ORDINANCE NO. 673

FLOOD HAZARD MANAGEMENT

WHEREAS, THE CITY OF FORKS HAS PORTIONS OF THE CITY ASSOCIATED WITH DESIGNATED FLOOD HAZARD ZONES AS DETERMINED BY THE FEDERAL FLOOD EMERGENCY MANAGEMENT AGENCY;

WHEREAS, THE STATE HAS DETERMINED THAT THE PREVIOUS FLOOD HAZARD MANAGEMENT CODE PROVISIONS NEED TO BE REVISED AND REPLACED AS THE ORIGINAL ORDINANCE WAS ADOPTED IN 1979;

WHEREAS, THE CITY COUNCIL OF THE CITY OF FORKS WANTS TO ENSURE THAT ITS RESIDENTS HAVE THE ABILITY TO ACCESS THE FEDERAL FLOOD INSURANCE PROGRAM AND COMPLIANT LOCAL REGULATIONS IS REQUIRED FOR THAT PROGRAM;

WHEREAS, THE REPLACEMENT OF THE PREVIOUS ORDINANCE, NO. 211, WOULD BE EASIER THAN ATTEMPTING TO AMEND IT WITH THE CURRENT FEDERALLY REQUIRED LANGUAGE;

NOW. THEREFORE, THE CITY COUNCIL OF THE CITY OF FORKS DO ORDAIN AS FOLLOWS:

SECTION 1 REPLACEMENT OF ORDINANCE 211, FMC CHAPTER 14.05

Ordinance 211 found within FMC Chapter 14.05 is hereby replaced in its entirety with the provisions found within Section 2 of this Ordinance.

SECTION 2 ADOPTING A NEW FLOOD HAZARD MANAGEMENT ORDINANCE TO REPLACE THE CURRENT CHAPTER 14.05 OF THE FORKS MUNICIPAL CODE.

The following is adopted as the replacement language for Chapter 14.05 of the Forks Municipal Code.

Article I Statutory Authorization, Findings of Fact, Purpose, and Objectives

14.05.110 Statutory Authorization

The Legislature of the State of Washington has delegated the responsibility to local communities to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Forks, does ordain as follows:

14.05.120 Findings of Fact

The flood hazard areas of the City of Forks are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

These flood losses may be caused by the cumulative effect of obstructions in areas of special flood hazards that increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

14.05.130 Statement of Purpose

It is the purpose of this ordinance to promote the public health, safety, and general welfare; reduce the annual cost of flood insurance; and minimize public and private losses due to flood conditions in specific areas by provisions designed to:

1) Protect human life and health;

2) Minimize expenditure of public money for costly flood control projects;

3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4) Minimize prolonged business interruptions;

5) Minimize damage to public facilities and utilities, such as water and gas mains; electric, telephone, and sewer lines; and streets and bridges located in flood hazard areas;

6) Help maintain a stable tax base by providing for the sound use and development of flood hazard areas so as to minimize blight areas caused by flooding;

7) Notify potential buyers that the property is in a Special Flood Hazard Area;

8) Notify those who occupy flood hazard areas that they assume responsibility for their actions; and

9) Participate in and maintain eligibility for flood insurance and disaster relief.

14.05.140 Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions for:

1) Restricting or prohibiting development that is dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

2) Requiring that development vulnerable to floods be protected against flood damage at the time of initial construction;

3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

4) Controlling filling, grading, dredging, and other development, which may increase flood damage; and

5) Preventing or regulating the construction of flood barriers that unnaturally divert floodwaters or may increase flood hazards in other areas.

Article II – Definitions

14.05.200 Definitions. Unless specifically defined below, words or phrases used in this chapter will be interpreted so as to give them the meaning they have in common usage and give this chapter its most reasonable application.

1) Alteration of watercourse: Any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

2) Appeal: A request for a review of the interpretation of any provision of this ordinance or a request for a variance.

3) Area of shallow flooding: A designated zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. Also referred to as the sheet flow area.

4) Area of special flood hazard: The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

5) ASCE 24: The most recently published version of ASCE 24, Flood Resistant Design and Construction, published by the American Society of Civil Engineers.

6) Base flood: The flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood").

7) Base Flood Elevation (BFE): The elevation to which floodwater is anticipated to rise during the base flood.

