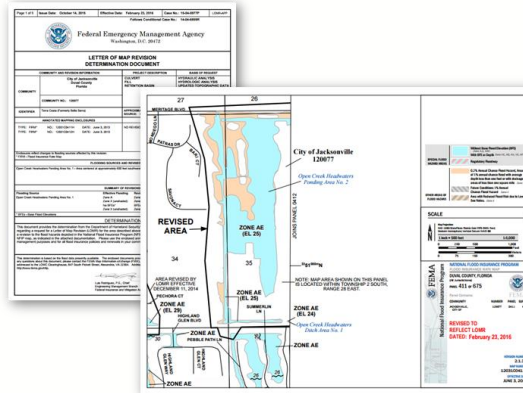
- [Criteria for appealing proposed changes in flood hazard information on FIRMs during the appeal period](#)
- [Flood Hazard Determination Notices for Preliminary Flood Insurance Studies, Physical Map Revisions, and Letters of Map Revision, including additional information on Flood Hazard Determination Notices and Appeal Periods](#)

Sample Products

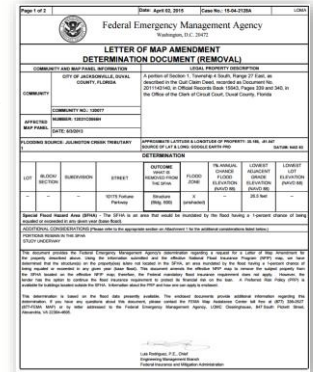
FIRM and FIS report



LOMR



LOMA/LOMR-F



Helpful Links

Flood Risk Projects

- The Risk MAP Project Lifecycle for Flood Risk Projects: <https://www.fema.gov/risk-map-flood-risk-project-lifecycle>

PMRs and LOMRs

- Flood Map Revision Processes: <https://www.fema.gov/flood-map-revision-processes>
- Application Information: <https://www.fema.gov/mt-2-application-forms-and-instructions>

LOMAs and LOMR-Fs

- Letter of Map Amendment and Letter of Map Revision Based on Fill Processes: <https://www.fema.gov/letter-map-amendment-letter-map-revision-based-fill-process>
- Factsheet: How to Request a LOMA or LOMR-F: <https://www.fema.gov/media-library/assets/documents/19871>
- Application information: <https://www.fema.gov/mt-1-application-forms-instructions>
- Revalidation Letters for Letters of Map Change: https://www.fema.gov/media-library-data/20130726-1840-25045-1194/understanding_soma_revalidation_letter.pdf
- Online LOMC: <https://www.fema.gov/change-flood-zone-designation-online-letter-map-change>

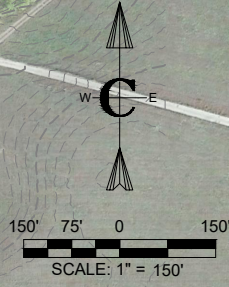
FEMA Map Information eXchange (FMIX)

Contact a Map Specialist

- (877) FEMA MAP (1-877-336-2627)
- Hours of Operation: Monday through Friday, 8 a.m. through 6:30 p.m. eastern standard time (EST)
- Email: FEMAMapSpecialist@riskmapcds.com

