

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Drainage Planning Policies	Colorado Urban Drainage and Flood Control Act	Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Sections 30-28-106 (Adoption of Master Plan – Contents), 30-28-107 (Surveys and Studies) 30-28-133 (Subdivision Regulations)	1	1.2.1 Planning must account for Initial Drainage and Major Drainage. Initial system, 10-yr design, Major Drainage, 100-yr. Overall Conveyance system must convey 10-yr and 100-yr.	11	16.10.120- Requires a development permit and submittal of application to the Regional Floodplain Administrator.	18	16-205 - Policy is to preserve the integrity of existing and natural drainage patterns in order that development will not cause storm drainage and floodwater patterns to exceed the capacity of natural or constructed drainage ways, to subject other areas to increased potential for damage by flood erosion or sedimentation, or to pollute natural streams.
		Title 30, Article 23 Colorado Statutes (Planning and Zoning), Section 31-23-107 (Public Property Dedicated)	1	1.2.2- Four levels of drainage planning: Drainage Basin Planning Study, Master Development Drainage Plan, Preliminary Drainage Report, Final Drainage Report	27	17.22.040- A site plan is required for all uses located in all zoning districts with the exception of detached single-family and two-family dwelling units. Site plan shall contain but not limited to existing and proposed drainage facilities; specific natural features, such as mature trees, drainageways floodplains, and steep slopes; and other not specific to drainage or erosion control.	18	16-205- It is the policy of the town to require future development to provide for structures and/or detention facilities necessary to ensure that the runoff characteristics of a site after development are no more disruptive to natural streams, land uses or drainage systems than are the runoff characteristics calculated for its natural site.
		Title 32, Article 7 Colorado Statutes (Regional Service Authorities), Section 32-7-142 (Urban Drainage and Flood Control)	1	1.2.5- Drainage strategy should be a multipurpose, multiple means effort involving public and private interests but include conveyance and storage facilities.				
		Title 32, Article 11 Colorado Statutes (Urban Drainage and Flood Control), Section 32-11-219 (Cooperative Powers)	28	Strategy LU 102b: Promote Cooperative Planning within the Potential Urban Growth Area- Promote cooperative planning within the Potential Urban Growth Area to: provide adequate urban services and infrastructure; coordinate the review of development proposals; and coordinate long range plans for infrastructure and services, including, but not limited to, transportation, parks, open space, air quality fire protection, police, utilities, and drainage.				
			28	Strategy N 203d: Incorporate Natural Features-Protect natural environmental features, including rock outcroppings, drainage areas, wildlife habitat, unique topographic features, and view corridors by incorporating them into new and developing neighborhoods, consistent with the guidelines of the Wildfire Mitigation Plan.				
			28	Objective CIS 4: Protect Drainageways- An important element of the City's public safety and quality of life is the system of drainageways. A major concern is that the public safety and quality of drainageways need to be maintained or improved as adjacent areas are developed. There is a need to protect the drainageways as amenities and a significant natural resource for people and wildlife, in addition to their public safety aspects.				
			28	Strategy CIS 401a: Utilize the Drainage Basin Planning Studies to establish the method of drainage treatment for each specific basin and to determine the new development responsibilities for drainage facilities. Ensure adequate City funding to update these studies on a periodic basis				
			28	Policy NE 202: Protect and Restore Natural Ecosystems and Habitat-Protect natural ecosystems and habitat from the adverse impacts of urbanization and land use, fostering their continued beneficial functions. Preserve, protect and enhance the hydrologic, ecological, and aesthetic functions of riparian areas, natural water bodies and drainage systems. Preserve, protect and enhance the interface between wildlands and urban development for resource and public safety protection.				
			28	Strategy CCA 101d: Develop Drainage Design Standards- Develop and adopt drainage design criteria to ensure that site drainage can be accomplished in a manner that minimizes site disturbance and negative impacts on natural site features. Site drainage should serve as an amenity that is incorporated into the overall landscape design of a site.				
			19	1.0- manual is meant to provide owners, developers, engineers, and contractors with information they will need to comply with City stormwater quality requirements for drainage planning/design relating new development/significant redevelopment and construction activities. Manual is to assist users in determining what requirements apply and what BMPs are necessary for a given site.				
			19	The Manual covers the following areas: 1. Basics of stormwater quality and regulatory requirements. 2. Requirements for the development and implementation of an Erosion and Stormwater Quality Control Plan. 3. Information on the use, design and maintenance of construction BMPs that can be used to comply with the Erosion and Stormwater Quality requirements. 4. Information on construction inspection and enforcement. 5. Requirements and procedures for inclusion of permanent stormwater quality elements in new developments/significant redevelopments. 6. Information on the use, design and maintenance of New Development BMPs that can be used for compliance with the New Development requirements. 7. Procedures for assessing existing structural controls for retrofitting with water quality features.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Drainage Planning Policies	12	16.06.030 Master Plan- Demonstrate that land is suitable for development and all hazards have been identified. Demonstrate that the development protects natural resources of land, demonstration that development layout provides protection from wind.	16	12.11.030- Prior to an issuance of a land use permit. The subdivider shall provide storm sewers, culvert, bridges, and other flood and runoff control structures to applicable Town specifications.	9	17.50.100- Site plan, grading and erosion control plan must be approved by Town prior to development.	17	2.10-The Policy of the City of Pueblo is to require that adequate measures be taken to insure that development will not exacerbate existing drainage problems. Some of the major drainage problems have been outlined in "City of Pueblo- Master Storm Drainage Study, May 1995." A review of this study, and discussions with City staff, should take place in the initial stages of planning for development within the City.
	12	16.08.030- Preliminary Plat- Contents- Plat shall show approximate location of all inundation or storm water overflow and location, widths and direction of flow of all water courses including the drainage of 100-year storm; proposed location of bridges, culverts, and other revisions for collection and discharging surface drainage; All areas with slopes 30% or greater are subject of designation as "no-build" zone.	16	12.13.010- Plan shall include drainage channels within 100-feet of tract; show the boundary of the existing 100-year floodplain, if applicable; preliminary drainage plan with quantity of flow and demonstrate adequacy of drainage facilities, off-site flow onto site; design points with flow quantity.	10	The person or entity response for paying established fee may prepare, at their own expense, a Drainage Basin Planning Study. This study can be used to amend drainage fees.		
	12	16.08.100- Final Plat- Material to Accompany- A drainage plan, prepared by a registered professional engineer. The drainage plan shall include, based on the finished grades and level of development, all necessary present and future culverts and other drainage structures and storm sewers, by size, design to accommodate the runoff from the subdivision. Surrounding land uses shall be taken into consideration as well as all basins which are occupied in whole or in part by the subdivision. Cost estimates for all drainage structures and improvements shall be provided.						
	12	16.10.030- Minor Subdivision-Material to Accompany- Approximate location of all areas subject to inundation or stormwater overflow and location, widths, and direction of flow of all water courses including the drainage of a 100-year storm. If, in the opinion of the Planning staff or the City Engineer and based on the anticipated severity, a drainage plan is warranted, such may be required. Proposed location of bridges, culverts, and other provisions for collection and discharging surface drainage. Cost estimates for all drainage structures and improvements shall be provided.						

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Drainage Planning Policies			1	1.2.1 Planning must account for Initial Drainage and Major Drainage. Initial system, 10-yr design, Major Drainage, 100-yr. Overall Conveyance system must convey 5-yr and 100-yr.	21, 24	16.56.010 and GES-1 Drainage- The drainage system shall be designed to consider the drainage basin as a whole and shall accommodate not only runoff from the proposed development area, but also, where applicable, the system shall be designed to accommodate the runoff from those areas adjacent to and upstream from the subdivision itself, as well as its effects on lands downstream;	13	Table 7: Criteria: Drainage: Activity will not adversely affect drainage patterns. Adequate drainage is or can be provided. For CUP-Mining
			1	1.2.2- Four levels of drainage planning: Drainage Basin Planning Study, Master Development Drainage Plan, Preliminary Drainage Report, Final Drainage Report	23	Section 16, part m: PUD, Design Standards, Drainage: Development within the PUD District shall be designed and constructed to include adequate stormwater management including planning, financing, design, construction, operation, and maintenance. All drainage facilities whether public or private shall be constructed in accordance with the provisions of Section XI of the Pueblo County Subdivision Regulations.	13	Table 7: There are no adverse impacts on surrounding properties, related to drainage changes for Rezoning of PUD.
			1	1.2.5- Drainage strategy should be a multipurpose, multiple means effort involving public and private interests but include conveyance and storage facilities.	23	Section 40, part h: Rural Land Use Process, Design Principles: A drainage report adhering to the Pueblo County Subdivision Regulations shall be submitted to the Department of Public Works for approval. All construction activities disturbing more than 5 acres will require a NPDES permit issued by the CDPHE. The stormwater management plan must be reviewed by the Pueblo County Department of Public Works.	13	Table 7: Criteria: Hydrology: Activity will not adversely affect hydrology. (CUP-mining)
			20	51.1- A preliminary drainage report shall be submitted (7 copies) at the time of preliminary plan submittal. Subsequent to preliminary plan approval, a final drainage report shall be submitted (7 copies) with the final plat. When specific improvements are required, the construction drawings and specifications must be submitted for review with the final plat. All reports shall be typed on 8 1/2" by 11" paper and shall be bound with the report or included in a folder/pocket attached to the report. All reports shall include a cover letter and shall be prepared by a registered professional engineer licensed in Colorado. The report shall be properly certified and signed by such engineer.	24	Section VIII- Preliminary Plan Requirements- Map shall show water courses and proposed storm water drainage systems. Drainage system shall be documented by an accompanying preliminary drainage report.	13	Table 7: Criteria: Impact: Ensure minimal adverse environmental, social and economic impacts in the development of sites in the impact areas and in the entire county. (New Community) The natural and socio-economic environments of the impact area, and of all the unincorporated area of County will be protected and enhanced. (New Community) The variance will not be injurious to the neighborhood or otherwise detrimental to the public welfare.
			33	1-A-Plan should be relied on by the Planning Commission and the Board of County Commissioners for guidance, direction and expectations concerning broader land use planning issues including growth management, compatibility, land use equity, property rights, and service standards. A secondary purpose of this Plan is to provide a framework to tie together the more detailed sub-area and topical elements of the Master Plan	24	Section XI, Design Standards: Part 9: The drainage system shall be designed to consider the drainage basin as a whole and shall accommodate not only runoff from the subdivision area but also, where applicable, the system shall be designed to accommodate the runoff from those areas adjacent to and upstream from the subdivision itself, as well as its effects on lands downstream.	13	Table 7: Natural Character: Sufficient provisions have been made by the applicant to preserve such natural features as water bodies and steep slopes, and to establish and maintain accessible open-space network for conservation, natural beauty and recreation. (New community)
			33	1-B- Section 2- Natural Systems-The rapid movement of surface water, often caused by concentrated heavy rains, may cause erosion, deposition, and flooding. In addition, failure of underground piping and surface collapse may occur where granular soil materials move into subsurface open cavities.	24	Section XI, Design Standards: Part 9: Complete drainage systems for the entire subdivision area shall be designed by a Professional Engineer. Drainage system shall be designed to permit the unimpeded flow of natural water courses and to ensure adequate drainage of all low points.	13	EN-40- Environmental Impact. Analysis of environmental impacts of the proposed new community on the following: quality of surface waters, groundwater aquifers and groundwater recharge; geomorphology, geology, and soils; and others not specific to drainage and erosion.
			33	Goal 11.1 Promote regional planning and management approaches which protect the integrity of drainage systems and minimize long-term system-wide environmental impacts, costs and recognized flood dangers within the County.				
			33	Policy 11.1.1 -Determine basic design and land requirements in each watershed for drainage facilities at the earliest possible juncture in the planning process to maximize planning options and minimize acquisition and construction costs.				
			33	Policy 11.1.2 -Encourage an approach based on the entire watershed, to flood protection which incorporates a combination of on-site, sub-regional and regional retention and detention facilities to effectively reduce negative downstream impacts including erosion, flooding, channel and water quality degradation.				
			33	Policy 11.1.3 Set aside the areas needed to accommodate the drainage facilities necessary for full basin build-out.				
			33	Policy 11.1.4 Require development plans to effectively address both quantitative and qualitative impacts of drainage within the project site. Policy 11.1.5 Effectively utilize automated land use mapping and data management (GIS) to keep drainage basin planning studies current. Policy 11.1.6 Continue to support cooperative multi-jurisdictional approaches to drainage system planning and operations.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Drainage Planning Policies (cont.)			19	3.0-An Erosion and Stormwater Quality Control Plan must be developed and submitted to the City Engineer to obtain an Erosion and Stormwater Quality Control permit. Criteria for when an Erosion and Stormwater Quality Control Plan is required are listed in Section 3.2: General Principles – Applicability. Site planning and drainage planning should, whenever possible, occur concurrently with site grading and erosion and stormwater quality control planning.				
			19	3.0- BMPs-Planning Process- Planning for the inclusion of appropriate BMPs should occur early in the site development process. The planning process can be divided into five separate steps: 1. Gather information on topography, soils, drainage, vegetation, and other predominant site features. 2. Analyze the information in order to anticipate erosion, sedimentation and stormwater quality problems. 3. Devise a plan that schedules construction activities and minimizes the amount of erosion created by development. 4. Develop an Erosion and Stormwater Quality Control Plan which specifies effective erosion, sediment, and stormwater quality control measures. 5. Follow the Erosion and Stormwater Quality Control Plan and revise it when necessary.				
Stormwater Utility	Colorado County Public Improvement District Act Colorado Public Utility Law	Title 30, Article 20 Colorado Statutes (Public Improvements), Sections 30-20-512.5 (Local Improvement Districts – Authority to Establish), 30-20-513 (Determination of Special Benefits – Factors Considered), 30-20-514 (Power to Levy Taxes)						
		Article 20, Section 6 Colorado Constitution (Home Rule for Cities and Towns)						
		Title 40, Article 1 Colorado Statutes (Definitions), Section 40-1-101 (Public Utility Law)						
		Title 40, Article 3 Colorado Statutes (Regulation of Rates and Charges)						
Design Storms	Federal Water Pollution Control Act of 1972 (Clean Water Act)	Title 40 CFR, Part 125 (Criteria and Standards for NPDES)	1	2.1- All drainage systems must be planned, designed and constructed to handle runoff from both the initial and major design storms. The initial design storm shall be the 5-year event. The major design storm shall be the 100-year event.	1	Required to detain 5-100 year storm. The major storm is 100-year event.		
	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002) Colorado Land Use Act	Title 24, Article 65 Colorado Statutes (Colorado Land Use Act), Section 24-65-105 (Model Resolutions – Subdivisions – Improvement Notices)						
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)						
		Title 37, Article 87 Colorado Statutes, Section 37-87-102 (Natural Streams and Use Thereof by Reservoir Owners)						
Financial Responsibility	Conservancy Law of Colorado – Flood Control	Title 37, Article 5 Colorado Statutes (Financial Administration, Flood Control Conservancy Districts)	1	1.3- Developers are required to pay for drainage facilities in their subdivision.	34	Developers are required to construct stormwater facilities and detention on-site.		
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	22	7.3.504.G- Building permit will not be issued until appropriate financial securities have been posted with the City Engineer to assure implementation of the approved grading, erosion and stormwater quality control and reclamation plans.				
			22	7.7.902- Studies of Drainage Basins- If public funds are not available and land development in a specific drainage basin is causing the need for a new or updated DBPS, a specific land developer(s) may be required to finance a new or updated study, subject to conditions and requirements of the City Engineer. The land developer(s) will be eligible for credit for the cost of the studies in accord with the provisions of 7.7.907.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Drainage Planning Policies (cont.)								
Stormwater Utility	26	13.36.100-There is established a storm drainage and flood management utility to provide reasonable protection to the public against the dangers to life and property presented by storm water runoff and flooding.					27	Section 2- The stormwater utility enterprise is empowered to coordinate, design, construct, manage, operate, and maintain the stormwater and flood management systems and stormwater facilities of Pueblo and to perform such other functions and activities as the City Council may assign.
	26	13.36.120 Assessments--Rate- Each individual water service account shall be assessed at the rate of three dollars per month.					27	Section 4- The stormwater utility enterprise is authorized to issue revenue bonds for the payment or other financing of eligible stormwater utility projects and activities, or for the purpose of refunding any revenue bonds issued for such purpose.
	26	13.36.140 Use of funds- Expenditure of funds generated by this assessment shall be limited to capital improvements for storm drainage and flood management purposes.					27	Section 5- The stormwater utility enterprise may borrow funds in such amounts from such persons or entities and upon such terms and conditions as the City Council may determine to be in the best interests of the stormwater utility enterprise.
Design Storms							17	4.3.5- Open Channels- Open channels which are used for urban drainage must be capable of conveying runoff from all tributary lands, using the 100-year design storm criteria.
Financial Responsibility			15	A land developer may qualify for a reimbursement of a portion of the construction costs if the developer builds on-site detention meeting specific criteria. Since on-site detention benefits the region 50% of the cost of a small on-site pond may be reimbursed if the following criteria are met: regional system not in place, pond is less than 15 ac-ft, pond is not part of regional plan, release of historical flow rate, the Town must approve design and construction, and landowners must maintain.	9	17.50.130- The minimum fee for issuance of a permit under this ordinance shall be set forth in Section 17.80.010. In addition, the costs incurred by the Town for hiring a registered professional engineer to review projects shall be borne by the applicant. Hourly rates shall be set in the contract agreement with the Town Engineer.		
			16	12.15.020- Storm drainage provided- Storm drainage shall be provided for the development by the developer based on plans submitted by him to the Town and approved by the Town Engineer. Plans shall be prepared in accordance with Town design standards. Storm inlet protection should provide safeguards against entry by small children and animals.	10	16.80.050- 100% of the following improvements will be eligible for reimbursements: Land and construction cost of large on-site ponds required in Drainage Basin Planning Study; other reimbursable items identified in Drainage Basin Planning Study; and cost of approved Drainage Basin Planning Study.		