8) Basement: Any area of the building having its floor sub-grade (below ground level) on all sides.

9) Building: See "Structure."

10) Building Code: The currently effective versions of the International Building Code and the International Residential Code adopted by the State of Washington Building Code Council.

11) Critical Facility: A facility for which even a slight chance of flooding might be too great. Critical facilities include (but are not limited to) schools, nursing homes, hospitals, police, fire and emergency response installations, and installations which produce, use, or store hazardous materials or hazardous waste.

12) Development: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

13) Elevation Certificate: An administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

14) Elevated Building: For insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

15) Essential Facility: This term has the same meaning as "Essential Facility" defined in ASCE 24. Table 1-1 in ASCE 24-14 further identifies building occupancies that are essential facilities.

16) Existing Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the community.

17) Expansion to an Existing Manufactured Home Park or Subdivision: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

18) Farmhouse: A single-family dwelling located on a farm site where resulting agricultural products are not produced for the primary consumption or use by the occupants and the farm owner.

19) Flood or Flooding:

    A) A general and temporary condition of partial or complete inundation of normally dry land areas from:

i. The overflow of inland or tidal waters.

ii. The unusual and rapid accumulation or runoff of surface waters from any source.

iii. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

B) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

20) Flood elevation study: An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

21) Flood Insurance Rate Map (FIRM): The official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

22) Floodplain or flood-prone area: Any land area susceptible to being inundated by water from any source. See "Flood or flooding."

23) Floodplain administrator: The community official designated by title to administer and enforce the floodplain management regulations.

24) Floodplain management regulations: Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

25) Flood proofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

26) Floodway: 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. Also referred to as "Regulatory Floodway."

27) Functionally dependent use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

28) Highest adjacent grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

29) Historic structure: Any structure that is:

A) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

D) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

i. By an approved state program as determined by the Secretary of the Interior, or

ii. Directly by the Secretary of the Interior in states without approved programs.

30) Lowest Floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance (i.e. provided there are adequate flood ventilation openings).

31) Manufactured Home: A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

32) Manufactured Home Park or Subdivision: A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

33) Mean Sea Level: For purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

34) New construction: For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

35) New Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations adopted by the community.

36) One hundred year flood or 100 year flood: See "Base flood."

37) Reasonably Safe from Flooding: Development that is designed and built to be safe from flooding based on consideration of current flood elevation studies, historical data, high water marks and other reliable date known to the community. In unnumbered A zones where flood elevation information is not available and cannot be obtained by practicable means, reasonably safe from flooding means that the lowest floor is at least two feet above the Highest Adjacent Grade.

38) Recreational Vehicle: A vehicle,

A) Built on a single chassis;

B) 400 square feet or less when measured at the largest horizontal projection;

C) Designed to be self-propelled or permanently towable by a light duty truck; and

D) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

39) Start of construction: Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling;

nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

40) Structure: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

41) Substantial Damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

42) Substantial improvement: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

   A) Any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions; or

   B) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

43) Variance: A grant of relief by a community from the terms of a floodplain management regulation.

44) Water surface elevation: The height, in relation to the vertical datum utilized in the applicable flood insurance study of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

45) Water Dependent: A structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

Article III – General Provisions

14.05.310 Lands to Which This Ordinance Applies *(44 CFR 59.22(a))*

This ordinance shall apply to all special flood hazard areas within the boundaries of the City of Forks.

14.05.320 Basis for Establishing the Areas of Special Flood Hazard

The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for Town of Forks, Washington" dated December 16, 1988 and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRMs) dated December 16, 1988, and any revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance. The FIS and the FIRM are on file at Forks City Hall, Clerk/Treasurer's Office, 500 East Division Street.

The best available information for flood hazard area identification as outlined in FMC 14.05.432 shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under FMC 14.05.432.

14.05.330 Compliance

All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

14.05.340 Penalties for Noncompliance – Civil Violation

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon a finding of having committed a civil violation will be fined not more than one thousand dollars ($1000) for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the City of Forks from taking such other lawful action as is necessary to prevent or remedy any violation.

14.05.350 Abrogation and Greater Restrictions

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

14.05.360 Interpretation

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.