APPENDIX C

Teton County Effective Floodplains



NO.	REVISIONS	BY	DATE

Civilize, PLLC
Management and Engineering

PROJECT NO.	01-23-0019
DRAWN	R. BARKER
DESIGNED	B. CROWTHER
APPROVED	B. CROWTHER
QA/QC	B. CROWTHER

KIP AND TERRI HILL

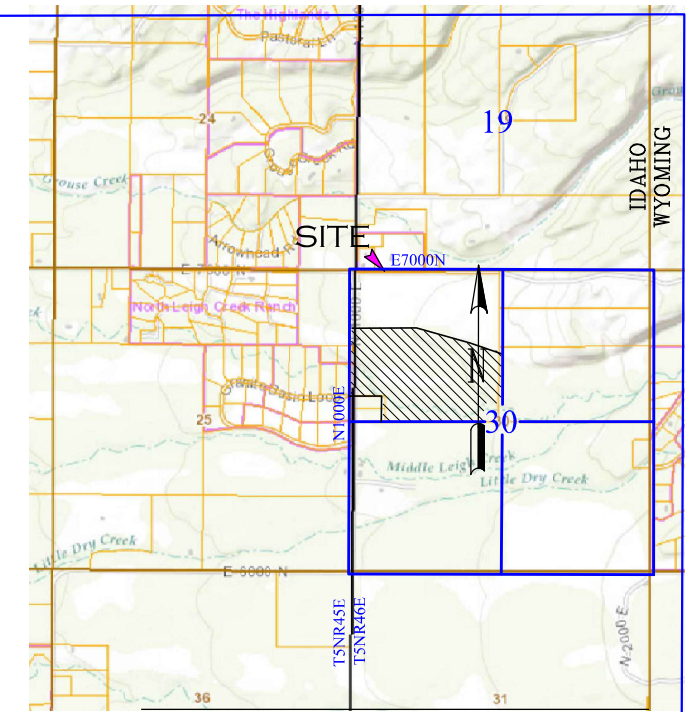
**HILL ELEVATION
FLOOD SITE PLAN**

SHEET NO:
C-SP-01

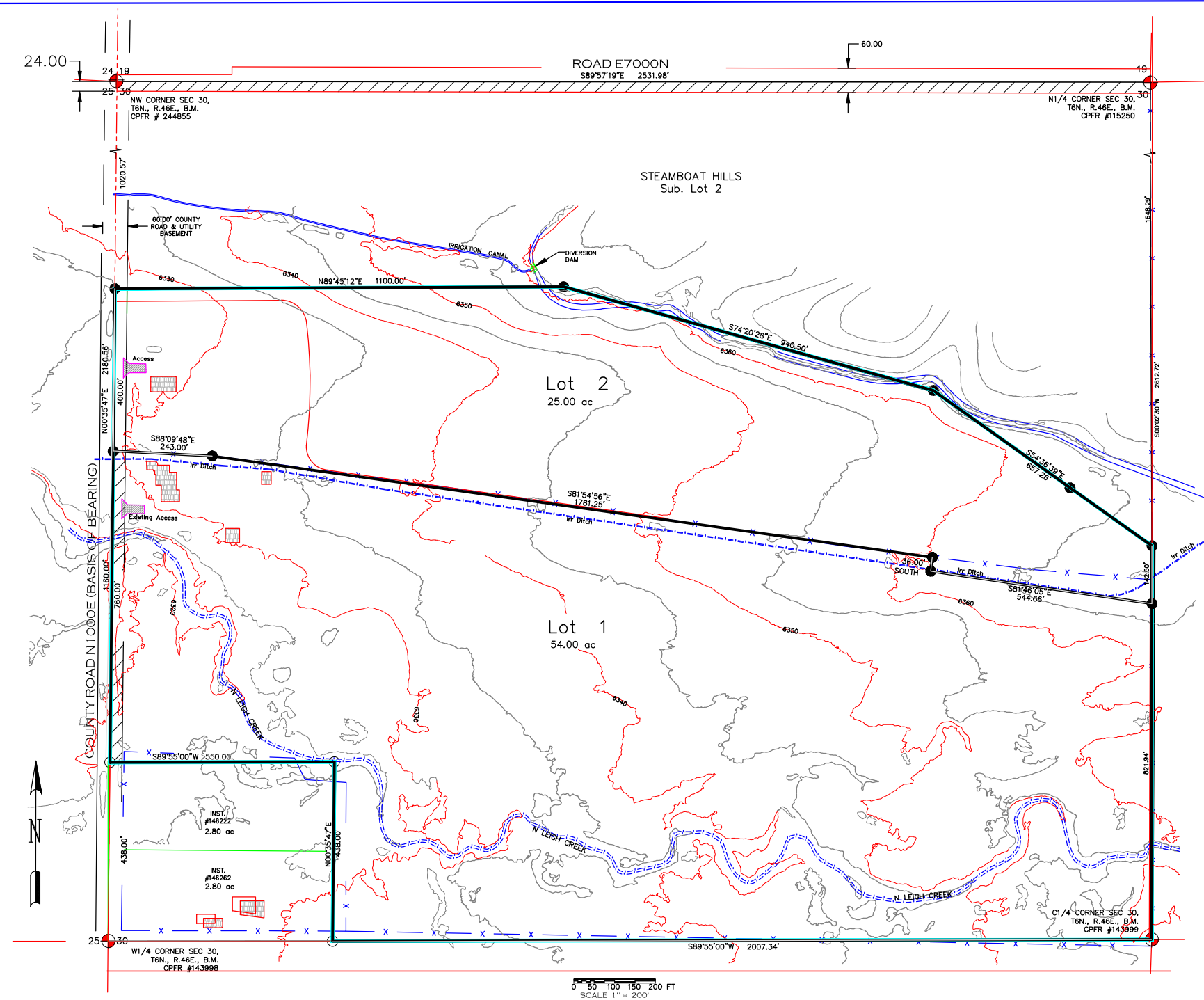
DATE:
AUGUST 2023

PAGE NO:
1

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VICINITY MAP
SECTION 30, TWP. 6N., RNG. 46E., B.M., TETON COUNTY, IDAHO



LEGEND	
	SECTION CORNER FOUND OR SET AS NOTED
	FOUND IRON PIN WITH PLASTIC CAP INSCRIBED: AW ENG 2860
	5/8" IRON PIN AW ENG 2860 CAP
	LOT LINES THIS SURVEY
	SECTION LINE
	FENCE LINE
	EASEMENT - TYPE AND WIDTH AS SHOWN ON PLAT
	BUILDINGS - TYPE & SIZE SHOWN ON PLAT

PROPERTY DESCRIPTION

A PORTION OF THE NW¼ OF SECTION 30, TWP. 6N., RNG. 46E., B.M., TETON COUNTY, IDAHO BEING FURTHER DESCRIBED AS:
 FROM THE W¼ CORNER OF SAID SECTION 30, N00°35'47"E, 438.00 FEET ALONG THE WEST LINE OF SAID NW¼ TO THE POINT OF BEGINNING;
