- 4.13 Private and public golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and single or multiple purpose recreational trails.
- 4.14 Residential lawns, gardens, parking areas, and play areas.

### 4.2 Standards for Floodway Permitted Uses:

- 4.21 The use shall have a low flood damage potential.
- 4.22 The use shall be permissible in the underlying zoning district if one exists.
- 4.23 The use shall not obstruct flood flows or increase flood elevations and shall not involve structures, fill, obstructions, excavations or storage of materials or equipment.

#### 4.3 Conditional Uses:

- 4.31 Structures accessory to the uses listed in 4.1 above and the uses listed in 4.32 4.38 below.
- 4.32 Extraction and storage of sand, gravel, and other materials.
- 4.33 Marinas, boat rentals, docks, piers, wharves, and water control structures.
- 4.34 Railroads, streets, bridges, utility transmission lines, and pipelines.
- 4.35 Storage yards for equipment, machinery, or materials.
- 4.36 Placement of fill or construction of fences.
- 4.37 Recreational vehicles either on individual lots of record or in existing or new subdivisions or commercial or condominium type campgrounds, subject to the exemptions and provisions of Section 9.3 of this Ordinance.
- 4.38 Structural works for flood control such as levees, dikes and floodwalls constructed to any height where the intent is to protect individual structures and levees or dikes where the intent is to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.

### 4.4 Standards for Floodway Conditional Uses:

- 4.41 All Uses. No structure (temporary or permanent), fill (including fill for roads and levees), deposit, obstruction, storage of materials or equipment, or other uses may be allowed as a conditional use that will cause any increase in the stage of the 100-year or regional flood or cause an increase in flood damages in the reach or reaches affected.
- 4.42 All floodway conditional uses shall be subject to the procedures and standards contained in Section 10.4 of this Ordinance.

4.43 The conditional use shall be permissible in the underlying zoning district if one exists.

#### 4.44 Fill:

(a) Fill, dredge spoil, and all other similar materials deposited or stored in the flood plain shall be protected from erosion by vegetative cover, mulching, riprap or other acceptable method.

(b) Dredge spoil sites and sand and gravel operations shall not be allowed in the floodway unless a long-term site development plan is submitted which includes an erosion/sedimentation

prevention element to the plan.

(c) As an alternative, and consistent with Subsection (b) immediately above, dredge spoil disposal and sand and gravel operations may allow temporary, on-site storage of fill or other materials which would have caused an increase to the stage of the 100-year or regional flood but only after the Governing Body has received an appropriate plan which assures the removal of the materials from the floodway based upon the flood warning time available. The conditional use permit must be title registered with the property in the Office of the County Recorder.

### 4.45 Accessory Structures:

(a) Accessory structures shall not be designed for human habitation.

(b) Accessory structures, if permitted, shall be constructed and placed on the building site so as to offer the minimum obstruction to the flow of flood waters:

(1) Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow; and

(2) So far as practicable, structures shall be placed approximately on the same flood flow

lines as those of adjoining structures.

- (c) Accessory structures shall be elevated on fill or structurally dry flood proofed in accordance with the FP-1 or FP-2 flood proofing classifications in the State Building Code. As an alternative, an accessory structure may be flood proofed to the FP-3 or FP-4 flood proofing classification in the State Building Code provided the accessory structure constitutes a minimal investment, does not exceed 500 square feet in size at its largest projection, and for a detached garage, the detached garage must be used solely for parking of vehicles and limited storage. All flood proofed accessory structures must meet the following additional standards:
  - (1) The structure must be adequately anchored to prevent flotation, collapse or lateral movement of the structure and shall be designed to equalize hydrostatic flood forces on exterior walls:

(2) Any mechanical and utility equipment in a structure must be elevated to or above the regulatory flood protection elevation or properly flood proofed; and

(3) To allow for the equalization of hydrostatic pressure, there must be a minimum of two "automatic" openings in the outside walls of the structure having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. There must be openings on at least two sides of the structure and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the structure. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.