14.05.370 Warning And Disclaimer of Liability

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Forks, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

14.05.380 Severability

This ordinance and the various parts thereof are hereby declared to be severable. Should any Section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

Article IV – Administration

14.05.410 Establishment of Development Permit

14.05.411 Development Permit Required *(44 CFR 60.3(b)(1))*

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in FMC 14.05.320. The permit shall be for all structures including manufactured homes, as set forth in the "Definitions," and for all development including fill and other activities, also as set forth in the "Definitions."

14.05.412 Application for Development Permit

Application for a development permit shall be made on forms furnished by the Floodplain Administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate with Section B completed by the Floodplain Administrator.

2) Elevation in relation to mean sea level to which any structure has been floodproofed;

3) Where a structure is to be floodproofed, certification by a registered professional

engineer or architect that the floodproofing methods for any nonresidential structure meet floodproofing criteria in FMC 14.05.522;

4) Description of the extent to which a watercourse will be altered or relocated as a result of proposed development;

5) Where development is proposed in a floodway, an engineering analysis indication no rise of the Base Flood Elevation, and

6) Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

14.05.420 Designation of the Floodplain Administrator *(44 CFR 59.22(b)(1))*

The Building Inspector is hereby appointed to administer, implement, and enforce this ordinance by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

14.05.430 Duties & Responsibilities of the Floodplain Administrator

Duties of the (*Floodplain Administrator*) shall include, but not be limited to:

14.05.431 Permit Review - Review all development permits to determine that:

1) The permit requirements of this ordinance have been satisfied;

2) All other required state and federal permits have been obtained;

3) The site is reasonably safe from flooding;

4) The proposed development is not located in the floodway. If located in the floodway, assure the encroachment provisions of FMC 14.05.541 are met;

5) Notify FEMA when annexations occur in the Special Flood Hazard Area.

14.05.432 Use of Other Base Flood Data (In A Zones) *(44 CFR 60.3(b)(4))*

When base flood elevation data has not been provided (in A zones) in accordance with FMC 14.05.320, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer FMC 14.05.520, SPECIFIC STANDARDS, and FMC 14.05.540 FLOODWAYS.

14.05.433 Information to be Obtained and Maintained

1) Where base flood elevation data is provided through the FIS, FIRM, or required as in FMC 14.05.432, obtain and maintain a record of the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. *(44 CFR 60.3(b)(5)(i) and (iii))*

2) For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in FMC 14.05.432:

a) Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was floodproofed. *(44 CFR 60.3(b)(5)(ii))*

b) Maintain the floodproofing certifications required in FMC 14.05.412 *(44 CFR 60.3(b)(5)(iii))*

4) Certification required by FMC 14.05.541 *(44 CFR 60.3(d)(3))*

5) Records of all variance actions, including justification for their issuance. *(44 CFR 60.6(a)(6))*

6) Improvement and damage calculations.

7) Maintain for public inspection all records pertaining to the provisions of this ordinance. *(44 CFR 60.3(b)(5)(iii))*

14.05.434 Alteration of Watercourse

Whenever a watercourse is to be altered or relocated:

1) Notify adjacent communities and the Department of Ecology prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator through appropriate notification means. *(44 CFR 60.3(b)(6))*

2) Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained. *(44 CFR 60.3(b)(7))*

14.05.435 Interpretation of FIRM Boundaries

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (e.g. where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeals shall

be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the NFIP (44 CFR 59-76).

14.05.436 Review of Building Permits *(44 CFR 60.3(a)(3))*

Where elevation data is not available either through the FIS, FIRM, or from another authoritative source (FMC 14.05.432), applications for floodplain development shall be reviewed to assure that proposed construction will be *reasonably safe from flooding*. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available.

Article V – Provisions for Flood Hazard Reduction

14.05.510 General Standards

In all areas of special flood hazards, the following standards are required:

14.05.511 Anchoring *(44 CFR 60.3(a) and (b))*

1) All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy. (44 CFR 60.3(a)(3)(i))

2) All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors. (44 CFR 60.3(b)(8)). For more detailed information, refer to guidebook, FEMA-85, "Manufactured Home Installation in Flood Hazard Areas."

