

LOGAN COUNTY FLOODPLAIN ORDINANCE

AUTHORITY AND PURPOSE:

AN ORDINANCE ESTABLISHING A FLOODPLAIN AREA AND REQUIRING ALL CONTRACTORS, PERSONS, PARTNERSHIPS, BUSINESSES, AND CORPORATIONS TO OBTAIN A PERMIT FOR DEVELOPMENT AND THE CONSTRUCTION, SUBSTANTIAL IMPROVEMENT, OR RELOCATION OF ANY BUILDING OR STRUCTURE; PROVIDING FOR CERTAIN MINIMUM STANDARDS FOR CONSTRUCTION WITHIN THE FLOODPLAIN AREA AND SETTING FORTH SPECIAL PROCEDURES FOR SUBMISSION AND APPROVAL OF PLANS; AND ESTABLISHING PENALTIES FOR ANY PERSON WHO FAILS TO COMPLY WITH THE REQUIREMENTS OR PROVISIONS OF THIS ORDINANCE.

BE IT ENACTED AND ORDAINED BY THE LOGAN COUNTY COMMISSION.

ARTICLE I - GENERAL PROVISIONS

Section 1.1 Authority

- A. The provisions of this ordinance have been prepared with the intention of meeting the requirements of THE NATIONAL FLOOD INSURANCE ACT OF 1968 (42 U.S.C. 4001 et seq.) AMENDED BY THE CONGRESS OF THE UNITED STATES THROUGH THE 15TH. OF FEBRUARY, 1975 (PUBLIC LAW 91-152).
- B. Authority to adopt, administer and enforce this Ordinance is vested in Logan County pursuant to WEST VIRGINIA STATE CODES 8-12-14, 7-1-3n, 7-1-3v and 7-1-3kk and/or WEST VIRGINIA STATE CODE 8A-4-2, 8A-5-7, 8A-7-2

Section 1.2 Intent

The intent of this ordinance is to:

- A. Promote the general health, welfare, and safety of Logan County.
- B. Encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future and protect natural drainage.
- C. Minimize danger to public health and safety by protecting water supply and sanitary sewage disposal in cooperation with the County Sanitarian.

- D. Assure the County Assessor obtains information concerning improvement of real property as required by WV State Code 11-3-3A.
- E. Assure County E-911 addresses are obtained to maintain the currency of established emergency response dispatch systems.
- F. Reduce financial burdens imposed on Logan County, its governmental units, and its residents, by preventing the unwise design and construction of development in areas subject to flooding.

Section 1.3 Abrogation and Greater Restrictions

This ordinance supersedes any ordinance currently in effect in flood prone areas. Any ordinance, however, shall remain in full force and effect to the extent that its provisions are more restrictive.

Section 1.4 Applicability

It shall be unlawful for any contractor, person, partnership, business, or corporation to undertake or cause to be undertaken, any development, new construction, substantial improvement, repair of substantial damage, or the placement or relocation of any structure (including manufactured homes) within Logan County, unless a permit application has been completed and a permit or certificate of compliance has been obtained from the Floodplain Administrator. In addition, where land partially or fully in the special flood hazard area is to be subdivided, utilized for a manufactured home park or subdivision or otherwise developed as defined in this ordinance, a site plan with elevation data shall be submitted to, and approved by, the Floodplain Administrator prior to any development.

Provision of all other codes, ordinances, and regulations shall be applicable insofar as they are consistent with the provisions of this ordinance and the community's need to minimize the hazards and damage resulting from flooding.

Section 1.5 Matters not provided for specifically

Where conditions are encountered that are not specifically provided for herein, the Floodplain Administrator shall determine the applicability of the provisions of this ordinance in accordance with its intent, and shall require the applicant to take appropriate measures pursuant to such determination.

ARTICLE II - INTERPRETATIONS AND DEFINITIONS

Section 2.1 Interpretations

- A. For the purpose of this ordinance, the following interpretations shall apply:
 - 1. Words used in the present tense include the future tense
 - 2. The singular includes the plural.

3. The plural includes the singular.
4. The word "person" includes a corporation, unincorporated association or partnership as well as an individual.
5. The Term "shall" or "will" is always mandatory.
6. The word "building" or "structure" shall be construed as if followed by the phrase "or part thereof".
7. The word "ordinance" shall refer to the Floodplain Ordinance.

Section 2.2 Definitions

Unless specifically defined below, words and phrases used in this ordinance shall be interpreted so as to give this ordinance it's most reasonable application.

Appurtenant Structure

A structure on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. This does not include a gas or liquid storage tank.

Base Flood

Means the flood having a one percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE)

The water surface elevation of the base flood in relation to the datum specified on the City of Logan's Flood Insurance Rate Map. For the purposes of this ordinance, the one hundred (100) year flood or 1% annual chance flood.

Basement

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

Certificate of Compliance

A certification that all development is in compliance with the provisions of this ordinance.

Compensatory storage

An artificially excavated, hydraulically equivalent volume of storage within the special flood hazard area used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the special flood hazard area.

Contractor - WV State Code 21-11-3(c)

A person who in any capacity for compensation, other than as an employee of another, undertakes, offers to undertake, purports to have the capacity to undertake, or submits a bid to construct, alter, repair, add to, subtract from, improve, move, wreck or demolish any building, highway, road, railroad, structure or excavation associated with a project, development or improvement, or to do any part thereof, including the erection of scaffolding or other structures or works in connection therewith, where the cost of the undertaking is one thousand dollars or more. Contractor includes a construction manager who performs management and counseling services on a construction project for a professional fee.

Contractor does not include:

- (1) One who merely furnishes materials or supplies without fabricating or consuming them in the construction project.
- (2) A person who personally performs construction work on the site of real property which the person owns or leases whether for commercial or residential purposes;
- (3) A person who is licensed or registered as a professional and who functions under the control of any other licensing or regulatory board, whose primary business is real estate sales, appraisal, development, management and maintenance, who acting in his or her respective professional capacity and any employee of such professional, acting in the course of his or her employment, performs any work which may be considered to be performing contracting work
- (4) A pest control operator licensed under the provisions of section seven, article sixteen-a, chapter nineteen of this code to engage in the application of pesticides for hire, unless the operator also performs structural repairs exceeding one thousand dollars on property treated for insect pests; or
- (5) A corporation, partnership or sole proprietorship whose primary purpose is to prepare construction plans and specifications used by the contractors defined in this section and who employs full time a registered architect licensed to practice in this state or a Registered Professional Engineer licensed to practice in this state. Contractor also does not include employees of such corporation, partnership or sole proprietorship.

Critical Facility

Any facility in which, even a slight chance of flooding is too great a threat. Typical critical facilities include hospitals, fire stations, police stations, storage of critical records, and similar facilities. These should be given special consideration when formulating regulatory alternatives and floodplain management plans. A critical facility should not be located in a special flood hazard area if at all possible. If a critical facility must be located in a special flood hazard area it

...higher level of protection so that it can continue to function and provide services during a flood.

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.

Flood

A general and temporary inundation of normally dry land areas.

Flood Insurance Rate Map (FIRM)

The official map on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to Logan County. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

Flood Insurance Study

The official report in which the Federal Emergency Management Agency has provided flood profiles, floodway information, and water surface elevations.

Floodplain

- (1) A relatively flat or low land area adjoining a river, stream, or watercourse which is subject to partial or complete inundation;
- (2) An area subject to the unusual and rapid accumulation or runoff of surface waters from any source.