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Drainage Planning Policies (cont.)				<p>Policy 11.1.7 Approve site-specific development plans only if there are financial and other assurances that on-site drainage facilities will be appropriately constructed, that downstream infrastructure will accommodate the additional impact, and maintenance issues are fully addressed</p> <p>Policy 11.1.8 Promote planning approaches which allow for interim solutions for drainage problems in less developed basins</p> <p>Policy 11.1.9 Support the development of drainage basin management plans which meet the unique needs of rural and rural-residential areas.</p>				
Stormwater Utility								
					24	Section XV- Variances: Should the subdivider clearly demonstrate that, because of peculiar physical conditions pertaining to his land, the literal enforcement of one or more of these regulations is impractical or will exact undue hardship, the Board may permit such variance or variances as may be reasonable and within the general purpose and intent of the rules, regulations, and standards established by these regulations.		14 6.4-Drainage- Storm drainage systems shall be designed in accordance with the Drainage Criteria, Appendix G..
Design Storms			1	2.1- All drainage systems must be planned, designed and constructed to handle runoff from both the initial and major design storms. The initial design storm shall be the 10-year event. The major design storm shall be the 100-year event.	21	16.56.010-Drainage Criteria and Section General Engineering Specifications: The Pueblo County Drainage Criteria Manual will use a storm duration of six hours for hydrologic computations. A return frequency of five years will be used for determining runoff for minor collection systems (drainage areas less than four hundred (400) acres and peak flows less than five hundred (500) cfs). A return frequency of one hundred (100) years will be used for determining runoff for major collection systems (drainage areas four hundred (400) acres and larger and for all peak flows equal to or exceeding five hundred (500) cfs).		14 G- Drainage Criteria- The 100-year storm for all facilities which will carry 500 cfs or more as calculated on the 100-year storm, and the 5-year storm for all other facilities.
Financial Responsibility			1	1.3- Developers are required to pay for drainage facilities in their subdivision.	24	Section XIII- Utilities and Improvements: The following improvements shall be constructed at the expense of the subdivider as stipulated in the Subdivision Improvement Agreement in a manner approved by the Board which is consistent with sound construction and local practice. Where specific requirements are spelled out in other sections of these regulations, they shall apply: Storm sewers or storm drainage system, as required.		
			20	49.3.D-Determination of credit for land used for public detention facilities. The credit to which a subdivider shall be entitled from the appropriate sub-fund of the basin involved in the Subdivision Drainage Fund shall be determined on a per acre basis as set forth in the appropriate approved Drainage Basin Planning Study. The per acre land credit shall be equal to and limited by the unit detention reservoir land fee in use at the time of detention facilities by the subdivider.				
			20	49.3.D-The credit to which a subdivider shall be entitled from the appropriate subfund of the basin involved in the Subdivision Storm Drainage Fund, as set forth in sub-section a. above, shall be determined on the basis of the actual cost incurred in constructing the drainage facilities, plus ten percent (10%) for engineering expense.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Financial Responsibility (cont.)			22	7.907-Subdivider of the land may be credited from the Subdivision Storm Drainage Fund if the amount of the required fees is less than the cost of providing new detention facilities.				
Development Near Channels, Irrigation Ditches and Drainageways	Federal Endangered Species Act of 1973 National Flood Insurance Act of 1968 National Flood Disaster Protection Act of 1973 National Flood Insurance Reform Act of 1994	Colorado Statutes: Title 24, Article 65, Section 24-65-105; Title 30, Article 28, Section 30-28-133; Title 33, Article 2, Section 33-2-106; Title 24, Article 80, Part 4, Section 24-80-406 and 24-80-409; Title 25, Article 8, Part 5; Title 25, Article 10, Sections 25-10-104, 25-10-105, 25-10-110, and 25-10-111; Title 37, Article 92, Part 3, and Section 37-92-501; Title 37, Article 1.	1	1.4.2- If historical storm water flows are increased, or if historical channels are unstable in their natural condition, these channels must be adequately stabilized to prevent excessive erosion.			18	16-714-No structure shall be closer than twenty-five (25) feet from any major drainageway.
	Federal Water Pollution Control Act of 1972 (Clean Water Act) National Environmental Policy Act of 1969 Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	Title 50 CFR, Parts 13, 17, and 81; Title 7 CFR Part 650; U.S.C. Title 42, Chapter 50 (NFIA); Title 44 CFR, Parts 9, 10, 65, 70, and 78; U.S.C. Title 33, Chapter 26; Title 33 CFR, Parts 320, 330, and 323; Title 40 CFR, Parts 122, 125, 129, 130, 131, and 403; U.S.C. Title 42, Chapter 55 (NEPA); Title 40 CFR, Part 1501, 1502, 1505.	1	1.4.2- Development shall be a minimum of 1-foot above the estimated 100-year flood water surface elevation of major drainageways, channel outfalls, upstream sites of irrigation ditches, dam and reservoir sites.				
	Colorado Land Use Act Colorado Individual Disposal Systems Act Conservancy Law of Colorado – Flood Control	U.S.C. Title 16, Chapter 35 (ESA)	1	1.4.2 Developers in and along a drainageway are required to implement the proper measures to maintain or create stable characteristic of the drainageway.				
Stormwater Runoff Detention	Colorado Agricultural Chemicals and Groundwater Protection Act	Title 25, Article 8 Colorado Statutes (Health), Section 25-8-205.5 (Pollution from Agricultural Chemicals)	1	1.5-Detention Storage of storm water runoff may be necessary in certain drainage basins to attenuate peak flood flows.	34	Detention facilities required on all subdivisions. Detention facilities are owned by subdivision.		
		Title 25, Article 1 Colorado Statutes, Part 7 (Regional Health Departments), Section 25-1-709 (Services – Programs) (for vector control)	1	2.5.1- Detention basins can be used to maintain historical runoff flows.	34	Detention facilities are used to maintain historical runoff.		
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	28	Policy CIS 401: Plan and Construct Drainageways as Amenities-Plan and construct drainageways as amenities to the City by incorporating a comprehensive system of detention ponds in conjunction with "soft linings" or natural drainageways as the preferred method of treatment whenever possible.				
Stormwater Runoff	Federal Water Pollution Control Act of 1972 (Clean Water Act)	U.S.C. Title 33, Chapter 26 (CWA)						
	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	Title 40 CFR, Parts 122 (NPDES), 125 (Criteria and Standards for NPDES), 131 (Water Quality Standards), and 403 (General Pretreatment Regulations for Existing and New Sources of Pollution)						
Quality of Stormwater Runoff	Federal Endangered Species Act of 1973 Federal Water Pollution Control Act of 1972 (Clean Water Act)	U.S.C. Title 16, Chapter 35 (ESA)	1	1.6- Developers are required to submit an erosion control plan for all development in accordance to criteria.		Skimmer plates used in industrial areas. (not a policy, encouraged and recommended by Public Works)		

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo	
Financial Responsibility (cont.)									
Development Near Channels, Irrigation Ditches and Drainageways					10	16.80.030- Fees further defined by applying the Prudent Line approach to channels in low density areas. "Prudent Line" is defined as an approach to channel design that is applicable in less dense area and entails the use of a buffer zone on either side of a channel. This zone shall be a no build area and have a maintenance easement to the Town of Palmer Lake in excess of the flood hazard area.	17	2.4- The Policy of the City of Pueblo is to restrict development from within the 100-year floodplain a natural drainage channel, or form within an approved erosion buffer zone for channels with high erosion potential, whichever is greater, and to require that all provisions of Chapter 9, Title XVII of the Code of Ordinances concerning Flood Damage Prevention, be followed.	
Stormwater Runoff Detention								17	2.6- The Policy of the City of Pueblo is to restrict the rate of stormwater runoff from developed land to approximately the rate of runoff from the land in its historic or native condition. Exceptions are granted when the following cases occur: adequate drainage facilities are provided to convey the increased runoff from the development to Arkansas River or Fountain Creek floodplain, regional detention facility is in place that has been designed to accommodate increased flows in development, and when it is determined by the City that there will be negligible downstream impacts from the increased runoff due to the development.
								17	4.3.6- Stormwater Detention Facilities- Stormwater detention facilities shall be designed with adequate storage capacity to insure that release rates do not exceed either the 10-year or 100-year historic flow rates from the tributary basin. Inflows to the detention facility shall be calculated assuming fully developed conditions in the tributary basin.
Stormwater Runoff			16	12.15.020- Effects of surface runoff shall be provided in preliminary plat and must address effects of surface runoff on the proposed development. Lots shall drain away from proposed structures and shall not interfere with other structures.				17	3.2.3- Downstream Impacts- Discussion and analysis of the 100-year peak flows leaving the master planned area and their impact on downstream properties and drainage facilities. Include discussion of any proposed detention facilities. If downstream drainage improvements are required, provide preliminary cost estimates and a phasing plan.
								17	3.3.6- Identify locations and 100-year peak flow rates of drainage leaving the site and discuss their impact on downstream facilities and properties. Discuss any downstream improvements that are to be made in conjunction with the development. Provide detailed supportive hydrologic and hydraulic analyses.
Quality of Stormwater Runoff								17	2.13-The Policy of the City of Pueblo is to prohibit the discharge of any toxic or hazardous substances into the storm water system which may cause the municipal discharge to violate any water quality standard.

