



# ANNEX B: TOWN OF ERIE

## B.1 Community Profile

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*“Erie is a community which recognizes the importance of conserving and enhancing its historic small town character, the roots from which it grew, preserving the natural environment in which it resides; a caring community which offers its residents an environment in which to seek a high quality of life; a balanced community with a diverse range of housing, employment, educational, shopping and recreational opportunities; and a vital community which provides financial and social support for quality of life programs.”*

### **- Town of Erie Comprehensive Plan**

The Town of Erie is located in eastern Boulder County and southwest Weld County. Erie's Planning Area spans 48 square miles, extending from the north side of State Highway 52 south to State Highway 7, and between US 287 on the west and Interstate 25 to the east. Erie is approximately 35 minutes from Denver International Airport, 25 minutes to Denver and 20 minutes from Boulder. The entire Town is covered by this plan, including the Weld County portion.

The original plat for Erie was filed in 1871, following establishment of the Briggs Mine, the first commercial coal mine in Weld County. It was also in 1871 that the Union Pacific Railroad extended a spur westward from Brighton on its main line between Denver and Cheyenne. Coal from the Erie deposits was needed to fuel their huge steam locomotives. The Boulder Valley Railroad, as it was called then, opened up the northern coal fields for development. Soon coal from Erie mines was being shipped by rail to markets in Denver and as far east as Kansas City. The Town of Erie was incorporated in 1874.

### **B.1.1 Population**

According to the Town of Erie Community Development Department, there are 7,323 households within the Town as of December 31, 2014. 3,052 of the households are located in Boulder County and 4,271 of the households are in Weld County. The majority of households (approximately 6,500) are single family homes with the remaining homes multi-family units.

Erie's population was recorded as 6,291 at the 2000 US Census. The population according to the 2010 census was 18,135. According to the Town of Erie Community Development Department, Erie's estimated 2015 population is 22,000. There are approximately 7,000 new residential units at some phase of the development process. As such, Erie is poised to reach a projected population of 40,640 by 2025. To view existing and future residential development, please visit [www.erieco.gov/maps](http://www.erieco.gov/maps) and select Residential Development Activity Map.

Select Census demographic and social characteristics for Erie are shown in Table B.1.

**Table B.1. Erie's Demographic and Social Characteristics**

Characteristic	
Gender/Age	
Male (%)	49.1
Female (%)	50.9
Under 5 Years (%)	8.5
65 Years and Over (%)	6.3
Race/Ethnicity (one race)	
White (%)	88.0
Hispanic or Latino (Of Any Race) (%)	7.0
Other	
Average Household Size	2.95
High School Graduate or Higher (%)	97.6

Source: 2008-2012 American Community Survey, 5-year Estimate

## B.1.2 Economy

According to the 2010 Census, the industries that employed most of Erie's labor force were education, health and social services (21.5%), professional, scientific, and management, administrative and waste management services (15.7%), retail trade (13.3%) and manufacturing (12%). Select economic characteristics for Erie from the 2010 Census are shown in Table B.2.

**Table B.2. Erie's Economic Characteristics**

Characteristics	
Families below Poverty Level, 2010	3.6%
Individuals below Poverty Level, 2010	4.0%
Median Home Value	\$341,400
Median Household Income, 2010	\$100,288
Per Capita Income, 2010	\$36,688
Population in Labor Force	8,723

Source: U.S. Census Bureau (2010), [www.census.gov](http://www.census.gov)

## B.2 Hazard Summary

The most significant hazards for Erie are floods, expansive soils, and severe winter storm. Refer to the Vulnerability Assessment for detailed vulnerability to the flood hazard. Other hazards that could impact Erie include severe winter weather, lightning, tornado, windstorm, flooding, hailstorm, extreme heat, subsidence, dam failure, drought and earthquake. Due to its location on the plains in eastern Boulder County the Town has a slightly higher risk from tornados than other communities in this plan.

## B.3 Asset Inventory

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### B.3.1 Property Inventory

Table B.3 represents an inventory of property in Erie based on data as of August 1, 2013.

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**Table B.3. Erie's Property Inventory**

Property Type	Parcel Count	Total Value (\$)
<b>Boulder County</b>		
Residential	5,899	944,013,982
Commercial	130	25,404,868
Exempt	128	17,827,394
Agricultural	173	461,608
Industrial	13	1,272,392
Vacant	278	12,832,800
Oil & Gas	119	7,825,228
Natural Resources	16	6,400
State Assessed	37	11,769,867
Total	6,793	1,021,414,539
<b>Weld County</b>		
Residential		1,093,855,103
Commercial		60,016,021
Exempt		63,027,707
Agricultural		630,095
Industrial		7,868,508
Vacant		13,155,887
Oil & Gas		33,722,481
Minerals		15,130
State Assessed		4,709,660
Total		1,277,000,592
<b>Grand Total</b>		<b>2,298,415,131</b>

Source: Boulder County Assessor's Office, Abstract of Assessment 2012; Weld County Assessor's Office, Abstract of Assessment December 2012

### B.3.2 Other Assets

Table B.4 is a detailed inventory of assets identified by the Town's planning team. This inventory includes critical facilities.