Floodway

The channel of a river or other watercourse and the adjacent land area that must be reserved to discharge the base flood without increasing the water surface elevation of that flood more than one foot at any point.

Flood proofing

Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Freeboard

A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for unknown factors that may contribute uncertainty to flood heights of any given flood and floodway condition, such as wave action, blockage at stream crossings, and increased runoff

from urbanization of the watershed. Floodboard also tends to lower the cost of flood insurance.

Highest Adjacent Grade (HAG)

The highest natural elevation of the ground surface immediately adjacent to the development or structure foundation. This is primarily used during insurance rating in approximated floodplains.

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 the 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 Interior in states without approved programs.

Licensed Manufactured Home Retailer

A business licensed to sell Manufactured Homes in the state of WV as set forth in the WV state code.

Licensed Manufactured Home Installer

A contractor licensed to install Manufactured Homes in WV as set forth in the WV State Code.

Licensed Professional Surveyor

Any person licensed by the WV state board of examiners of land surveyors to engage in the practice of land surveying as defined in WV state code.

LOWEST ADJACENT GRADE (LAG)

The lowest natural elevation of the ground surface immediately adjacent to the proposed development or structure foundation. The primary use of the LAG is to determine whether the structure is located within a special flood hazard area by comparing it to the base flood elevation.

Lowest Floor

The lowest floor of the lowest enclosed area (including basement). An unfinished enclosure constructed with flood resistant materials as defined in FEMA Technical Bulletin 2 and 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 has proper flood openings and is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

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 connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

New Construction

Structures for which the Start of Construction as herein defined commenced on or after July 16, 1971 and including any subsequent improvements to such structures. Any construction started after effective date of the Logan County first floodplain ordinance adopted by Logan County and before the effective start date of this floodplain management ordinance is subject to the ordinance in effect at the time the ordinance was issued, provided the start of construction was within 180 days of permit issuance.

One-Hundred (100) Year Flood

A flood that has one chance in one-hundred or a one percent chance of being equaled or exceeded in any given year.

Person

Any individual or group of individuals, corporation, partnership, association or other entity, including State and local governments and agencies.

Practice of Engineering

Any service or creative work, as described in WV state code Article 13, the adequate performance of which requires engineering education, training and experience in the application of special knowledge of the mathematical, physical and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning and design of engineering works and systems; planning the use of land and water; teaching of advanced engineering subjects,

engineering surveys and studies; and the review of construction for the purpose of assuring compliance with drawings and specifications any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects and industrial or consumer products or equipment of a mechanical, electrical, hydraulic, pneumatic or thermal nature, insofar as they involve safeguarding life, health or property, and including such other professional services as may be necessary to the planning, progress and completion of any engineering services. Engineering surveys include all survey activities required to support the sound conception, planning, design, construction, maintenance and operation of engineered projects.

Any person who practices any branch of the profession of engineering or who, by verbal claim, sign, advertisement, letterhead, card or in any other way represents himself or herself to be a Registered Professional Engineer, or by using another title implies that he or she is a Registered Professional Engineer or that he or she is registered under WV state code, article 13 or who holds himself or herself out as able to perform, or who performs any engineering service or work or any other service designated by the practitioner which is recognized as engineering, is considered to practice or offer to practice engineering within the meaning and intent of WV state code article 13.

Principally Above Ground

Where at least 51 percent of the actual cash value of a structure, less land value, is above ground.

Recreational Vehicle

A vehicle which is:

- (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.

Registered Professional Engineer

A person who has been duly registered or licensed as a Registered Professional Engineer by the West Virginia state board of registration for professional engineers as required under WV state code article 13 et seq.

Remedy a Violation

To bring a structure or other development into compliance with the requirements of this ordinance, or, if full compliance is not possible, to reduce the adverse impacts of the non-compliance to the greatest extent feasible.

Reasonably Safe from Flooding

means that during the base flood, water should not damage structures and any subsurface waters related to the base flood should not damage existing or proposed structures.

Special Flood Hazard Area

The land in the floodplain subject to a one percent or greater chance of flooding in any given year. Special flood hazard areas are designated by the Federal Emergency Management Agency in Flood Insurance Studies and on Flood Insurance Rate Maps as Zones A, AE, AO, A1-30, and A99. This term shall also include areas shown on other flood hazard maps that are specifically listed or otherwise described in this ordinance.

Start of Construction

The date the permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond initial excavation, or the placement of a manufactured home on a foundation. Although a permit must be obtained prior to beginning, 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 an alteration, 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.

State Coordinating Office

The West Virginia Division of Homeland Security and Emergency Management

Stream

As defined in WV State Code 7-1-3U, any watercourse, whether natural or man-made, distinguishable by banks and a bed, regardless of their size, through which water flows continually or intermittently, regardless of its volume.

Structure

A walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Substantial Damage

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

also means cumulative flood-related damages sustained by a structure on two separate occasions during a 10 year period for which the cost of repairs at the time of each flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. See "Substantial Improvement."

Substantial Improvement

Any repair, 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", as defined herein regardless of the actual repair work performed. The term does not, however, include any project for improvement of a structure to correct existing violation of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement as defined above, must comply with all ordinance requirements that do not preclude the structure's continued designation as a historic structure. Documentation that a specific ordinance requirement will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic places must be obtained from the Secretary of the Interior or the State Historic Preservation Officer. Any exemption from ordinance requirements will be the minimum necessary to preserve the historic character and design of the structure.

For the purpose of this definition improvement is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences whether or not that alteration affects the external dimensions of the structure.

Top of Bank

The lines depicted on the FIRM maps delineating each side of a stream indicate the top of bank. In the field a professional familiar with fluvial geomorphology should document the top of bank. When a professional is not employed the top of the bank may be considered to be the top of the first significant slope landward of the waters edge when it is followed by at least 50 feet of relatively flat land.

Violation

The failure of any structure or development to be fully compliant with all the requirements of this ordinance. Any structure or other development lacking the certifications, finished construction elevation certificate or other evidence of compliance required by this ordinance is presumed to be in violation until such time as that documentation is provided.

ARTICLE III - ESTABLISHMENT OF THE SPECIAL FLOOD HAZARD AREA

Section 3.1 Identification

- A. The identified special flood hazard area shall be those areas of Logan County which are subject to the one hundred (100) year flood, as shown on the Flood Insurance Rate Map (FIRM) and described in the Flood Insurance Study (FIS) prepared for the Logan County by the Federal Emergency Management Agency (FEMA) dated **February 6, 2008** or the most recent revision thereof including all digital data developed as part of the FIS.
- B. The identified special flood hazard area shall also be those special flood hazard areas identified by Logan County by use of historic or other technical data and shown on an officially recognized "Local Flood Hazards Map". These areas shall be designated as appropriate with the level of technical data described below and shall be managed accordingly.

Section 3.2 Descriptions of Special Flood Hazard Areas

- A. The identified special flood hazard area shall consist of the following four specific areas:
 1. The Floodway shall be those areas of AE zone identified as Floodways in the FIS and as shown on the FIRM. The term shall also include any floodway areas delineated by developers in the approximated floodplain and designated as such by the community.
 2. The Floodway Fringe shall be those areas of AE zone for which specific one hundred (100) year flood elevations have been provided in the FIS but which lie beyond the floodway area.
 3. The AE Area without Floodway shall be those areas identified as an AE zone on the FIRM included in the FIS prepared by FEMA for which 100-year flood elevations have been provided but no Floodway has been delineated.
 4. The Approximated floodplain shall be those areas identified as an A zone on the FIRM included in the FIS prepared by FEMA and for which no one hundred (100) year flood elevations have been provided.

