

Part X

Additional State Requirements

Capability Assessment

INTRODUCTION

What follows is a description of the organizational, technical and political capacity of the Mountainland Region to implement hazard mitigation strategies and goals. The best plan will do nothing to improve hazard mitigation efforts in the region without sufficient implementation capacity and capability; particularly local level capacity (town, city and county government). The purpose of this section is to analyze gaps and potential capability weaknesses for local level jurisdictions in the region.

LOCAL ORGANIZATIONAL AND TECHNICAL CAPABILITY

Not all of communities in the Mountainland region have full time professional staff. In many cases a limited tax base means that hiring full time professional staff in the smaller cities and towns is financially unobtainable. Often these smaller communities rely on local volunteers or elected and appointed officials to perform many of the tasks normally handled by professional staff. It's not uncommon to have a volunteer city council persons or planning commissioner assigned the task of emergency management, grant writing or long range planning. Professional staff at MAG (and each of the three counties to some degree) help provide some technical and planning assistance to these smaller communities. This regional assistance is often limited by staffing capacity and funding. As funding allows, some communities are able to contract for professional services from private consultants.

Agency/Group	Description
Utah Division of Emergency Management	Training, technical assistance and funding.
Utah League of Cities and Towns	Training, technical assistance and planning assistance
Utah Geologic Survey	Technical assistance, plan review
Mountainland Association of Governments	Technical assistance, plan review, GIS and Community Development Block Grants.
Local Health Departments	Emergency preparedness and response. Homeland security planning.

Table 6.1: State and Regional Hazard Mitigation Resources MAG District	
Agency/Group	Description
Local Chapters of the American Red Cross	Training, emergency preparedness and response.
Utah Association of Conservation Districts	Technical assistance and planning assistance.

Table 6.2: Local Level Hazard Mitigation Capability MAG District		
Jurisdiction	Professional Staffing (e.g. City Manager, Engineer, Planner)	Technical Capacity (In House)
SUMMIT COUNTY	County Emergency Management Coordinator, County Planner, Public Works, Building Inspector	GIS Staffing and equipment
Coalville	Volunteer\contracted consultant	None
Daniel	Volunteer\contracted consultant	None
Francis	Volunteer\contracted consultant	None
Henefer	Volunteer\contracted consultant	None
Hideout	Volunteer\contracted consultant	None
Independence	Volunteer\contracted consultant	None
Interlaken	Volunteer\contracted consultant	None
Kamas	Police, Planner, Public Works, Consultant	None
Oakley	Police, Planner, Public Works, Consultant	None
Park City	Emergency Manager, Planning Department, Public Works	GIS Staffing and equipment
UTAH COUNTY	Countywide Planner, Emergency Manager, Sheriff	Advanced GIS capability with customized application to Emergency Management.
Alpine	City Administrator, Planner, Public Works	Some GIS Capability
American Fork	Chief of Staff, Public Works, Police	GIS Capability and staffing
Cedar Fort	Volunteer\contracted consultant	None
Cedar Hills	City Administrator, Planner, Public Works	None
Eagle Mountain	City Administrator, Planner, Public Works	Some GIS Capability

Table 6.2: Local Level Hazard Mitigation Capability MAG District		
Jurisdiction	Professional Staffing (e.g. City Manager, Engineer, Planner)	Technical Capacity (In House)
Elk Ridge	Planner, Volunteer	Some GIS Capability
Fairfield	Volunteer\contracted consultant	None
Genola	Volunteer\contracted consultant	None
Goshen	Volunteer\contracted consultant	None
Highland	City Administrator, Planner, Public Works	Some GIS Capability
Lehi	City Administrator, Planner, Public Works	GIS Capability and staffing
Lindon	City Administrator, Planner, Public Works	Some GIS Capability
Mapleton	City Administrator, Planner, Public Works	Some GIS Capability
Orem	Emergency Management Department, Planning Department, City Engineers & Public Works.	Advanced GIS capability with customized application to Emergency Management.
Payson	City Administrator, Planner, Public Works	Some GIS Capability
Pleasant Grove	City Administrator, Planner, Public Works	Some GIS Capability
Provo	Emergency Management Department, Planning Department, City Engineers & Public Works.	Advanced GIS capability with customized application to Emergency Management.
Salem	City Administrator, Public Works	None
Santaquin	City Administrator, Planner, Public Works	Some GIS Capability
Saratoga Springs	City Administrator, Planner, Public Works	Some GIS Capability
Spanish Fork	City Administrator, Planner, Public Works	Some GIS Capability
Springville	City Administrator, Planner, Public Works	Some GIS Capability
Vineyard	Volunteer\contracted consultant	None

Table 6.2: Local Level Hazard Mitigation Capability MAG District		
Jurisdiction	Professional Staffing (e.g. City Manager, Engineer, Planner)	Technical Capacity (In House)
Woodland Hills	Volunteer\contracted consultant	None
WASATCH COUNTY	County Administrator, Countywide Planner , Emergency Manager, Sheriff	Advanced GIS capability with customized application to Emergency Management.
Charleston	Volunteer\contracted consultant	None
Heber	City Administrator, Planner, Public Works	Some GIS Capability
Midway	City Administrator, Planner, Public Works	Some GIS Capability
Wallsburg	Volunteer\contracted consultant	None
Daniel	Volunteer\contracted consultant	None
Independence	Volunteer\contracted consultant	None
Hideout	Volunteer\contracted consultant	None

POLICY AND PROGRAM CAPABILITY

All thirty-six jurisdictions in the MAG Region have an adopted General Plan. Although many communities have recently updated their General Plan, many are very outdated and have not been revised in years. Generally speaking, if these plans address natural hazards at all, it is usually limited to flood related hazards. For example, the section of Summit County Ordinance below is included in many city codes and is the most comprehensive Floodplain Management encountered in any code or ordinance.