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Financial Responsibility (cont.)			33	Chapter 1-B- Section 11- Out of a total of 139 identified drainage basins approximately 30 have now been studied in detail, with fees developed; however, these calculated per-acre fees are only collected at the platting stage, and do not include funding for maintenance.				
			33	Goal 11.2 Develop a more equitable and inclusive system for funding the planning, construction and maintenance of regional drainage facilities. Policy 11.2.1 Support the development of drainage funding methods which most equitably allocate costs according to the relative impacts caused by each property. Policy 11.2.2 Promote the development of a dedicated funding source for the operation and maintenance of existing and new regional drainage systems. Policy 11.2.3 Discourage the inclusion of high-cost drainage improvements in drainage basin planning studies (e.g. those which benefit a particular property) unless a system-wide benefit can be demonstrated.				
Development Near Channels, Irrigation Ditches and Drainageways			1	1.4.2- If historical storm water flows are increased, or if historical channels are unstable in their natural condition, these channels must be adequately stabilized to prevent excessive erosion.	23	Section 40, part h: Rural Land Use Process, Design Principles: All man-made drainage channels and management facilities should blend and harmonize with the natural environment. Extensive grading, contouring, and earthwork should be avoided.		
			1	1.4.2- Development shall be a minimum of 1-foot above the estimated 100-year flood water surface elevation of major drainageways, channel outfalls, upstream sites of irrigation ditches, dam and reservoir sites.				
			1	1.4.2 Developers in and along a drainageway are required to implement the proper measures to maintain or create stable characteristic of the drainageway.				
Stormwater Runoff Detention	4	4.1.1- Detention facilities shall be designed for low flow, 5 year, and 100-year. The total pond volume shall be the above three mentioned added together.	1	1.5-Detention Storage of storm water runoff may be necessary in certain drainage basins to attenuate peak flood flows.	21	16.56.010-Detention Storage. All development must restore runoff characteristics to at least natural conditions.	14	Appendix G- Drainage Criteria- Drainage Facilities- Detention basins or other devices shall be used to maintain historical runoff amounts and rates.
			1	2.5.1- Detention basins can be used to maintain historical runoff flows.	21, 24	16.56.010 and Section GES-1 Drainage:- Drainage Control. Each development shall provide for the on-site or off-site detention of excess stormwater runoff from that development	14	Appendix G- Drainage Criteria- Drainage Facilities- If Detention facilities are not possible, then flows must be controlled not to exceed historical runoff amounts.
					23	Section 40, part h: Rural Land Use Process, Design Principles: Sound alternatives to detention/retention ponds are encouraged as a means of controlling and managing storm water drainage. Storm water detention/retention basins should be sited, formed and re-vegetated so that they harmonize with the natural surroundings and complement natural water flows. Excessive grading, clearing, and alteration of the site should be avoided and soil erosion minimized.		
Stormwater Runoff			20	Chapter V- Section 49.2-Historical flow patterns and runoff amounts will be maintained in such a manner that will reasonably preserve the natural character of the area and prevent property damage of the type generally attributed to runoff rate and velocity increases, diversions, concentration and/or unplanned ponding of storm runoff. Runoff volumes and peaks within the development site and in areas affected by runoff will not exceed the runoff levels attributable to the site in its natural state.	21, 24	16.56.010 and GES-1 Drainage: No development shall cause downstream property owners, water courses, channels or conduits to receive stormwater runoff from proposed developments at a higher peak flow rate than would have resulted from the same storm event occurring over the site of proposed development with the land in its existing, natural or undeveloped condition;		
			20	Chapter V- Section 49.2-That any drainage system proposed as part of any development proposal is based on consideration of the drainage basin as a whole and is capable of accommodating not only runoff from the proposed development, but also, where applicable, the runoff from areas adjacent to and "upstream" from the development itself.				
Quality of Stormwater Runoff			1	1.6- Developers are required to submit an erosion control plan for all development in accordance to criteria.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Quality of Stormwater Runoff (cont.)	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	Title 50 CFR, Parts 13 (General Permit Procedures), 17 (Endangered and Threatened Wildlife and Plants) and 81 (Conservation of Endangered and Threatened Species of Fish, Wildlife, and Plants – Cooperation with the States)	22	7.3.504.D - Component of the submittal package for hillside development shall include stormwater quality control facilities.				
		Title 7 CFR Part 650 (Compliance with NEPA)	22	7.3.504.D - Applicant must submit a stormwater quality control plan with grading and erosion control plan as part of the development plan.				
		U.S.C. Title 33, Chapter 26 (CWA)	22	7.3.504- All stormwater quality control facilities shall be maintained by the property owner.				
		Title 40 CFR, Parts 122 (NPDES), 125 (Criteria and Standards for NPDES), 131 (Water Quality Standards), and 403 (General Pretreatment Regulations for Existing and New Sources of Pollution)	22	7.7.906.B- All stormwater quality requirements, including Best Management Practices (BMPs), policies and procedures must be complied with as outlined in the Drainage Criteria Manual- Volume Stormwater Quality Policies, Procedures, and Best Management Practices (Manual). Permanent stormwater quality BMPs are required for all "New Development and Significant Redevelopment" which includes development/redevelopment of 1 acre or larger except for the following zones (R-Estate, R-1 6000, R-1 9000, R-2, and DFOZ) that include total development/redevelopment of 2 acres will be reviewed on a case by case basis.				
			22	7.7.1505- Stormwater quality requirements- stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of state waters; Concrete wash water shall not be discharged to or allowed to runoff to state waters; vehicle tracking of soils off-site shall be minimized, all wastes composed of building materials must be properly disposed of per regulatory requirements, no chemicals are to be used, which have the potential of being released in stormwater unless permission for the use of a specific chemical is granted in writing by the City Engineer, BMPs shall be properly installed; individuals shall comply with the "Colorado Water Quality Control Act" and "Clean Water Act"				
			28	Strategy NE 401a: Protect and Maintain Stormwater Quality- Protect and maintain the quality of stormwater within all drainage basins as a necessary component of existing ecosystems and as a critical resource for the community. Implement practices and programs, including public education, to protect and maintain the quality of stormwater discharges. Adopt zoning/subdivision regulations and Best Management Practices and provide incentives to reduce impervious areas. Strengthen erosion prevention and sedimentation control regulations.				
			28	Strategy NE 401b: Control Water Pollution-Control and monitor the discharge of pollutants associated with stormwater through pollution control plans, improved land use configurations, use of detention ponds, Best Management Practices and other requirements to control degradation of streams, lakes and other drainage facilities.				
			19	2.0- Non-Stormwater Discharges- The following discharges are non-stormwater and have suggested measures to reduce pollution: vehicle washing (non-residential), rinsing of trucks carrying materials such as concrete trucks, swimming pool/spa draining (non-residential), and hydrostatic testing.				
			19	There are several non-stormwater discharges and flows that are not considered illicit or illegal unless they are identified by the municipality or the State as sources of pollutants. This list is available in the Criteria Manual. The general permit allows for quick coverage of these types of discharges. Compliance is required with state water quality standards and effluent guidelines. Monitoring and reporting of the quality of the discharge is also required.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Quality of Stormwater Runoff (cont.)							17	4.6- Water Quality- Special measures and /or facilities shall be provided with respect to storm water discharge from any land associated with industrial activity or from sites upon which industrial activities or other activities with a potential for release of hazardous substances had been conducted in the past.
							17	4.6- Water Quality- That the discharge of any pollutants in stormwater discharge will be reduced to the maximum extent practicable; that the stormwater discharge will comply with any state, federal or local effluent limitations applicable to stormwater discharges; that any spill of hazardous substances or toxic material will be contained to avoid entry into any municipal stormwater facilities; that there will not be a release or threatened release of hazardous substances or hazardous wastes; and that stormwater will not be discharged into municipal facilities which may cause or contribute to a violation of a water quality standard.

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Quality of Stormwater Runoff (cont.)			20	Chapter V- Section 19.2-Where development will cause the introduction of new pollutants into the runoff water, provision will be made for the storage, treatment and removal of such pollutants.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Channelization	Federal Endangered Species Act of 1973 National Flood Insurance Act of 1968 National Flood Disaster Protection Act of 1973 National Flood Insurance Reform Act of 1994 National Environmental Policy Act of 1969	U.S.C. Title 16, Chapter 35 (ESA) Title 50 CFR, Parts 13, 17, and 81; Title 7 CFR Part 650; U.S.C. Title 42, Chapter 50 (NFIA); Title 44 CFR, Parts 9 10, 65, 70, 72, and 78; U.S.C. Title 42, Chapter 55; Title 40 CFR, Part 1501, 1502, 1505; Title 33, Article 2 Colorado Statutes, Section 33-2-106.	1	2.2.1- Channel modifications shall be minimal however many historical channels are in a dynamic unstable condition and will required stabilization. When a channel improvement is necessary, the historic route should be maintained if possible. A comprehensive study of flow in natural channels requires consideration of sediment transportation, river morphology, etc.				
	Conservancy Law of Colorado – Flood Control	Colorado Statutes: Title 30, Article 30, Section 30-30-102- Title 37, Article 1; Title 37, Article 92, Part 3, Section 37- 92-501; Title 25, Article 8, Part 5; Title 24, Article 80, Part 4, Section 24-80-406 and 24-80-409; Title 33, Article 2 Colorado Statutes, Section 33-2-106.						
Erosion and Sediment Control		Title 35, Article 70 Colorado Statutes (Conservation Districts), Section 35-70-108 (Powers and Duties of Districts)	1	2.6-Erosion Control Plan is required from developer prior to commencement of any grading and when platting occurs. Temporary erosion and sedimentation control facilities shall be constructed prior to any grading or clearing and must be satisfactorily maintained during construction.		Developer required to look at downstream facilities and adverse impact.	18	16-206- Erosion- It is the policy of the Town to prevent the acceleration of the erosion of the soil and rock, as erosion contributes to stream sedimentation, dust, gullyng, alteration of drainage patterns, exacerbation of flood hazards, loss of natural vegetation, visual scars, leaching of minerals into lakes and streams, destruction of animal habitats and increased maintenance costs of roads and similar facilities.
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	1	4.8.1- Erosion control plan to control erosion during construction and is required with final drainage report.			18	16-308- 5-acre Hillside Single-Family Residential District. Minimize water runoff and soil erosion problems incurred in adjustment of the natural terrain.
		Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning)	1	4.8.1- Plan must include permanent structures for conveying storm runoff, site grading, final site stabilization, temporary sediment control features including sediment basins and stabilization of the site where temp. features have been removed.			18	16-312- HO Hillside Overlay Zone- Minimize water runoff and soil erosion problems incurred in adjustment of the terrain to meet development needs.
			22	7.3.504- No cleared, graded, or otherwise disturbed land may be left without temporary protective stabilizing cover longer than sixty (60) days or without permanent cover longer than one year from the date of disturbance as described in the erosion and stormwater quality control plan.			18	16-714-e-No cleared, graded or otherwise disturbed land may be left without temporary protective stabilizing cover longer than thirty (30) days or without permanent cover as described in the erosion control plan longer than one year from the date of disturbance.
			22	7.3.504- All erosion control facilities shall be maintained by the property owner.				16-714-e- Criteria for erosion control shall include visual compatibility with the surrounding landscape, sustained survivability under arid conditions, and effectiveness in prevention of soil erosion and slope failure.
			22	An erosion and stormwater quality control plan is required to be submitted to the City Engineer for review and acceptance in conjunction with a grading plan. Signoff and acceptance of both the grading plan and the erosion and stormwater quality control plan, or a combined plan, by the City Engineer shall constitute a grading permit authorizing the approved land disturbance and implementation of the approved erosion and stormwater quality control measures.				

	Source City of Manitou Springs	Source Town of Monument	Source Town of Palmer Lake	Source City of Pueblo
Channelization				
Erosion and Sediment Control	12.16.24.030.K- Cuts and Fills. All cuts, fills, and any other area disturbed during construction shall be treated to prevent erosion and sedimentation, whether by planning or other methods, according to an approved erosion and sedimentation control plan.	16.12.15.020- All cuts, fills, and the area disturbed during construction shall be treated to prevent erosion, whether by planting or other methods, according to an approved erosion control plan.	9.17.50.060- Efforts shall be made to abate the dust caused by the development of sites. During construction it is mandatory that measures be taken to minimize adverse effects on neighboring properties.	17.2.5- The Policy of the City of Pueblo is to require that adequate measures be implemented to minimize soil erosion by development.
	12.16.26.020- Natural Features to be preserved. In the layout of streets and blocks, natural features such as drainage ways, rock formations, soil vegetation and topography shall be preserved as much as possible. Cuts and fills shall be minimized and revegetated or treated to prevent erosion according to an acceptable erosion control plan. Grading also shall be reduced as much as possible.	16.12.15.020- Erosion control plan shall be a part of the total site development plan and prescribe the steps necessary including scheduling to assure erosion control during all phases of construction. The erosion control plan shall consist of the best selection of erosion control practices and sediment trapping facilities with an adequate implementation schedule to accomplish adequate control.	9.15.50.060.C- During construction all disturbed areas shall be protected from erosion.	17.3.3.7- Discuss erosion control measures and management practices to be utilized within the subdivision to reduce soil pollutant loads in stormwater runoff. Address both temporary and permanent facilities and time frames to be utilized for the construction of all erosion control measures. Discuss the maintenance of temporary and permanent facilities.
		16.12.15.020- Erosion Control Specifications: Particular attention shall be given to concentrated flows of water, either to prevent their occurrence or to provide appropriate conveyance devices to prevent erosion.	9.17.50.060.C- Disturbed areas shall be vegetated with erosion control grasses, shrubs, and/or trees.	17.4.3.5.C.2- Erosion Buffer Zone- For channels in highly erodible soils, the 100-year floodplain may be contained entirely within the vertical banks of the channel, however, due to bank erosion the width of the channel may increase with time. In these cases, an erosion buffer zone must be established and delineated on the plat. This must be documented by an Engineer and be approved by the City.
		16.12.15.020- Erosion Control Specifications: Sediment trapping devices shall be required at a point where sediment-laden water might leave the site.		17.4.4.1- Erosion Control Plan- General Requirements- The erosion control plan shall consist of acceptable erosion control practices and sediment trapping facilities in conjunction with an appropriate schedule in order to accomplish adequate control. Adequate erosion control measures shall be constructed prior to land disturbing activities such that no adverse affects of site alteration will impact surrounding properties. Particular attention shall be given to concentrated flows of water, either to prevent their occurrence or to provide appropriate conveyance devices to prevent erosion. Plan must include permanent structures for conveying storm runoff, final site stabilization, temporary sediment control features including sediment basins and stabilization of the sites where temporary features have been removed.
		16.12.15.020- Prior to construction, the Erosion Control Plan must have the required approval signature of the Town Manager and show proof of any required dust control permit.		17.4.4.3- Erosion Control Plan Implementation- No clearing, grading, excavation, filling, or other land disturbing activities shall be permitted until the City approves the erosion control plan.
		16.12.15.020- Guidelines for erosion control- The objectives of erosion control design are the prevent damage to adjacent properties due to sediment, dust, or storm water runoff from the construction site, and minimize the onsite effects of erosion.		