### 4.46 Storage of Materials and Equipment:

(a) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.

- (b) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the Governing Body.
- 4.47 Structural works for flood control that will change the course, current or cross section of protected wetlands or public waters shall be subject to the provisions of Minnesota Statute, Chapter 103G. Community-wide structural works for flood control intended to remove areas from the regulatory flood plain shall not be allowed in the floodway.
- 4.48 A levee, dike or floodwall constructed in the floodway shall not cause an increase to the 100-year or regional flood and the technical analysis must assume equal conveyance or storage loss on both sides of a stream.

# SECTION 5.0 FLOOD FRINGE DISTRICT (FF)

- 5.1 Permitted Uses: Permitted uses shall be those uses of land or structures listed as permitted uses in the underlying zoning use district(s). If no pre-existing, underlying zoning use districts exist, then any residential or non residential structure or use of a structure or land shall be a permitted use in the Flood Fringe District provided such use does not constitute a public nuisance. All permitted uses shall comply with the standards for Flood Fringe District "Permitted Uses" listed in Section 5.2 and the "Standards for all Flood Fringe Uses" listed in Section 5.5.
- 5.2 Standards for Flood Fringe Permitted Uses:
  - 5.21 All structures, including accessory structures, must be elevated on fill so that the lowest floor including basement floor is at or above the regulatory flood protection elevation. The finished fill elevation for structures shall be no lower than one (1) foot below the regulatory flood protection elevation and the fill shall extend at such elevation at least fifteen (15) feet beyond the outside limits of the structure erected thereon.
  - 5.22 As an alternative to elevation on fill, accessory structures that constitute a minimal investment and that do not exceed 500 square feet at its largest projection may be internally flood proofed in accordance with Section 4.45 (c).
  - 5.23 The cumulative placement of fill where at any one time in excess of one-thousand (1,000) cubic yards of fill is located on the parcel shall be allowable only as a conditional use, unless said fill is specifically intended to elevate a structure in accordance with Section 5.21 of this ordinance.
  - 5.24 The storage of any materials or equipment shall be elevated on fill to the regulatory flood protection elevation.
  - 5.25 The provisions of Section 5.5 of this Ordinance shall apply.
- 5.3 Conditional Uses: Any structure that is not elevated on fill or flood proofed in accordance with Section 5.21 5.22 and or any use of land that does not comply with the standards in Section 5.23 5.24 shall only be allowable as a conditional use. An application for a conditional use shall be subject to the standards and criteria and evaluation procedures specified in Sections 5.4-5.5 and 10.4 of this Ordinance.

## 5.4 Standards for Flood Fringe Conditional Uses:

5.41 Alternative elevation methods other than the use of fill may be utilized to elevate a structure's lowest floor above the regulatory flood protection elevation. These alternative methods may include the use of stilts, pilings, parallel walls, etc., or above-grade, enclosed areas such as crawl spaces or tuck under garages. The base or floor of an enclosed area shall be considered above-grade and not a structure's basement or lowest floor if: 1) the enclosed area is above-grade on at least one side of the structure; 2) it is designed to internally flood and is constructed with flood resistant materials; and 3) it is used solely for parking of vehicles, building access or storage. The above-noted alternative elevation methods are subject to the following additional standards:

(a) Design and Certification - The structure's design and as-built condition must be certified by a registered professional engineer or architect as being in compliance with the general design standards of the State Building Code and, specifically, that all electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities must be at or above the regulatory flood protection elevation or be designed to prevent flood water from entering or

accumulating within these components during times of flooding.

