

Hazards

CENTRAL PLAINS PLAN	COMMENTS	CMP COMPARISION
Goal: Reduce threats to public safety, and loss of property and life, from geologic hazards.	Duplicated in the CMP	Hazards & Geologic Constraints <i>General</i> Goal: Promote public safety and reduce loss of property due to hazards and geologic constraints. <i>Geologic Hazards & Constraints</i> Goal: Protect people and property from geologic hazards and constraints.
Goal: Avoid exposure to pollutants and environmental health hazards.	Duplicated in the CMP	Hazards & Geologic Constraints <i>General</i> Goal: Promote public safety and reduce loss of property due to hazards and geologic constraints. <i>Radiation</i> Goal: Promote the mitigation of adverse health effects due to radiation exposure. <i>Current, Closed, & Abandoned Landfills</i> Goal: Protect life and property from harm or loss due to toxic fumes, explosion, and ground settlement due to current, closed, and abandoned landfills. <i>Hazardous Wastes & Materials</i> Goal: Encourage the prevention of harmful effects to life and property from exposure to hazardous wastes and materials.
Development Review Policies		
A. General		
1. Single-family residential development should not occur on slopes greater than 30 percent.	Duplicated in the CMP	Housing <i>Site Constraints</i> 4. Policy: Discourage residential development on slopes exceeding 30%.
2. Non-residential and multi-family development should not occur on slopes greater than 20 percent.	Add to CMP	To General Land Use Chapter add: Discourage non-residential development on slopes exceeding 20%. Add as Policy 4 under the General Land Use Chapter, Urban and Non-Urban Interface, Objective B. To Housing Chapter add: Discourage multi-family residential development on slopes exceeding 20%. Add as Policy 5 under the Housing Chapter, Site Constraints, Objective A and renumber existing policies 5-10 to 6-11.

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<p>3. The natural topography and existing vegetation should be protected before, during, and after development. If disturbed, the natural appearance, vegetation, and slope stability should be maintained, or if not possible, restored. Disturbed areas should be stabilized as quickly as possible to reduce fugitive dust and erosion potential.</p>	<p>Duplicated in the CMP</p>	<p>Visual Resources <i>Site Design</i> 6. Policy: Minimize the impacts of road cuts, building footprints, and other grading activities on their surroundings, by minimizing grading and including rounded slopes, erosion control, reseeding, and revegetation to return disturbed areas to their natural state. Objective B: Avoid or minimize development impacts on ridgelines and steep hillsides 2. Policy: Minimize the need for grading, earth moving, vegetation removal and site disturbance related to development on ridgelines and steep hillsides. 3. Policy: Grading or earth moving to create a flat building pad on a slope should be discouraged; instead, buildings should be stepped to fit with the natural terrain.</p> <p>Hazards & Geologic Constraints <i>General</i> 2. Policy: Identify resources and environmental conditions potentially impacted by proposed development in the initial stages of a project, to best design a development that protects the environment.</p> <p><i>Geologic Hazards & Constraints</i> 2. Policy: Design development to ensure slope stability, withstand stress caused by slope conditions, and create a natural appearance with the surrounding landscape. 1. Policy: Final land forms resulting from development should be stable and revegetated with drought resistant species to improve stability and control erosion and dust.</p>
<p>4. Development and mitigation should not direct or increase potential hazards onto adjacent properties or public roads.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>Geologic Hazards & Constraints</i> Objective B: Ensure activities do not aggravate or accelerate existing geologic hazards and constraints. Objective D: Protect existing structures and roads from adverse impacts caused by new development. Impacts include geologic, erosion, and sedimentation.</p>
<p>5. Development should not aggravate or accelerate existing hazards.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>General</i> 1. Policy: Development in hazard areas should be avoided or the effects of such development mitigated to minimize harm to the County and its' residents, such that each is not subject to future safety or cost implications. <i>Geologic Hazards & Constraints</i> Objective B: Ensure activities do not aggravate or accelerate existing geologic hazards and constraints.</p>
<p>6. The county's Engineering Geologist should review proposals in or near High and Moderate Geologic Hazard Areas for specific identification of the hazard and necessary mitigation.</p>	<p>Delete</p>	<p>The County's Engineering Geologist is sent a referral for all rezoning cases, not only those in High and Moderate Geologic Hazard Areas.</p>
<p>B. High Geologic Hazard Areas</p>		
<p>1. Development in High Geologic Hazard Areas should be avoided.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>Geologic Hazards & Constraints</i> 1. Policy: Avoid development in geologic hazard areas, unless a study is conducted on the area and there is adequate mitigation or elimination of the hazards.</p>

