

REZONE MAP CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___/___/___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Rezone Map

A map shall be drawn to a scale suitable to describe the information required and shall include:

1. **Boundary description of the subject property, which shall illustrate the legal description.**
2. **Existing land uses and zoning on the property and within five hundred (500) feet of the boundary.**
3. **Adjoining property ownership.**
4. **Existing private roads.**
5. **Existing structures.**
6. **Existing easements.**
7. **Name and addresses of the petitioner, owners of all interests (including mineral interests), in the property, and preparer.**

DEVELOPMENT PLAN CHECKLIST

PROJECT NAME _____
SUBMITTAL DATE ____ / ____ / ____
SUBMITTED BY _____
SUBMITTAL REVIEWED BY: _____

A. A development plan shall accompany any rezoning application requiring such as indicated within Section 4, Submittal Requirements. Said plan shall be no larger than 42 inches on one side, and shall contain the following information:

1. Title or name of the development above the term, "Development Plan"
2. Vicinity map, scale, north arrow and date of preparation
3. Complete legal description of property including land area
4. Certification Statements, to include:
 - a) Certification of Ownership
 - b) Certification of Approval by the Board of County Commissioners
 - c) Certification of the Planning Director
 - d) Certification by the Clerk & Recorder
5. Land use(s) for each area included in the plan and corresponding land area
6. Existing and proposed public and private easements and drainage ways
7. Heights of building and structures and general locations of buildings and structures, traffic circulation, and parking
8. Density of residential development. If densities vary within the development, each density shall be depicted
9. Commercial/industrial square footage
10. Proposed roadways from collector status and greater by functional classification with right-of-way widths depicted
11. Buffering and screening including type from surrounding properties
12. Size, type of general location of proposed public sites, open space and recreational areas

13. If facilities are proposed that are not normally maintained by public entities a statement indicating the type of maintenance mechanism proposed.

B. Specific required information on the development plan may be omitted when considered not applicable by the Director of the Planning Department and, conversely, additional information may be required as part of the development plan when considered applicable by the Director of the Planning Department.

MAINTENANCE PLAN CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___/___/___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Maintenance Plan

In areas where other than County maintenance is proposed for roads, common areas, recreational areas, or facilities, open space, bikeways, trails, paths, malls, parking areas, or public sanitation facilities, the petitioner shall submit for review and approval a maintenance plan for such facilities prior to issuance of a building permit. In cases in which a submittal conforming to the standards for final plats is required, the maintenance plan shall be submitted at final plat stage. In cases in which a plot plan is required, the maintenance plan shall be submitted at the plot plan stage.

For proposals which contemplate use of a common sewerage or water system by two or more dwelling units or uses, a Maintenance Plan may be required if, in the opinion of the Planning Director, such a plan is necessary to protect the public health, safety, and welfare. The Maintenance Plan shall address or provide, at a minimum, the following, to the extent applicable:

1. Identification of present and proposed ownership for the facilities or areas included within the maintenance plan; in the case of condominiums, townhouses, or other multiple dwelling units, the method of conveying title and the estate to be granted shall be noted.;
2. A title opinion dated no less than thirty (30) days prior to the submittal date;
3. A service plan to include:
 - a. Proposed method of guaranteeing maintenance.
 - b. Proposed form of unified control which shall include identification and description of corporations, partnerships, trusts, owner's associations, or other legal entities having the right to assess individual landowners within the development and identification of the method proposed to enforce required assessments.
 - c. Date of implementation of provision of B.(3)(a), of this section. Appropriate recording of such documents and agreements as may be required shall be a condition of any plan approval.
 - d. Cost of capital construction for proposed facilities, cost of maintenance of such facilities per year, amount proposed to be assessed to meet such expenses.
 - e. Proposed administrative mechanism to assure that maintenance is carried out as planned.
 - f. Suitable collateral to ensure that in case of discontinuance of control and maintenance, El Paso County may assume such duties as may be appropriate without additional cost to the taxpayer. Collateral shall include lien, letter of credit, bond, or such method as approved by the Board of County Commissioners.
 - g. Evidence that all required approvals have been granted in accordance with County Regulations

DEVELOPMENT AGREEMENT CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___ / ___ / ___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Development Agreement

In connection with any land use or development approval, the Board of County Commissioners shall be authorized to enter into a Development Agreement with the applicant for the purpose of clarifying the scope, timing, or design improvements, and to increase predictability of future development and impacts to both the County and the Applicant.

