

# Comprehensive Master Plans

## Existing Hazard Policies

### Development Review Section

#### Physical Constraints

##### General

Physical Constraints are those physical features that due to safety or cost concerns may potentially restrict where and how development occurs. For purposes of this Plan, physical constraints include Geologic Hazards and constraints, Floodplains, Wetlands, Wildfire, radiation, landfills, abandoned mines, and Wildlife.

##### Goal

Ensure New Developments properly address physical constraints.

##### Policies

###### A. General

1. Development should not aggravate, accelerate, or increase the level of risk from natural hazards.
2. Identify physical constraints in the general proximity of proposed developments to ensure the Intensity of development is appropriate when weighed against these conditions.
3. Where physical constraints exist, the priority should be to avoid these areas; if avoidance is not possible, apply environmentally appropriate Mitigation. Safety and environmental concerns should be balanced with aesthetic concerns.
4. Where site design avoids physical constraints, the density that would have been allowed in that area may be transferred to another portion of the site, if not in conflict with other Policies in this Plan.

#### Geologic Hazards & Constraints

Geologic Hazards are geologic conditions or processes that pose a significant threat to health, life, limb, or property.

Geologic Constraints are geologic conditions that do not pose a significant threat to life or limb, but which can cause intolerable damage to structures.

##### Goal

Promote public safety and reduce loss of property due to Geologic Hazards and Constraints.

##### Policies

###### A. General

1. Discourage development in Geologic Hazard areas. Development should only be allowed in these designated hazard areas when adequate Mitigation can be demonstrated.
2. Development proposals should address how Geologic Constraint areas will be mitigated. Mitigation for Geologic Constraints should take into account aesthetics.

3. Mitigation measures should meet other Goals and Policies of this Plan, where practicable.

### **Floodplains**

Alteration of Floodplains is regulated by the Federal Emergency Management Agency (FEMA), Jefferson County, and Urban Drainage and Flood Control District depending upon the Floodplain's classification.

#### **Goal**

Ensure development activities in or around Floodplains mitigate impacts to life and property.

#### **Policies**

##### **A. General**

1. Identify 100-year Floodplains on Official Development Plans (ODPs).
2. Floodplains should be Preserved, to the extent possible.
3. If Floodplains are altered or reconstructed, encourage design for their natural and beneficial functions (See Appendix C II.b.)
4. Strongly discourage development in areas below dams, spillways, and levees that would require the State Engineer to upgrade the classification of these structures.
5. Schools, fire stations, hospitals and similar facilities essential to public safety should be located outside of 500-year Floodplains.

### **Wetlands**

Wetlands are areas that are inundated or saturated by water for enough time during the year that they support vegetation that lives in saturated soil conditions. Wetlands provide natural filters for water and provide vegetation, cover and water for a variety of Wildlife species.

#### **Goal**

Protect Wetlands.

#### **Policies**

##### **A. General**

1. Encourage the protection of Wetlands, including those not under the jurisdiction of the US Army Corps of Engineers, Riparian Areas, natural springs, ponds, and drainages through innovative planning and Best Management Practices.
2. Where impacts to Wetlands are unavoidable, appropriate Mitigation should be provided.
3. New Development should not adversely affect the Recharge of nearby Wetlands.
4. Wildlife access to Wetlands should be protected and, where possible, enhanced.

### **Wildfire**

Wildfire is the uncontrolled burning of trees, grass and brush whose rate of spread or movement is unchecked. It can be caused by human activity or natural means. Wildfires may present a hazard to development and/or development may present an ignition risk to the forest. Jefferson County has implemented a Defensible Space program to address

development in Wildfire hazard areas.

## Goal

Ensure that proposed land uses are managed to decrease Wildfire hazards.

## Policies

### A. General

1. New Development should implement the Mitigation recommendations outlined in the local Fire Protection District's Community Wildfire Protection Plan (CWPP).
2. Avoid development or mitigate impacts in Severe Wildfire Hazard Areas.
3. Avoid New Development in Fire Chimneys.
4. Use accepted methods of forest management to reduce Severe Wildfire Hazard Areas to a low or medium rating for proposed developments. (See Appendix C II.a.) The entire site should be mitigated, not just the building site. Mitigation should be performed in accordance with the Colorado State Forest Service, other current authorities and local fire district recommendations.
5. Setbacks from the perimeter of a New Development should accommodate Defensible Space management zone 2 requirements.
6. Decrease densities as Wildfire hazards become more severe.
7. Locate Facilities with high concentrations of people away from Severe Wildfire Hazard Areas.
8. **Encourage** Effective alternative On-Site water supplies, such as ponds and cisterns, for fire protection in developments without fire hydrants **should be provided**.
9. Development in moderate or Severe Wildfire Hazard Areas should identify "no build" areas, building construction and design, landscaping/Defensible Space/fuel management, access and water availability.
10. New Development in the Wildfire Hazard Overlay District should employ underground utility lines.

### B. Access

1. Consider the risk of Wildfire hazards along roadways leading to proposed developments, especially when served by a cul-de-sac. Where appropriate, create shaded fuel breaks as recommended in the CWPPs.
2. In the Wildfire Hazard Overlay District, New Development on a cul-de-sac longer than 1 mile should demonstrate how emergency access will be obtained.
3. Link existing development to New Development to provide multiple access points.

## Radiation

Rocks in the Front Range have minor amounts of background radiation. Isolated uranium deposits are known to exist in the County. Radiation can also occur due to human causes, such as telecommunication towers or disposal of radioactive materials.

## Goal

Evaluate new development for impacts from radiation.