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Channelization				12.2.1- Channel modifications shall be minimal however many historical channels are in a dynamic unstable condition and will required stabilization. When a channel improvement is necessary, the historic route should be maintained if possible. A comprehensive study of flow in natural channels requires consideration of sediment transportation, river morphology, etc.				
Erosion and Sediment Control	5	Runoff and sediment from erosion from lots and driveway must not enter the street.	1	2.6-Erosion Control Plan is required from developer prior to commencement of any grading and where platting occurs. Temporary erosion and sedimentation control facilities shall be constructed prior to any grading or clearing and must be satisfactorily maintained during construction.	21, 24	16.56.030 Erosion and GES III-Erosion: All measures necessary to minimize soil erosion and to control sedimentation in the disturbed land shall be provided. Specifically, the design and implementation of the proposed measures shall ensure: That any development is designed and executed in a manner which will save and protect as much of the desirable native vegetation as possible; That a reclamation plan for revegetation of all disturbed areas be guaranteed; That all cuts and fills are adequately designed and engineered to prevent detachment and transportation of soil particles from slope.	13	Table 7: Criteria: Erosion: Site can be developed so as not to increase soil erosion form the site during and after the construction. CUP-mining
	6	18.40.020- Erosion Control Plan must be submitted for any land-disturbing activity disturbing 7500 s.f. or more.	1	4.8.1- Erosion control plan to control erosion during construction and is required with final drainage report.	24	VI Related Procedures, Section 8- Application for Multi-Family Development Site Plan Review, Part C: The Pueblo County Department of Public Works shall determine whether the developer will be required to provide Soil Erosion and Sedimentation Control plans and Specifications prepared by a registered Professional Engineer or USSCS. If such plan is required, the site plan will not be complete until such plans are submitted.	13	Section 5.2- All manufactured slopes, other than those constructed in rock, shall be planted or otherwise protected from the effects of storm runoff erosion.
	6	18.40.030- Erosion Control Plan should meet the following objectives: Identify critical areas, limit time of exposure, limit exposed areas, control surface water, prevent unnecessary removal of vegetation.	1	4.8.1- Plan must include permanent structures for conveying storm runoff, site grading, final site stabilization temporary sediment control features including sediment basins and stabilization of the site where temp. features have been removed.	24	VIII- Preliminary Plan Requirements- The Planning Commission shall determine from a review of the preliminary plan whether the soil slope, vegetation, and drainage characteristics of the of the site are such as to require substantial cutting, clearing, grading, and other earth moving operations in the construction of the subdivision or otherwise entail an erosion hazard, and if so, the Commission shall require the subdivider to provide soil erosion and sedimentation control plans and specifications. If such plan is required, the site plan will not be complete until such plans are submitted.	14	6.4.4- Temporary Erosion Control- Temporary erosion control is required along and at the ends of all roadways that are not completed due to project phasing, subdivision boundaries, etc., in accordance with the Drainage Criteria.
	6	18.40.070-Stream and watercourse banks and channels downstream from any land-disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.	20	Chapter II, B: Prevent the acceleration of the erosion of soil and rock in order to reduce or eliminate erosion related problems such as stream sedimentation, dust, gullyng, alteration of drainage patterns, exacerbation of flood hazards, loss of natural vegetation, visual scars, leaching of minerals, destruction of animal habitats, and increased maintenance costs for roads and other facilities.			14	Appendix G- Drainage Criteria- Landscaping and Erosion Control- Effective erosion control, revegetation, and reclamation is of great importance. Appropriate steps must be taken for landscape development and erosion control of roadside areas. Cut and fill slopes should be flat as practical.
	6	18.40.090- the relocation of a stream where relocation is an essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics, except when justification for significant alteration to flow characteristics is provided.	20	Chapter V- Section 51: The required erosion control plan is a plan for controlling erosion during construction in compliance with the laws, regulations, resolutions and Erosion Control Standards as outlined in the Subdivision Criteria Manual. This plan shall be prepared by a Registered Professional Engineer. This plan shall be a part of the development plans for the total site and prescribe the steps necessary including scheduling to assure erosion control during all phases of construction including final stabilization. The erosion control shall be sufficient to control the runoff from the Design Storm required by the Drainage Criteria, Section DC of the Subdivision Criteria Manual.			14	Appendix G- Drainage Criteria- Silt Fence shall be used to protect all streams, rivers, lakes, and other water resources from contamination by silt, sediment, and construction debris.
	6	18.40.180. A security may be required in form of an escrow account, surety bond, irrevocable letter of credit, or other undertaking satisfactory to the City. Security will remain in force until improvements are completed with approved plan and improvements are inspected.	20	Chapter V, B: The erosion control plan shall consist of the best selection of erosion control practices and sediment trapping facilities in conjunction with an appropriate implementation schedule to accomplish adequate control. Adequate erosion control measures shall be constructed in conjunction with land disturbing activities such that no adverse affect of site alteration will impact surrounding properties. Particular attention shall be given to concentrated flows of water, either to prevent their occurrence or to provide appropriate conveyance devices to prevent erosion. Sediment trapping devices shall be required at all points where sediment laden water might leave the site. The plan must include permanent structures for conveying storm runoff, final site stabilization, temporary erosion control features including sediment basins and finally, stabilization of the site where temporary features have been removed. Plans showing improvements or construction to be completed outside the property line of the site will not be approved unless the plan is accompanied by an appropriate legal easement of the area in which such work is required.			14	Appendix G- Drainage Criteria- Erosion control blankets and/or bales and/or silt fences shall be required during any construction to minimize impact to any existing public or private roadway or property.
			33	Policy 11.3.6 Encourage the effective use of control measures to mitigate the short and long term erosion impacts of development.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Erosion, Sediment Control and Stormwater Quality (combined)	Federal Endangered Species Act of 1973	U.S.C. Title 16, Chapter 35 (ESA)	28	Strategy NE 302a: Use Drainage Basin Planning Studies for Stormwater Management - Use the established method of drainage treatment for a particular Drainage Basin Planning Study for all proposed development or redevelopment, or require an amendment to the Study if changes are proposed or required. Use Best Management Practices to address erosion, sediment control and stormwater quality during construction and after development. Minimize the adverse impacts of stormwater runoff, including erosion/sedimentation, to drainageways and other drainage facilities.				
	Federal Water Pollution Control Act of 1972 (Clean Water Act)	Title 50 CFR, Parts 13 (General Permit Procedures), 17 (Endangered and Threatened Wildlife and Plants) and 81 (Conservation of Endangered and Threatened Species of Fish, Wildlife, and Plants - Cooperation with the States)	19	3.0-This section of the Stormwater Quality BMP Manual provides a set of criteria and technical guidance for erosion, sediment, and stormwater quality control at construction sites. These criteria were developed to help mitigate (1) the increased soil erosion and subsequent deposition of sediment off-site and (2) other potential stormwater quality impacts during the period of construction from start of earth disturbance until final landscaping and other potential permanent stormwater quality measures are effectively in place.				
	National Environmental Policy Act of 1969	Title 7 CFR Part 650 (Compliance with NEPA)	19	Implementation and maintenance of erosion, sediment, and stormwater quality control measures are ultimately the responsibility of the property owner. Because site conditions will affect the suitability and effectiveness of erosion, sediment, and stormwater quality control measures, a plan specific to each site is required. In addition, should the approved plan not function as intended, and it is determined by the City that additional or revised measures are needed, the owner will have to implement such changes as needed to reduce soil erosion and sediment discharged from the construction site and to minimize other stormwater quality impacts.				
	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	U.S.C. Title 33, Chapter 26 (CWA)	19	Typical activities for which an Erosion and Stormwater Quality Control Plan is generally not required are designated as minor land disturbing activities and include: 1. Any project involving earth disturbing activity of less than 1 acre, and which disturbs less than 500 cubic yards of material (cut and/or fill). 2. Individual home landscaping, gardening, maintenance and repair work. 3. Agriculture and related activities. 4. Other land disturbing activities which will result in minimum soil erosion or the movement of sediment into waters or onto property off the project site and that include land disturbance of less than 1 acre and less than 500 cubic yards of material (cut and/or fill). An Erosion and Stormwater Quality Control Plan may be required for specific minor land disturbing activities if deemed necessary by the City Engineer.				
		Title 40 CFR, Parts 122 (NPDES), 125 (Criteria and Standards for NPDES), 131 (Water Quality Standards), and 403 (General Pretreatment Regulations for Existing and New Sources of Pollution)	19	Any land disturbance by any owner, developer, builder, contractor, or other person shall comply with the Basic Grading, Erosion and Stormwater Quality Requirements and General Prohibitions as noted below. In many cases, this will require the design, implementation and maintenance of Best Management Practices (BMPs) as specified in the Manual, even if an Erosion and Stormwater Quality Control Plan is not required.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Erosion, Sediment Control and Stormwater Quality (combined)			16	12.15.020- If entire site is graded at one time, but construction is expected to last several months or years, use one of following measures: Mulch, temporary seeding, "permanent" seeding, straw bale barriers, silt fence, storm drain inlet protection, diversions, sediment traps, slope drains, outlet protection, rip-rap, grade control structure, and level spreader.				

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Erosion, Sediment Control and Stormwater Quality (combined)			20	Chapter V, Section 49.1The design and operation of the proposal shall ensure: That any development is designed and executed in a manner which will minimize disturbance of natural vegetation and soil cover. Special attention should be paid to areas adjacent to streams, lakes, and reservoirs. That development proposals include adequate provision and guarantee for revegetation and for soil stabilization during and after development of a site. That all cuts and fills are adequately designed and engineered and vegetated to control erosion as well as stability of the entire mass. That development and accessibility patterns are controlled to prevent the destruction of vegetation or soil cover due to amounts or concentrations of use or development. That natural drainage patterns are preserved and protected from increased water flows which could alter such patterns or subject existing channels and adjacent areas to increased erosion.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Erosion, Sediment Control and Stormwater Quality (combined)		U.S.C. Title 16, Chapter 35 (ESA)	19	19.0- Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. Concrete wash water shall not be discharged to or allowed to runoff to State Waters, including any surface or subsurface storm drainage system or facilities. Building, construction, excavation, or other waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. BMPs may be required by City Engineering if deemed necessary, based on specific conditions and circumstances (e.g., estimated time of exposure, season of the year, etc.). Vehicle tracking of soils off-site shall be minimized. All wastes composed of building materials must be removed from the construction site for disposal in accordance with local and State regulatory requirements. No building material wastes or unused building materials shall be buried, dumped, or discharged at the site.				
		Title 50 CFR, Parts 13 (General Permit Procedures), 17 (Endangered and Threatened Wildlife and Plants) and 81 (Conservation of Endangered and Threatened Species of Fish, Wildlife, and Plants – Cooperation with the States)	19	19.0- No chemicals are to be used by the contractor, which have the potential to be released in stormwater unless permission for the use of a specific chemical is granted in writing by the City Engineer. In granting the use of such chemicals, special conditions and monitoring may be required. Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled material from entering State Waters, including any surface or subsurface storm drainage system or facilities.				
		Title 7 CFR Part 650 (Compliance with NEPA)	19	19.0- All persons engaged in earth disturbance shall implement and maintain acceptable soil erosion and sediment control measures including BMPs in conformance with the erosion control technical standards of the Manual and in accordance with the Erosion and Stormwater Quality Control Plan approved by the City of Colorado Springs, if required. All temporary erosion control facilities including BMPs and all permanent facilities intended to control erosion of any earth disturbance operations, shall be installed as defined in the approved plans and the Manual and maintained throughout the duration of the earth disturbance operation. The installation of the first level of temporary erosion control facilities and BMPs shall be installed and inspected prior to any earth disturbance operations taking place. Any earth disturbance shall be conducted in such a manner so as to effectively reduce accelerated soil erosion and resulting sedimentation. All earth disturbances shall be designed, constructed, and completed in such a manner so that the exposed area of any disturbed land shall be limited to the shortest practical period of time.				
		Title 33 CFR, Parts 320 (General Regulatory Policies), 330 (Nationwide Permits), and 323 (Permits for Discharges of Dredged or Fill Material into Waters of the U.S.)	19	19.0- All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands. Suspended sediment caused by accelerated soil erosion shall be minimized in runoff water before it leaves the site of the earth disturbance. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be designed to limit the discharge to a non-erosive velocity. Temporary soil erosion control facilities shall be removed and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to the standards and specifications prescribed in the Manual, and in accordance with the permanent erosion control features shown on the Erosion and Stormwater Quality Control Plans approved by the City of Colorado Springs, if required. Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed within twenty-one (21) calendar days after final grading, or final earth disturbance, has been completed.				
		Title 40 CFR, Parts 122 (NPDES), 125 (Criteria and Standards for NPDES), 131 (Water Quality Standards), and 403 (General Pretreatment Regulations for Existing and New Sources of Pollution)	19	19.0- Disturbed areas and stockpiles which are not at final grade but will remain dormant for longer than 30 days shall also be mulched within 21 days after interim grading. An area that is going to remain in an interim state for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMPs shall be maintained until permanent soil erosion control measures are implemented. No person shall cause, permit, or contribute to the discharge into the municipal separate storm sewer pollutants that could cause the City of Colorado Springs to be in violation of its Colorado Discharge Permit System Municipal Stormwater Discharge Permit. The owner, site developer, contractor, and/or their authorized agents shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system and stormwater appurtenances as a result of site development. No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter, including the temporary or permanent ramping with materials for vehi				
		U.S.C. Title 42, Chapter 55 (NEPA)	19	19.0- Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), regulations promulgated, certifications or permits issued, in addition to the requirements included in the Manual. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal or State agencies, the more restrictive laws, rules, or regulations shall apply. The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.				
		Title 40 CFR, Part 1501 (NEPA and Agency Planning), 1502 (Environmental Impact Statement), 1505 (NEPA and Agency Decisionmaking)	19	19.0- Materials shall not be stored in a location where they may be carried by stormwater runoff into a State Water at any time. Spill prevention and containment measures shall be used at storage, and equipment fueling and servicing areas to prevent the pollution of any State Waters, including wetlands. All spills shall be cleaned up immediately after discovery, or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for spill cleanup shall be followed, along with proper disposal methods.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Erosion, Sediment Control and Stormwater Quality (combined)								