**Table B.4. Erie's Assets**

Name of Asset	Type <sup>1</sup>	Address	Replacement Value (\$) <sup>2</sup>	Occupancy/ Capacity #	Hazard Specific Info
Town Hall/Police Station	Essential/ Public Safety, Vital	645 Holbrook Erie, CO 80516	3,015,531		
MVFPD Fire Station #6	Essential/ Public Safety	50 Bonanza Dr., Erie, CO 80516	630,758		
*New Police Station and Municipal Court	Essential/ Public Safety, Vital	County Line Road and Telleen Ave.	TBD	TBD	*Scheduled opening July 2015
Water Treatment Facility	Essential/ Utility, Hazardous Materials	2901 No. 119 <sup>th</sup> Street, Erie, CO 80516	19,389,713		Chemicals
Water Reclamation Facility	Essential/ Utility	1000 Briggs St., Erie, CO 80516	8,867,758		
North Water Reclamation Facility	Essential/ Utility	501 St. Hwy 287, Erie, CO 80516	18,000,000		
Erie Community Center	Essential/ Shelter	450 Powers St., Erie, CO 80516	18,000,000		
Erie Community Library	Essential/ Shelter	400 Powers St., Erie, CO 80516	2,637,045		
Leon A. Wurl Service Center	Vital	150 Bonnell Ave., Erie, CO 80516	5,000,000		
Erie Municipal Airport	Essential/ Air Transportation	395 Airport Dr., Erie, CO 80516	1,552,369		
Electrical Substation	Essential/ Utility	905 County Line Rd., Erie, CO 80516	n/a		
Erie High School	Essential/ Shelter, At-Risk Population	3180 WCR 5 Erie, CO 80516	17,806,467		
Erie Middle School	Essential/ Shelter, At-Risk Population	650 Main St., Erie, CO 80516	n/a		
Black Rock Elementary	Essential/ Shelter, At-Risk Population	2000 Mtn. View Pkwy, Erie, CO 80516	8,099,688		
Red Hawk Elementary	Essential/ Shelter, At-Risk Population	1500 Telleen Dr., Erie, CO 80516	n/a		
Erie Elementary	Essential/ Shelter, At-Risk Population	4137 E. County Line Rd, Erie, CO 80516	3,504,700		

Name of Asset	Type <sup>1</sup>	Address	Replacement Value (\$) <sup>2</sup>	Occupancy/ Capacity #	Hazard Specific Info
Aspen Ridge Preparatory School	Essential/ Shelter, At-Risk Population	705 Austin Avenue, Erie, CO 80516	3,232,814		
Vista Ridge Academy	Essential/ Shelter, At-Risk Population	3100 Ridge View Dr., Erie, CO 80516	4,022,478		
Blue Mtn. Montessori School	Essential/ Shelter, At-Risk Population	201 S. Briggs St., Erie, CO 80516	176,150		
Primrose	Essential/ Shelter, At-Risk Population	2998 Ridge View Dr., Erie, CO 80516	990,664		
The Goddard School	Essential/ Shelter, At-Risk Population	3000 Village Vista Dr., Erie, CO 80516	747,638		
Wee School Preschool	Essential/ Shelter, At-Risk Population	690 Briggs St., Erie, CO 80516	163,478		
Erie Reservoir	Essential/ Utility	3155 US 287, Erie, CO 80516	n/a		
Prince Reservoir #2	Essential/ Utility	3050 N. 111 <sup>th</sup> St., Erie, CO 80516	n/a		
Thomas Reservoir	Essential/ Utility	2000 N. 119 <sup>th</sup> St., Erie, CO 80516	n/a		
1.5 MGD and 4 MGD Water Storage Tanks	Essential/ Utility	1375.35 WCR 7, Erie, CO 80516	n/a		
Colorado National Golf Course Clubhouse	Essential/ Shelter	2700 Vista Pkwy, Erie, CO 80516	2,498,800		
Century Link Communications	Essential	360 Wells St., Erie, CO 80516	n/a		
Avista Family Medicine – Urgent Care	Essential	611 Mitchell Way, Ste. 103, Erie, CO 80516	n/a		
Oil & Gas Wells	Hazardous Materials	Throughout Region <sup>3</sup>	n/a		
Tri County Self Storage	Hazardous Materials	1401 E. County Line Rd., Erie, CO 80516	2,933,300		Unknown chemical storage potential
County Line Lumber	Hazardous Materials	4047 NE County Line Rd, Erie, CO 80516	651,000		Misc. building products & materials