“FLOOD DAMAGE PREVENTION ORDINANCE”

“WHEREAS , the State Legislature has in Title 17, Utah Code Annotated (1953) as amended, delegated the responsibility to the local government units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and, WHEREAS , the flood hazard areas of Summit County, Utah are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and, WHEREAS , the flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas, and uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss; NOW, THEREFORE , be it ordained by the Board of County Commissioners of Summit County, State of Utah, as follows: 12-1-1.

PURPOSE It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions to specific areas by provisions designed to do the following: A. Protect human life and health; B. Minimize expenditure of public money for costly flood control projects; C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. Minimize prolonged business interruptions; E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard; F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; G. Ensure that potential home buyers are notified that property is in an area of special flood hazard; and, H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. Page 2 of 19 12-2- 2. **METHODS OF REDUCING FLOOD LOSSES** In order to accomplish its purposes, this ordinance includes methods and provisions for: A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights and velocities; B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; D. Controlling filling, grading, dredging, and other development which may increase flood damage; and, E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. 12-1- 3.

DEFINITIONS Unless specifically defined below, words or phrases used herein shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

ALLUVIAL FAN FLOODING - means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths. **APEX** - means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur. **AREA OF SHALLOW FLOODING** - means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a one percent chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. **AREA OF SPECIAL FLOOD HAZARD** - is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE or V. **BASE FLOOD** -means the flood having a one percent chance of being equaled or exceeded in any given year. **BASEMENT** - means any area of the building having its floor sub-grade (below ground level) on all sides. **CRITICAL FEATURE** - means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised. **DEVELOPMENT** -means any man-made change in improved and 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. Page 3 of 19 **ELEVATED BUILDING** -means a non-basement

building (I) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure member of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the floor of the water and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters. In the case of Zones V1-30, VE, or V, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls if the breakaway walls met the standards of Section 60.3(e)(5) of the National Flood Insurance Program regulations. EXISTING CONSTRUCTION - means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures." EXISTING MANUFACTURED HOME PARK OR SUBDIVISION - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community. EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION - means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads). FLOOD OR FLOODING - means a general and temporary condition of partial or complete inundation of normally dry land areas from: 1. the overflow of inland or tidal waters. 2. the unusual and rapid accumulation or runoff of surface waters from any source. FLOOD INSURANCE RATE MAP (FIRM) - means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community. FLOOD INSURANCE STUDY - is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood, as well as the Flood Boundary-Floodway Map. FLOODPLAIN OR FLOOD-PRONE AREA - means any land area susceptible to being inundated by water from any source (see definition of flooding). FLOODPLAIN MANAGEMENT - means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations. FLOODPLAIN MANAGEMENT REGULATIONS - means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction. FLOOD PROTECTION SYSTEM - means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those Page 4 of 19 constructed in conformance with sound engineering standards. FLOOD PROOFING - means 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. FLOODWAY (REGULATORY FLOODWAY) - means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. FUNCTIONALLY DEPENDENT USE - means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

HIGHEST ADJACENT GRADE - means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. **HISTORIC STRUCTURE** - means any structure that is: 1. 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; 2. 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; 3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or 4. Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either: a) by an approved state program as determined by the Secretary of the Interior or; b) directly by the Secretary of the Interior in states without approved programs. **LEVEE** -means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding. **LEVEE SYSTEM** - means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices. **LOWEST FLOOR** - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood insurance Program regulations. **MANUFACTURED HOME** - means 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 Page 5 of 19 to the required utilities. The term "manufactured home" does not include a "recreational vehicle". **MANUFACTURED HOME PARK OR SUBDIVISION** - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale. **MEAN SEA LEVEL** -means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced. **NEW CONSTRUCTION** - means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures. **NEW MANUFACTURED HOME PARK OR SUBDIVISION** - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community. **RECREATIONAL VEHICLE** - means a vehicle which is: 1. built on a single chassis; 2. 400 square feet or less when measured at the largest horizontal projections; 3. designed to be self-propelled or permanently towable by a light duty truck; and 4. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use **START OF CONSTRUCTION** - (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not

part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. STRUCTURE - means 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 - means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market Page 6 of 19 value of the structure before the damage occurred. SUBSTANTIAL IMPROVEMENT -means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either: 1. Any project for improvement of a structure to correct existing violations 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 conditions or 2. Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure." VARIANCE - is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.) VIOLATION - means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) of the National Flood Insurance Program regulations is presumed to be in violation until such time as that documentation is provided. WATER SURFACE ELEVATION - means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Chapter 2 GENERAL PROVISIONS 12-2-1 LANDS TO WHICH THIS ORDINANCE APPLIES This ordinance shall apply to all areas of special flood hazard within the jurisdiction of Summit County, Utah. 12-2-2 BASIS FOR ESTABLISHING AREAS OF SPECIAL FLOOD HAZARD The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Rate Map (FIRM) dated March 16, 2006, is adopted by reference and declared to be a part of this ordinance. The FIRM is on file at the Office of the County Engineer located at 60 North Main, Coalville, Utah. 12-2-3 COMPLIANCE No structure or land shall hereafter be constructed, located, extended, or altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations. 12-2-4 ABROGATION AND GREATER RESTRICTIONS Page 7 of 19 This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, or ordinances. However, where this ordinance and easement, covenant, deed restriction, or another ordinance conflict or overlap, whichever imposes the more stringent restrictions shall prevail. 12-2-5 INTERPRETATION In the interpretation of this ordinance, all provisions shall be: A. Considered as minimum requirements; B. Liberally construed in favor of the governing body; and C. Deemed neither to limit nor repeal any other powers granted under State statute. 12-2-6 WARNING AND DISCLAIMER OF LIABILITY The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Summit County, any officer, or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Chapter 3. ADMINISTRATION 12-3-1 DESIGNATION OF ORDINANCE ADMINISTRATOR The County Engineer is hereby appointed to administer and implement this ordinance by granting or denying Flood Hazard Use Permit applications in accordance with the provisions set forth herein. 12-3-2 FLOODPLAIN DEVELOPMENT PERMIT A Floodplain Development Permit shall be obtained before any construction or development begins within any area of special flood hazard established in Section 12-2-2 herein.