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2. Mitigation should be allowed only when development and mitigation will not increase potential hazards on adjacent properties, will not aggravate or accelerate existing hazards, and will completely eliminate the threat to public safety and loss of property.	Duplicated in CMP	Hazards & Geologic Constraints <i>Geologic Hazards & Constraints</i> 1. Policy: Avoid development in geologic hazard areas, unless a study is conducted on the area and there is adequate mitigation or elimination of the hazards. 4. Policy: Development in geologic hazard areas should be discouraged. Development should only be allowed in these designated hazard areas when adequate mitigation or elimination of the potential hazards can be demonstrated.
3. If mitigation is possible, a study should be conducted to identify the appropriate mitigation for the hazard. The appropriate mitigation should be implemented in site design, site preparation, and/or construction.	Modify CMP	Hazards & Geologic Constraints Modify existing Policy 1 under the Hazards & Geologic Constraints Chapter, Geologic Hazards & Constraints, Objective B to say: 1. Avoid development in geologic hazard areas, unless a study is conducted on the area and there is adequate mitigation or elimination of the hazards. The appropriate mitigation should be implemented during site design, site preparation, and/or construction.
4. Water-intensive landscaping and septic systems should not be permitted in High Geologic Hazard Areas.	Add to CMP	To Hazards & Geologic Constraints Chapter add: Water-intensive landscaping and septic systems should not be permitted in Geologic Hazard Areas. Add as Policy 3 under the Hazards & Geologic Constraints Chapter, Geologic Hazards & Constraints, Objective B.
5. Development should not occur in the Zoned Geologic Hazard Areas without proper mitigation in full compliance with the appropriate Overlay District.	Duplicated in the CMP	Hazards & Geologic Constraints <i>Geologic Hazards & Constraints</i> 1. Policy: Avoid development in geologic hazard areas, unless a study is conducted on the area and there is adequate mitigation or elimination of the hazards. 4. Policy: Development in geologic hazard areas should be discouraged. Development should only be allowed in these designated hazard areas when adequate mitigation or elimination of the potential hazards can be demonstrated. Mapped Major Geologic Hazard Areas <ul style="list-style-type: none"> • Zoned geologic hazards, except Dipping Bedrock Note: Anything within a Zoned Geologic Hazard area would automatically need to comply with the appropriate Overlay Zone District in the Zoning Resolution.