Name of Asset	Type <sup>1</sup>	Address	Replacement Value (\$) <sup>2</sup>	Occupancy/ Capacity #	Hazard Specific Info
Napa Auto Parts	Hazardous Materials	1020 Carbon Ct., Erie, CO 80516	n/a		Solvents
Magnum Plastics	Hazardous Materials	425 & 475 Bonnell Ave., Erie, CO 80516	1,568,244		Solvents
John Murphy Millworks	Hazardous Materials	1065 Telleen Ave., Erie, CO 80516	682,300		Solvents
Phillip's Seeding	Hazardous Materials	2405 CR 1, Erie, CO 80516	85,772		Chemicals
Azar Woodcraft	Hazardous Materials	455 Young Ct., Erie, CO 80516	n/a		Solvents
Safeway	Retail/Hazardous Materials	3333 Arapahoe Rd., Erie, CO 80516	3,193,400		Propane Storage
7-11	Hazardous Materials	3240 Village Vista Dr.	1,057,832		Propane Storage, Gas
Conoco	Hazardous Materials	4200 County Line Rd., Erie, CO 80516	177,600		Propane Storage, Gas
Shell Service Station	Hazardous Materials	3334 Arapahoe Rd., Erie, CO 80516	920,200		Propane Storage, Gas
Stop & Save	Hazardous Materials	681 Mitchell Way, Erie, CO 80516	866,798		Propane Storage, Gas
County Line Auto Body	Hazardous Materials	1021 Carbon Ct., Erie, CO 80516	866,798		Welding Material, Paint
Blue Sky Club House	Community	1455 Sunset Way, Erie, CO 80516	n/a		Pool Chemicals
Arapahoe Ridge Pool	Community	1750 Powell St., Erie, CO 80516	n/a		Pool Chemicals
Erie Commons Pool	Community	751 Eichhorn Dr., Erie, CO 80516	n/a		Pool Chemicals
Vista Ridge HOA Pool	Community	SEC Skyline Dr/ Mountain View Blvd., Erie, CO 80516	n/a		Pool Chemicals
Erie Senior Housing Complex	At-Risk Population	800 High St., Erie, CO 80516	603,214		

Critical facility counts and types are shown in Table B.5.

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**Table B.5. Summary of Erie’s Critical Facilities in GIS**

<b>Critical Facility Type</b>	<b>Facility Count</b>
Airport	1
Bridges – please add	5
Communications	1
Community Center	3
Dams	4
Day Cares	5
Elderly Facility	1
Fire Stations	1
Police	1
Power Substation	1
Public Works	1
Schools	7
Water Treatment Plant	1
Water Reclamation	2
Water Storage Tank	2
<b>Total</b>	<b>36</b>

Source: Town of Erie, Colorado

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**Figure B.1. Erie’s Base Map and Critical Facilities**

Please visit [www.erieco.gov/maps](http://www.erieco.gov/maps) and select Critical Facilities Map

### **B.3.3 Economic Assets**

Economic assets at risk may include major employers or primary economic sectors, such as, agriculture, whose losses or inoperability would have severe impacts on the community and its ability to recover from a disaster. After a disaster, economic vitality is the engine that drives recovery. Every community has a specific set of economic drivers, which are important to understand when planning ahead to reduce disaster impacts to the economy. When major employers are unable to return to normal operations, impacts ripple throughout the community.

According to a survey conducted in February, 2014 the following are Erie’s major employers:

- St. Vrain Valley School District
- Town of Erie
- Safeway Stores, Inc.
- U.S. Postal Service
- Magnum Plastics
- Waste Connections
- Air Mechanical Inc.
- Vector Air

- Primrose
- Colorado National Golf Course
- The Goddard School

### **B.3.4 Natural, Historic, and Cultural Resources**

Assessing the vulnerability of Erie to disaster also involves inventorying the natural, historical, and cultural assets of the area. This step is important for the following reasons:

- The community may decide that these types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- If these resources are impacted by a disaster, knowing so ahead of time allows for more prudent care in the immediate aftermath, when the potential for additional impacts are higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, such as wetlands and riparian habitat, which help absorb and attenuate floodwaters.