Application for a Floodplain Development Permit shall be made on forms furnished by the County Engineer and shall include, but not be limited to, the following: A. Three (3) copies of a topographic site plan drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing and proposed structures, fill, storage of materials, and drainage Page 8 of 19 facilities. B. Base flood elevation data for proposed development area. C. Elevation in relation to mean sea level of the lowest floor (including basements) of all structures. D. Elevation in relation to mean sea level to which any structure has been floodproofed. E. Certification by a licensed professional engineer that the floodproofing methods for any non-residential structure meet the floodproofing criteria in Section 12-4-2(B). F. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development. 12-3-3 DUTIES AND RESPONSIBILITIES OF ORDINANCE ADMINISTRATOR Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following: A. Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance. B. Review permit application to determine whether proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding. C. Review, approve or deny all applications for development permits required by adoption of this ordinance. D. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required. E. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation. F. Notify, in riverine situations, adjacent communities and the State Department of Natural Resources, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency. Page 9 of 19 G. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained. H. When base flood elevation data has not been provided in accordance with Section 12-2-2, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a Federal, State or other source, in order to administer the provisions of Chapter 4. I. When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. J. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision). 12-3-4 PERMIT PROCEDURES Application for a Flood Plain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required: A. Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures; B. Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed; C. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Section 12-4-2(B); D. Description of the extent to which any watercourse or natural drainage Page 10 of 19 will be altered or relocated as a result of proposed development. E. Maintain a record of all such information in accordance with 12-3-3 (A). Approval or denial of a Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance and the following relevant factors: F. The danger to life and property due to flooding or erosion damage; G. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner; H. The danger that materials may be swept onto other lands to the injury of others; I. The

compatibility of the proposed use with existing and anticipated development; J. The safety of access to the property in times of flood for ordinary and emergency vehicles; K. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems; L. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; M. The necessity to the facility of a waterfront location, where applicable; N. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use; O. The relationship of the proposed use to the comprehensive plan for that area.

12-3-5 APPEAL and VARIANCE PROCEDURES

A. The appeal Board as established by the community shall hear and render judgement on requests for variances from the requirements of this ordinance. B. The Appeal Board shall hear and render judgement on an appeal only Page 11 of 19 when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance. C. Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction. D. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request. E. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this ordinance. F. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section 12-3-4 of this Ordinance have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases. G. Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance. H. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result. I. Variances may 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. K. Prerequisites for granting variances: 1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief. 2) Variances shall only be issued upon: Page 12 of 19 a) showing a good and sufficient cause; b) a determination that failure to grant the variance would result in exceptional hardship to the applicant which is not self imposed, and c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances. 3) Any application to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. L. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that: 1) the criteria outlined in Section 12-5-5 are met, and 2) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

Chapter 4. PROVISIONS FOR FLOOD HAZARD REDUCTION

12-4-1 GENERAL STANDARDS In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements: A. All new construction or substantial improvements 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; B. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage; C. All new construction or substantial improvements shall be constructed Page 13 of 19 with materials resistant to flood damage; D. All new construction or substantial improvements shall be 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. E. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system; F. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and, G. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

12-4-2 SPECIFIC STANDARDS In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Section 12-2-2, (ii) Section 12-3-4(H), or (iii) Section 12-4-3, the following provisions are required:

A. Residential Construction -new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to or above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Section 12-3-4, is satisfied.

B. Nonresidential Construction - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to or above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator. Page 14 of 19

C. Enclosures - new construction and substantial improvements, with 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 the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: 1) 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. 2) The bottom of all openings shall be no higher than one foot above grade. 3) 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.

D. Manufactured Homes - 1) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces. 2) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. Page 15 of 19

3) Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (D) of this section be elevated so that either: a) the lowest floor of the manufactured home is at or above the base flood elevation, or b) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

E. Recreational Vehicles - Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either: 1) be on the site for fewer than 180 consecutive days, 2) be fully licensed and ready for highway use, or 3) meet the permit requirements of Section 12-3-4, and the elevation and anchoring requirements

for "manufactured homes" in paragraph (D) of this section. 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 type utilities and security devices, and has no permanently attached additions.

12-4-3 STANDARDS FOR SUBDIVISION PROPOSALS

A. All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Sections 12-1-1(B), (C), & (E) of this ordinance.

B. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements of Section 12-2-2; Section 12-3-4; and the provisions of Section 12-3-3(H) of this ordinance.

C. Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of Page 16 of 19 manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Section 12-2-2 or Section 12-3-4 of this ordinance.

D. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

E. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

12-4-4 STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in, Section 12-2-2, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

A. All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).

B. All new construction and substantial improvements of non-residential structures; 1) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or; 2) together with attendant utility and sanitary facilities be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.