Section 3.3 Changes in Designation of Area

- A. The delineation of the identified special flood hazard area may be revised by Logan County where natural or man-made changes have occurred and/or more detailed studies conducted or undertaken by the U.S. Army Corps of Engineers, a River Basin Commission or other qualified agency or individual document the necessity for such changes. However, prior to any such change, approval must be obtained from the Federal Emergency Management Agency (FEMA).
- B. Logan County base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable but, not later than six months after the date such information becomes available, the

Logan County shall notify the NFIP Administrator of the changes by submitting technical or scientific data.

- C. Logan County may identify and regulate new local flood hazard or ponding areas. These areas may be delineated on a "Local Flood Hazard Map" using best available topographic data and locally derived information such as flood of record, historic high water marks or approximate study methodologies.

Section 3.4 Boundary Disputes

Should a dispute concerning the location of proposed development relative to a special flood hazard area arise, an initial determination shall be made by the Floodplain Administrator and any party aggrieved by this decision may appeal Logan County. The burden of proof shall be on the appellant/applicant.

Section 3.5 Elevations Prevail

Elevation data certified by a Licensed Professional Surveyor or Registered Professional Engineer shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator.

- A. The proposed development will automatically conform to the flood damage reduction requirements of this ordinance if the natural lowest adjacent grade (LAG) to the proposed development is at or above the closest applicable base flood elevation (BFE) specified in the flood insurance study. The applicant shall be advised to apply for a Letter of Map Amendment (LOMA) from FEMA to have the special flood hazard area designation removed from the structure or specific area. If the difference between LAG and BFE is modest the applicant will also be advised to use caution during site preparation or excavation and information concerning the Preferred Risk Policy should be provided.
- B. The proposed development shall be considered to be within the special flood hazard area if the natural LAG to the proposed development is below either; 1. The closest applicable BFE specified in the flood insurance study, or 2. The reasonably safe from flooding elevation determined by Logan County in approximate floodplains. The proposed development shall then be required to conform to all appropriate flood damage reduction provisions of this ordinance.

ARTICLE IV - UTILIZATION OF THE SPECIAL FLOOD HAZARD AREA

Section 4.1 Floodway

Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within Logan County during the occurrence of the base flood discharge. The resultant engineering study shall include a cover letter, signed and sealed by the responsible professional, providing a statement of findings in basic terms. In addition, studies, analyses,

computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by the Floodplain Administrator.

- A. Because floodways present increased risk to human life and property due to their relatively faster and deeper flowing waters the Floodway shall be preserved to the greatest extent possible.
1. New development shall not be permitted in the floodway where reasonable alternatives exist elsewhere. In addition to the requirements below the applicant shall demonstrate that there are no reasonable alternatives other than the floodway encroachment before a permit is issued.
 2. When the floodway is the only reasonable alternative the applicant shall demonstrate that the floodway encroachment is the minimum necessary to accomplish the project.
 3. All permitted uses, activities, and development shall be undertaken in strict compliance with the flood proofing and related provisions contained herein, and in all other applicable codes, ordinances and regulations.
 4. In special flood hazard areas for which no regulatory floodway has been designated, the regulatory floodway for small, single lot development not incorporating significant amounts of fill can, at the discretion of Logan County, be determined to be the channel of the stream and the adjacent land areas to a distance of one-half the width of the special flood hazard area as measured from the top of the bank nearest the site to the upland limit of the 1% annual chance special flood hazard area boundary.

Section 4.2 Floodway Fringe

Within any Floodway Fringe area any development and/or use of land shall be permitted provided that all such uses, activities and/or development shall be undertaken in strict compliance with the flood-proofing and related provisions contained herein and in all other applicable codes, ordinances and regulations.

Section 4.3 AE without Floodway

Within any AE without Floodway area, no new construction or development shall be allowed 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 elevation of the 100-year flood more than one (1) foot at any point. This requirement can be satisfied by utilization of the floodway where determined.

Section 4.4 Approximated Floodplain (Zone A)

A. Within any Approximated Floodplain

1. The Floodplain Administrator shall use elevation and floodway information from Federal, State, or other acceptable sources when

available to determine the elevation above which development will be reasonably safe from flooding.

2. When data from an acceptable source is not available, the Floodplain Administrator shall review, or shall cause to be reviewed; all proposed development to determine; 1. The amount being invested and, 2. The specific flood risk at the site. The Floodplain Administrator shall then require the applicant to determine the elevation above which the development will be reasonably safe from flooding using elevation data, hydrologic and hydraulic analyses or other techniques. When hydrologic and hydraulic analyses are required, they shall only be undertaken by a Registered Professional Engineer who shall certify that the methods used correctly reflect currently accepted technical concepts. The resultant study shall include a cover letter, signed by the responsible professional, providing a statement of findings in basic terms. In addition, studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Floodplain Administrator.
3. Any development and/or use of land shall be permitted provided that all such uses, activities and/or development shall be undertaken in strict compliance with the flood-proofing and related provisions contained herein and in all other applicable codes, ordinances and regulations.

See appendix 4.4 for Sample "Approximated floodplain (Zone A) techniques"

Section 4.5 Alteration or relocation of a stream

- A. Whenever a developer intends to alter or relocate a stream within the special flood hazard area the developer shall notify in writing, by certified mail, Logan County, The Floodplain Administrator, the State Coordinating Office, any adjacent communities and any adjacent property owners of all such intended activities prior to the alteration or relocation of the stream. Copies of all required notifications must be submitted to the Federal Emergency Management Agency (FEMA). In addition prior to issuing the local permit the Floodplain Administrator shall require copies of all necessary permits from those governmental agencies from which Federal or State Law requires approval..

See appendix 4.5 for Sample "Stream Alteration process and contact sheet"

- B. The developer shall also assure Logan County in writing that the flood carrying capacity within the altered or relocated portion of the stream will be maintained. The Floodplain Administrator may require the applicant to demonstrate that the altered or relocated portion of stream will provide equal or greater conveyance than the original stream segment. If hydrologic and hydraulic analyses are required, they shall only be undertaken by a Registered Professional Engineer, who shall certify that the methods used correctly reflect currently accepted technical concepts. The resultant study shall include a cover letter, signed by the responsible professional, providing a statement of findings in basic terms. In addition, studies, analyses, computations, etc. shall be submitted in sufficient detail to allow a thorough technical review by the Floodplain Administrator.

- C. Alteration of a stream includes placement of culverts, bridges or other stream crossings. The Floodplain Administrator may require the use of certain “best practice” techniques in the construction of bridges, culverts or stream crossings to prevent damage, loss of stream crossings and localized flooding caused by blockage. These techniques may include, but are not limited to, wing walls, trash grates or requiring openings to be of sufficient size to pass debris and/or anticipated future increases in flood heights.
- D. All new and replacement bridges, culverts and other stream crossings shall adhere to the relevant anchoring requirements contained in this ordinance.
- E. The developer is required to provide the Logan County a legal agreement detailing all scheduled inspections and maintenance to be performed on altered or relocated watercourses including culverts, bridges and other stream crossings. It shall be the responsibility of the applicant to transfer this agreement to the new owner when the land associated with the watercourse alteration is transferred. A copy of all new agreements shall be provided to the Floodplain Administrator. Failure to transfer the agreement and provide a signed copy to the Floodplain Administrator shall subject the violator to the penalties set forth in Section 8.3 of this ordinance.
- F. The applicant shall submit any maps, computations or other material required by the Federal Emergency Management Agency (FEMA) to revise the Flood Insurance Study and/or Flood Insurance Rate Maps, when notified by the Floodplain Administrator, and shall pay any fees or other costs assessed by FEMA for this purpose.