#### **Natural Resources**

Erie has 758 acres of dedicated parks and open space. The Parks Division is responsible for maintaining community and regional parks, improved arterial rights-of-way, ball fields, trails, Town-owned open space, and storm water detention facilities. Maintenance includes, but is not limited to, maintenance of park equipment, mowing, weed control, irrigation, planting, fertilization, pruning, and trash pickup. The Town currently maintains:

- 149 acres of developed parks
- 609 acres of open space
- 62 miles of roadsides
- 34 miles of trail corridor
- 59 acres of landscaping at Town facilities

During September and October 2007, a team of scientists explored selected natural areas on undeveloped lands throughout Erie's Planning Area to create a Natural Areas Inventory. The inventory was assembled into a reference document that describes and rates natural areas, their value to humans and wildlife, and how to protect them. Erie contains a range of valuable natural resources that contribute to its visual quality and character, provide valuable wildlife habitat, and provide connections to other open space corridors in the region. Areas of primary significance include the Coal and Boulder Creek corridors.



Erie's planning area is crisscrossed by many waterways, including Boulder Creek and Coal Creek, and a number of irrigation canals and ditches built to serve agricultural lands surrounding the community. Protection of these features and of the surrounding floodplain is a key issue for the community.

For information about natural resources in Boulder County, which includes Erie, see the Vulnerability Assessment.

## **Historic and Cultural Resources**

The Town of Erie Historic Preservation Advisory Board meets to discuss issues related to the preservation of historic structures, documents and artifacts in Erie. The board reports to the Board of Trustees in an advisory capacity. Commissioners are appointed by the Board of Trustees in staggered four-year terms.

The Erie Historical Society (EHS) was founded in 1984 to preserve Erie, Colorado's history. EHS honors those hard working pioneers who mined the coal, worked the fields and ran the railroads, as well as the pioneer women who raised the families and educated the children.

The purpose of this society shall be to bring together those people interested in history especially the history of Erie, and area to bring about an appreciation of the heritage of the American West. It will collect and preserve artifacts of the period and shall provide educational programs illustrating life in the early 20th century. It shall preserve and disseminate printed historical material regarding the community.

Understanding the history of the community is basic to our democratic way of life, gives us a better understanding of our state and nation and promotes a better appreciation of our American Heritage.

The Erie Historical Society educates through projects like the Wise Homestead Museum, to commemorate early homesteaders and through partnerships with community members. Historic talks by local historians and lecturers provide a glimpse back in time and reveal remarkable stories about the people who settled in our region of Colorado.

The EHS preserves the area's rich history through projects like the Wise Homestead Museum, at 11611 Jasper Road. The two-story Western Victorian farmhouse was built by Erie settler O.E. Wise in 1870 and has been restored by local and state Historical Societies. As such, the Wise Homestead Museum is considered a historic/cultural resource located in Erie.

## **B.4 Growth and Development Trends**

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Table B.6 illustrates how Erie has grown in terms of population and number of housing units between 2000 and 2013.

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**Table B.6.**

2000 Population	2015 Population Estimate	Estimated Percent Change (%) 2000-2010	2000 # of Housing Units	2015 Estimated # of Housing Units	Estimated Percent Change (%) 2000-2014
6,985	22,000	+315	2,328	7,323	+315

Source: Town of Erie, Colorado

Over the past two decades, Erie has experienced a significant amount of growth compared to historic rates. From 1990 to 2000, Erie experienced a 400 percent increase in population. From 2000 to 2013, Erie experienced a 300 percent increase in population.

Household and population projections between 2000 and 2025 are shown in Table B.7.

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**Table B.7. Erie's Household and Population Projections, 2000-2025**

Year	# of Dwellings	Change	Total Population	Change
2000	2,328	--	6,985	--
2005	5,016	+2,688	15,048	+8,063
2010	6,630	+1,614	19,890	+4,842
2015	7,323	+693	22,000	+2,110
2025	14,580	+7,257	40,680	+18,680
2000-2025	--	+12,252	--	+33,695

Source: Town of Erie Comprehensive Plan, [www.erieco.gov/](http://www.erieco.gov/)

The dominant land use in incorporated Erie is single family residential with the predominant commercial areas located along major arterials (I-25, Highway 7, Highway 287, Highway 52 and the County Line Road and Erie Parkway intersection). There is one active landfill and one temporarily closed landfill in the incorporated area, comprising approximately 668 acres.

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**Figure B.2. Erie's Future Land Use Map**

Please visit [www.erieco.gov/maps](http://www.erieco.gov/maps) to view the Town of Erie Zoning Map and Comprehensive Development Plan Map.

## **B.5 Capability Assessment**

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Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment summarizes Erie's regulatory mitigation capabilities, administrative and technical mitigation capabilities, and fiscal mitigation capabilities and then discusses these capabilities in further detail along with other mitigation efforts as they pertain to the National Flood Insurance Program's Community Rating System (CRS). Although the CRS is flood-focused, this discussion also incorporates activities related to other hazards into the categories established by the CRS.