C. A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this Section, are satisfied. Page 17 of 19

D. Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

12-4-5 FLOODWAYS

Floodways - located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

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

B. If Section 12-4-5 (A) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Chapter 3.

C. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

Chapter 5 PENALTY 12-5-1

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations.

12-5-2

Any person who is found guilty of violating any of the provisions of these rules and regulations, either by failing to do those acts required herein or by doing a prohibited act, is guilty of a Class C misdemeanor, pursuant to Section 26A-I-123, Utah Code Annotated, 1995, as amended. If a person is found guilty of a subsequent similar violation within two years, he/she is guilty of a class A misdemeanor, pursuant to Section 26A-I-123, Utah Code Annotated, 1995, as amended. Each day such violation is committed or permitted to continue shall constitute a separate violation. Page 18 of 19

12-5-3

The County Attorney may initiate civil or

criminal legal action, to abate any condition that exists in violation of these rules and regulations. In addition to other penalties imposed by a court of competent jurisdiction, any person(s) found guilty of violating any of these rules and regulations shall be liable for all expenses incurred by the County in removing or abating any violation of any of the provisions of these rules and regulations. Chapter 6 SEVERABILITY It is the intent of the Summit County Commissioners that all sections and provisions of this Ordinance have an independent existence, and should any section or provision be declared invalid or unconstitutional by a Court of competent jurisdiction, it is the intent of the Summit County Commission that any section or provision so declared shall be severable from and shall not affect the validity of the remainder of the Ordinance.”

All of the thirty-six municipalities have an adopted zoning ordinance. Again, often these ordinances are outdated and often are not consistent with the jurisdiction’s General Plan. Most zoning ordinances do not address natural hazards in any way. A few communities have a “sensitive area” or “hazard area” overlay zone. All communities issue building permits and enforce local building codes. Often this service is contracted for with the county.

Many of the smaller communities lack emergency response plans.

Authority

Federal: Public Law 93-288 as amended, established the basis for federal hazard mitigation activity in 1974. A section of this Act requires the identification, evaluation, and mitigation of hazards as a prerequisite for state receipt of future disaster assistance outlays. Since 1974, many additional programs, regulations, and laws have expanded on the original legislation to establish hazard mitigation as a priority at all levels of government. When PL 93-288 was amended by the Stafford Act, several additional provisions were also added that provide for the availability of significant mitigation measures in the aftermath of Presidentially declared disasters. Civil Preparedness Guide 1-3, Chapter 6- Hazard Mitigation Assistance Programs places emphasis on hazard mitigation planning directed toward hazards with a high impact and threat potential.

The Disaster Mitigation Act of 2000 was signed into Law on October 30, 2000. Section 322, defines mitigation planning requirements for state, local, and tribal governments. Under Section 322 States are eligible for an increase in the Federal share of hazard mitigation (HMGP), if they submit for approval a mitigation plan, which is a summary of local and/or regional mitigation plans, that identifies natural hazards, risks, vulnerabilities, and describes actions to mitigate the hazards, risks and vulnerabilities in that plan.

State: The State of Utah derives its authority under the Emergency Management Act of 1981 (Utah Code 53-2, 63-5) as well as the Governor's Emergency Operations Directive and Executive Order of the Governor 11.

Association of Governments: The Association of Governments have been duly constituted under the authority of Title XI, Chapter 13, Utah Code Annotated, 1953, as amended (The Inter-local Cooperation Act) and pursuant to Section 3 of the Executive Order of the Governor of the State of Utah, dated May 27, 1970, with the authority to conduct planning studies and to provide services to its constituent jurisdictions.

Local: Utah Code, Title 17, Chapter 27 is the County Land Use Development and Management Act that grants authority to counties. Utah Code, Title 10 Chapter 9 grants similar authority to municipalities.

The state of Utah maintains a philosophy of local responsibility for hazard mitigation. State agencies still provide an integrated network of support, services, and resources for hazard mitigation activities. As demonstrated during past disasters, these agencies are well organized in their delivery and coordination of services. The following is a review of State departments with disaster responsibilities describing their existing and planned mitigation programs.

An evaluation of the laws, regulations, authorities, policies, and programs used in Utah to mitigate hazards demonstrate that they work exceptionally well, as evidenced by the massive amount of mitigation accomplished in Utah, the few numbers of disasters, and the limited nature of those emergencies that do occur. According to the Utah SHMT, the only changes that could be considered by the Legislature might be ones that parallel the Federal Disaster Mitigation Act of 2000, which would integrate pre-disaster mitigation considerations into the code of various state agencies.

Utah Division of Emergency Management

For Associated state laws see "Authority" at the beginning of this plan.

Capabilities of DESHS Hazard Mitigation Program

Prepare, implement, and maintain programs and plans to provide for preventions and minimization of injury and damage caused by disasters.

Identify areas particularly vulnerable to disasters.

Coordinate hazard mitigation and other preventive and preparedness measures designed to eliminate or reduce disasters.

Assist local officials in designing local emergency actions plans.

Coordinate federal, state, and local emergency activities.

Coordinate emergency operations plans with emergency plans of the federal governments.

Through the State Hazard Mitigation Program, the following occurs:

- Provides a state coordinator for hazard mitigation, the State Hazard Mitigation Officer.
- Provides a central location of the coordination of state hazard mitigation activities.
- Provides coordination for the Federal Pre-Disaster Mitigation Program.
- Provide for coordination of Project Impact.
- Provide coordination for Comprehensive Multi-hazard Mitigation Plan development, implementation, and monitoring.
- Provide for interagency coordination
- Provide development of procedures for grant administration and project evaluation.
- Provide State Hazard Mitigation Team assistance to local governments.
- Provide for development of specific hazard mitigation plans, such as drought and wildfire.
- Provide for local hazard and risk analysis.
- Provide for development of SHMT mitigation recommendations following disasters.