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Erosion, Sediment Control and Stormwater Quality (combined)								

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Erosion, Sediment Control and Stormwater Quality (combined)		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	19	The following best management practices must be included in the Erosion and Stormwater Quality Control Plan. See section 3.3 – Construction BMP Factsheets and Guidelines for Implementing Construction BMPs for additional details. 1. Erosion and Sediment Control • Sediment Trapping Devices (perimeter controls, vehicle tracking, inlet protection) • Sediment Control Devices (Basins or Check Dams) • Stabilization Requirements (ground stabilization and slope controls); 2. Spill Prevention and Response; 3. Material Management; 4. Inspection and Maintenance				
		Title 33, Article 2 Colorado Statutes (Non-Game and Endangered Species), Section 33-2-106 (Management Programs)	19	3.0- Plan Elements-An Erosion and Stormwater Quality Control Plan shall be developed that consists of a narrative description of the construction project and appropriate plans/map. Adequate erosion control measures shall be constructed prior to land disturbing activities such that no adverse affect of site alternatives will impact the surrounding properties. Particular attention shall be given to concentrated flows of water either to prevent their occurrence or to provide appropriate conveyance devices to prevent erosion. Sediment trapping devices shall be required at all points where sediment laden water might leave the site.				
		Title 25, Article 8 Colorado Statutes (Water Quality Control), Part 5 (Permit System)	19	3.0-The Erosion and Stormwater Quality Control Plan shall include permanent structures for conveying storm runoff, how the site will be graded, final site stabilization, temporary sediment control features including sediment basins and finally, stabilization of the site where temporary features have been removed. Plans showing improvements or construction outside the property line of the site will not be approved unless the plan is accompanied by an appropriate legal easement or written acceptance by the adjacent property owner for the area in which such work is required.				
		Title 37, Article 92 (Water Right Determination and Administration), Part 3 Colorado Statutes and Section 37-92-501 (Jurisdiction Over Water – Rules and Regulations)	19	3.0-Plan Requirements-A brief description of the soils on the site including information on soil type and names, mapping unit, erodibility, permeability, hydrologic soil group, depth, texture and soil structure. In addition, an estimate of the runoff coefficient of the site before and after construction activities should be included. This information may be obtained from the soil report for the site, or, if available, from soils reports from adjacent sites.				
			19	3.0-Best Management Practices (BMPs)-The objective of erosion control is to limit the amount and rate of erosion occurring on disturbed areas until the site is stabilized. The objective of sediment control is to capture the soil that has been eroded before it leaves the construction site. Despite the use of both erosion control and sediment control measures, it is recognized that some amount of sediment will remain in runoff leaving the construction site. This should be minimal. The best management practices for a site are usually comprised of four major elements: • Erosion Control Measures. Used to limit erosion of soil from disturbed areas at a construction site. • Sediment Control Measures. Used to limit transport of sediment to off-site properties and downstream receiving waters. • Drainageway Protection Measures. Used to protect streams and other drainageways located on or adjacent to the construction site from erosion and sediment damages. • Other Stormwater Quality Control Measures. Used to control other potential pollutants from impacting stormwater runoff.				
			19	3.0- Summary of Criteria- All runoff leaving a disturbed area shall pass through at least one BMP before it exits the site. The list below is a summary of recommended BMPs. Silt Fence, Sediment Basin, Temporary Swales/Berms, Vehicle Tracking Controls, Check Dam, Slope Drain, Erosion Control Blankets, Inlet Protection, Surface Roughening, Temporary Mulching/Seeding, Chemicals, Oils and Material Storage, and Maintenance.				
			19	3.0-Additional Information-Requirements/Modifications to Plan City Requested: Additional information may be required for projects where the City Engineer deems that soil erosion, sedimentation, or stormwater quality control problems will not be adequately handled by the submitted plan. Such data may include, but not be limited to, other engineering studies, computations, schedules, and supportive data such as product design information and specifications as deemed necessary by the City Engineer.				
			19	3.0-Owner/Contractor/Engineer Proposed-Minor field modifications may be approved by the City Engineering Inspector. Such modifications would include minor adjustments to BMP field locations or a change to a similar BMP to better correspond to actual site conditions or to improve BMP performance. No plan changes or formal written approval will be required, except that documentation of acceptance should be provided by the City Engineering Inspector to the contractor/owner. All other requested modifications shall be in writing and submitted to City Engineering. Such proposed modifications, including revised plans, shall be submitted at least ten (10) working days prior to desired date of implementation. City Engineering will reapprove the Plan/Permit if the proposed modifications are acceptable.				
			19	4.0- New Development Stormwater Management- Four-Step Process: The following four-step process is recommended for selecting structural BMPs in newly developing and redeveloping urban areas: Step 1: Employ Runoff Reduction Practices; Step 2: Stabilize Drainageways; Step 3: Provide Water Quality Capture Volume (WQCV); Step 4: Consider Need for Industrial and Commercial BMPs.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Erosion, Sediment Control and Stormwater Quality (combined)								

	Source City of Woodland Park	Source El Paso County	Source Pueblo County	Source Teller County
Erosion, Sediment Control and Stormwater Quality (combined)				

	State/Federal Laws and Regulations	Applicable Code Citations	Source City of Colorado Springs	Source City of Fountain	Source Town of Green Mountain Falls
Floodplain Standards	National Flood Insurance Act of 1968	U.S.C. Title 42, Chapter 50 (NFIA)	1 2.8- Any structure located in 100-year floodplain shall have lowest floor 1-foot above 100-year water surface elevation.	11 Methods of Reducing Flood Losses: Restricting or prohibiting development activities 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; requiring development activity be protected against flood damage at initial construction; controlling alteration of natural floodplains stream channels, and natural protective barriers which accommodate channel flood waters; control filling, grading, dredging and other development which may increase flood damage; preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas; prohibiting any development in regulatory floodways if any increase in flood levels during the base flood discharge would result.	18 16-813- A development permit shall be obtained before construction or development begins within any area of special flood hazard as identified by the Federal Insurance Administration in report entitled "The Flood Insurance Study for the Town of Green Mountain Falls," dated June 5, 1985.
	National Flood Disaster Protection Act of 1973	Title 44 CFR, Parts 9 (Wetland Protection), 10 (Environmental Considerations), 65 (Identification and Mapping of Special Hazard Areas), 70 (Procedure for Map Correction), 72 (Procedures and Fees for Processing Map Changes), and 78 (Flood Mitigation Assistance)	2 (2) 7.8.302: Residential Construction: New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot (1') or more above the base flood elevation. Non residential Construction shall be floodproofed 1' below flood level, structurally resistant to hydrostatic or hydrodynamic loads, and buoyancy, and be certified by professional engineer or architect. Manufactured Homes may be placed in FIRM zone A1-30, AH, or AE in the following areas: outside a manufactured home park or subdivision, in a new manufactured home park or subdivision, an expansion to an existing manufactured home park or subdivision, or in an existing park that has experienced substantial damage due to flooding, in such case lowest floor shall be one foot about the base flood elevation. Lowest floor of the manufactured home is to be at or above the base flood elevation or supported by foundation elements that are no less than 36" above grade.	11 16.10.150- A variance may be granted but approval will be through City Council and will hear and decide on the variance. Approval of variance will be based off several factors including good and sufficient cause, that failure to grant variance would cause exceptional hardship to applicant, flood heights will not be increased. Variances will not be issued if base flood level is increased.	18 16-813-b- The following information is required and certified by a licensed professional engineer or architect. Elevation in relation to mean sea level of lowest floor; elevation in relation to mean sea level to which any structure has been floodproofed; provide that where a non-residential structure is intended to be made watertight below the base flood level a professional engineer shall develop plans and methods of construction; description of the extent to which any watercourse will be altered or relocated as a result of the proposed development; and a fee established by the Board of Trustees shall be submitted with the application.
	National Flood Insurance Reform Act of 1994	Title 24, Article 65 Colorado Statutes (Colorado Land Use Act), Section 24-65-105 (Model Resolutions – Subdivisions – Improvement Notices)	2 7.8.303: FLOODWAYS: Prohibit development, including fill, new construction, substantial improvements and other development, except as provided for in this part, unless certification by a registered professional engineer is provided demonstrating that the development shall not result in any increase in flood levels during the occurrence of the base flood discharge.	11 16.10.160.A- Anchoring- All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of structure.	18 16-815- Planning Commission duties shall include but not limited to permit review, utilize all base flood data available, obtain and record elevation of lowest floor (including basement), verify and record actual elevation of floodproofed structures, notification of appropriate agencies prior to any alteration or relocation of watercourse and submit information to Federal Insurance Administration, interpretation of FIRM boundaries.
	Colorado Land Use Act	Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	28 Policy NE 302: Protect Drainageway and Floodplains -Limit development of land within floodplains, which should remain, or be returned, to its natural state. Development can reduce a floodplain's ability to store and convey water, intensifying velocity and depth of floodwater in other areas. Areas subject to significant flooding also pose a threat to citizens and property. Floodplains are lands identified in the Streamside Overlay Zone and FEMA designations.	11 16.10.160.B- New construction shall be with methods, practices, materials, and utility equipment resistant to flood damage. Enclosed areas below the lowest floor subject to flooding shall be designed to automatically equalize hydrostatic flood forces on walls and must be certified by registered professional engineer or architect.	18 16-816- Variance Procedure, Appeal Board; Planning Commission and Board of Trustees shall consider all technical evaluation, all relevant factors, standards specified including the danger that materials may be swept onto other lands leading to injury of others, danger to life and property, susceptibility of the proposed facility and contents to flood damage; importance of service provided to community, availability of alternative locations, compatibility of proposed use with existing and anticipated development; expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site; costs of providing governmental services during and after flood conditions.
		Title 37, Article 87 Colorado Statutes, Section 37-87-102 (Natural Streams and Use Thereof by Reservoir Owners)	28 Policy NE 302: Plan and utilize floodplains and drainageways as greenways for multiple uses including conveyance of runoff, wetlands, habitat, trails, recreational uses, utilities and access roads when feasible, considering the primary intended use.	11 16.10.160.C- Utilities- Designed to minimize infiltration into system and on-site waste disposal systems shall be located to avoid impairment to them or contamination form them during flooding.	18 16-817- Conditions for Variance: Variances shall only be issued upon a showing of good and sufficient cause; determination that failure to grant the variance would result in exceptional hardship to the applicant; determining that granting of variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public.
				11 16.10.160.D- Subdivision Proposals- Subdivision proposals shall be consistent with the need to minimize flood damage, utilities should be located to minimize flood damage, adequate drainage to reduce exposure to flood damage, base flood elevation data and delineation shall be provided by applicant.	18 16-818- All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
				11 16.10.170- Residential construction- the lowest floor including the basement shall be elevated one foot (1') or more above the base flood elevation. Non-residential- be floodproofed up to 1' above base flood elevation and have structural components capable to resist hydrostatic load.	18 16-820- Flood Hazard Reduction; Utilities; All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system; new and replacement sanitary sewers shall be designed to minimize or eliminate infiltration of flood waters into the system; and discharge from the systems into flood waters; on-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding..

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Floodplain Standards	26	15.20.030 Statement of purpose- It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas.	16	12.07.020- If proposed subdivision is within the 100-year boundary, subdivider shall submit a floodplain development plan consisting of a map and supporting data. Supporting data must relate how the subdivisions will satisfy the provisions of the Town's floodplain regulations and the map shall show all lots within the floodplain, within 200-feet of floodplain, and location of all structures which lie within floodplain.			17	4.3.5.C- Natural Drainage Channels- Flood plain Delineation- Where a natural drainage channel is adjacent to, or within a proposed development, the 100-year flood plain of the channel shall be determined and delineated on the subdivision plat. The 100-year flood plain shall be established by thorough engineering analysis which takes into account all physical properties of the channel and energy losses along the channel. Appropriate allowances
	26	15.20.070 Basis for establishing the areas of special flood hazard-The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the City of Manitou Springs," dated February 1, 1984, with accompanying Flood Insurance Rate Maps and any amendments, is adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is part of this chapter.						
	26	15.20.040 Methods of reducing flood losses- Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increase in erosion or in flood heights or velocities; Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; 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.						
	26	15.20.180 Specific standards- Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation.						
	26	15.20.180 Specific standards-Nonresidential Construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated to one foot or more above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall be floodproofed so that from a point one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water; have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and be certified by a registered professional engineer or architect that the standards of this subsection are satisfied.						
	26	15.20.180 Specific standards-Openings in Enclosures below the Lowest Floor.- For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following criteria: 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; The bottom of all openings shall be no higher than one foot above grade; Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.						
	26	15.20.180 Specific standards-Manufactured Homes-Manufactured homes shall be anchored in accordance with Section 15.20.170(A). All manufactured homes or those to be substantially improved shall conform to the following requirements: Require that manufactured homes that are placed or substantially improved on a site outside of a manufactured home park or subdivision, or in an expansion to an existing manufactured home park or subdivision, or in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the 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.						