14.05.512 Construction Materials and Methods *(44 CFR 60.3(a)(3)(ii-iv))*

1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

14.05.513 Storage of Materials and Equipment

1) The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding is prohibited in special flood hazard areas.

2) Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

14.05.514 Utilities *(44 CFR 60.3(a)(5) and (6))*

1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;

2) Water wells shall be located on high ground that is not in the floodway (WAC 173-160-171);

3) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;

4) Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

14.05.515 Subdivision Proposals and Development *(44 CFR 60.3(a)(4) and (b)(3))*

All subdivisions, as well as new development shall:

1) Be consistent with the need to minimize flood damage;

2) Have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;

3) Have adequate drainage provided to reduce exposure to flood damage.

4) Where subdivision proposals and other proposed developments contain greater than 50 lots or 5 acres (whichever is the lesser) base flood elevation data shall be included as part of the application.

14.05.520 Specific Standards *(44 CFR 60.3(c)(1))*

In all areas of special flood hazards where base flood elevation data has been provided as set forth in FMC 14.05.320, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, or FMC 14.05.432, USE OF OTHER BASE FLOOD DATA. The following provisions are required:

14.05.521 Residential Construction *(44 CFR 60.3(c)(2)(5))*

1) In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the BFE. Mechanical equipment and utilities shall be waterproof or elevated at least one foot above the BFE.

2) New construction and substantial improvement of any residential structure in an AO zone shall meet the requirements in FMC 14.05.580.

3) New construction and substantial improvement of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

4) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs must meet or exceed the following minimum criteria:

   a) Have a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.

   b) The bottom of all openings shall be no higher than one foot above grade.

   c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

   d) A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of flood waters.

   Alternatively, a registered engineer or architect may design and certify engineered openings.

14.05.522 Nonresidential Construction *(44 CFR 60.3(c)(3) and (4))*

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet the requirements of subsection 1 or 2, below.

1) New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet all of the following requirements:

   a) In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained:

New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall have the lowest floor, including basement, elevated one foot or more above the BFE, or elevated as required by ASCE 24, whichever is greater. Mechanical equipment and utilities shall be waterproofed or elevated least one foot above the BFE, or as required by ASCE 24, whichever is greater.

b) If located in an AO zone, the structure shall meet the requirements in FMC 14.05.580.

c) If located in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

d) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

   i) Have a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.
   ii) The bottom of all openings shall be no higher than one foot above grade.
   iii) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
   iv) A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of flood waters.

   Alternatively, a registered engineer or architect may design and certify engineered openings.

2) If the requirements of subsection 1 are not met, then new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet all of the following requirements:

   a) Be dry floodproofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water or dry floodproofed to the elevation required by ASCE 24, whichever is greater;

   b) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

   c) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice

for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in FMC 14.05.432;

d) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in FMC 14.05.521(5);

Note: Applicants who are floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one foot below). Floodproofing the building an additional foot will reduce insurance premiums significantly.

14.05.523 Manufactured Homes *(44 CFR 60.3(c)(6)(12))*

All manufactured homes to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

14.05.524 Recreational Vehicles *(44 CFR 60.3(c)(14))*

1) Recreational vehicles placed on sites are required to either:

2) Be on the site for fewer than 180 consecutive days, or

1) Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
2) Meet the requirements of FMC 14.05.523 above.

14.05.525 Enclosed Area Below the Lowest Floor

If buildings or manufactured homes are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

14.05.526 Appurtenant Structures (Detached Garages & Small Storage Structures)

1) Appurtenant structures used solely for parking of vehicles or limited storage may be constructed such that the floor is below the BFE, provided the structure is designed and constructed in accordance with the following requirements:

a) Use of the appurtenant structure must be limited to parking of vehicles or limited storage;

b) The portions of the appurtenant structure located below the BFE must be built using flood resistant materials;

c) The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement;

d) Any machinery or equipment servicing the appurtenant structure must be elevated or floodproofed to or above the BFE;

e) The appurtenant structure must comply with floodway encroachment provisions in FMC 14.05.541;

f) The appurtenant structure must be designed to allow for the automatic entry and exit of flood waters in accordance with FMC 14.05.520(4).

g) The structure shall have low damage potential,

h) If the structure is converted to another use, it must be brought into full compliance with the standards governing such use, and

i) The structure shall not be used for human habitation.