Utah Department of Agriculture

The Utah Department of Agriculture administers programs serving the state's large agricultural sector. The department's response role during and after a disaster period has been to coordinate damage reports for funding needs and provide loan and recovery program information and assistance to disaster victims. This service is provided for flood, drought, insect infestation, fire, livestock disease, and frost.

Assistance During Drought Disasters:

A damage reporting network coordinated through the existing County Emergency Board was established during the drought disaster of 1996. Each county agent assembled damage reports in his area and transmitted them through a computer network based at Utah State University. The individual damage reports from each county were recapped in the Department of Agriculture and formed the basis of documentation for an appeal to the legislature for additional funds to mitigate the damage.

Loans Handbook

The department has prepared a handbook listing the types of loans available for flood damage to agriculture, the funding requirements, and applications procedures. This includes loans from both state and federal sources. There are three loan programs operated by the agriculture department, all of which can be used for flood damage: 1) Rural Rehabilitation Loan Program (federally funded and operated by the state); 2) Agriculture Resource Development Loan Program (state funded); and 3) Emergency Loan Program (state funded).

Soil Conservation Program

The Department of Agriculture also administers the ongoing Soil Conservation Program. In each of the state's thirty-nine soil conservation districts, three unpaid, elected supervisors offer technical assistance and consultation on watershed protection. The state offers limited technical and planning assistance through a staff member. The program works cooperatively with the federal Soil Conservation Service which provides most of the technical assistance. The ongoing program is not regulatory, but is directed at improved water use and soil conservation.

Disaster Easements:

Because of the similarity between past events the department is now working on a permanent hazard mitigation concept known as "Disaster Easements", which may have widespread agreements with irrigation companies, water districts, or water users associations for the purpose of routing flood water through town.

Monitoring Ground Water Quality:

The Department also monitors groundwater quality of private individuals wells and springs throughout the State.

Non-Point Source Pollution:

The Departments Non-Point Source Pollution Program focuses on flood prevention through reduction of erosion, vegetating streams, and restoring “natural stream structure” The Department also monitors drought conditions, which are a precursor to wildfire.

Department of Community and Economic Development

Community Impact Board

The Utah Permanent Community Impact Fund Board provides loans and/or grants to state agencies and sub-divisions of the state, which may be socially or economically impacted by mineral resource development of federal lands.

Permanent Community Impact Fund:

The Permanent Community Impact Fund provides loans and/or grants to state agencies and subdivisions of the state, which are or may be socially or economically impacted, directly or indirectly, by mineral resource development on federal lands.

Under the Federal Mineral Lease Act of 1920, leaseholders on public land make royalty payments to the federal government for the development and production of non-metalliferous minerals. In Utah, the primary source of these royalties is the commercial production of fossil fuels on federal land held by the U.S. Forest Service and the Bureau of Land Management. Since the enactment of the Minerals Lease Act of 1920, a portion of these royalty payments, called mineral lease payments, have been returned to the state in an effort to help mitigate the local impact of energy and mineral developments on federal lands.

Funding Options:

The Board has the option of funding projects with loans and/or grants. The Board's preferred financing mechanism is an interest-bearing loan.

Loan Requirements:

In providing financial assistance in the form of a loan, the Board may purchase an applicant's bonds only if the bonds are accompanied by legal opinion of recognized municipal bond counsel to the effect that the bonds are legal and binding under applicable Utah Law.

The Board may purchase either a taxable or tax-exempt bond. The board may purchase taxable bonds if it determines, after evaluating all relevant circumstances, including the applicant's ability to pay, that the purchase of the taxable bonds is in the best interest of the state and the applicant.

Grants

Grants may be provided only when the other financing mechanisms cannot be utilized, where no reasonable method of repayment can be identified, or in emergency situations regarding public health and/or safety.

Community Development Block Grant:

The Community Development Block Grant, or CDBG program, provides funding from the federal government's Department of Housing and Urban Development or HUD, to small cities and counties in the State of Utah.

Utah Division of State History

The Utah State Historical Society, Utah's Division of State History, was founded in 1897 on the 50th anniversary of the first settlement in the Salt Lake Valley by the Mormon Pioneers. The Society became a state agency in 1917, now housed in the historic Rio Grande Depot since 1980. The Division stimulates archaeological research, study; oversees the protection and orderly development of sites; collects and preserves specimens; administers site surveys; keeps excavation records; encourage and supports the preservation of historic and pre-historic sites and publishes antiquities records. The Division also issues archaeological permits and consults with agencies and individuals doing archaeological work.

Preserving and Sharing Utah's Past

The mission of the State Division of History is "preserving and sharing Utah's past for the present and the future."

State Historical Preservation Officer (SHPO)

The SHPO administers the Section 106 process (national Historic Preservation Act) in Utah. The SHPO also serves on the Utah State Hazard Mitigation Team, providing guidance on historical and cultural preservation regulations.

Historic properties include districts, buildings, structures, objects, landscapes, archeological sites, and traditional cultural properties that are included in, or eligible for inclusion in, the National Register of Historic Places. These properties are not just "old buildings" or "well-known historic sites, but places important in local, state, or national history. Facilities as diverse as bridges and water treatment plants may, be considered historic.

Utah Geological Survey (UGS)

The Utah Geologic and Mineral Survey is the principal state agency concerned with geologic hazards. Through years of study, the UGS has developed considerable information on Utah's geologic hazards. When geologic events occur or threaten to occur, the UGS is consulted by other state agencies, local governments, and private organizations for assistance in defining the threat from natural hazards. The UGS works in partnership with other agencies, such as DESHS, in relating the threats from natural hazard to the communities at risk.