ARTICLE V - CRITERIA FOR BUILDING AND SITE PLAN APPROVAL

Section 5.1 General

Permits are required in order to determine whether all new construction or substantial improvements are:

- A. Located in an identified Floodplain, Floodway or other special flood hazard area.
- B. Designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- C. Constructed with material and utility equipment resistant to flood damage as outlined in FEMA Technical Bulletin 2 or the most recent revision thereof.
- D. Constructed by methods and practices that minimize flood damage.
- E. Constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

- F. To comply with WV State Code §11-3-3a. concerning County Assessor “Building or real property improvement notice”
- G. Approved by County Health Department for Water and Sewer to assure facilities are designed or located in compliance with the flood damage reduction requirements of this ordinance.

Section 5.2 Basic Format

The basic format of the permit shall include the following:

- A. Name and address of applicant.
- B. Name and address of owner of land on which proposed development is to occur.
- C. Names, addresses, and valid WV license numbers of all contractors working at the building site, or affidavits stating that work is being performed by individuals exempt from contractor licensing as set forth in Title 28, Series 2, section 3.9 (b) of the West Virginia Code of state regulations or the most recent revision thereof.
- D. A description of Site location sufficient to locate the project including tax map and parcel number and most recent deed book and page number.
- E. A standard site plan showing size and location of the proposed development as well as any existing buildings or structures. The site plan shall also show all adjacent roads and watercourses with direction of flow, the lowest adjacent grade to the proposed foundation and/or toe of fill, the Base Flood Elevation and the location of the floodway boundary when applicable.
- F. An acknowledgement that the applicant agrees to pay any and all fees associated with the permitting process as set forth in Section 7.9 hereof.
- H. An acknowledgement that the applicant agrees to allow authorized representatives of floodplain management programs access to the development to inspect for compliance.
- I. The contract required by WV Code of State Regulations, Title 28, Series 4, and all addendums to the contract(s) shall be presented to the Floodplain Administrator for review within five (5) business days of contract signing. Logan County does not require and will not keep copies of the contracts or addendums. Failure to present contract or addendums for review shall void the permit. If a licensed contractor is not involved, or the work is of an aggregate value of less than ten thousand dollars including materials and labor, a brief written description of proposed work and the estimated value will suffice.

Section 5.3 Elevation and Flood Proofing Information

All applicants are encouraged to exceed the minimum elevation requirements contained herein. Flood insurance rates can be lowered significantly by increasing the elevation of the lowest floor above the freeboard height required by this ordinance.

Depending on the type of structure involved, the following information shall also be included in the application for work within the Special flood hazard area:

A. For structures to be elevated two feet above the Base Flood Elevation:

1. A plan showing the size of the proposed structure and its relation to the lot where it is to be constructed.
2. A determination of elevations of the Base Flood, existing ground, proposed finished ground and lowest floor, certified by a Registered Professional Engineer or Licensed Professional Surveyor.
3. Plans showing the method of elevating the proposed structure including details of proposed fills, pile structures, retaining walls, foundations, erosion protection measures, etc. When required by the Floodplain Administrator, a Registered Professional Engineer or Architect shall prepare these plans.
4. Plans showing the methods used to protect utilities (including sewer, water, telephone, electric, gas, etc.) from flooding to two feet above the Base Flood Elevation at the building site.
5. During the course of construction, as soon as the basic elements of the lowest floor are in place and before further vertical construction, it is highly recommended that the applicant check for error by obtaining elevation data completed by a Registered Professional Engineer or Licensed Professional Surveyor certifying the height of the lowest floor. If a mistake in elevation has been made this is the best time to correct the error.
6. A finished construction elevation certificate shall be prepared by a Licensed Professional Surveyor or others of demonstrated qualifications. The elevation certificate shall confirm that the structure in question, together with attendant utilities is elevated in compliance with permit conditions.
7. A non-conversion agreement shall be signed by the applicant whenever Logan County determines that the area below the first floor could be converted to a non-conforming use (generally applies to enclosed areas below base flood elevation that are 5 ft. high or more). This agreement shall state:
 - (i) The area below Base Flood Elevation shall not be converted for use other than for parking, building access or for allowable storage as detailed in this ordinance.
 - (ii) The applicant agrees to notify prospective buyers of the existence

of the non-conversion agreement. It shall be the responsibility of the applicant to transfer the agreement at closing to the new owner via notarized signature, a copy of all new agreements shall be provided to the Floodplain Administrator. Failure to transfer the agreement and provide a signed copy to the Floodplain Administrator shall subject the violator to the penalties set forth in Section 8.3 of this ordinance.

B. For structures to be flood proofed to two feet above the Base Flood Elevation (nonresidential structures only):

All applicants are encouraged to exceed the minimum flood proofing requirements contained herein. Flood insurance rates can be lowered significantly by increasing the level of flood proofing above the height required by this ordinance. In order to obtain an "elevation credited" flood insurance rate on dry flood proofed buildings, flood proofing must extend at least one foot above the Base Flood Elevation.

1. Plans showing details of all flood proofing measures, prepared by a Registered Professional Engineer, showing the size of the proposed structure and its relation to the lot where it is to be constructed.
2. A determination of elevations of the Base Flood, existing ground, proposed finished ground, lowest floor, and flood proofing limits; certified by a Registered Professional Engineer or Licensed Professional Surveyor.
3. A Flood proofing Certificate, FEMA 81-65, as revised by FEMA, shall be prepared by the Registered Professional Engineer who prepared the plans in (1) above, stating that the finished structure, together with attendant utility and sanitary facilities is designed so that:
 - (i) The structure is water tight with walls substantially impermeable to the passage of water from the lowest structural element to two feet above the Base Flood Elevation.
 - (ii) The structure will withstand the hydrostatic, hydrodynamic, buoyant, impact, and other forces resulting from the flood depths, velocities, pressures, and other factors associated with the Base Flood.

C. For Appurtenant structures constructed of flood resistant materials used solely for parking of vehicles or limited storage, (Appurtenant Structures only)

1. A site plan prepared by a Licensed Professional Surveyor or others of demonstrated qualifications showing elevation of existing ground, proposed finished ground and lowest floor. The plan shall also show details of proposed flood resistant materials usage and the size of the proposed structure and its relation to the lot where it is to be constructed. The location of the floodway boundary shall be represented on the plan when a floodway is present on the site.

2. An elevation certificate, based on finished construction, must be prepared by a Licensed Professional Surveyor or others of demonstrated qualifications. The elevation certificate confirm that the structure in question, together with attendant utilities is designed so that:
 - (i) Flood resistant materials as detailed in FEMA Technical Bulletin 2 are used in the construction of the structure from the lowest structural element to two feet above the Base Flood Elevation and that all utilities are located at least two feet above the Base Flood Elevation.
 - (ii) Hydrostatic flood forces on exterior walls are equalized by allowing for automatic entry and exit of floodwaters. Designs for meeting this requirement shall either be certified by a Registered Professional Engineer or Architect or meet or exceed the following minimum criteria:
 - a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - 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 floodwaters.