Development Agreements may be appropriate when the County and/or the applicant wish to clarify the phasing of construction, the timing, location and financing of infrastructure or amenities, reimbursement for over sized infrastructure, including cost recovery agreements pursuant to Chapter V, Section 49.3 E., vesting of property rights pursuant to Chapter X of this Code, assurances that adequate public facilities (including roads, schools, water, sewer, fire protection and emergency medical services) will be available as they are needed to serve the development, and mitigation of anticipated impacts of the development on the general public and any other issues mutually agreed upon. Development Agreements may contain any or all of the following:

1. Agreements regarding the timing, location and/or financing of the residential or non-residential structures included in the land use application, or of related private on-site improvements such as landscaping and common open space; including any agreements that certain facilities will be constructed before a certain date or prescribed event or agreements that certain facilities will not be constructed until after a certain date or prescribed event;
2. Agreements regarding the timing, location and/or financing of improvements, and assurances that improvements (including but not limited to roads, schools, water, sewer, fire protection and emergency medical services) will be available as needed to serve new development;
3. Agreements regarding the construction of, improvements or amenities in excess of what is required by current County policy or law;
4. Agreements regarding the amount of fees, charges or assessments to be paid to mitigate the impacts of the approved development, the timing of such payments, and any agreements regarding refunds or reimbursements of such payments, under certain conditions;
5. Agreements regarding creation of a property owners association, the adoption of private covenants or restrictions, and the enforcement of such covenants or restrictions (including the collection of association dues or contributions as necessary to fund enforcement and maintenance;
6. Agreements regarding the inclusion of some or all of the land covered by the land use or development application in one or more future improvement or assessment district(s) or other entity that may be formed to help finance the construction, maintenance, or operation of improvements or the delivery of services benefiting the future residents or occupants of the land included in the district(s) or entity;

- 7. Agreements by the Applicant to construct or dedicate improvements or land that will provide benefits to other property owners or to the public, and/or agreements by the County to recover (or to attempt to recover) the value of some or all of those benefits from benefiting property owners and/or to reimburse the Applicant for some or all of the such benefits, all as described in Section 49.3.E;**
- 8. Agreements regarding the terms under which land or some or all of the improvements constructed by the Applicant may be offered for dedication to the County, and the terms on which the County will accept those dedications;**
- 9. Agreements to mitigate the impacts of proposed development on the general public, including the protection of wildlife habitat and other environmentally sensitive lands, including agreements to contribute to off-site mitigation or to participate in third party associations organized to facilitate or manage such mitigation;**
- 10. Agreements regarding the delivery of financial guarantees or surety to ensure the performance of some or all of the terms of the Development Agreement, and related agreements regarding the use or release of such financial guarantees, or surety;**
- 11. Provisions for the vesting or conditional vesting of property rights pursuant to Chapter X of this Code, provided, however, that such terms shall be consistent with the provisions of CRS 24-68-101 et. seq.,(the Colorado Vested Rights Act) and shall not restrict the County's ability to protect the public health, safety, and welfare of its residents pursuant to CRS 24-68-102.5 and 105;**
- 12. Provisions for the exercise or enforcement of any County powers granted pursuant to CRS 29-20-101 et. seq. (Local Land Use Control Enabling Act) or CRS 24-67-101 et. Seq. (Planned Unit Development);**
- 13. The powers of the Applicant and the County to enforce the Development Agreement, including any restrictions on claims for or payment of money damages, and any requirements for the use of mediation or arbitration of disputes as an alternative to litigation of disputes**
- 14. Termination date for the Development Agreement.**