Functions:

The functions of the UGS include the following:

Evaluation of individual geological hazards;

Participation on local government and state agency technical teams;

Prediction of the performance on individual slides once they began to move;

Coordination and awareness of research efforts undertaken by other agencies;

Provide information on status of individual geologic hazards;

Reconnaissance reports on status of hazards statewide;

Advise Division of Water Rights on geologic hazards associated with dam sites; and

Provide geologic information for use during planning of remedial actions.

Laws/authorities/policies of the Utah Geological Survey for conducting mitigation

Utah Code Annotated

Chapter 73 Geological and Mineral Survey

Section 68-73-6 Objectives of Survey

(e) Determine and investigate areas of geologic and topographic hazards that could affect the safety of, or cause economic loss to, the citizens of this state; (f) assist local and state government agencies in their planning, zoning, and building regulations functions by publishing maps, delineating appropriately wide special earthquake risk areas, and, at the request of state agencies, review the siting of critical facilities:

Utah State Office of Education (USOE) Rule R277-455 Standards and Procedures for building plan review

R277-455-4 Criteria for Approval

To receive approval of a proposed building site, the local school district must certify that:

Staff of the Utah Geologic Survey have reviewed and recommended approval of the geologic hazards report provided by the school districts geotechnical consultant.

Division of Water Resources

Mitigation Functions

The Division's role of planning, funding and constructing water projects serves as both active and passive hazard mitigation against drought and flood situations throughout the state. The various State water plans contain brief summaries of flood threat and risk for each drainages.

The Division is one of seven agencies in the State Department of Natural Resources. The eight member Water Resources Board, appointed by the governor, administers three state water conservation and development funds. They are:

Revolving Construction fund – This fund started in 1947 with 1 million legislative appropriation to help construct irrigation projects, wells and rural culinary water systems. Further appropriations have added to this fund.

Conservation and Development Fund – This fund was created in 1978 with the sale of 25 million in general obligations bonds. Money was added to this fund with bond sales in 1980 and 1983. The C & D Fund generally helps sponsors finance larger multi-purpose dams and water systems.

Cities Water Loan Fund – Established with an initial legislative appropriation of 2 million dollars in 1974, and with continued appropriations, this fund provides financing to help construct new culinary water projects for cities, towns, improvement districts, and special service districts.

Construction Funds: In addition to overseeing these three construction funds, the Division also manages the State funds appropriated each year for renovation and reconstruction of unsafe dams. As the funding arm of the state for water resource projects the Division works closely with Water Rights, the Regulatory arm of the state charged with jurisdiction over all private and state owned dams.

Water Resource Planning: The Division is also charged with the general water resource planning for the state. The State Water Plan is a process that is coordinated to evaluate existing water resources in the state, determine water-related issues that should be confronted and recommend how and by whom issues can be resolved. The plan identifies programs and practices of state and federal agencies, water user groups and environmental interests and describes the state's current, future, and long-term water

related needs. The plan is continually updated using current hydrologic databases, river basin simulations, water supply and demand models and water related land use inventories. Revisions reflect the latest water conservation and development options concerning water rights, water transfers, population, zoning, and many other complex issues for the next 50 years in the state's major river basins.

Utah Division of Forestry, Fire, and State Lands

The Division of Forestry, Fire & State Lands utilizes the principles of stewardship and ecosystem management to assist non-federal landowners in management of their natural resources. The agency provides wildland fire protection for non-federal landowners commensurate with risk; and optimizes the benefits from ecosystem based, multiple-use management of resources held in the public trust. Wildfires are managed from six area offices 1) Bear River Office, 2) Northeast Area, 3) Wasatch Front Area, 4) Central Area, 5) Southwest Area, and 5) Southeast Area.

The Division operates under the authority of the Utah Code Annotated 65-A-3-1 through 10.

The Flame-n-Go's (pronounced Flamingoes): In 1978 the Division of Forestry, Fire, and State Lands and the Utah State Prison signed a cooperative agreement establishing Utah's first volunteer, inmate wildland fire hand-crew. The inmates named themselves the "Flame-N-Go's" and designed a logo that has become well known in the wildland fire fighting community.

All Flame-N-Go's are carefully screened for the program. They must complete rigorous training and sign a yearly contract committing themselves to preserving Utah's natural resources and building responsible lives.

The Flame-N-Go's are divided into three crews, each of which can respond to fires anywhere in the United States. A twenty-man type II handline crew is the backbone of the group, responding to each assignment with all tools and equipment needed to do battle on the fireline. An Engine Strike Team, (five fire engines, outfitted with men and equipment) is ready to respond when needed as an Engine Strike Team or a Type II Handline Crew. The Hotshot crew is trained to tackle the most dangerous fires in the most rugged terrain. All crews during peak fire season are on 24-hour call to respond within an hour's notice. These crews respond to an average of 50 fires per year and typically spend 45,000 hours

fighting fires each season. At least one Division of Forestry, Fire, and State Lands supervisor and two Department of Corrections staff accompany each crew.

Each year, Flame-N-Go's are put through at least 80 hours of extensive training including classroom work and practical field exercises. Safety, individual, and team skills, and professionalism are stressed.

National Fire Plan: The Division administers the State responsibilities of the National fire Plan, a current emphasis of the U.S. Congress, which also addresses hazard and risk analysis and hazard mitigation.

Living With Fire Committee: The Division works in partnership with the U.S. Forest Service, Bureau of Land Management, and various other entities tasked with suppressing wildland fires on the "Living With Fire" program promoting wildland fire mitigation.