3. In addition, the applicant shall sign a non-conversion agreement and notify prospective buyers of the existence of the agreement. It shall be the responsibility of the applicant to transfer the non-conversion agreement to any new owner at closing via notarized signature. A signed copy of the transferred non-conversion agreement shall be provided to the Floodplain Administrator. Failure to transfer the agreement and provide a signed copy to the Floodplain Administrator shall subject the violator to the penalties set forth in Section 8.3 of this ordinance.

Section 5.4 Site Plan Criteria

Site plans are required for all development, new construction and substantial improvements determined to be located in a special flood hazard area and all proposed Subdivisions and Manufactured Home Parks. These proposals shall be reviewed by the Floodplain Administrator to assure that they are consistent with the need to minimize flood damage.

The owner or developer shall submit a preliminary site plan to the Floodplain Administrator that includes the following information:

- A. A map showing the location of the proposed subdivision and/or development with respect to special flood hazard areas, proposed lot sites, and fills.

- B. Name of Registered Professional Engineer, Licensed Professional Surveyor or other qualified person responsible for providing the information required in this section.
- C. Where the subdivision or manufactured home park lie partially or completely in the special flood hazard areas, the plan map shall include detailed information giving the location and elevation of proposed roads, public utilities and building sites. All such maps shall also show contours at intervals of two (2) or five (5) feet depending upon the slope of the land and identify accurately the boundaries of the special flood hazard areas. A Registered Professional Engineer or Licensed Professional Surveyor shall certify the site plan.
- D. All subdivision proposals and other proposed new developments which are proposed to take place either fully or partially within the approximated floodplain and which are greater than ten (10) lots or two (2) acres, whichever is the lesser, shall include base flood elevation data and shall delineate a floodway when directed to do so by the Floodplain Administrator.
1. When a Flood Insurance Study (FIS) is available from FEMA, the data contained in that study shall be used to substantiate the base flood.
 2. If a FEMA Flood Insurance Study is not available the required data may be available from an authoritative source, such as the U.S. Army Corps of Engineers, U.S. Geological Survey, Natural Resource Conservation Service or state and local water resource department.
 3. If the required data is not available from other sources the applicant shall develop the technical data using detailed methodologies comparable to those contained in a Flood Insurance Study. This data shall be prepared and certified by a Registered Professional Engineer, who shall certify that the methods used correctly reflect currently accepted technical concepts.
- E. Where the subdivision or other development site lies partially in the special flood hazard area and all proposed development including fill will take place on natural grade a significant vertical distance above the approximated floodplain area (Zone "A") boundary depicted on the map, development of detailed Base Flood Elevation data may not be necessary. In these cases the site plan for the proposed development must show contours at intervals of two (2) or five (5) feet, depending on the slope, and clearly delineate the area to be developed and the location of the special flood hazard boundary area as scaled from the FEMA map. A Registered Professional Engineer or Licensed Professional Surveyor shall certify the site plan.

Section 5.5 – Restrictions to Subdivision of land in special flood hazard areas.

Subdivision of land in the special flood hazard area shall result in lots that include a buildable portion outside of the special flood hazard area and be served by streets within the proposed subdivision having surfaces not lower than 1 foot below the elevation of the line defining the special flood hazard area limits. All

new structures shall be sited on the portion of the subdivided lot that is located outside of the special flood hazard area.

ARTICLE VI - SPECIFIC REQUIREMENTS

Section 6.1 Design and Construction Standards

In order to prevent excessive damage to buildings, structures, and related utilities and facilities, the following restrictions apply to all development, subdivision proposals, manufactured home parks, new construction and to construction of substantial improvements, and the repair of substantial damage, to existing structures occurring in the Special flood hazard area.

A. Basements and Lowest Floors

- 1. Residential Structures - All new construction, relocation, substantial improvements, including repair of substantial damage, of residential structures shall have the lowest floor, including basement, ductwork and utilities, elevated to two feet above the Base Flood Elevation.**
- 2. Non-residential Structures - All new construction, relocation, substantial improvements, including repair of substantial damage, of nonresidential structures shall have the lowest floor, including basement, ductwork and utilities, elevated to two feet above the Base Flood Elevation; or, together with attendant utility and sanitary facilities, be designed so that the structure is water tight with walls substantially impermeable to the passage of water from the lowest structural element to two feet above the Base Flood Elevation.**
- 3. Openings - For all new construction, relocation, substantial improvements, and repair of substantial damage, those fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of floodwaters. Designs for meeting this requirement shall either be certified by a Registered Professional Engineer or meet or exceed the following minimum criteria:
 - a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.**
 - 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 floodwaters.****
- 4. A non-conversion agreement shall be signed by the applicant on all flood-proofed structures and any elevated structures when Logan County determines that the area below the first floor could be converted to a non-conforming use**

generally applies to enclosed areas below base flood elevation that are 5 ft. high or more). This agreement shall state:

- i. The area below Base Flood Elevation shall not be converted for use other than for parking, building access or for allowable storage as detailed in this ordinance.
- ii. The applicant agrees to notify prospective buyers of the existence of the non-conversion agreement. It shall be the responsibility of the applicant to transfer the agreement at closing to the new owner via notarized signature, a copy of all new agreements shall be provided to the Floodplain Administrator. Failure to transfer the agreement and provide a signed copy to the Floodplain Administrator shall subject the violator to the penalties set forth in Section 8.3 of this ordinance.

B. Manufactured Home Placement

Certain unique characteristics of manufactured homes installed in special flood hazard areas pose an elevated risk to safety and substantial damage to property. Therefore;

1. All manufactured homes to be sited within the special flood hazard areas of Logan County shall be installed by a contractor possessing a valid WV Manufactured Home Installer's license. The Licensed Manufactured Home Installer shall use an installation design engineered to withstand flood hazards specific to the particular home site. Manufactured homes to be placed or substantially improved within the special flood hazard areas shall be installed in accordance with the following standards:
 - a. The lowest floor, ductwork and utilities including HVAC/heat pump shall be elevated two feet above the Base Flood Elevation
 - b. Elevation shall be on reinforced piers on a permanent foundation, or shall use foundation elements of at least equivalent strength engineered for use in a flood hazard area. Installation designs incorporating dry stacked block piers shall not be used in special flood hazard areas.
 - c. All manufactured homes shall be securely anchored to an adequately anchored foundation system in compliance with the requirements of 42 West Virginia Code of State Regulations, Series 19, Sections 10.1, 10.2, and 10b as authorized by West Virginia Code § 21-9-4 or the most recent revisions thereof. The anchoring shall be adequate to resist flotation, collapse, or lateral movement. Methods of anchoring may include but are not limited to the over-the-top and frame ties, attached to permanent foundation elements. Ground anchors may not be adequate to satisfy flood specific anchoring requirements. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

- d. Permanently attached rigid skirts and/or perimeter wall skirts of brick or block shall have openings to prevent collapse and damage to supporting piers. The openings shall be designed to automatically equalize hydrostatic flood forces by allowing for entry and exit of floodwaters. Designs for meeting this requirement shall either be certified by a Registered Professional Engineer or meet or exceed the following minimum criteria:
 - (i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - (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 floodwaters.
- e. Any additions to a manufactured home shall be similarly anchored and vented.

2. The licensed WV Manufactured Home Installer placing the unit shall perform a site inspection and certify in writing that the manufactured home has been installed to the standards set forth in this ordinance.