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Floodplain Standards	7	20.03.030-No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of Floodplain Provisions.	1	2.8- Any structure located in 100-year floodplain shall have lowest floor 1-foot above 100-year water surface elevation.	21	16.36.100-Construction of buildings shall not be permitted in a designated floodway with a return frequency more often than a one hundred (100) year storm.	13	Table 2: Approvals and Permits: Development, includes building or any sitework, in a flood hazard area is subject to approval of a flood area permit. A variance to a flood hazard area standard is subject to approval of a flood area variance.
	7	20.04.010-A flood hazard development permit shall be obtained before construction or development begins within any area of special flood hazard. Plan shall be submitted to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and elevation of lowest floor, level of floodproofed area, certification by a professional engineer or architect that floodproofing methods can meet criteria, and description of the extent to which any watercourse will be altered.	20	Chapter II, D: Prevent development in floodplains, geologic hazard areas, or other natural hazard areas which is incompatible with the hazard in terms of threats to public welfare, private property, and public property	21, 24	16.36.100 & Section XI, Design Standard Part 9- Building construction may occur in that portion of the designated floodplain where the return frequency is between a one hundred (100) year and a maximum probable storm provided all usable floor space is constructed above the designated maximum probable flood level.	13	Table 7: Criteria: Flood. Protection of adjacent property from flood or water damage. (CUP-general, industrial, mining). Site is not prone to flooding (CUP-mining)
	7	20.05.030-Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply: Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. If above mentioned are met then all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Chapter 20.05.	20	Chapter V- Section 49.2- Land subject to natural hazards shall be identified by the subdivider, subject to existing county hazard inventories. Such land shall not be developed until such time as the hazard has been removed or the impact of said hazard mitigated as determined by the Planning Director. Lots subject to hazards which may be eliminated through specialized engineering shall be so identified on the plat. Identification of such hazards shall include a statement of the specific hazard and a statement of the engineering alterations required to eliminate the hazard. The following hazards shall be subject to this regulation: One hundred (100) year floodplain as identified by the subdivider, appropriate review agency, or as identified in the county floodplain inventory. Development in the floodplain shall be limited to uses compatible with the hazard and shall specifically exclude residential uses, sewage and water treatment plants, commercial shopping areas, and industrial sites.	21, 24	16.36.100 & Section XI, Design Standard Part 9-Where floodway velocities are generally determined to be under five feet per second and maximum floor depth will not exceed three feet, such uses as cultivated agriculture, nurseries, parks and recreation facilities, and accessory parking may be permitted.	13	FL-10- Flood Hazard Areas. Base flood is the flood having a 1% chance of being equaled or exceeded in any given year. Area of Special Flood Hazard is the land in the floodplain within community subject to a 1% or greater chance of flooding in any given year.
			29	1.9- No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this regulation and other applicable regulations. Violations of the provisions of this section by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor.	21, 24	16.36.100 & Section XI, Design Standard Part 9-Floodlands. All lots containing land which is less than two feet above the elevation of the one hundred (100) year recurrence interval flood or, where such data is not available, five feet above the elevation of the maximum flood of record, must have adequate building sites documented with consideration to the location of the building and, where applicable, of wells and septic tanks.	13	FL-30-1- Flood Hazard Area Standards-Anchoring- All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads.
			29	1.12 Warning of Disclaimer of Liability.-The degree of flood protection required by this section 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 section shall not create liability on the part of El Paso County, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this section or any administrative decision lawfully made there under.	21, 24	16.36.100 & Section XI, Design Standard Part 9-Any contemplated floodplain encroachment or channeling shall be thoroughly analyzed and its effect on stream flow determined before it is undertaken. Any construction, dumping and filling operations in a designated floodway constitutes an encroachment.	13	FL-30-2- Flood Hazard Area Standards-Construction Materials and Methods. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage and methods and practices that minimize flood damage. Service facilities designed and/or located so as to prevent water from entering or accumulating within components during conditions of flooding.
			29	1.13 A development permit shall be obtained before construction or development begins within any area of special flood hazard. The permit shall expire at the end of 12 months from the issuance if start of construction has not taken place. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required and is to be certified by a licensed professional engineer or architect: A.Elevation in relation to mean sea level or the lowest floor (including basement) of all structures; B.Elevation in relation to mean sea level to which any structure has been floodproofed; C. Evidence that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 1.18(B); and, D.Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.	21, 24	16.36.100 & Section XI, Design Standard Part 9-Trailer parks, mobile homes and similar uses shall not be permitted in any designated floodway.	13	FL-30-3- Flood Hazard Area Standards- Floodways- Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. If this standard is satisfied, all new construction and substantial improvements shall comply with all other applicable provisions of Flood Hazard Area Standards.
			29	1.15 Duties and responsibilities of the floodplain administrator. Duties of the floodplain administrator shall include, but not be limited to: Permit Review, Use of Other Base Flood Data, Information to be Obtained and Maintained, Alteration of Watercourses, Interpretation of FIRM Boundaries.	21, 24	16.56.020.B.1. and GES II- Floodplain-Subdivision applications, including subdivision variance, incorporating land within a floodplain shall be accompanied by a floodplain hydrology report prepared by a registered professional engineer which establishes the water surface elevation of a flood with a one percent chance of occurring in any given year.	13	FL-30-4- Flood Hazard Area Standards- Manufactured Homes. All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads.

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls	
Floodplain Standards					11	16.10.180-Floodways- Prohibit encroachments, including fill, new construction, substantial improvements, and other development in floodways unless a certified professional engineer or architect demonstrates that the flood level do not increase.		18	16-823-Specific Standards- Residential construction; new construction and substantial improvement of any residential structure shall have the lowest floor elevated to or above the base flood elevation; non-residential construction shall have lowest floor elevation at or above the base flood elevation or be floodproofed so that below the base flood level the structure is watertight and be able to resist hydrostatic pressure; manufactured homes shall not be placed in floodway.
								18	16-824- Floodways; Prohibit encroachments including fill, new construction, substantial improvements and other development unless a technical evaluation demonstrates that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Floodplain Standards	26	15.20.180 Specific standards-Recreational Vehicles. A recreational vehicle shall meet the permit requirements and elevation and anchoring requirements of this code unless: It is on the site for fewer than one-hundred eighty consecutive days, It is fully licensed and ready for highway use, It will meet the requirements of subsection (D) of this section.						
	26	15.20.180- Require that manufactured homes to be placed or substantially improved on sites in existing manufactured home parks or subdivisions that are not subject to the provisions of subsection (D)(1)(a) of this section be elevated so that either the lowest floor of the manufactured home is at or above the base flood elevation or the manufactured home chassis is supported by reinforced piers or other foundation elements that are no less than thirty-six inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.						

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Floodplain Standards			29	1.16 Variance procedure. The County Drainage Board, as established by the El Paso County Commissioners, shall hear appeals from a decision of the floodplain administrator and requests for variances from the requirements of the section and make recommendations to the El Paso County Commissioners. In passing upon such applications, the El Paso County Commissioners shall consider all technical evaluations, all relevant factors, standards specified in other sections of the section, and: the danger that materials may be swept onto other lands to the injury of others; the danger to life and property due to flooding or erosion damage; the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner; the importance of the services provided by the proposed facility to the community; the necessity to the facility of a waterfront location, where applicable; the availability of alternate locations for the proposed use which are not subject to flooding or erosion damage; the compatibility of the proposed use with existing and anticipated development; the relationship of the proposed use to the comprehensive	23	Section 26- Floodplain District (S-3)- The standards of this district (S-3) are designed to retain and provide areas for the unobstructed passage of flood waters and give protection from floods to the population, building and structures located therein and in the surrounding areas.	13	FL-30-5 Flood Hazard Area Standards- Nonresidential Construction in areas with base flood elevation data. New construction and substantial improvement of any commercial, industrial or other non residential structure shall either have the lowest floor (including basement) elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall : 1. Be floodproofed below base flood elevation; 2. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy 3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this paragraph.
			29	1.16- Conditions for Variances. Development permits may be issued by the regional floodplain administrator for the reconstruction, rehabilitation or restoration of structures listed on the designated historic landmark, without regard to the procedures set forth in the remainder of this subsection. Infill of vacant lots within the Historic Preservation District may be issued variances provided that the provisions of this subsection are met. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.4. Variances shall only be issued upon: A showing of good and sufficient cause; A determination that failure to grant the variance would result in exceptional hardship to the applicant; and 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 or victimization of the public.	23	Section 40, part c: Rural Land Use Process. Rural Land Use Process: Identify 100-year floodplain. Rural Land Use Plan shall show the contour and elevation of the floodplain which shall be identified as "Special Flood Hazard Area- 100-year Floodplain." Permit and/or compliance with additional floodplain regulations may be required prior to development in the "Flood Hazard Area".	13	FL-30-6- Flood Hazard Area Standards- Openings in Enclosures Below the Lowest Floor in area with base flood elevation data. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces.
			29	1.16- Conditions for Variance-Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a 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.	24	Section XI, Design Standards: General Standards: Land subject to hazardous conditions such as floodplains (and others not relevant to this policy evaluation) shall be identified and shall not be subdivided until: the hazards have been eliminated or will be eliminated by subdivision and construction plans and a permit under Chapter 1, "Pueblo County Regulations for Areas and Activities of State and Local Interest" has been issued.	13	FL-30-7 Flood Hazard Area Standards- Residential Construction in areas with base flood elevation data. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to or above the base flood elevation.
			29	1.17-Anchoring-All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.	24	Section XI, Design Standards: Part 9: Any use of land is prohibited where flooding would create a public health problem. Including but not limited to shallow wells, uncased deep wells, sanitary land fills, septic tanks, etc.	13	FL-40- Flood Hazard Area Variance- The Board of Adjustment shall hear and decide appeals and requests for variances. The Board shall review and consider various items prior to approving the variance request which include but not limited to: importance of service provided by proposed facility; necessity of the facility to have a waterfront location; and will only be issued if the base flood elevation does not increase; that failure to grant variance would result in exceptional hardship to applicant, and additional flood hazards are not created.
			29	1.17-Construction Materials and Methods. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;	25	Section 1.3- Purpose of resolution is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed.		
			29	1.17-Construction Materials and Methods.All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage;	25	Section 3.2- The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled "The Flood Insurance Study for the County of Pueblo," dated September 29, 1989, with an accompanying Flood Insurance Rate Map (FIRM) is hereby adopted by reference and declared to be a part of this ordinance.		
			29	1.17-Construction Materials and Methods. All new mechanical and utility equipment shall be designed and/or elevated to prevent water from entering or accumulating in components;	25	Section 4.1- Establishment of development permit- A development permit shall be obtained before construction, development, or substantial improvement begins within any area of special flood hazard established in Section 3.2.		
			29	1.17-Construction Materials and Methods. All new construction and substantial improvements with fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: 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. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louver or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.	25	Section 4.3-4- Alteration of Watercourses- Notify adjacent communities and the Colorado Water Conservatio Board prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEM and require that the flood-carrying capacity of the watercourse is not diminished by alteration or relocation, and maintenance is provided for.		