Utah Division of State Parks and Recreation

The goal of the Division of Parks and Recreation is to enhance the quality of life for residents and visitors of our state through parks, people, and programs. They are responsible for protecting, preserving, and managing many of Utah's natural and heritage resources.

Hazard and Risk Analyses: The Division develops hazard and risk analyses for the State Parks as part of the park resource management plans. The Utah Division of Emergency Management produced one analysis for Snow Canyon State Park in Washington County.

Non-Motorized Trail Program: The Recreational Trails Act of 1991 charged Utah State Parks and Recreation with coordinating the development of a statewide network of non-motorized trails. The Non-Motorized Trail program makes state and federal funds available on a 50/50 matching basis to any federal, state, or local government agency, or special improvement district for the planning, acquisition, and development of recreational trails.

Grants from State Parks Boards: The council advises the Division of Parks and Recreation on non-motorized trail matters, reviews requests for matching grant fiscal assistance, rates and ranks proposed

trail projects and along with State Park's staff provides recommendations for funding to the State Parks Board.

Riverway Enhancement Program: In 1986, the Utah Legislature passed a bill which established the Riverway Enhancement Program. The program makes state funds available on a 50/50 matching basis to state agencies, counties, cities, towns, and/or special improvement districts for property acquisition and/or development for recreation, flood control, conservation, and wildlife management, along rivers and streams that are impacted by high density populations or are prone to flooding. Public outdoor recreation should be the primary focus of the project.

Utah Division of Water Rights

The Division of Water Rights is the state agency that regulated appropriation and distribution of water in the State of Utah. It is an office of public record. The Utah State Engineer's Office was created in 1897. The State Engineer's Office is the chief water rights administrative officer. A complete "water code" was enacted in 1903 and was revised and reenacted in 1919. This law, with succeeding complete reenactments of State statutes, and as amended, is presently in force mostly as *Utah Code, Title 73*. In 1963, the name was changed from State Engineers office to the Division of Water Rights.

All water in Utah are public property. A water right is a right to the use of water based upon 1) quantity, 2) source, 3) priority date, 4) nature of use, 5) point of diversion, and 6) physically putting water to beneficial use.

Regulate Dams: The State engineer has the authority to regulate dams for the purpose of protecting public safety. Dams are classified according to hazard, size, and use. The dam inventory gives the identification, location, construction parameters, and the operation and maintenance history of the dams in Utah.

Stream Alterations Program: The Utah state Engineer's Office administers a Stream alterations program with the purpose of regulation activities affecting the bed or banks or natural streams. The State Engineer's working definition of a natural stream is any natural waterway in the state, which has flows of sufficient duration to develop a characteristic ecosystem distinguishing it from the surrounding

environments. Any individual planning an activity that will affect a natural stream must first obtain a Stream Alterations Permit from this office.

Most proposals reviewed by the State, are covered by General Permit 40, which authorizes the state to have its Stream Alteration Permit fulfill the requirements of Section 404 of the Clean Water Act for most activities. General permit 40 does not apply in some instances and a U.S. Army Corps of Engineers Individual Permit is required. Projects requiring this additional permit include those involving wetlands, threatened or endangered species, properties listed on the National Historic Register, stream relocation, or the pushing of streambed material against a stream bank.

Dam Safety Program: The Dam Safety Section of the Division of Water Rights was established under Chapters 73-5a 101 thru 73-5a 702 including chapters 73-2-22 for Flood Control and the Chapter 63-30-10 Waiver of Immunity of the Utah Code and Rules R655-10 thru R655-12-6A. The program basically has jurisdiction over all private and state owned dams in the state during design, construction, operation, and decommissioning. This involved periodic inspections according to hazard classifications, inventory maintenance, design, and construction approval and systematic upgrade of all the high hazard structures to current dam safety Minimum Standards and creation of Emergency Action Plans for High Hazard dams. Since 1991, detailed dam reviews have been undertaken by the staff and by private consulting firms. Since 1995, the State Legislature has provided 3-4 million dollars per year to finance 50 % of the instrumentation, investigations, and design and 80 to 90 % of the construction costs of retrofitting and upgrading deficient dams, starting with the worst dams in the most hazardous locations.

The impetus for this dam safety program has been in reaction to dam failures, both in Utah and in other states, including the Teton Dam in Idaho and the Trial Lake Dam in Summit County and the Quail Creek Dam near St. George Utah. Since the establishment of our Minimum Standards program we have fostered the repair of dozens of dams and have not had a catastrophic failure since.

Future recommendations include continuation of the funding for dam upgrades for all the high hazard dams, and then the moderate hazard dams, continued annual inspections for maintenance items and dangerous deficiencies, upgrading EAP, and hazard assessment to reflect downstream development. Inclusion of the scanned design drawings and inundation maps from the EAP studies is being considered for our web page for public information and emergency access. Possible expansion of the program to cover canals and dikes has been considered.

Utah Division of Wildlife Resources

It is the mission of the Utah Division of Wildlife Resources to serve people of Utah as trustee and guardian of the State's wildlife. Regulates hunting, fishing and trapping, and promotes recreational, educational, scientific and aesthetic enjoyment of wildlife.

Wildlife Habitats and Hazards: Wildlife species and/or their habitats are frequently exposed to hazards. These may be either natural or human influenced (i.e. drought, flood, fire, wind, snow, wetland drainage, water diversions, hazardous material spills, improper/illegal chemical use, earthquake, and other land or water construction/development). Impact resulting either directly or indirectly, from individuals or an accumulation of several hazards, may cause but not be limited to: decreased water supply, stream/lake channel/basin morphology change, riparian/upland vegetation loss or degradation, and impairment of water quality. These in turn have a varying influence, in the extreme causing death or at a minimum temporary stress, on wildlife populations and their habitats. Hazards mentioned may affect a fairly large geographic area or be very localized in nature.