## B.5.1 Mitigation Capabilities Summary

Table B.8 lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in Erie.

**Table B.8. Erie's Regulatory Mitigation Capabilities**

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Master plan	Yes	Town of Erie Comprehensive Plan, 2005
Zoning ordinance	Yes	Erie Municipal Code
Subdivision ordinance	Yes	Erie Municipal Code, Standards and Specifications
Growth management ordinance (policy)	Yes	Town of Erie Comprehensive Plan, 2005
Floodplain ordinance	Yes	Erie Municipal Code
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Wildfire: Public Burning Ban - Ordinance
Building code	Yes	2006 International Codes
BCEGS Rating	No	
Fire department ISO rating	Yes	Rating: 3/9
Erosion or sediment control program	Yes	Erie Municipal Code
Stormwater management program	Yes	Erie Municipal Code
Site plan review requirements	Yes	Erie Municipal Code
Capital improvements plan	Yes	Budget
Economic development plan	Yes	Town of Erie Economic Development Plan
Local emergency operations plan	Yes	Town of Erie Local Emergency Operations Plan
Other special plans	Yes	Water Conservation Master Plan
Flood insurance study or other engineering study for streams	Yes	Outfall Systems Plans, Flood Insurance Study, Letters of Map Revision
Elevation certificates	Yes	
Other	Yes	Natural Areas Inventory, Vulnerability Assessment, Coal Creek Flood Control Project

Table B.9 identifies the personnel responsible for mitigation and loss prevention activities as well as related data and systems in Erie.

**Table B.9. Erie's Administrative and Technical Mitigation Capabilities**

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Department of Public Works Civil Engineers/Director	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Chief Building Official Department of Public Works Civil Engineers/Director	
Planner/engineer/scientist with an understanding of natural hazards	Yes	Department of Public Works Civil Engineers	
Personnel skilled in GIS	Yes	Department of Public Works GIS Technician	

Full-time building official	Yes	Chief Building Official Building Inspectors
Floodplain manager	Yes	Department of Public Works Civil Engineer
Emergency manager	Yes	Chief of Police
Grant writer	Yes	Assistant to the Town Administrator
Other personnel	Yes	Chief of Police Police Lieutenant
GIS Data – Hazard areas	Yes	
GIS Data – Critical facilities	Yes	
GIS Data – Building footprints	Yes	
GIS Data – Land use	Yes	
GIS Data – Links to assessor's data	Yes	
Warning systems/services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Everbridge, Reverse 911, Cable Override, Website, Email List serve, Facebook, Twitter

Table B.10 identifies financial tools or resources that Erie could potentially use to help fund mitigation activities.

**Table B.10. Erie's Fiscal Mitigation Capabilities**

<b>Financial Resources</b>	<b>Accessible/Eligible to Use (Yes/No)</b>	<b>Comments</b>
Community Development Block Grants	Yes	
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Incur debt through private activities	No	

## **B.5.2 Community Rating System Activities (All Hazards)**

### **National Flood Insurance Program**

The Town of Erie joined the National Flood Insurance Program (NFIP) on October 17, 1979. The NFIP allows private property owners to purchase affordable flood insurance and enables the community to retain its eligibility to receive certain federally backed monies and disaster relief funds.

NFIP insurance data indicates that as of August 1, 2013, there were 32 policies in force in Erie (Boulder and Weld counties), resulting in \$7,635,900 of insurance in force. In Erie, there have been two claims for flood losses filed totaling approximately \$1,000.

## Community Rating System Categories

The Community Rating System (CRS) categorizes hazard mitigation activities into six categories. These categories, and applicable Erie activities, are described below. Note: some of the activities are appropriate to multiple categories. For purposes of simplicity, they are only included in the category deemed most appropriate based on the definitions and examples provided in the *CRS Coordinator's Manual*.

### **Preventive**

*Preventive activities keep problems from getting worse. The use and development of hazard-prone areas is limited through planning, land acquisition, or regulation. They are usually administered by building, zoning, planning, and/or code enforcement offices.*

### **2005 Comprehensive Plan**

The Town of Erie Comprehensive Plan is an advisory document that outlines the community's vision and goals for the future and provides guidance for Town officials in making choices regarding the long-range needs of the community. The plan's goals and guiding principles, policies, and recommendations, along with the Future Land Use map (see Figure B.2 above), provide guidance for decisions affecting growth and annexation, the use and development of land, preservation of open space, and the expansion of public facilities and services. The following goals and policies directly mitigate hazards addressed in this plan:

- **Goal:** Protect Sensitive Areas—Preserve environmentally sensitive areas from development
  - Discourage Development in Sensitive or Hazard Areas: The Town will discourage developments where a significant risk to life and property exist, as in areas of floodplain, geologic hazard, unstable soils, undermined areas, and steep slopes in accordance with the recommendations of the Colorado Geologic Survey, FEMA, and the Office of Mined Lands.
- **Goal:** Environmentally Sensitive Design Promote environmentally sensitive design that minimizes the use of and impacts to renewable and non-renewable resources
  - Develop Water Conservation Principles: The Town will encourage conservation of water resources in the landscape through the use of xeriscaping principles (i.e., where landscapes are designed with drought-tolerant plants in low water zones as well as fully irrigated zones) and the use of non-potable water for landscape irrigation.
  - Undermined Areas: Development should not be permitted over undermined areas unless risks can be mitigated. Portions of the site deemed to be undevelopable due to the effects of undermining should be integrated as part of an overall open space network.
- **Goal:** Establish an Open Space Program—Conserve and maintain important open space lands in and around Erie
  - Characteristics of Open Space: Open space is characterized as undeveloped land that is permanently committed to be maintained in a natural or agricultural state and that serves

one or more functions identified in the plan, including protecting the public from natural and geologic hazards.

A number of other goals and policies in the comprehensive plan indirectly mitigate hazards addressed in this plan. The Natural Resource and Environment and Open Space chapters, in particular, further mitigate hazards by protecting valuable natural resources (e.g., wetlands, riparian areas).

## **Erie Municipal Code**

### *Drainage and Flood Control*

In regard to hazard mitigation, Erie's strongest and most directly related regulations are those related to drainage and flood control. These regulations were designed to promote the public health, safety, and general welfare; to minimize flood losses in areas subject to flood hazards; and to promote wise use of the floodplain. More specifically, they were established to:

- To reduce the hazard of floods to life and property through:
  - Prohibiting certain uses which are dangerous to life or property in time of flood;
  - Restricting uses which would be hazardous to the public health in time of flood;
  - Restricting uses which are particularly susceptible to flood damage, so as to alleviate hardship and eliminate demands for public expenditures for relief and protection;
  - Requiring permitted floodplain uses, including public facilities which serve such uses, to be protected against flood by providing flood proofing and general flood protection at the time of initial construction;
  - 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 in flood heights or velocities; and
  - Requiring that uses vulnerable to floods, including facilities which serve such uses be protected against flood damage at the time of initial construction.
- To protect floodplain occupants from a flood which is or may be caused by their own or other land use and which is or may be undertaken without full realization of the danger, through:
  - Regulating the manner in which structures designed for human occupancy may be constructed so as to prevent danger to human life within such structures;
  - Regulating the method of construction of water supply and sanitation systems so as to prevent disease, contamination and unsanitary conditions;
  - Delineating and describing areas that could be inundated by floods so as to protect individuals from purchasing floodplain lands for purposes which are not in fact suitable;
  - Minimizing the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
  - Minimizing prolonged business interruptions;

- Ensuring that potential buyers are notified that property is in an area of special flood hazard; and
- Ensuring that those who occupy the areas of special flood hazards assume responsibility for their actions.
- To protect the public from the burden of avoidable financial expenditures for flood control and relief by:
  - Regulating all uses within the floodplain areas so as to produce a method of construction and a pattern of development which will minimize the probability of damage to property and loss of life or injury to the inhabitants of the flood hazard areas;
  - Minimizing damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; and
  - Helping 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.
- To protect the storage capacity of floodplains and to assure retention of sufficient floodway area to convey flood flows which can reasonably be expected to occur by:
  - Regulating filling, dumping, dredging, and alteration of channels by deepening, widening, or relocating;
  - Prohibiting unnecessary and damage creating encroachments;
  - Encouraging uses such as agriculture, recreation and parking; and
  - 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 in flood heights or velocities.
- To protect the hydraulic characteristics of the small watercourses, including the gulches, sloughs and artificial water channels used for conveying floodwaters, which make up a portion of the urban drainage system, by:
  - Regulating filling, dumping, and channelization so as to maintain the natural storage capacity and slow flow characteristics;
  - Prohibiting encroachment into the small watercourses to maintain the natural storage capacity and slow flow characteristics;
  - Encouraging uses such as greenbelt, open space, recreation, and pedestrian and riding trails;
  - Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;
  - Controlling filling, grading, dredging, and other development which may increase flood damage; and
  - Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

Specifically, the regulations create two overlay zoning districts, the Floodway and Floodway Fringe districts, to identify properties within special flood hazard areas, require a development

permit for construction of development in either district, identify permitted uses and conditions for permitted uses in the districts, sets standards and requirements for development in the districts, and outlines the duties and responsibilities of the floodplain administrator.