2) Detached garages, storage structures, and other appurtenant structures not meeting the above standards must be constructed in accordance with all applicable standards in FMC 14.05.520.

3) Upon completion of the structure, certification that the requirements of this section have been satisfied shall be provided to the Floodplain Administrator for verification.

14.05.530 AE and A1-30 Zones with Base Flood Elevations but No Floodways *(44 CFR 60.3(c)(10))*

In areas with BFEs (but a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's 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 community.

14.05.540 Floodways *(Incorporating floodway development language per RCW 86.16)*

Located within areas of special flood hazard established in FMC 14.05.320 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris, and increase erosion potential, the following provisions apply:

14.05.541 No Rise Standard

Prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer is provided demonstrating 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 during the occurrence of the base flood discharge. (44 CFR 60.3(d)(3))

14.05.542 Residential Construction in Floodways

Construction or reconstruction of residential structures is prohibited within designated floodways, except for (i) repairs, reconstruction, or improvements to a structure that do not increase the ground floor area; and (ii) repairs, reconstruction, or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either, (A) before the repair or reconstruction is started, or (B) if the structure has been damaged, and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded in the 50 percent.

1) Replacement of Farmhouses in Floodway

Repairs, reconstruction, replacement, or improvements to existing farmhouse structures located in designated floodways and that are located on lands designated as agricultural lands of long-term commercial significance under RCW 36.70A.170 may be permitted subject to the following:

a) The new farmhouse is a replacement for an existing farmhouse on the same farm site;
b) There is no potential building site for a replacement farmhouse on the same farm outside the designated floodway;
c) Repairs, reconstruction, or improvements to a farmhouse shall not increase the total square footage of encroachment of the existing farmhouse;
d) A replacement farmhouse shall not exceed the total square footage of encroachment of the farmhouse it is replacing;
e) A farmhouse being replaced shall be removed, in its entirety, including foundation, from the floodway within ninety days after occupancy of a new farmhouse;
f) For substantial improvements and replacement farmhouses, the elevation of the lowest floor of the improvement and farmhouse respectively, including basement, is a minimum of one foot higher than the BFE;
g) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood waters into the system;

h) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters; and
i) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

2) Substantially Damaged Residences in Floodway

a) For all substantially damaged residential structures, other than farmhouses, located in a designated floodway, the Floodplain Administrator may make a written request that the Department of Ecology assess the risk of harm to life and property posed by the specific conditions of the floodway. Based on analysis of depth, velocity, flood-related erosion, channel migration, debris load potential, and flood warning capability, the Department of Ecology may exercise best professional judgment in recommending to the local permitting authority repair, replacement, or relocation of a substantially damaged structure consistent with WAC 173-158-076. The property owner shall be responsible for submitting to the local government and the Department of Ecology any information necessary to complete the assessment. Without a favorable recommendation from the department for the repair or replacement of a substantially damaged residential structure located in the regulatory floodway, no repair or replacement is allowed per WAC 173-158-070(1).

b) Before the repair, replacement, or reconstruction is started, all requirements of the NFIP, the state requirements adopted pursuant to 86.16 RCW, and all applicable local regulations must be satisfied. In addition, the following conditions must be met:

i) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway.
ii) A replacement residential structure is a residential structure built as a substitute for a legally existing residential structure of equivalent use and size.
iii) Repairs, reconstruction, or replacement of a residential structure shall not increase the total square footage of floodway encroachment.
iv) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the BFE.
v) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system.
vi) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters.
vii) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

14.05.543 All Other Building Standards Apply in the Floodway

If FMC 14.05.541 is satisfied or construction is allowed pursuant to FMC 14.05.542, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V, Provisions For Flood Hazard Reduction.

14.05.550 General Requirements for Other Development

All development, including manmade changes to improved or unimproved real estate for which specific provisions are not specified in this ordinance or the state building codes with adopted amendments and any the City of Forks amendments, shall:

1) Be located and constructed to minimize flood damage;

2) Meet the encroachment limitations of this ordinance if located in a regulatory floodway;

3) Be anchored to prevent flotation, collapse, or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;

4) Be constructed of flood damage-resistant materials;

5) Meet the flood opening requirements of FMC 14.05.520-1(5), and

6) Have mechanical, plumbing, and electrical systems above the design flood elevation or meet the requirements of ASCE 24, except that minimum electric service required to address life safety and electric code requirements is permitted below the design flood elevation provided it conforms to the provisions of the electrical part of building code for wet locations.