(b) Specific Standards for Above-grade, Enclosed Areas - Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and the design

plans must stipulate:

- (1) A minimum area of openings in the walls where internal flooding is to be used as a flood proofing technique. There shall be a minimum of two openings on at least two sides of the structure and the bottom of all openings shall be no higher than one-foot above grade. The automatic openings shall have a minimum net area of not less than one square inch for every square foot of enclosed area subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice. The automatic openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of flood waters without any form of human intervention; and
- (2) That the enclosed area will be designed of flood resistant materials in accordance with the FP-3 or FP-4 classifications in the State Building Code and shall be used solely for building access, parking of vehicles or storage.
- 5.42 Basements, as defined by Section 2.812 of this Ordinance, shall be subject to the following:
  - (a) Residential basement construction shall not be allowed below the regulatory flood protection elevation.
  - (b) Non-residential basements may be allowed below the regulatory flood protection elevation provided the basement is structurally dry flood proofed in accordance with Section 5.43 of this Ordinance.
- 5.43 All areas of non residential structures including basements to be placed below the regulatory flood protection elevation shall be flood proofed in accordance with the structurally dry flood proofing classifications in the State Building Code. Structurally dry flood proofing must meet the FP-1 or FP-2 flood proofing classification in the State Building Code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Structures flood proofed to the FP-3 or FP-4 classification shall not be permitted.

5.44 When at any one time more than 1,000 cubic yards of fill or other similar material is located on a parcel for such activities as on-site storage, landscaping, sand and gravel operations, landfills, roads, dredge spoil disposal or construction of flood control works, an erosion/sedimentation control plan must be submitted unless the community is enforcing a state approved shoreland management ordinance. In the absence of a state approved shoreland ordinance, the plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a minimum of the 100-year or regional flood event. The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the Governing Body. The plan may incorporate alternative procedures for removal of the material from the flood plain if adequate flood warning time exists.

(Note: "This section reserved for future use.")

5.45 Storage of Materials and Equipment:

(a) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.

(b) Storage of other materials or equipment may be allowed if readily removable from the area within the time available after a flood warning and in accordance with a plan approved by the Governing Body.

5.46 The provisions of Section 5.5 of this Ordinance shall also apply.

### 5.5 Standards for All Flood Fringe Uses:

- 5.51 All new principal structures must have vehicular access at or above an elevation not more than two (2) feet below the regulatory flood protection elevation. If a variance to this requirement is granted, the Board of Adjustment must specify limitations on the period of use or occupancy of the structure for times of flooding and only after determining that adequate flood warning time and local flood emergency response procedures exist.
- 5.52 Commercial Uses accessory land uses, such as yards, railroad tracks, and parking lots may be at elevations lower than the regulatory flood protection elevation. However, a permit for such facilities to be used by the employees or the general public shall not be granted in the absence of a flood warning system that provides adequate time for evacuation if the area would be inundated to a depth and velocity such that when multiplying the depth (in feet) times velocity (in feet per second) the product number exceeds four (4) upon occurrence of the regional flood.
- 5.53 Manufacturing and Industrial Uses measures shall be taken to minimize interference with normal plant operations especially along streams having protracted flood durations. Certain accessory land uses such as yards and parking lots may be at lower elevations subject to requirements set out in Section 5.52 above. In considering permit applications, due consideration shall be given to needs of an industry whose business requires that it be located in flood plain areas.
- 5.54 Fill shall be properly compacted and the slopes shall be properly protected by the use of riprap, vegetative cover or other acceptable method. The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

- 5.55 Flood plain developments shall not adversely affect the hydraulic capacity of the channel and adjoining flood plain of any tributary watercourse or drainage system where a floodway or other encroachment limit has not been specified on the Official Zoning Map.
- 5.56 Standards for recreational vehicles are contained in Section 9.3.
- 5.57 All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.

### SECTION 6.0 RESERVED FOR FUTURE USE

### SECTION 7.0 SUBDIVISIONS<sup>2</sup>

<sup>2</sup>Note: This Section is not intended as a substitute for a comprehensive city or county subdivision ordinance. It can, however, be used as an interim control until the comprehensive subdivision ordinance can be amended to include necessary flood plain management provisions.