While the Division of Wildlife Resources (DNR) is charged with the management of wildlife, they do not have regulatory authority over water appropriations, water quality, development, or land management; except as allowed or occurring on properties they own. Therefore, when hazards occur, outside DWR property, DWR is limited to be a participating influence only through comments to the other regulatory agencies or individuals.

DWR management of wildlife is carried out largely through regulation of taking controlling, disturbance and/or possession of wildlife, and introduction of movement of species. However, there are numerous non-regulatory means (i.e. conservation agreements, memorandum of understanding, contract, lease agreements, cooperative agreements, and technical assistance) by which DWR interacts with other agencies, groups and individuals, to have an influence on wildlife and/or their habitat.

Hazard Areas of Commentary Interaction

While not being able to control/regulate many of the elements necessary for the benefit of wildlife; DWR provides technical comments for the maintenance, protection, and enhancement of wildlife and/or habitats for various value reasons. It is too extensive list all the areas of comment; however, the following are examples of fairly frequent concern:

- Steam Channel Alteration Permit Applications
- Water Rights Filings
- Energy and Mineral Exploration and Extraction Applications
- Federal Agency land management plans
- Waste Water Discharge Permit Applications
- Hydroelectric plant licensing or regimenting
- Urban and rural development project planning
- Utility transmission line style and locations
- Wetland alteration
- Federal land management planning
- Highway constructions

The Utah Division of Drinking Water

Division of Drinking Water’s Mission Statement is to “ protect the public against waterborne health risks through assistance, educations, and oversight”. The Division acts as the administrative arm of the Utah Drinking Water Board. It implements the rules, which they adopt. As such, it is engaged in a variety of activities related to the design and operation of Utah’s public drinking water system. The Utah Drinking Water Board is an 11-person board appointed by the Governor. It is empowered by Title 19, Chapter 4 of the Utah Code to adopt rules governing the design, operations, and maintenance of Utah’s “public drinking water system”.

Safe Drinking Water Act: There is a Federal Safe Drinking Water Act which applies to all public drinking water systems in the country. The U.S. Environmental Protection Agency (EPA) has given Utah “primacy” for enforcing the federal act within its boundaries. To qualify for this Utah’s laws and rules governing public drinking water systems must be at least as strict as the federal law.

Sanitary Surveys: The Division performs sanitary surveys on the water systems, which is a compliance action that identifies system deficiencies.

Emergency Response Plans: The Division of Drinking Water requires water utilities to prepare emergency response plans under the State Safe Drinking Water Act, Utah Code Section 19-4. The Division operates according to DDW Rules: R309 gives them authority to administer actions: R309-301 through R309-104 and R309-113, R309-150, R309-301, and R309-211.

Utah Division of Solid and Hazardous Waste

The Tier II Chemical Inventory report, required by the Federal Emergency Planning and community Right-to-Know Act, requires facilities to submit lists of hazardous chemicals present on site. These reports are computerized and the information is provided to local emergency planning committees, the general public, and others for contingency planning purposes. To implement the Federal law, the State operates under Utah State Code, Section 63-5-5. The Division of Solid and Hazardous Waste requires that hazardous waste treatment storage and disposal facilities prepare and emergency response plan as required by regulations authorized by the State Solid and Hazardous Waste Act, Utah Code Section 19-6.

Other Agency programs are regulatory in nature requiring proper use or disposal of hazardous substances or pollutants. For example the Division of Solid and Hazardous Waste regulates the disposal of hazardous waste, the Division of Radiation Control regulates the proper usage and disposal of radioactive materials. As such there is a threat mitigation nature to these programs.

Utah Division of Water Quality

The Utah Division of Water Quality protects, maintains, and enhances the quality of Utah's surface and underground water for appropriate beneficial uses; the Division of Water Quality regulates discharge of pollutants into surface water, and protects the public health through eliminating and preventing water related health hazards which can occur as a result of improper disposal of human, animal, or industrial wastes while giving reasonable consideration to the economic impact.

Water Quality Fund and Wastewater Treatment Project Fund: The Division Manages the Water Quality Revolving Fund that can be used by local governments for water quality projects and a Wastewater Treatment Project Fund.

Abating Watershed Pollution: Federal and State regulations charge the Division with "preventing, controlling, and abating" watershed pollution. Other state and local agencies have similar responsibilities. The Watershed Approach forms partnerships with these groups to pool resources and increase the effectiveness of existing programs. For each watershed management unit, a watershed plan will be prepared. The watershed plan addresses management actions at several spatial scales ranging from those that encompass a watershed management unit to specific sites that are tailored to specific environmental conditions. Ground water hydrologic basins and eco-region areas encompassed within the units will also be delineated.

State Revolving Fund Program: In 1987, Congress replaced the Construction Grants Program, with the State Revolving Fund Program. Rather than provide direct grants to communities, the federal government provides each state with a series of grants, then each state contributes a 20 percent state match. Grants from the federal government are combined with state funds in the Water Quality Project Assistance Program (WQPAP) and are used to capitalize a perpetual source of funds to finance water quality construction control activities at below market interests rates. Projects eligible for WQPAP financing include such traditional activities as construction of wastewater treatment plants and sewers.

The program also will finance non-traditional water quality-related activities such as agricultural runoff control, landfill closures, contaminated industrial property (Brownfield) remediation, stream bank restoration, and wellhead protection.