14.05.560 Critical Facility

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the SFHA (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the BFE shall be provided to all critical facilities to the extent possible.

14.05.570 Livestock Sanctuaries

Elevated areas for the for the purpose of creating a flood sanctuary for livestock are allowed on farm units where livestock is allowed. Livestock flood sanctuaries shall be sized

appropriately for the expected number of livestock and be elevated sufficiently to protect livestock. Proposals for livestock flood sanctuaries shall meet all procedural and substantive requirements of this chapter.

Note: To be "elevated sufficiently to protect livestock" typically means to be elevated at least one foot above the BFE.

14.05.580 Standards for Shallow Flooding

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In addition to other provisions in this code, the following additional provisions also apply in AO zones:

1. New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement and mechanical equipment) elevated above the highest adjacent grade to the structure, one foot or more above* the depth number specified in feet on the community's FIRM (at least two feet above the highest adjacent grade to the structure if no depth number is specified).

2. New construction and substantial improvements of nonresidential structures within AO zones shall either:

   a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above* the depth number specified on the FIRM (at least two feet if no depth number is specified); or

   b) Together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer, or architect as in FMC 14.05.522(3).

3. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

4. Recreational vehicles placed on sites within AO zones on the community's FIRM either:

   a) Be on the site for fewer than 180 consecutive days, or

   b) Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

   c) Meet the requirements of subsections (1) and (3) above and the anchoring requirements for

manufactured homes (FMC 14.05.511(2)).

Article VI - Variances

14.05.600 – Variance Overview and duty of the City

The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the City of Forks to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the Base Flood Elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

14.05.610 Requirements for Variances

1) Variances shall only be issued:

   a) Upon a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;

   b) For the repair, rehabilitation, or restoration of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure;

   c) Upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;

   d) Upon a showing of good and sufficient cause;

   e) Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant;

   f) Upon a showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in Article II of this ordinance in the definition of "Functionally Dependent Use."

2) Variances shall not be issued within any floodway if any increase in flood levels during the base flood discharge would result.

3) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the BFE, provided the procedures of Articles IV and V of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

14.05.620 Variance Criteria

In considering variance applications, the City Council or their designee shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

1) The danger that materials may be swept onto other lands to the injury of others;

2) The danger to life and property due to flooding or erosion damage;

3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4) The importance of the services provided by the proposed facility to the community;

5) The necessity to the facility of a waterfront location, where applicable;

6) The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;

7) The compatibility of the proposed use with existing and anticipated development;

8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9) The safety of access to the property in time of flood for ordinary and emergency vehicles;

10) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and,

11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical, water system, and streets and bridges.

14.05.630 Additional Requirements for the Issuance of a Variance

1) Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:

a) The issuance of a variance to construct a structure below the BFE will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage, and

b) Such construction below the BFE increases risks to life and property.

2) The Floodplain Administrator shall maintain a record of all variance actions, including justification for their issuance.

3) The Floodplain Administrator shall condition the variance as needed to ensure that the requirements and criteria of this chapter are met.

4) Variances as interpreted in the NFIP are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from flood elevations should be quite rare.

Section 7. Errors Allowed to be corrected.

The City Attorney or the City Clerk may make necessary corrections to this ordinance, including scrivener's errors or clerical mistakes; references to other local, state, or federal laws, rules, or regulations; or numbering or referencing of ordinances or municipal code chapters, their sections and subsections.

Section 8. Severability.

If any section, sentence, subdivision or clause of this chapter shall for any reason be held invalid or unconstitutional such decision shall not affect the validity of the remaining portions of this chapter.

Section 9. Effective Date.

This ordinance shall take effect five days after it has been published within the City's journal of record as provided for by law, or the 15 May 2024 whichever occurs later.

Passed this 8 day April 2024.

Tim Fletcher, Mayor

Attested to:

Caryn Depew, Clerk/Treasurer

Approved as to Form:

William R. Fleck, Attorney/Planner