C. Appurtenant Structures

1. Except as provided in subsection 2 below, appurtenant structures shall be located out of the special flood hazard area or elevated to two feet above the Base Flood Elevation.
2. Where appurtenant structures not connected to the principal structure are to be located on sites below the Base Flood Elevation, the following flood damage reduction provisions apply:
 - a. Use of the structure shall be restricted to parking or limited storage.
 - b. Structures shall be no more than 200 square feet in size and valued at less than \$5,000.00.
 - c. Floors shall be at or above grade on at least one side.
 - d. Structures shall be located, oriented and constructed to minimize flood damage.
 - e. Structures shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

- f. Flood resistant materials as detailed in FEMA Technical Bulletin 2 shall be used in the portions of the structure below BFE.
 - g. Machinery, electric devices or appliances, and all utilities shall be located at least two feet above the Base Flood Elevation.
 - h. The venting requirements contained in Section 6.1 (A) are applicable and shall be strictly adhered to.
3. A non-conversion agreement shall be signed by the applicant stating that the use of the appurtenant structure or detached or attached garage shall not be changed from the use permitted, acknowledging that the structure may be subject to greater flood risk and that higher flood insurance premiums may be possible, and that a change in use may require full compliance with this ordinance. The applicant agrees to notify prospective buyers of the existence of this agreement. It shall be the responsibility of the applicant to transfer the agreement at closing to the new owner via notarized signature, a copy of all new agreements shall be provided to the Floodplain Administrator. Failure to transfer the agreement and provide a signed copy to the Floodplain Administrator shall subject the violator to the penalties set forth in Section 8.3 of this ordinance.

D. Recreational Vehicle Placement

1. Recreational vehicles to be placed within any special flood hazard area shall either:
- a. Be on site for fewer than 180 consecutive days. Or,
 - b. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect utilities and security devices, and has no permanently attached additions. Or,
 - c. Be installed in accordance with the Manufactured Home Placement requirements and all other flood reduction requirements contained in this ordinance.

E. Fill

Logan County officially recognizes the beneficial functions the floodplain serves in storage and transportation of water during floods. Therefore;

1. Placement of fill in the special flood hazard area is discouraged and should be minimized.
2. No fill shall be permitted in the floodway.
3. Placement of fill in other areas of the special flood hazard area shall be restricted to functional purposes such as elevating a structure. Fill shall only be permitted in the same permit with the related structure or other functional purpose. Placement of fill to dispose of spoil from excavation or to elevate yards, parking lots, or fields will not generally be considered

a functional purpose. The Floodplain Administrator may require the developer to provide compensatory storage before permitting fill.

4. No fill shall be permitted unless it meets the requirements of Section 4.1 of this ordinance. All fill placed in the special flood hazard area shall meet or exceed the following standards:
 - a. Fill shall be used only to the extent to which it does not adversely affect adjacent properties. Logan County may require the applicant to demonstrate through engineering reports that proposed fill would not adversely affect adjacent properties. When required, hydrologic and hydraulic analyses shall be undertaken only by Registered Professional Engineers who shall certify that the technical methods used correctly reflect currently accepted technical concepts. The resultant study shall include a cover letter, signed and sealed by the responsible professional, providing a statement of findings in basic terms. In addition, studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough technical review by Logan County During permit review Logan County shall consider the following issues that have the potential to cause adverse impact to adjacent properties:
 - i. Unacceptable increases in flood heights.
 - ii. Blocking drainage from adjacent property.
 - iii. Deflection of floodwaters onto adjacent existing structures.
 - iv. Increases to stream velocity initiating or exacerbating erosion problems.
 - v. Other unique site conditions may be considered when determining whether fill will cause adverse impact to adjacent property including, but not limited to, subsidence areas, Karst topography, stream blockages, and steep topography adjacent to the channel.
 - b. Fill shall be used only to the extent to which it does not adversely affect the capacity of channels or floodways of any tributary to the main stream, drainage ditch, or any other drainage facility or system.
 - c. Filled site shall be contoured to drain properly (avoid ponding)
 - d. Fill shall extend beyond a structure for a sufficient distance to provide acceptable access. For residential structures, fill shall extend laterally fifteen (15) feet beyond the building line from all points before the start of sloping required in following subsection. For nonresidential structures, fill shall be placed to provide access acceptable for intended use. At grade access, with fill extending laterally fifteen (15) feet beyond the building line shall be provided to a minimum of twenty-five (25) percent of the perimeter of a nonresidential structure.
 - e. Fill shall consist of soil or rock material only. Sanitary landfills shall not be permitted; no trash or woody debris shall be buried on site.
 - f. Fill material shall be compacted to provide the necessary stability and resistance to erosion, scouring or settling. Fill compaction standards shall

be appropriate to proposed post fill use, particular attention is necessary when fill is being used to elevate a structure.

- g. Fill slopes shall be no steeper than one (1) vertical on two (2) horizontal, unless substantiating data justifying steeper slopes are submitted to and approved by the Floodplain Administrator.
- h. Fill site and fill shall be protected from erosion.
 - i. Fill slopes exposed to flood waters with expected velocities during the occurrence of the base flood of five feet per second or less will be protected from erosion by covering them with grass, vines, weeds, or similar vegetative undergrowth.
 - ii. Fill slopes exposed to flood waters with expected velocities during the occurrence of the base flood of greater than five feet per second will be protected from erosion by armoring them with stone or rock slope protection.
- i. All applicants placing fill in a special flood hazard area shall obtain a Conditional Letter of Map Revision (CLOMR) from FEMA when directed to do so by the Floodplain Administrator before a permit can be issued. After fill is finished the applicant shall convert the CLOMR to a Letter of Map Revision based on Fill (LOMR-F) before a certificate of compliance can be issued.
- j. The applicant shall submit any maps, computations or other material required by the Federal Emergency Management Agency (FEMA) to revise the Flood Insurance Study and/or Flood Insurance Rate Maps, when notified by the Floodplain Administrator, and shall pay any fees or other costs assessed by FEMA for this purpose.

F. Placement of Structures and other development

- 1. All structures and other development shall be constructed or placed on the lot so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum obstruction effect upon the flow and height of floodwater.
 - i. Whenever possible, structures and other development shall be constructed with the longitudinal axis parallel to the direction of flood flow and.
 - ii. So far as practicable, structures and other development shall be placed approximately on the same flood-flow lines as those of adjoining structures or development.

G. Anchoring

- 1. All structures and other development including stream crossings shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, and lateral movement, thus reducing the threat

to life and property and decreasing the possibility of the blockage of bridge openings and other restricted sections of the watercourse.

2. All air ducts, large pipes, swimming pools and storage tanks located at or below the Base Flood Elevation shall be firmly anchored to resist flotation.

H. Flood Protection Setback

A Flood Protection Setback equal to twice the width of the watercourse channel measuring from the top of one bank to the top of the opposite bank or 50 feet, whichever is less, shall be maintained from the top of the banks of all watercourses. To reduce erosion, natural vegetation shall be maintained in this area. Where natural vegetation does not exist along the watercourse and conditions for replanting are suitable, high priority shall be given to planting vegetation in the setback area to stabilize banks, enhance flood protection and benefit aquatic resources.

2. Necessary public works and temporary construction may be exempted from this subsection.
3. The Floodplain Administrator may consider an appeal to the Flood Protection Setback requirement if the applicant demonstrates that it is impossible to allow any development without encroachment into the Flood Protection Setback area. The appeal conditions shall be the minimum necessary and shall be made only after due consideration is given to varying other siting standards, such as side, front and back lot line setbacks.