### *Other Regulations*

- **Water and Wastewater**—These regulations prohibit waste of water and establish the Town of Erie Water Conservation Program. The requirements for water conservation are voluntary unless made mandatory through a town board resolution. Additionally, the Town administrator may establish water usage hours and restrictions for the safety and welfare of the Town.
- **Zoning Regulations**—This title is in accordance with the comprehensive plan and is designed to promote the health, safety, and general welfare; to prevent the overcrowding of land; to avoid undue concentration of population; and to facilitate the adequate provision of services (including water and drainage), among other things. No building or structure may be erected, constructed, reconstructed, altered, repaired, moved, or used unless in conformance with these regulations, and no land may be used unless in conformance with these regulations.
- **Subdivision Regulations**—The purpose of this title is to assist orderly, efficient, and integrated development and to promote the health, safety, morals, convenience, order, prosperity, and general welfare of the present and future residents of the Town. General design standards call for preservation of natural features and attention to hazardous conditions. Land subject to hazardous conditions, such as landslides, mudflows, rockfalls, snowdrifts, possible mine subsidence, shallow water table, floods, etc., cannot be subdivided until the hazards have been mitigated or will be mitigated by the subdivision and construction plans. The design standards chapter also addresses surface water drainage and abandoned mines.

### **Other**

- The Erie Outfall System Plan evaluates the impact of existing and projected future development on flood peaks and presents a preliminary design of the plan, including stormwater outfall systems that safely convey the projected 100-year flood under future development conditions. The purpose of the outfall system planning study was to identify alternate methods to convey stormwater to enhance public health and safety and minimize property damage.

### **Property Protection**

*Property protection activities are usually undertaken by property owners on a building-by-building or parcel basis.*

No projects currently identified.



## **Natural Resource Protection**

*Natural protection activities preserve or restore natural areas or their natural functions. They are usually implemented by parks, recreation, or conservation agencies or organizations.*

- Erie has a Natural Areas Inventory Report that delineates and inventories the natural features and unique characteristics of undeveloped lands for their uniqueness as natural areas. Erie's natural areas are those places with natural resources such as wildlife habitat and corridors, native prairie and plant diversity, aquatic habitats and wetlands, significant topographic features, and scenic views that potentially offer opportunities to preserve, enhance, and recognize Erie's natural heritage. This report serves to highlight those locations and features that are worthy of sensitivity during land use planning.
- Erie has a Community Forestry Program, which attends to the care and management of public tree resources in the Town's urban/community environment. Among the program's recognized benefit of trees are the following mitigation-related benefits: reduce soil erosion, provide shade for cooling, living snow fence, and living wind break.
- Erie's Open Space and Trails Advisory Board advises the Board of Trustees on open space and trails related issues.
- Erie's Water Conservation Master Plan (2008) provides guidance for effective water conservation while controlling costs related to implementation. The plan evaluates Erie's water demands and supplies, defines goals specific to the conservation program, and evaluates and selects conservation measures/programs for implementation. It focuses on conservation measures and programs that are compatible with Erie's water supply system, water resources management strategy, and community values.
- Water Conservation Program: The Town has intentionally developed a diverse water portfolio in order to provide enough flexibility to meet customer demands under most conditions. Erie continually monitors and adjusts water rights, leases, and deliveries to meet the anticipated demands. Moreover, the town continually monitors and adjusts operations and procedures to manage the demands. When certain "trigger" conditions are reached, the town will react in kind to implement planned, water reduction actions (water conservation action levels). The Town of Erie maintains as its baseline, a voluntary water conservation program. Erie residents are asked to voluntarily comply with Action Level 1 of the Town's Water Conservation Program, which calls for twice-weekly lawn watering. Under Action Level 1, residents with even-numbered addresses are asked to water on Sunday and Thursday. Residents with odd numbered addresses are asked to water on Wednesday and Saturday. Lawn watering is recommended between 7:00pm and 7:00am.
- Residential Irrigation Audits: The Town of Erie has partnered with the Center for ReSource Conservation, to provide an irrigation audit program for commercial and residential irrigation systems. This program meets one of the requirements of the Water Conservation Plan. An irrigation audit is designed to pinpoint inefficiencies in an irrigation system, which contributes to water waste, unnecessary runoff, and increased run-time and maintenance costs.

- The Town of Erie contracts with mosquito control contractors to provide the Town's mosquito surveillance and control activities during the summer months.

### **Emergency Services**

*Emergency services measures are taken during an emergency to minimize its impacts. These measures are the responsibility of city or county emergency management staff and the owners or operators of major or critical facilities.*

- The Town of Erie Senior staff, first responders, and various administrative and Department of Public Works staff are National Incident Management System (NIMS) certified.
- Mountain View Fire Rescue, based out of Longmont, currently has one fire station located in Erie and provides for Erie's fire protection and emergency medical services. Two other fire stations are currently scheduled for construction in 2015.