 THENCE CONTINUING N00°35'47"E, 1160.00 FEET ALONG SAID WEST LINE TO A POINT;
 THENCE N89°45'12"E, 1100.00 FEET TO A POINT;
 THENCE S74°20'28"E, 940.50 FEET TO A POINT;
 THENCE S54°36'39"E, 657.26 FEET TO A POINT ON THE EAST LINE OF SAID NW¼;
 THENCE S00°02'30"W, 964.44 FEET ALONG SAID EAST LINE TO THE C¼ CORNER;
 THENCE S89°55'00"W, 2007.34 FEET ALONG THE SOUTH LINE OF SAID NW¼ TO A POINT;
 THENCE N00°35'47"E, 438.00 FEET TO A POINT;
 THENCE S89°55'00"W, 550.00 FEET TO THE POINT OF BEGINNING.
 CONTAINS 79.00 ACRES.

SUBJECT TO A 30 FOOT WIDE ROAD AND UTILITY EASEMENT ALONG THE WEST PROPERTY BOUNDARY BEING WITHIN THE 60 FOOT COUNTY ROAD AND UTILITY EASEMENT N1000E.

TOGETHER WITH THE FOLLOWING DESCRIBED IRRIGATION EASEMENT:
 FROM THE C¼ CORNER OF SECTION 30, TWP. 6N., RNG. 46E., B.M., TETON COUNTY, IDAHO N00°02'30"E, 964.44 FEET TO THE POINT OF BEGINNING;
 THENCE N54°36'39"W, 150.00 FEET TO A POINT;
 THENCE N35°23'21"E, 138.80 FEET TO A POINT;
 THENCE S89°58'02"E, 42.05 FEET TO A POINT;
 THENCE S00°02'30"W, 200.00 FEET TO THE POINT OF BEGINNING.