I. Storage

1. No materials that are buoyant, flammable, explosive, or in times of flooding could be injurious to human, animal or plant life, shall be stored below Base Flood Elevation.
2. Storage of other material or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or readily removable from the area within the time available after flood warning.
3. Due to the potential of masking the natural elevation and making it more difficult to enforce this ordinance, material that resembles "fill" material shall not be considered "storage" material for purposes of this subsection.

J. Utility and Facility Requirements

1. All new or replacement water systems whether public or private, shall be designed to minimize or eliminate infiltration of floodwaters into the systems.

2. All new or replacement sanitary disposal systems, whether public or private, shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
3. All other new or replacement public and/or private utilities and facilities shall be located and constructed to minimize or eliminate flood damage.
4. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

K. Drainage

1. Adequate drainage shall be provided to reduce exposure to flood hazard.
2. Adequate drainage paths are required around structures on slopes within zones AH and AO to guide floodwaters around and away from proposed structures.

L. Backflow Preventers

Back flow prevention valves should be used for all enclosed structures with sewage or drainage facilities located in the special flood hazard area.

ARTICLE VII - ADMINISTRATION

Section 7.1 Designation of Floodplain Administrator:

The Logan County Floodplain Administrator is hereby appointed as Floodplain Administrator and is vested with the responsibility, authority and means to implement the commitments made in our agreement with the Federal Government to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. The Floodplain Administrator shall also be responsible for submitting all required reports to FEMA concerning Logan County's participation in the National Flood Insurance Program.

Section 7.2 Development Permits and Site Plan Approvals Required

It shall be unlawful for any contractor, person, partnership, business, or corporation to undertake or cause to be undertaken, any development or the new construction, substantial improvement, repair of substantial damage, the placement or relocation of any structure (including manufactured homes) within Logan County, unless a permit application and standard site plan has been completed, and a permit has been obtained from the Floodplain Administrator. In addition, where land that is either partially or fully in the special flood hazard area is to be subdivided, utilized for a manufactured home park or subdivision or otherwise developed, a detailed site plan shall be submitted to, and approved by, the Floodplain Administrator prior to any development.

Section 7.3 Approval of Permits and Plans

- A. The Floodplain Administrator shall review, or shall cause to be reviewed; all permit applications and plans in order to determine whether proposed building sites are reasonably safe from flooding.
- B. All permits and plans shall be approved only after it has been determined that the proposed work to be undertaken will be in conformance with the requirements of the state and all other applicable codes and ordinances.
- C. The Floodplain Administrator shall not issue a permit to any person who does not possess a valid contractor's license when a contractor's license is required by West Virginia State Code §21-11-10.
- D. The Floodplain Administrator, before issuance of the permit, shall require the applicant to furnish satisfactory proof that such person is duly licensed as a contractor under the provisions of West Virginia State Code. If the applicant is not licensed a written affidavit that such person is not subject to licensure as a contractor or subcontractor as defined in §21-11-3 shall be provided to the Floodplain Administrator and placed in the permit file.
- E. The Floodplain Administrator shall require copies of all necessary permits from those governmental agencies from which Federal or State Law requires approval.
- F. The Floodplain Administrator shall provide a copy of all permits to the County Assessor as required by West Virginia State Code 11-3-3A.
- G. The Floodplain Administrator shall provide a copy of all permits for new structures to the County E-911 addressing coordinator.
- H. The County E-911 addressing coordinator shall provide a copy of all requests for addresses for new structures to the County Floodplain Administrator.
- I. Logan County shall provide sufficient space to allow the Floodplain Administrator to keep on file in perpetuity, in a location safe from natural hazards, all information collected during the course of the administration of this ordinance.

Section 7.4 Application Procedures

Application for a permit and/or site plan approvals shall be made, in writing, on the forms supplied by Logan County, and shall include all information stipulated under Article V of this ordinance.

Section 7.5 Changes

After the issuance of a permit or site plan approval by the Floodplain Administrator, no changes of any kind shall be made to the application, permit, or any of the plans, specification or other documents submitted with the application without the written consent or approval of the Floodplain Administrator.

Section 7.6 Permit Placards

The Floodplain Administrator shall issue a permit placard, which shall be prominently displayed on the premises during the time construction is in progress. This placard shall show the number of the permit, the date of its issuance and be signed by the Floodplain Administrator.

Section 7.7 Start of Construction

Work on the proposed development shall begin within 180 days after the date of issuance of the permit or the permit shall expire unless a time extension is granted, in writing, by the Floodplain Administrator. All work on the proposed development shall be completed within 18 months of permit issuance, at which time the permit shall expire, unless a time extension is granted in writing by the Floodplain Administrator. The request for a time extension shall be in writing and shall state the reasons for the extension. When considering an extension, the Floodplain Administrator shall consider the following criteria:

- A. Has the developer diligently pursued the completion of the proposed development during the 18 months?
- B. Will the granting of the extension be detrimental to public safety, health, or welfare or injurious to other property?

Section 7.8 Inspections, Stop-Work Orders, Violation Notice and Revocations

A. Inspections

1. Upon learning of a potential violation of this ordinance, the Floodplain Administrator or staff shall investigate to determine whether a violation has occurred.
2. During the construction period, the Floodplain Administrator or other authorized official may inspect the premises to determine that the work is progressing in compliance with the information provided on the permit application and with all applicable laws and ordinances.
3. The Floodplain Administrator or other authorized official may inspect any development covered by this or previous ordinance to determine whether any portion of the development has been altered to be in non-compliance with the requirements of this ordinance.

B. Stop-Work Orders

1. The Floodplain Administrator shall immediately issue, or cause to be issued, a "Stop-Work Order" for any development found ongoing without having obtained a floodplain determination or a permit. Disregard of a stop work order shall subject the violator to the penalties described in Section 8.3 of this local law.

C. Violation Notice and Revocations

1. When it appears after investigation that a permitted development is non-compliant with the provisions of this law and/or the conditions of the permit, the Floodplain Administrator shall notify the violator by means of written violation notice. The violation notice shall specify the nature of the violation and request that the violation be corrected within fifteen (15) days from the date appearing on the notice. Failure to correct the violation within this time period shall be cause for revocation of the permit and the governing body, or authorized employee or agent to:
 - a. Seek an injunction in the Circuit Court of Logan County to restrain the violator from continuing the violation, including but not limited to requests for the removal of structures or land uses from the property involved; and
 - b. Seek a misdemeanor conviction in magistrate court or circuit court.

Section 7.9 Certificate of Compliance

- A. In areas of flood hazard it shall be unlawful to occupy, or to permit the use or occupancy, of any building or premises, or both, or part thereof hereafter created, erected, installed, changed, converted or wholly or partly altered or enlarged in its use or structure until a certificate of compliance has been issued by the Local Floodplain Administrator stating that the building or land conforms to the requirements of this local law. Occupying or using a building or premises in violation of this section shall subject the violator to the penalties described in Section 8.3 of this local law.
- B. In areas of flood hazard it shall be unlawful to inspect and approve a permanent utility connection to any building or premises, or both, or part thereof hereafter created, erected, installed or rebuilt until the inspector is in possession of a copy of the certificate of compliance issued by the Local Floodplain Administrator stating that the particular development being inspected conforms to the requirements of this local law. Inspection and approval of utilities in violation of this section shall subject the violator to the penalties described in Section 8.3 of this local law.
- C. In areas of flood hazard it shall be unlawful to install a permanent utility connection to any building or premises, or both, or part thereof hereafter created, erected, installed or rebuilt until a certificate of compliance has been issued by the Local Floodplain Administrator stating that the development conforms to the requirements of this local law. Installation of utilities in violation of this section shall subject the violator to the penalties described in Section 8.3 of this local law.
- D. A certificate of compliance shall be issued by the Local Administrator upon satisfactory completion of all development in areas of special flood hazard.