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo

Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
		29	1.17-Utilities. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system; New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration into the systems and discharge from the systems into flood waters; and, On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.	25	Section 4.4 Appeal and Variance Procedure-The Pueblo County Planning Commission shall hear and decide appeals and requires for variances from the requirements of this ordinance. The Commission shall consider all technical evaluations, all relevant factors, standards specified		
		29	1.17-Subdivision Proposals. All subdivision proposals shall be consistent with the need to minimize flood damage; All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage; All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and, Base flood elevation data shall be provided for subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less).	25	Section 4.4-2- Conditions for Variance- Variances may be issued for lots of 0.5 ac or less and surrounded by other contiguous lots with existing structures constructed below the base flood level. Variances shall not be issued if any increase in flood levels during the base flood discharge would result; variances shall only be issued upon showing a good and sufficient cause, failure to grant variance would cause exceptional hardship, and that granting the variance will not result in increase flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public.		
		29	1.18-Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation.	25	Section 5.1.1- Anchoring- All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of structure. All manufactured homes shall be anchored according to FEMA manual, " Manufactured Home Installation in Flood Hazard Areas."		
		29	1.18- Openings in Enclosures below the Lowest Floor. For all new construction and substantial improvement fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following criteria:a. 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; The bottom of all openings shall be no higher than one foot above grade; Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.	25	Section 5.1-2 Construction Materials and Methods- All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.		
		29	1.19 Floodways.Located within areas of special flood hazard are areas designated as floodways, the following provisions apply: A. Prohibited encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood discharge. B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions. C. Prohibit the placement of any mobile homes except in an existing mobile home park or existing mobile home subdivision.	25	Section 5.1-3- Utilities- All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system; new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; on-site waste disposal shall be located to avoid impairment to them or contamination from them during flooding; electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during flooding.		
		29	Nonresidential Construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated to one foot or more above the level of the base flood elevation; or, Together with attendant utility and sanitary facilities, shall:Be floodproofed so that from a point one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; andBe certified by a registered professional engineer or architect that the standards of this subsection are satisfied.	25	Section 5.1-5 Encroachments- The cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.		
		29	D. Manufactured Homes. Manufactured homes shall be anchored in accordance with Section 1.17(A). All manufactured homes or those to be substantially improved shall conform to the following requirements:Require that manufactured homes that are placed or substantially improved on a site outside of an area that has incurred "substantial damage" as the 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. Require that manufactured homes to be placed or substantially improved on sites in existing manufactured home parks or subdivisions that are not subject to the provisions of subsection (D)(1)(a) of this section be elevated so that either the lowest floor of the manufactured home is at or above the base flood elevation, or the manufactured home chassis is supported by reinforced piers or other foundation elements that are no less than thirty-six inches in height above grade and be securely anchored to an adequately anchored fo	25	Section 5.2-1- Residential Construction- New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.		
		29	1.18- Recreational Vehicles. A recreational vehicle shall meet the permit requirements and elevation and anchoring requirements of this code unless: It is on the site for fewer than one-hundred eighty (180) consecutive days. It is fully licensed and ready for highway use.. It will meet the requirements of subsection (D) of this section.	25	Section 5.2-2- Non-residential Construction- New construction and substantial improvement shall have the lowest floor, including the basement, elevated to the level of the base flood elevation or be floodproofed below the base flood level, capable of resisting hydrostatic forces, structure is watertight below the base flood level.		
		29	1.18 Below-Grade Residential Crawlspace Construction. New construction and substantial improvement of any below-grade crawlspace shall: Have the interior grade elevation, that is below base flood elevation, no lower than two feet below the lowest adjacent grade; Have the height of the below-grade crawlspace measured from the interior grade of the crawlspace to top of the foundation wall, not to exceed four feet at any point; Have an adequate drainage system that allow floodwaters to drain from the interior area of the crawlspace following a flood; Meet provisions of section 1.17(A), Anchoring: 1.17(B), Construction Materials and Methods; 1.18(C), Openings in Enclosures Below the Lowest Floor.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
Floodplain Standards (cont.)								
Streamside Approach / Prudent Line	National Flood Insurance Act of 1968	U.S.C. Title 42, Chapter 50 (NFIA)	30	Section 508- Streamside Overlay Zone-The Streamside Overlay Zone encompasses all land which is located within the reference distance of the top of the bank or within the 500-year floodplain as illustrated on the FEMA map of specific intermittent and perennial streams within the City as represented by the Official Streamside Overlay Map which have been identified as significant due to their natural characteristics, wildlife habitat, riparian vegetation or open space and recreational opportunities.				
	National Flood Disaster Protection Act of 1973	Title 44 CFR, Parts 9 (Wetland Protection), 10 (Environmental Considerations), 65 (Identification and Mapping of Special Hazard Areas), 70 (Procedure for Map Correction), 72 (Procedures and Fees for Processing Map Changes), and 78 (Flood Mitigation Assistance)	30	Section 508- Streamside Overlay Zone-Purpose- Certain areas of the City are characterized by intermittent and perennial streams which provide significant wildlife habitat, riparian vegetation, open space, and multi-use trail opportunities which add to the character, attractiveness, and quality of life of the community. It is the purpose of the Streamside Overlay Zone District to guide the development and maintenance of the property adjacent to these stream corridors in a manner that is compatible with the environmental conditions, constraints, and character of these areas.				
	National Flood Insurance Reform Act of 1994	Title 24, Article 65 Colorado Statutes (Colorado Land Use Act), Section 24-65-105 (Model Resolutions – Subdivisions – Improvement Notices)	30	Section 508- Development Plan Review Criteria- Additional to review criteria existing, any area within the Streamside Overlay Zone shall be consistent with the recommendations of the Design Manual and Land Suitability Analysis and shall comply with the following review criteria: Natural landform be maintained, stream ecosystem incorporated in design, minimize impact wildlife habitat and the riparian ecosystem, potential community trail networks and recreational opportunities identified, protection of potential flood damage, natural features within streamside area identified, etc.				
	Colorado Land Use Act	Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Section 30-28-133 (Subdivision Regulations)	30	Section 508- Development Standards include the following subtopics: Submittals, Approvals, and Administration; Land Suitability Analysis including New Streamside Master Plan, major amendment to streamside master plan, streamside development plan, streamside concept plan, slope analysis, riparian vegetation and wildlife, geology, soils and natural features, topographic map, analysis package; assurances may be required prior to approval of a grading plan or building permit as an offset to the potential cost of reparations to sensitive streamside areas where development is approved to take place adjacent to said areas; Grading and Erosion Control Plan approval; and Streamside Site Plan.				
		Title 37, Article 87 Colorado Statutes, Section 37-87-102 (Natural Streams and Use Thereof by Reservoir Owners)	30	Section 508- Land Use Requirements- Site Imperviousness Standards- Allowable Impervious Cover is 10% for areas within the streamside overlay, parcels within the 100-year floodplain impervious allowance varies from 0-8 percent additionally sites will be allowed up to 2.5 times the above mentioned amount if they provide water quality capture volume. Standards set the minimum lot size by zone base on the percent of parcel within overlay for residential and commercial is set in ordinance.				

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Floodplain Standards (cont.)								
Streamside Approach / Prudent Line								

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
Floodplain Standards (cont.)			33	ISSUE 11.4 Reduce Flood Danger- Reasonable alternatives for addressing existing structures which are located in the flood plain are limited; however there are a number of engineering, regulatory and warning systems approaches which can partially mitigate this danger and potential for financial loss. Planning for flood protection while reducing flood danger is a challenge because flood-prone areas are extensive and actual floodplain boundaries are subject to change due to channel migration caused by erosion. Rates of bank erosion may be accelerated as a result of upstream development activities and result in changes to the FEMA the Regulatory 100-year Flood Plain designation. Additional development within floodplain areas increases risk of loss and impedes the ability of drainage channels to convey stormwater. However, the strictest interpretation of floodplain regulations may severely limit the use of private property.				
			33	Goal 11.4 Promote public safety and reduce loss of private propertyPolicy 11.4.1 Strongly discourage land use development from locating in designated floodplainsPolicy 11.4.2 Strongly discourage land use development from locating in areas below dams, spillways, and levees that would require the State Engineer to upgrade the classification of these structures. Policy 11.4.3 Encourage the removal of existing structures within the flood-plain when this can be accomplished in a cost-effective and equitable manner. Policy 11.4.4 Support the construction of facilities which will protect existing structures in flood-prone areas if this can be accomplished in a manner which is environmentally sensitive and will not significantly reduce the ability of the floodway to carry peak flows.				
			33	Policy 11.4.5 Support the continued refinement and use of regional flood warning systemsPolicy 11.4.6 Continue to encourage the disclosure of flood hazards to current and future property ownersPolicy 11.4.7 Limit new development in and modification of flood plains in accordance with regionally adopted flood-plain regulationsPolicy 11.4.8 Encourage "prudent line" approaches which adequately set structures back from flood-plain boundaries, especially in areas which may be prone to bank erosion				
Streamside Approach / Prudent Line			31	2. Prudent Line Applicability: Prudent line approach is applicable and recommended for open channel segments located downstream from land having less than or equal to a cumulative 15% impervious surface cover under future conditions and the main channel can adequately convey future conditions 10-year event flows. Prudent line approach may apply to open channel segments located downstream from land having between a cumulative 15 and 20 percent impervious surface cover under future conditions and the main channel can adequately convey future conditions 10-year flows, justification must be given for recommending prudent line approach. Prudent line approach is not recommended for open channel segments located downstream from land having greater than a cumulative 20 percent impervious surface cover under future conditions or main channel lacks adequate conveyance capacity for the future conditions 10-year flows.				
			31	2.1 Transition Issues- Transition issues on the prudent line reaches require special consideration because of the differential velocities that often arise, thus causing sediment deposition and/or excessive erosion, transitions involve one of the following cases: the transition between an improved channel reach and a prudent line reach or vice versa and the transition that is necessary at road crossings on a prudent line reach.				
			31	2.2 Defining the Prudent Line- The criteria for defining the prudent line is defined as the enveloping curve considering the 100-year floodplain boundary, the erosion during a 100-year event, or the long term erosion over a 30-year period.				
			31	2.3- The Maintenance Line- Due to the dynamic nature of stream channels, and the limitations to predict future channel conditions, the prudent line may be encroached upon in the future. To plan for this potential occurrence, any prudent line application should incorporate a "maintenance line," located somewhere inside the prudent line. Should the channel begin to encroach on the maintenance line, some remedial measures should be considered so that the prudent line is not jeopardized. These remedial measures could include rock rip rap, regrading and revegetating, spur dikes, or other available channel stability countermeasures. County will be responsible for performing channel rehabilitation measures on the prudent line channel resulting from significant hydrologic events or from long-term erosion. The property owner will be responsible for providing protection to his or her structures.				
			31	2.4- Maintenance Access- Providing maintenance access to the prudent line channel is very important.				

	State/Federal Laws and Regulations	Applicable Code Citations	Source City of Colorado Springs	Source City of Fountain	Source Town of Green Mountain Falls
			30 Section 508- Land Use Requirements- Streamside Buffers- The specific width of the required streamside buffer is relative to the streamside characteristics specified with three different stream types, criteria is specific in what is allowed in each stream zone which include the following categories streamside, middle, and outer. The are specific uses which are prohibited in Overlay area. Fences must be open, split-rail, or wood plank design and shall not be placed in 100-year floodplain. Grading should be limited in Overlay area.		
			30 Section 508- Land Use Requirements- Exemptions- Properties and/or development activities shall be exempted from all or a portion of the Streamside Ordinance requirements. Streamside sites may qualify for partial or total exemption if area is progressively reclaimed to a more natural and/or function stream condition. Any development proposal located in Overlay zone existing prior to the adoption of the this Ordinance will be exempt where no grading, disturbance, or development is proposed beyond the existing footprint.		
			30 Section 508- Land Use Requirements- Exemptions Properties separated from stream by a public street or separate privately held parcel of land created prior to the date of adoption of this Ordinance if property is separated by 150 feet or more from stream thread. Sites with a prudent line setback adopted prior to the adoption date of the Streamside Ordinance are exempt from the Streamside Development Plan, Land Suitability Analysis, Streamside Grading, and Impervious Cover Requirements of the Ordinance. Work to install, replace, repair, rehabilitate or maintain public facilities, including but not limited to utilities, stormwater/drainage facilities, trails and parks. There are limited permitted uses as specified in Ordinance.		
Drainage Basin Fees	Colorado Urban Drainage and Flood Control Act	Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Sections 30-28-106 (Adoption of Master Plan – Contents), 30-28-107 (Surveys and Studies) 30-28-133 (Subdivision Regulations)	1 3.1- Drainage Basin Fees represent the share of drainage improvements within basin expressed as dollars per acre. Fees are a one time due at the final plat recording.	34 Interim Drainage fees for Jimmy Camp Creek \$5999 per impervious acre.	
		Title 30, Article 23 Colorado Statutes (Planning and Zoning), Section 31-23-107 (Public Property Dedicated)	2 7.7.902- In the best interest of the basin, fees will be established. Cost will be divided among the unplatted basins for regional detention facilities and will be credited towards drainage fees for property.		
		Title 32, Article 7 Colorado Statutes (Regional Service Authorities), Section 32-7-142 (Urban Drainage and Flood Control)			
		Title 32, Article 11 Colorado Statutes (Urban Drainage and Flood Control), Section 32-11-219 (Cooperative Powers)			
Grading (cont.)	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	Title 9, Article 5 Colorado Statutes (Safety – Industrial and Commercial), Section 9-5-102 (Applicability of Standards	22 7.7.1503: GRADING PLANS: No person shall undertake any grading on private property that will result in: Excavation or fill of five hundred (500) cubic yards or more, The grading of a site with land disturbance of one (1) or more acres, or, Grading on any property with a natural slope in excess of eight percent (8%), or Any combination of the above three (3) or any grading or other disturbance of land in an area zoned hillside area overlay zone under section 7.3.504		18 16-714-e- Grading and Erosion Control Plan shall minimize terrain disturbance and to restore and stabilize those areas which are disturbed. Erosion control/ reclamation plan or program shall state in detail how each type of restoration situation will be dealt with.

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
Drainage Basin Fees			15	Drainage impact fees are based on the following information and criteria, Year 2002 El Paso County Drainage Basin Fees: Fees are dollars per impervious area- Crystal Creek- \$15,464; Dirty Woman Creek- \$15,464; Jackson Creek- \$3,975; Monument Branch- \$14,228; Palmer Lake \$6,961; and Teachout Creek- \$2,761.	8	Drainage fee is \$6,498 per acre if parcel is greater than 2.5 acres then final fee is \$4874 per acre. Fee varies depending on the zoning and percent impervious.		
					10	16.80.010-Fee shall be paid at time of issuance of a building permit. Fee is required if impervious area is being increased.		
					10	16.80.050- A fee reduction up to the total fee for the land and required by the Town to dedicate for the Prudent Line.		
					10	16.80.080- Drainage fees collected will be placed in the Town Drainage Fund.		
Grading (cont.)	12	16.28.030 Required improvements-Grading Plans. To ensure that a minimum amount of earth is moved, that all lots drain properly and that storm drainage will be carried away from the development, a grading plan shall be prepared by the developer and approved by the city engineer.			9	15.50.060-Earthwork cut can not have a slope steeper than 2:1 and fill slope steeper than 3:1. The minimum horizontal separation between the fill slope and cut slope is 5-feet.		