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C. Moderate Geologic Hazard Areas		
1. Development in Moderate Geologic Hazard Areas should adequately mitigate or eliminate the hazard. A study should be conducted to determine the extent of potential hazards that may require extensive mitigation.	Duplicated in the CMP.	Hazards & Geologic Constraints <i>Geologic Hazards & Constraints</i> 1. Policy: Avoid development in geologic hazard areas, unless a study is conducted on the area and there is adequate mitigation or elimination of the hazards. 4. Policy: Development in geologic hazard areas should be discouraged. Development should only be allowed in these designated hazard areas when adequate mitigation or elimination of the potential hazards can be demonstrated. Mapped Major Geologic Hazard Areas <ul style="list-style-type: none"> • Rockfall • Landslide • Slope Failure • 100-year Floodplains • Zoned geologic hazards, except Dipping Bedrock • Subsidence • Methane Mapped Moderate Geologic Hazard Areas <ul style="list-style-type: none"> • 40% or greater slopes • Post-wildfire flooding and mud flow areas
2. Landscaping and drainage plans should be designed to avoid aggravation or acceleration of any Moderate Geologic Hazard.	Add to CMP	To Hazards & Geologic Constraints Chapter add: Drainage systems in all hazard areas and in constraint areas associated with steep slopes should be designed so the flow of water improves the slope stability. Add as Policy 4 under the Hazards & Geologic Constraints Chapter, Geologic Hazards & Constraints, Objective B.
D. Environmental Health Hazards		
1. Businesses that use paints, solvents, or volatile organic compounds and other hazardous air pollutants, should not be located adjacent to residential or community uses.	Add to CMP	Modify to say: Businesses that whose primary operations involve the use or storage of paints, solvents, or other substances that contain volatile organic compounds and other hazardous air pollutants should not be located adjacent to residential or community uses. Add as Policy 3 under the Hazards & Geologic Constraints Chapter, Hazardous Wastes & Materials, Objective C.
2. Development applications for businesses that use, store or transport hazardous and toxic materials, should be referred to fire districts and emergency management for review.	Duplicated in the CMP	Hazards & Geologic Constraints <i>Hazardous Wastes & Material</i> 2. Policy: Refer development proposals where hazardous or toxic materials are involved to Fire Districts and the Emergency Management Division.
3. Development applications in the immediate vicinity of electromagnetic energy emission sources should be referred to Jefferson County Health and Environment for evaluation of health hazards.	Duplicated in the CMP	Hazards & Geologic Constraints <i>Radiation</i> Implementation: Refer development proposals near uranium deposits to the state and county public health departments to evaluate impacts from radiation. Implementation: Refer high power telecommunication facility proposals to the County Public Health Department to evaluate health hazards.

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4. Land uses on or adjacent to abandoned sanitary landfills should use the latest technology to vent and monitor methane gas. The design of structures and improvements should be based on careful site design and subsurface testing before construction is permitted on landfills to prevent damage from differential settlement.	Duplicated in the CMP	<p>Hazards & Geologic Constraints <i>Current, Closed, & Abandoned Landfills</i> Goal: Protect life and property from harm or loss due to toxic fumes, explosion, and ground settlement due to current, closed, and abandoned landfills. Objective: Allow land uses on or adjacent to current, closed, and abandoned landfills that provide adequate protection for people or property.</p> <ol style="list-style-type: none"> 1. Policy: Ensure land adjacent to landfills has protection from methane gas and differential settlement. Implementation: Map abandoned and current landfills. 2. Policy: Prevent methane build-up in all structures on closed and abandoned landfills by proper venting and equipping them with methane monitors and alarm systems. 3. Policy: Vent or collect methane from closed and abandoned landfills prior to development. 4. Policy: Design structures and improvements based on careful site design and subsurface testing before construction is permitted on landfills to prevent damage from differential settlement. 5. Policy: The preferred land use on landfill caps are uses such as ball fields with no irrigation, lighting, or structures. However, properly engineered structures cannot be prohibited with appropriate zoning.
III. Implementation Strategies		
A. Geologic Hazards		
1. Maintain Jefferson County's eligibility for the National Flood Insurance Program so that flood insurance continues to be available.	Duplicated in the CMP	<p>Hazards & Geologic Constraints <i>Floodplains</i> Implementation: Jefferson County should maintain its participation in the National Flood Insurance Program to benefit residents.</p>
2. The county should amend the Geologic Hazards Overlay to include all High Geologic Hazards.	Add to CMP	<p>Modify to say: The County should consider including all high geologic hazards in the Geologic Hazards Overlay.</p> <p>Add as Policy 2 under the Hazards & Geologic Constraints Chapter, Geologic Hazards & Constraints, Objective A.</p>
3. Citizens and the county should work with the Division of Minerals and Geology Abandoned Mine Reclamation Program to close all mine openings that pose a safety hazard. Bat habitats should be considered, when selecting closure methods.	Duplicated in the CMP	<p>Hazards & Geologic Constraints <i>Abandoned Mines</i> 1. Policy: Mine openings that pose a safety hazard should be closed. Citizens should work with the County and the Division of Minerals and Geology Abandoned Mine Reclamation Program. Bat habitats should be considered.</p>
4. Jefferson County and the Federal Emergency Management Agency should continue to require that a Floodplain Development Permit be obtained before construction or development begins within the Floodplain Overlay District.	Duplicated in the CMP	<p>Hazards & Geologic Constraints <i>Floodplains</i> Policy: Development in a floodplain should comply with the Floodplain Overlay Zone District. Note: The Floodplain Development Permit is described in the Floodplain Overlay Zone District.</p>