- E. Issuance of the certificate shall be based upon the inspections conducted as prescribed in this ordinance or local administrative procedures, and any finished construction elevation certificate, hydraulic data, flood proofing certificate, or encroachment analyses which may have been required as a condition of permit approval.

Section 7.10 Fees

- A. A Floodplain Determination fee shall be assessed on all proposed development. This shall be a flat fee approved by Logan County.
- B. Proposed development determined to be occurring in a special flood hazard area regulated by this ordinance shall be assessed an additional fee, payable to Logan County based upon a set schedule approved by Logan County using the estimated value of the proposed construction as determined by the Floodplain Administrator.
- C. In addition, the applicant shall be responsible for reimbursing the Logan County for any additional costs for services necessary for review and/or inspection of proposed development. Services include, but are not limited to, professional engineering and surveying. The Floodplain Administrator may require a deposit towards these additional costs. Additional costs may include reimbursement for contracted services.
- D. Due to the increased cost of processing, when any work for which a permit is required by this ordinance is started or proceeded with prior to obtaining a permit the fees above specified shall be doubled. The additional fee is intended to partially reimburse the County for the additional cost of processing permits for work already underway. To more fully recover this cost the fees above shall be tripled for every subsequent occurrence by the same person. Payment of the increased fee shall not relieve any person from complying fully with the requirements of this ordinance in the execution of the work or from other penalties prescribed herein.

ARTICLE VIII - APPEALS AND PENALTIES

Section 8.1 Appeals

1. Whenever any person is aggrieved by a decision of the Floodplain Administrator with respect to the provision of this ordinance, it is the right of that person to appeal to the Logan County Commission which shall be known as the Appeals Board. Such appeal shall be filed with the Logan County Commission, in writing, within thirty (30) days after notification of the decision. Upon receipt of such appeal, the Appeals Board shall set a time and place not less than (ten (10) nor more than (sixty (60) days for the purpose of hearing the appeal. Notice of the time and place of the hearing shall be given to all parties at which time they may appear and be heard. The determination by the Appeals Board shall be final in all cases.

Section 8.2 Appeal Review Criteria

- A. All appeals contesting only the permit fee, the cumulative substantial damage requirement, the flood protection setback requirement, or the freeboard requirements, may be handled at the discretion of the Appeals Board.
- B. All decisions on appeals to all other provisions of this ordinance shall adhere to the following criteria:
 1. Affirmative decisions shall only be issued by the Appeals Board upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the appeal would result in exceptional hardship to the applicant, and (iii) a determination that the granting of an appeal 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 ordinance.
 2. An affirmative decision shall be issued only upon determination that it is the minimum necessary, considering the flood hazard, to afford relief. Financial hardship, as a sole criterion, shall not be considered sufficient justification to grant an appeal.
 3. An affirmative decision shall be issued for the repair or rehabilitation 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.
 4. The Appeals Board shall notify the applicant in writing over the signature of a Logan County official that (i) the issuance of a decision to allow construction of a structure below the Base Flood Elevation will result in increased premium rates for flood insurance, (ii) such construction below the Base Flood Elevation increases risk to life and property. Such notifications shall be maintained with a record of all decisions as required in paragraph (4) of this section; and
 5. The Appeals Board shall (i) maintain a record of all decisions including justification for their issuance, and (ii) report such decisions issued in its biannual report to the Federal Emergency Management Agency (FEMA)..
 6. An affirmative decision shall not be granted for any construction, development, use or activity within any floodway area that would cause any increase in the Base Flood Elevation.

Section 8.3 Penalties

Any person who fails to comply with any or all of the requirements or provisions of this ordinance or direction of the Floodplain Administrator, or any other authorized employee of Logan County, shall be unlawful and shall be referred to the prosecuting attorney who shall expeditiously prosecute all such violators. A violator shall, upon conviction, pay a fine to the City of Logan of not less than fifty dollars (\$50.00) or more than five hundred dollars (\$500.00) plus cost of prosecution. In

default of such payment such person shall be imprisoned for a period not to exceed 10 days. Each day during which any violation of this ordinance continues shall constitute a separate offense. In addition to the above penalties, all other actions are hereby reserved including an action in equity for the proper enforcement of this ordinance. The imposition of a fine or penalty for any violation of, or non-compliance with, this ordinance shall not excuse the violation or non-compliance with the ordinance or permit it to continue; and all such persons shall be required to correct or remedy such violations or non-compliance within a reasonable time. Any structure constructed, reconstructed, enlarged, altered or relocated in non-compliance with this ordinance may be declared by the Logan County Commission to be a public nuisance and abatable as such.

ARTICLE IX – GOVERNMENT ACTIONS

Section 9.1 – Jurisdictional Boundary changes

- A. The County floodplain ordinance in effect on the date of annexation shall remain in effect and shall be enforced by the municipality for all annexed areas until the municipality adopts and enforces an ordinance which meets or exceeds the requirements for participation in the National Flood Insurance Program**
- B. Municipalities with existing floodplain ordinances shall pass a resolution acknowledging and accepting responsibility for enforcing floodplain ordinance standards prior to annexation of any area containing identified flood hazards.**
- C. All plats or maps of annexation shall show the special flood hazard area boundaries. Base Flood Elevation and location of floodway where determined.**
- D. In accordance with the Code of Federal Regulations, Title 44 Subpart (B) Section 59.22 (a) (9) (v) all NFIP participating communities will notify the Federal Emergency Management Agency (FEMA) and the State Coordinating Office in writing whenever the boundaries of Logan County have been modified by annexation or Logan County has otherwise assumed or no longer has authority to adopt and enforce flood plain management regulations for a particular area. In order that all Flood Insurance Rate Maps accurately represent the Logan County's boundaries, a copy of a map of Logan County suitable for reproduction, clearly delineating the new corporate limits or new area for which Logan County has assumed or relinquished flood plain management regulatory authority shall be included with the notification.**

Section 9.2 – Permits for Government Entities.

Unless specifically exempted by law, all public utilities and Municipal, County, State and Federal entities are required to comply with this ordinance and obtain all necessary permits. Any entity claiming to be exempt from the requirements of this ordinance shall provide a written statement setting forth the rationale for exemption. In addition the entity claiming exemption shall provide copies of all relevant legal documentation demonstrating the exemption.

ARTICLE X - SEVERABILITY AND MUNICIPAL LIABILITY

Section 10.1 Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this ordinance which shall remain in full force and effect and for this purpose the provisions of this ordinance are hereby declared to be severable.

Section 10.2 Liability

The granting of a permit or approval of a subdivision or development plan in an identified flood-prone area, shall not constitute a representation, guarantee, or warranty of any kind by Logan County, or by any official or employee thereof of the practicability or safety of the proposed use, and shall create no liability upon Logan County.

ARTICLE XI - ENACTMENT

Passed on FIRST READING this the ^{PM} 24th day of January, 2012.

Passed on SECOND AND FINAL READING this 6th day of February, 2012

LOGAN COUNTY COMMISSION OF THE LOGAN COUNTY
Elected Body Community name

County LOGAN

Signed: Danny R. Godby
County Commission President

Attest: [Signature]
Typically County Clerk