SUBDIVISION NOTES

- TOTAL AREA: 79.00 ACRES
- NUMBER OF LOTS 2
- AVERAGE ACRES PER LOT 39.50
- ACRES IN COUNTY ROAD 0.80
- OPEN SPACE ACRES NONE
- ZONING ON PROPERTY A/RR 2.5
- SETBACKS: FRONT 40 FT., SIDE 30 FEET, REAR 40 FT.
- BUILDING ENVELOPES ARE COUNTY SETBACKS
- FIRE PROTECTION SOURCE, NONE REQUIRED.
- WATER / SEWER SYSTEMS INDIVIDUAL SYSTEMS
- NORTH LEIGH CREEK CROSSES SOUTH SIDE PROPERTY.
- NO SUBDIVISION ROADS.
- NO FURTHER SPLITTING OF LOTS UNDER TETON COUNTY LAND USE CODE ADOPTED 07 /06/2022.
- EACH LOTS SEPTIC SYSTEM WILL BE YEARLY MAINTAINED WITH THE TANK BEING PUMPED BY A PUMPING SERVICE AS NEEDED.

SURVEYOR'S CERTIFICATE & NARRATIVE

I, ARNOLD WOOLSTENHULME BEING A LICENSED LAND SURVEYOR/ENGINEER IN THE STATE OF IDAHO No. 2860, DO HEREBY CERTIFY THAT I DID CAUSE THE SURVEY OF THESE PARCELS OF LAND AS HEREON PLATTED AND DESCRIBED.

ARNOLD WOOLSTENHULME PE/LS # 2860 2023

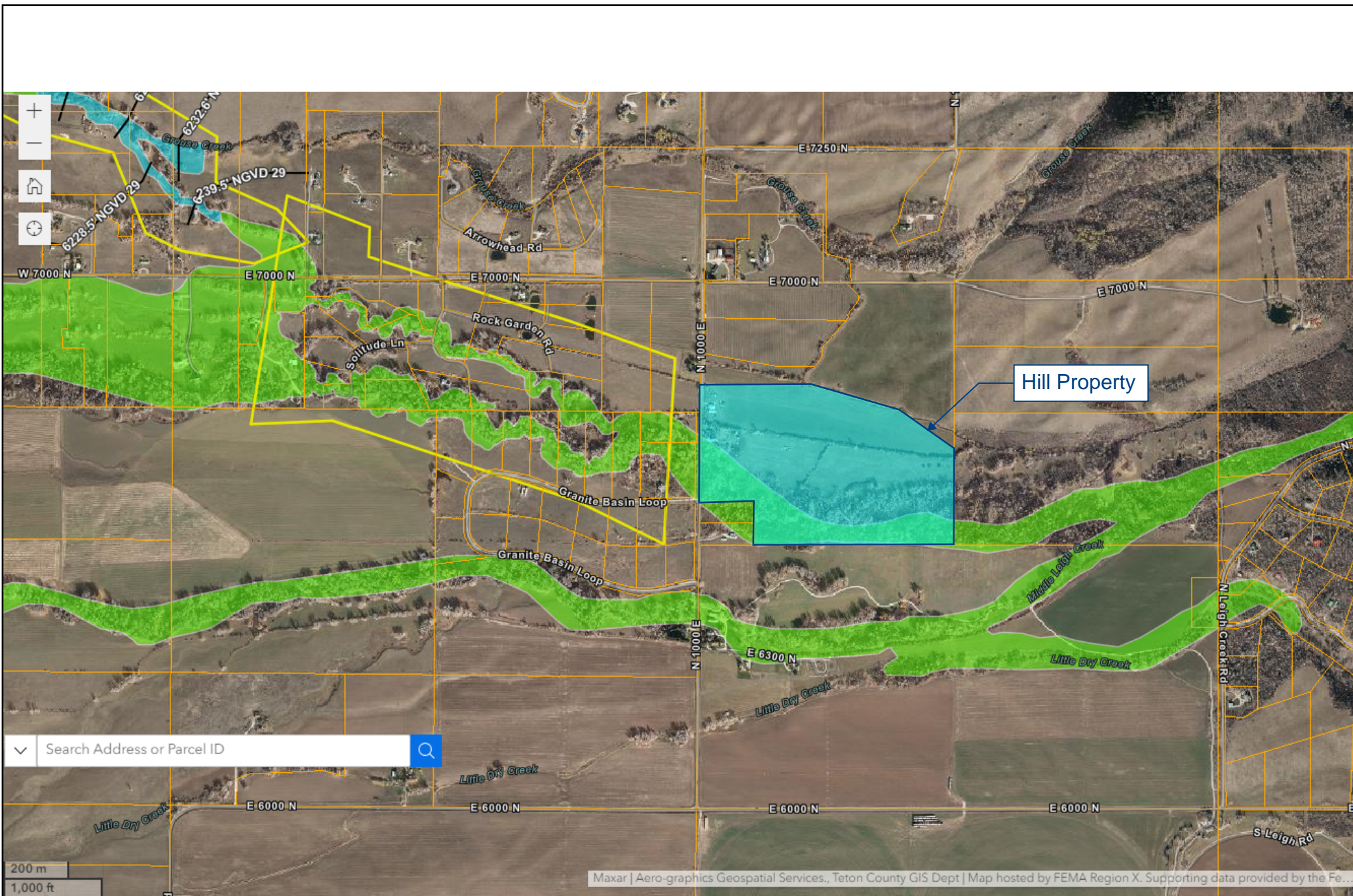
**PRELIMINARY PLAT / MASTER PLAN
CLEARWATER RESERVE Subdivision**