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<p>5. The county should evaluate the Land Development Regulation and the Zoning Resolution to verify that natural topography and existing vegetation are protected, enhanced and/or incorporated into site design, to the maximum extent possible.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>General</i> 2. Policy: Identify resources and environmental conditions potentially impacted by proposed development in the initial stages of a project, to best design a development that protects the environment.</p> <p>Visual Resources <i>Site Design</i> 6. Policy: Minimize the impacts of road cuts, building footprints, and other grading activities on their surroundings, by minimizing grading and including rounded slopes, erosion control, reseeding, and revegetation to return disturbed areas to their natural state. Objective B: Avoid or minimize development impacts on ridgelines and steep hillsides 2. Policy: Minimize the need for grading, earth moving, vegetation removal and site disturbance related to development on ridgelines and steep hillsides. 3. Policy: Grading or earth moving to create a flat building pad on a slope should be discouraged; instead, buildings should be stepped to fit with the natural terrain</p>
<p>B. Pollutants and Environmental Health Hazards</p>		
<p>1. When demolishing or renovating buildings, environmental health hazards, such as lead based paint, mercury, asbestos, etc., should be removed and disposed of properly and safely. Jefferson County Health and Environment and the Colorado Department of Public Health and Environment should be contacted for required permits.</p>	<p>Delete</p>	<p>This is not something that is addressed with a Rezoning or Site approval.</p>
<p>2. The Land Development Regulation and the building code should require that new construction in areas which have high levels of natural radioactivity use building techniques to prevent high radon levels. Techniques to prevent radon buildup inside structures and meet federal health standards and state specifications for radon gas should be incorporated into all new construction.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>Radiation</i> 2. Policy: Existing structures and new construction in areas which have been identified as having high levels of natural radioactivity should be mitigated. Implementation: Consider adopting International Building Code regulations that would require new construction in areas with high levels of natural radioactivity to use building techniques to prevent high radon levels.</p> <p>Note: The Building Code governs new construction, not the Land Development Regulation.</p>
<p>3. Best management practices to prevent harmful effects from spills and storage of hazardous materials or pollutants should be followed. The Jefferson County Division of Building Safety should be encouraged to coordinate with the appropriate fire protection agencies when construction plans are submitted for projects which will have hazardous materials onsite during construction and/or operation.</p>	<p>Add first sentence to CMP. Delete second sentence.</p>	<p>Add first sentence as stated as the second sentence of the existing Policy 1 under the Hazards & Geologic Constraints Chapter, Hazardous Wastes & Materials, Objective A.</p> <p>The second sentence is required by both the 2009 and 2006 editions of the International Fire Code.</p>
<p>4. The use or creation of toxic substances by industry should comply with county, state, and federal laws and regulations.</p>	<p>Duplicated in the CMP</p>	<p>Hazards & Geologic Constraints <i>Hazardous Wastes & Material</i> Policy: Handling, storage, transportation, manufacturing, use, and disposal of hazardous wastes and materials should comply with applicable regulations.</p>

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