- 7.1 Review Criteria: No land shall be subdivided which is unsuitable for the reason of flooding, inadequate drainage, water supply or sewage treatment facilities. All lots within the flood plain districts shall be able to contain a building site outside of the Floodway District at or above the regulatory flood protection elevation. All subdivisions shall have water and sewage treatment facilities that comply with the provisions of this Ordinance and have road access both to the subdivision and to the individual building sites no lower than two feet below the regulatory flood protection elevation. For all subdivisions in the flood plain, the Floodway and Flood Fringe District boundaries, the regulatory flood protection elevation and the required elevation of all access roads shall be clearly labeled on all required subdivision drawings and platting documents.
- 7.2 Removal of Special Flood Hazard Area Designation: The Federal Emergency Management Agency (FEMA) has established criteria for removing the special flood hazard area designation for certain structures properly elevated on fill above the 100-year flood elevation. FEMA's requirements incorporate specific fill compaction and side slope protection standards for multi-structure or multi-lot developments. These standards should be investigated prior to the initiation of site preparation if a change of special flood hazard area designation will be requested.

# SECTION 8.0 PUBLIC UTILITIES, RAILROADS, ROADS, AND BRIDGES

- 8.1 Public Utilities. All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the flood plain shall be flood proofed in accordance with the State Building Code or elevated to above the regulatory flood protection elevation.
- 8.2 Public Transportation Facilities. Railroad tracks, roads, and bridges to be located within the flood plain shall comply with Sections 4.0 and 5.0 of this Ordinance. Elevation to the regulatory flood protection elevation shall be provided where failure or interruption of these transportation facilities would result in

danger to the public health or safety or where such facilities are essential to the orderly functioning of the area. Minor or auxiliary roads or railroads may be constructed at a lower elevation where failure or interruption of transportation services would not endanger the public health or safety.

8.3 On-site Sewage Treatment and Water Supply Systems: Where public utilities are not provided: 1) On-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and 2) New or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and they shall not be subject to impairment or contamination during times of flooding. Any sewage treatment system designed in accordance with the State's current statewide standards for on-site sewage treatment systems shall be determined to be in compliance with this Section.

# SECTION 9.0 MANUFACTURED HOMES AND MANUFACTURED HOME PARKS AND PLACEMENT OF RECREATIONAL VEHICLES.

- 9.1 New manufactured home parks and expansions to existing manufactured home parks shall be subject to the provisions placed on subdivisions by Section 7.0 of this Ordinance.
- 9.2 The placement of new or replacement manufactured homes in existing manufactured home parks or on individual lots of record that are located in flood plain districts will be treated as a new structure and may be placed only if elevated in compliance with Section 5.0 of this Ordinance. If vehicular road access for pre-existing manufactured home parks is not provided in accordance with Section 5.51, then replacement manufactured homes will not be allowed until the property owner(s) develops a flood warning emergency plan acceptable to the Governing Body.
  - 9.21 All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.
- 9.3 Recreational vehicles that do not meet the exemption criteria specified in Section 9.31 below shall be subject to the provisions of this Ordinance and as specifically spelled out in Sections 9.33-9.34 below.
  - 9.31 Exemption Recreational vehicles are exempt from the provisions of this Ordinance if they are placed in any of the areas listed in Section 9.32 below and further they meet the following criteria:
    - (a) Have current licenses required for highway use.
    - (b) Are highway ready meaning on wheels or the internal jacking system, are attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks and the recreational vehicle has no permanent structural type additions attached to it.
    - (c) The recreational vehicle and associated use must be permissible in any pre-existing, underlying zoning use district.
  - 9.32 Areas Exempted For Placement of Recreational Vehicles:
    - (a) Individual lots or parcels of record.
    - (b) Existing commercial recreational vehicle parks or campgrounds.
    - (c) Existing condominium type associations.