### **Structural Projects**

*Structural projects keep hazards away from an area (e.g., levees, reservoirs, other flood control measures). They are usually designed by engineers and managed or maintained by public works staff.*

- Erie received Hazard Mitigation Grant Program funding for roadway improvements/traffic safety at the intersection of 119<sup>th</sup> and Erie Parkway.
- Regional Detention Pond Facility
- Erie receives drainage system maintenance assistance from the Urban Drainage and Flood Control District for the following drainage facilities:
  - Arapahoe Ridge Filing 1 Detention pond
  - Arapahoe Ridge Filing 2 Detention Pond
  - Orchard Glen Filing 1 Detention Pond
  - Orchard Glen Filing 2 Detention Pond
  - Drainage Channel in orchard Glen Filing 2 between Marfell St. and Madison Ct.
  - Canyon Creek Filing 1 Detention Pond
  - Canyon Creek Filing 3 Detention Pond
  - Canyon Creek Filing 6 Detention Pond
  - Drainage Channel through Canyon creek from Erie Parkway to Meller Street
  - Creekside Detention Pond south of the railroad tracks
  - Creekside Detention Pond west of County Line Road
  - Creekside Drainage Channel along the northwest side of Creekside
  - Drainage Channel along the south side of the Railroad Tracks west of County Line Road
  - Kenosha Farms Detention Pond
  - Drainage Channel between Erie Village and Kenosha Farms from the point of intersection of the two channels north to the pond.

- UDFCD provided up to 50% matching funds working with the Town of Erie for the following drainage improvement projects:
  - Arapahoe Ridge Filing 1 Detention Pond
  - Arapahoe Ridge Filing 2 Detention Pond
  - 111<sup>th</sup> Street Drainage Design
  - Old Town By-Pass Drainage Improvements
  - Creekside Regional Detention Pond south of the railroad tracks
- Erie received a Pre-Disaster Mitigation grant from FEMA for replacement of a culvert at a Coal Creek crossing.
- Erie received a DOLA grant and a loan from CWCB for improving Coal Creek including the construction of a levee to protect Old Town from the 100-year flood, this was in the mid 90's
- The U.S. Army Corps of Engineers has inspected Erie's levee and determined that it qualifies for Public Law 84-99 Rehabilitation assistance for Non-Federal flood Control Projects. This inspection has also insured that Erie's Levee continues to be certified by FEMA for flood Protection purposes.
- After the 2013 floods Town of Erie Department of Public Works staff worked with FEMA, the State of Colorado, and other Federal agencies and managed the process of submitting and seeking reimbursement for nearly 40 projects totaling more than \$1.3 million.

### **Public Information**

*Public information activities advise property owners, potential property owners, and visitors about the hazards, ways to protect people and property from the hazards, and the natural and beneficial functions of natural resources (e.g., local floodplains). They are usually implemented by a public information office.*

- The Town of Erie maintains an "Emergency Preparedness" website which provides community-specific information and links to emergency preparedness information from a variety of local, state, and federal sources on its website.
- Erie makes available the Boulder Office of Emergency Management Emergency Preparedness Guide and the READYColorado "Pack a Kit Checklist" on the Town's website.
- The Town utilizes its website ([www.erieco.gov](http://www.erieco.gov)), social media (Facebook and Twitter) and Erie Government Television (Comcast Channel 8) to promote general Public Health and Safety Information. These media outlets are considered by the Town to be valuable tools for providing the residents of Erie with information about matters pertaining to public health and safety. In fact, 95% of respondents to a statistically valid Citizen Survey conducted in 2013 site the Town of Erie's website as their preferred source for obtaining information about the

Town. Additionally, 82% of respondents cited Erie Edition newsletter as a preferred source for obtaining information about the Town. Media releases, Newsflashes, educational programming and public notices pertaining to family emergency preparedness are some examples of information disseminated by the Town.

- During and after the 2013 flood and severe weather incidents in Erie, the Town utilized its social media and website to keep the public informed and provided essential public health and safety instructions.
- The Town promotes Water-Wise Landscaping Best Practices for citizens to use in making choices about their home landscaping to best use limited water resources.
- In November 2014, the Erie Police Department graduated 26 Erie Residents from a two-day CERT (Community Emergency Response Team) Training program. These residents learned about disaster preparedness for a variety of hazards that may impact our community. Through classroom training and hands on exercises, CERT members were taught what it takes to assist others in their neighborhood or workplace following an event when professional responders are not immediately available to assist.