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
			31	3. Calculating the Prudent Line- One procedure for calculating the prudent line is for channels in sandy soils and another for those incised into more erosion-resistant material. A detailed procedure is available in the Prudent Line Addendum. It is important to account for the vertical component creating a prudent line window.				
			31	3.5 Maintenance Line- To insure long term performance of the prudent line, a maintenance line should be established inside the prudent line. The recommended maintenance line is equal to one-half the prudent line. This will provide adequate time to analyze, design, and construct potential countermeasures to protect the prudent line if channel migration is greater than expected.				
			31	3.7 Sediment Deposition Issues- A reach experiencing sediment deposition will also experience change over time resulting in unexpected channel migration, flooding, and potential damage.				
Drainage Basin Fees	3	13.50.050-Stormwater Fee is adjusted annually based on Denver-Boulder CPI-U. Current rates are \$704 for 1st 3000 sf and \$235 for every additional 1000 sf	13	3.1- Drainage Basin Fees represent the share of drainage improvements within basin expressed as dollars per acre. Fees are a one time due at the final plat recording.			13	FE-10- Fees- Fees shall be paid to the Planning Department upon the filing of any application which include floodplain permit of \$200 and development plan review minimum of \$500.
	3	13.50.050.A- Fee is collected when any construction project on any lot, parcel or tract of land increases the area of impermeable surface by at least 1000 s.f.	20	Drainage fees are as per the schedule adopted by the Board of County Commissioners. As identified for applicable Drainage Basin.				
	3	13.50.060.A- Stormwater monthly user charge, tabulated with monthly water and sewer charges. \$2 per month for first 3000 sf and an additional \$0.67 for each additional 1000 s.f. of impervious surface rounded to nearest 1000 s.f.	32	Drainage basin fees shall be paid at the time of recording the plat. Drainage basin fees are calculated on a per impervious acre basis for residential and for non-residential subdivisions regardless of the size of the lots.				
			32	If a drainage fee is considered not to be roughly proportional both in nature and extent to the impact of the proposed use or development of property in the County, the person or entity responsible for paying the established fee may prepare, at their expense, a Drainage Basin Planning Study. If such study is prepared pursuant to DOT criteria and demonstrates by standard engineering methods, that the existing fee is substantially in excess of the impact of the proposed use or development, the DOT shall request that the Board of County Commissioners amend the attached schedules to more accurately reflect the impact of the proposed use or development of the property in the County.				
			32	Credits and/or reimbursements are handled as follows: A subdivision which has no requirements to construct reimbursable drainage facilities pays cash drainage basin fees at the time of recording the final plat. When the cost for reimbursable drainage facilities is less than the drainage fees for a subdivision, the amount of the engineers cost estimate is subtracted from the fees due to obtain the balance due in cash at the time of recording the plat. When the engineer's cost estimate for providing reimbursable drainage facilities is greater than the drainage fees due for a subdivision, no cash fees are paid at the time of recording the plat. Actual costs of the facilities in excess of the fees due are eligible for credit or reimbursement from the drainage basin fund as funds become available.				
			32	A fee reduction of 25% for those portions of developments that consist entirely of 2.5 acre and larger lots.				
			32	If DOT determines that the use of the Prudent Line is appropriate in a proposed use or development of property in the County, a fee reduction up to the total fee for the land required by the County to be dedicated for the Prudent Line. If reduction exceeds the total fee, the remainder of the credit will be paid by the County when the basin account has sufficient funds to do so.				
			32	Additional fee reductions include: 50% of reasonable construction cost of small on-site detention ponds (less than 15 ac-ft), 100% of the reasonable land and construction cost of large on-site ponds that are either required facilities in a Drainage Basin Planning Study, 100% of the reasonable land and construction cost of other regional facilities that are identified as reimbursable in a Drainage Basin Planning Study, 100% of the cost of approved Drainage Basin Planning Studies will be eligible for credits or reimbursements.				
			32	Drainage basin fees vary from \$0 to \$15,000 per Impervious Acre depending on the basin.				
Grading (cont.)	6	Section 18.41.020- Permits and grading plans are required for any land disturbing activity of areas greater than 7500 s.f. without first obtaining a grading permit. Grading plan must be approved by the City of Woodland Park.	20	Chapter V. C: Subdivision grading adjacent to existing development shall not produce severe changes in grade. Utility and drainage easements shall be modified as necessary to produce a usable and desirable transition between developments. Beyond the easement area, lot grades in excess of 4:1 shall in all cases be terraced or otherwise permanently stabilized. All lots shall be graded such that all structures are protected from the 100-year storm. In all cases lots shall be graded away from structures. Any disturbance to approved grading shall be promptly restored by and at the expense of the responsible party. Guarantees for drainage and erosion control shall not be released until associated permanent site grading is completed and stabilized as required by the drainage and erosion control plan.	21, 24	16.56.030 and GES-III-Erosion: When possible, developments should consider fitting the buildings and streets to the natural topography. Slopes greater than 3:1 are undesirable, while slopes of 6:1 are the most desirable.	13	GR-10 Grading- Grading of Natural Features- When subdividing. In the layout of streets and blocks, natural features such as drainage-ways, rock formations, soil, vegetation, and topography shall be preserved as much as possible.

	State/Federal Laws and Regulations	Applicable Code Citations	Source	City of Colorado Springs	Source	City of Fountain	Source	Town of Green Mountain Falls
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes)	22	7.3.504- Hillside Overlay- No land shall be subdivided, graded, or otherwise disturbed for purposes of development, or any other purpose until the plans for grading, erosion and stormwater quality control are approved by the Manager and the City Engineer.				18 16-714-g- All facilities, vegetation and other items required by the approved grading erosion control plan shall be properly maintained by the owners of the property. This obligation to maintain shall not apply to individual lots except as the individual lots may be subject to maintenance obligations incurred under the approved grading, erosion control and reclamation plan.
		Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning)	22	7.7.1501- Purpose: The intent is to require persons who engage in grading or who have grading undertaken to accomplish the grading in a safe manner and with the appropriate erosion and stormwater quality controls and Best Management Practices (BMPs) so that grading does not result in adverse effects to persons or property, or both.				
			19	3.0-When site grading precedes final development, a Grading Plan and an Erosion and Stormwater Quality Control Plan must be submitted. This plan may have to be modified at the time a final site development plan is prepared. This modified plan must be submitted for review concurrent with the development plan, or prior to final plat approval (if no development plan required), or prior to approval of a building permit (existing platted lots).				
Easements		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes); Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning) Title 31, Article 35 Colorado Statutes (Water and Sewage), Part 3 (Water Mains and Other Improvements – Cities and Towns); Title 38, Article 30.5 Colorado Statutes (Conservation Easements)				34	Drainage easements on platted lots.	
Required Improvements		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes); Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning); Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Sections 30-28-106 (Adoption of Master Plan – Contents), 30-28-107 (Surveys and Studies), 30-28-133 (Subdivision Regulations); Title 30, Article 23 Colorado Statutes (Planning and Zoning), Section 31-23-107 (Public Property Dedicated)						
Misc.	National Environmental Policy Act of 1969	U.S.C. Title 42, Chapter 55 (NEPA)	22	7.7.908: CITY RESPONSIBLE FOR ACCEPTED FACILITIES: All drainage facilities and appurtenances constructed or provided under this Part and designated by the City Engineer as public drainage facilities with public maintenance, shall upon written acceptance by the City become the property of the City and the City shall be responsible for the operation and maintenance of the facilities.				18 Hillside Development- Grading/erosion control/reclamation plan shall minimize terrain disturbance and to restore and stabilize those areas which are disturbed. Plan must be submitted and approved prior to land being subdivided, graded, or disturbed for any other purpose. Plan shall state in detail how each type of restoration situation will be handled per specific situation.
		Title 40 CFR, Part 1501 (NEPA and Agency Planning), 1502 (Environmental Impact Statement), 1505 (NEPA and Agency Decisionmaking)						
Street Design		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes); Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning);				1	City of Fountain follows City of Colorado/ El Paso County Standard Specifications and Construction Standards.	
		Title 30, Article 28 Colorado Statutes (County Planning and Building Codes), Sections 30-28-106 (Adoption of Master Plan – Contents), 30-28-107 (Surveys and Studies), 30-28-133 (Subdivision Regulations); Title 30, Article 23 Colorado Statutes (Planning and Zoning), Section 31-23-107 (Public Property Dedicated)						
Construction	Effluent Limitation Guidelines and New Source Performance Standards for Construction and Development (proposed rule at FR 67, No. 121, June 24, 2002)	Title 30, Article 28 Colorado Statutes (County Planning and Building Codes); Title 31, Article 23 Colorado Statutes (Municipal Planning and Zoning)						

	Source	City of Manitou Springs	Source	Town of Monument	Source	Town of Palmer Lake	Source	City of Pueblo
						915.50.100- In computing the "average slope" for any parcel placed in the District, any "average slope" not meeting the requirements of this Ordinance will be disregarded if the lot owner creates a Conservation Easement in favor of the Town as contemplated by Title 38, Article 30.5 of the Colorado Revised Statutes. Said easement remains the sole responsibility of the property owner.		
Easements	12	16.22.030- Drainage Easements- Where a subdivisions is traversed by a watercourse, drainageway, channel, or stream there shall be provided a storm water easement or drainage right-of-way of such width as to be adequate for both water flow and maintenance operation.						174.5- Easement Requirements. Single storm sewers shall have a minimum width of 20-feet. Open channel easements shall be wide enough to contain flood flows, freeboard, and associated facilities plus a 12-foot wide vehicular access adjacent to the channel as per Appendix A-33.
								174.5.D- Detention Ponds- as required to contain storage, freeboard, and associated facilities plus 12-foot wide vehicular access around perimeter and to the nearest public ROW.
Required Improvements	12	16.24.030- Required Improvements- Storm drainage shall be provided for the development by the subdivider based on plans submitted and approved by the City Engineer. A storm of 100-year return frequency of 6 hours duration shall be used as the design and installation of any storm drainage improvement. The developer shall install all storm drainage improvements required per any drainage plan and report. Developer shall ensure that all lots drain away from any proposed structures and that such drainage does not interfere with other structures in adjoining or other lots in the subdivision.						
Misc.	12	16.30.010-If proposed street, or its construction, will, in the opinion of the City Engineer, threaten landslides or rockslides from the street or areas adjacent to then the application will be denied unless the applicant present a prevention plan for such event. If plan is approved then a surety bond will be required by City and will be an amount and time period set by Planning Director.						
Street Design	12	16.32.010- Streets will be designed to carry the 5-year runoff within the street section. The 100-year runoff shall be analyzed and the one hundred-year flood level shall not inundate any floor elevation.						
Construction	12	16.32.010- City will inspect drainage facilities one year after completion, if facilities are deemed acceptable then improvements will be incorporated into the City Drainage System.						

	Source	City of Woodland Park	Source	El Paso County	Source	Pueblo County	Source	Teller County
				20 Chapter V, C: Grading permit is required issued by the County Engineer. The Board of County Commissioners must approve the preliminary plan prior to grading permit to be issued. Grading and Erosion Control plan has met all requirements of County Criteria. Applicant must complete and submit "Grading Permit Acknowledgment Form".				13 GR-10-2 Grading for Streets- in a PUD. All manufactured slopes, other than those constructed in rock, shall be planted or otherwise protected from the effects of storm runoff erosion and shall be of such a character so as to cause the slope to blend with the surrounding terrain and development. The developer shall provide for the maintenance of the planting until growth is established.
								13 SL-10- Slope Any construction in the A-1 zone, on slopes that are 30% or greater, will require a conditional use permit from the Planning Commission. RR, R1, R1M, R2 Zones. When slopes exceed 29%, no development is permitted except in Planned Unit Developments where individual building and waste disposal sites plus safe, convenient, and smooth access by conventional vehicle can be provided. If slopes exceed 29% then maximum density is one unit per 5 acres.
Easements				20 Chapter V, Section 49.2 If a subdivision is traversed by a water course, drainageway, or channel, the storm water or drainage right-of-way (easement) shall conform to the lines of such water course and shall be of such width and construction as may be necessary to provide adequate storm water drainage and to provide access to and maintenance thereof. The minimum standard for identification of the drainage channel shall be the 100-year Floodplain. Drainage channels should be left in a natural state unless channelization is recommended by the El Paso County Engineer.				13 EA-10-1 and 5.2.A- Drainage Easements-When Subdividing: Where a subdivision is traversed by a water course, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way of such width as will be adequate for both water flow and maintenance operations. Minimum width shall be 10-feet.
Required Improvements								
Misc.				33 Goal 11.3 Promote the planning and design of drainage facilities which maximize on-site amenities while minimizing detrimental downstream erosion. Policy 11.3.1 Where feasible, support the use of natural or naturalistic drainage approaches rather than hard line solutions. Policy 11.3.2 When possible, safely design and incorporate drainage facilities as an aesthetic element within developments. Policy 11.3.3 Fully evaluate the relative impact of proposed drainage improvements on the maintenance of water quality. Policy 11.3.4 Promote the effective use of innovative short and long term strategies including sediment ponds, buffer strips and constructed wetlands as a means of reducing peak flows and improving storm water quality. Policy 11.3.5 Protect the integrity of wetlands, riparian areas and associated wildlife habitat through a combination of careful land development and drainage system design.		23 Section 16, part h: Where non-County maintenance is proposed for roads, facilities, etc. The applicant shall submit for review and approval a maintenance plan for such facilities.		
				33 C Drainage Basin Plans and Studies In El Paso County 1. Drainage Basin Master Plan (1984) 2. Windmill Gulch Master Drainage Plan (1985) 3. Black Squirrel Creek Drainage Basin Planning Study (1989) 4. Drainage Basin Delineation and Naming Study (1986) 5. Middle Tributary Drainage Basin Planning Study (1987) 6. Monument Branch Drainage Basin Planning Study (1987) 7. Little Johnson/ Security Drainage Basin Planning Study (1988) 8. Pine Creek Drainage Basin Planning Study (1988) 9. Updated Drainage Basin Identification and Fee Estimation (1988) 10. Black Forest Drainage Basin Planning Study (1989) 11. Big Johnson Drainage Basin Planning Study (1991) 12. Windmill Gulch Drainage Basin Planning Study (1991) 13. Fishers Canyon Drainage Basin Planning Study (1991) 14. Big Johnson/ Crews Gulch Drainage Basin Planning Study (1991) 15. Cottonwood Creek Drainage Basin Planning Study (1992) 16. Dirty Woman Creek and Crystal Creek Drainage Basin Planning Study (1993) 17. Sand Creek Drainage Basin Planning Study (1996)				
Street Design						23 Section 30, part h: Off-Street Parking Standards, Drainage: Off-street parking areas shall be constructed in a manner to insure the drainage of stormwater, therefrom, without flooding or damage to surrounding properties or public roads. Temporary water ponding is allowable if part of a drainage detention system approved by the Public Works Director or part of a subdivision's approved drainage plan.		14 Appendix G- Street flows. Streets shall have limited use as a waterway for storm runoff with flow capacities in quantities as approved by County Engineer.
						24 Section XII: Mountain Subdivisions: Part 1: Proper drainage and necessary culverts as approved by the Public Works director or a professional engineer employed or contracted by the county.		
Construction								