PART OF NW¼ SEC. 30, T 6N, R 46E., B.M. TETON CO. ID

OWNERS:
 Jared D. Hill
 Angela D. Hill
 P.O. BOX 153
 Teton, ID 83452

AW ENGINEERING
 255 SOUTH MAIN P.O. BOX 139
 VICTOR, IDAHO 83455
 (208) 787-2952 aweng@ida.net

REV: AW : 7/ 8/ 23
 SURVEY: CCC 05/20/16
 PROJ: 2015-165.TXT
 DWG: AW : 08/30/22
 21-304.jhill.dwg
 Proj. 21-304



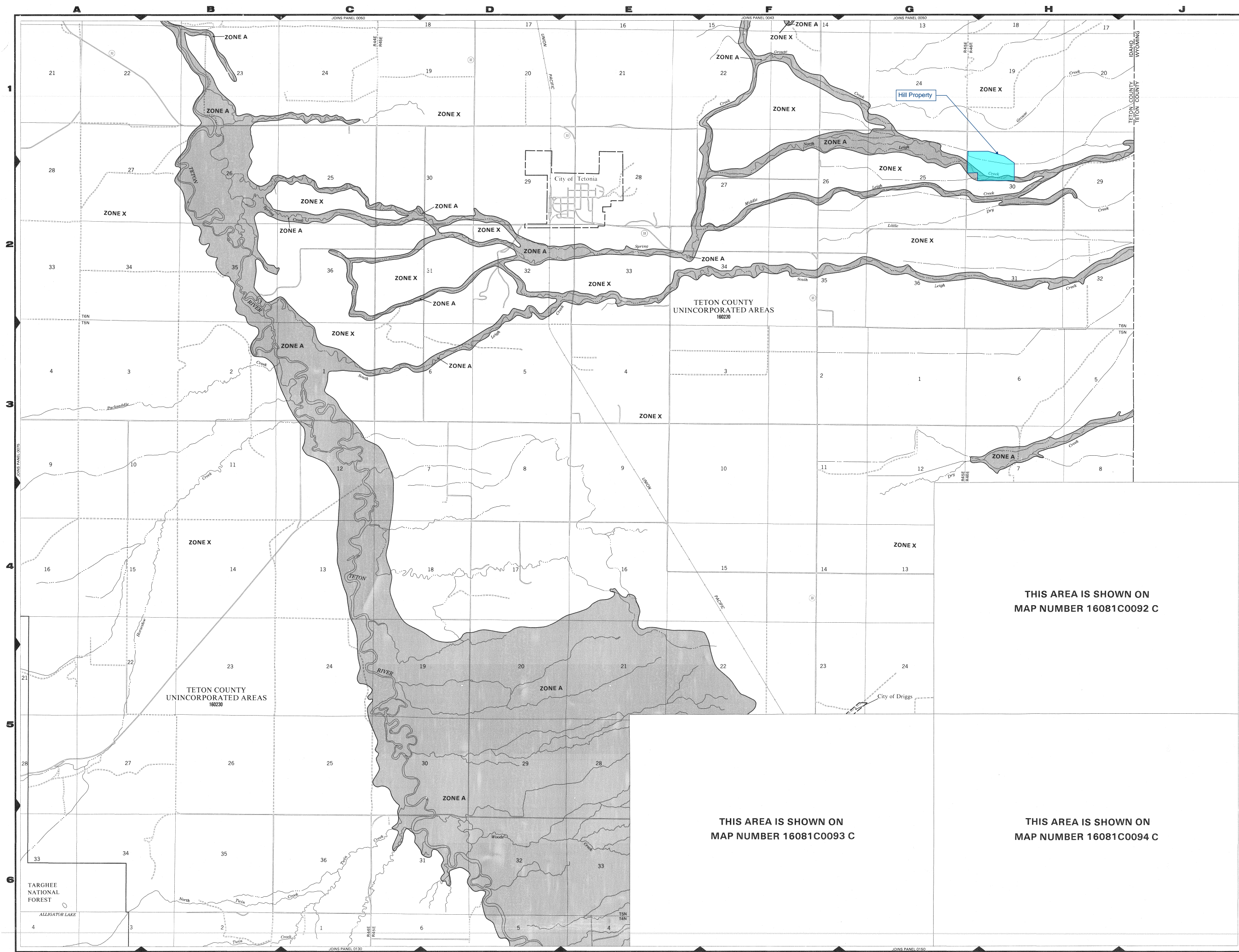
01-12-0019

Hill Subdivision
Teton County, Idaho Effective Floodplains

Civilize, PLLC
 Management and Engineering

APPENDIX D

FIRM Map



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDAED BY 100-YEAR FLOOD

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of elevated fee flood-ing, velocities also determined.
- ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- ZONE X** Areas determined to be outside 500-year flood plain.
- ZONE D** Areas in which flood hazards are undetermined.

BOUNDARIES

- Flood Boundary
- Floodway Boundary
- Zone Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

SYMBOLS

- 513 Base Flood Elevation Line; Elevation in Feet*
- (D) Cross Section Line
- (E) Base Flood Elevation in Feet Where Uniform Within Zone*
- RM7 Elevation Reference Mark

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Elevation reference marks are described in the Flood Insurance Study Report.

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of the map.

For community map revision history prior to countywide mapping, see Section 6.0 of the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY

Refer to Repository Listing on Index Map

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP:
AUGUST 4, 1988

EFFECTIVE DATE (S) OF REVISION (S) TO THIS PANEL:

Refer to Flood Insurance Rate Map Effective date shown below to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

THIS AREA IS SHOWN ON
MAP NUMBER 16081C0092 C

THIS AREA IS SHOWN ON
MAP NUMBER 16081C0093 C

THIS AREA IS SHOWN ON
MAP NUMBER 16081C0094 C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TETON COUNTY,
IDAHO AND
INCORPORATED AREAS

PANEL 100 OF 175

PANEL LOCATION

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
UNINCORPORATED AREAS	160230	0100	C

MAP NUMBER
16081C0100 C

EFFECTIVE DATE:
AUGUST 4, 1988

Federal Emergency Management Agency