## **Policies**

### **A. General**

1. When potential radiation hazards (including radon) are suspected, Jefferson County Public Health should be consulted to determine appropriate Mitigation measures.
2. Measure for soil contamination prior to ground disturbances near Rocky Flats, as identified on the map in Radiation section of the Land Development Regulation. Consider appropriate actions based on this information.

## **Current, Closed, & Abandoned Landfills**

Landfill operations are regulated by the Colorado Department of Public Health and Environment. After closure, landfills need to be monitored for hazardous conditions, such as Methane Gas and Differential Settlement.

## **Goal**

Protect life and property from harm or loss due to toxic fumes, explosion, and ground settlement due to current, closed, and abandoned landfills.

## **Policies**

### **A. General**

1. The preferred land use on landfill caps are uses such as ball fields with no irrigation, lighting, or structures.
2. Ensure development on or adjacent to landfills mitigates the hazards of Methane Gas and Differential Settlement.

## **Abandoned Mines**

Current and closed mines are regulated by the Colorado Mined Land Reclamation Act.

Abandoned mines ceased operation prior to regulation by the State.

Subsidence is a Geologic Hazard related to mining activities. For the purpose of this document, Subsidence is categorized as a Major Geologic Hazard and Policies under the Geologic Hazards & Constraints element apply.

## **Goal**

Evaluate new development for the existence of abandoned mines.

## **Policy**

### **A. General**

1. Ensure that New Development proposals secure mine openings and mitigate any un-reclaimed areas when development is proposed for a site that has un-reclaimed mining activity predating the Colorado Mined Land Reclamation Act.

## **Long Range Planning Issues Section**

### **Hazards**

Where hazardous conditions exist, hazardous events are more apt to occur. An unstable slope

can become a Landslide area when triggered by severe and continuing rains, by earthquakes, or by poorly designed and constructed buildings. It is in the best interest of the County and its residents to avoid or mitigate hazardous conditions, so that each is not subject to future safety or cost implications.

## **Goal**

Protect people and property from hazardous conditions and events.

## **Policies**

### **A. General**

1. Recognizing that hazards cross jurisdictional boundaries, planning efforts should be promoted that foster cooperation and coordination among agencies and organizations involved in the Mitigation of the risks associated with the hazards.
2. Work with Jefferson County Weed and Pest Management and other applicable agencies to address noxious weeds and forest pests.
3. Recognize hazardous conditions and events while evaluating improved technologies and strategies to deal with those conditions and events.

### **B. Geologic Hazards and Constraints**

1. Protect people and property from Geologic Hazards and constraints.
2. Recognize and respect natural geologic conditions.

### **C. Floodplains**

1. Mitigate impacts to life and property in Floodplains and reduce threats to public safety.
2. Promote regional planning and management approaches that protect the integrity of drainage systems and minimize long-term system-wide environmental impacts, costs, and recognized Flood dangers within the County.
3. Cooperate with FEMA and the Urban Drainage and Flood Control District, as well as other State and Federal agencies, to prevent Flood damage and incompatible land uses in Flood hazard areas.
4. Support the continued refinement and use of regional Flood warning systems.
5. When existing buildings are located in the Floodplain, encourage either altering the boundary of the Floodplain or moving the building to a location outside of the Floodplain when this can be accomplished in a cost-effective and equitable manner.
6. [Jefferson County should maintain its participation in the National Flood Insurance Program to benefit residents.](#)

### **D. Wildfire**

1. Encourage private and public landowners to manage their forests by developing and maintaining a diversity of species, ages, and stand densities to serve as a natural deterrent to pest and fire outbreaks.
2. Support the Community Wildfire Protection Plans as adopted by the local fire protection districts.
3. Encourage property owners and HOA's to implement the recommendations of their local

Community Wildfire Protection Plan (CWPP).

4. Explore incentives for voluntary fire Mitigation on existing properties.
5. When updating Area Plans, existing subdivisions should be evaluated for whether evacuation routes exist or if they need to be planned for in the future.
6. Work with Emergency Management when establishing priorities for roadway improvements, particularly in those areas with high Wildfire potential.
7. Support the Front Range Fuels Treatment Roundtable.
8. Encourage slash collection programs throughout the mountainous areas of the County.

#### **E. Hazardous Materials and Waste**

1. Identify the known locations of significant amounts of hazardous wastes and materials are used, stored, or manufactured. Use that information when updating land use recommendations in Area Plans.
2. Inform Fire Districts and emergency management teams of chemicals, explosives, Hazardous Materials, products and their wastes stored or manufactured on sites, or transported within their districts.
3. Prior to dedication of any land to the County, an environmental questionnaire should be submitted for the land to be dedicated to alert the County to any liability for future cleanup.

### **Glossary**

#### **Geologic Constraint**

A geologic condition which does not pose a significant threat to life or limb, but which can cause damage to structures.

**Major Geologic Constraint Area:** Those areas as shown on the Geologic Hazards and Constraint areas Map, where geologic conditions are such that extensive geotechnical problems exist and there is a high risk related to intensive land uses.

- 30%-40% slopes
- Highly swelling soils
- Dipping Bedrock

**Moderate Geologic Constraint Area:** Those areas as shown on the Geologic Hazards and Constraint Areas Map, where geologic conditions are such that moderate geotechnical problems exist and there is provisional risk related to intensive land uses

- 20%-30% slopes
- **Fault**
- Moderate swelling soils
- Highly erodible soils
- Highly sensitive soils

**Minor Geologic Constraint Area:** Those areas as shown on the Geologic Hazards and Constraint Areas Map where geologic conditions are such that few geotechnical problems exist and there is no risk or nominal risk related to intensive land uses.

- Moderately erodible soils
- Moderately sensitive soils