PRELIMINARY PLAN DRAWING CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___ / ___ / ___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

- | | | |
|----------|---|--------------------------|
| Scale | Adequate to represent the information (1"=200' preferred) | <input type="checkbox"/> |
| Size | Maximum Size forty-two (42") on one side | <input type="checkbox"/> |
| Contours | One acre or less lot size two foot contours (2') | <input type="checkbox"/> |
| | Larger than one acre five foot contours (5') | <input type="checkbox"/> |
| | Accuracy to be no less than 1/2 contour interval | <input type="checkbox"/> |
| | Mountainous Topography/High Relief twenty foot contours (20') | <input type="checkbox"/> |
| | Contours extended no less than 100' onto adjacent property? | <input type="checkbox"/> |

General Information Required on Plan

- | | |
|---|--------------------------|
| Subdivision Name | <input type="checkbox"/> |
| General Legal Description by 1/4 Section, Section, Township, Range | <input type="checkbox"/> |
| Legal includes approximate survey tie to an accepted survey monument? | <input type="checkbox"/> |
| Name & address of person/corporation/organization preparing preliminary plan | <input type="checkbox"/> |
| Name & address of subdivider | <input type="checkbox"/> |
| Name & address of property owners, within, surrounded by, and adjacent to the subdivision including identification of all platted subdivisions by name | <input type="checkbox"/> |
| Date of preparation, north point, written and graphic scale | <input type="checkbox"/> |
| Vicinity map to locate tract – map to show relationship to existing major thoroughfares | <input type="checkbox"/> |
| Boundary lines of the subdivision showing approximate length of lines | <input type="checkbox"/> |
| Approximate location, rights of way, width, surfacing, functional classification, and names of existing and proposed maintained and dedicated public and private streets | <input type="checkbox"/> |
| Approximate length of street centerlines, radii of curves, centerline grades, and type of curb, gutter and sidewalk | <input type="checkbox"/> |
| Approximate location, length, width and use of all existing and proposed easements, utility rights of way, major utility facilities, intersection, bridges, culverts, and drainageways. Indicate underground facilities | <input type="checkbox"/> |
| Approximate location, length, width and type of all non-thoroughfare transportation | <input type="checkbox"/> |

links (e.g. paths, bikeways, trails, PRT, guideways, railroads, etc.)

Approximate layout, dimensions, angles, land use, and acreage or square footage of each lot

The approximate location of land to be conveyed or reserved in deeds for the use of all property owners, residents, or the general public and the proposed methods of dedication and maintenance of such lands; to include but not be limited to: parks, open space, public streets and thoroughfares, bikeways, paths, trails, schools and school sites, public utilities, and community and social service facilities

If fees are to be paid in lieu of land, the approximate amount of such fees and the concurrence of the parties involved are to be shown

Notes to indicate disposition, maintenance responsibility, and service responsibility (suppliers) for water and sanitation, energy supplies, common areas, and other services and areas which will serve the community must be shown

Approximate location of existing and proposed structures

Approximate location of:

(1) Watercourses, existing bodies of water, and other waterforms

(2) Sites of historic or archaeological significance as inventoried in the El Paso County Historic Preservation Plan

(3) Identified and inventoried sites of natural or scenic importance

WILDFIRE HAZARD AND VEGETATION REPORT CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___/___/___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Wildfire Hazard and Vegetation Report

A report regarding the susceptibility of the proposed site to wildfire hazard. The report shall include:

1. A map of the site (1:24,000 scale) indicating the wildfire hazard rating and significant vegetation.
2. Appropriate documentation to indicate the accuracy of the map.
3. Recommended methods of mitigating identified wildfire hazards.

WATER RESOURCES / PERFORMANCE REPORT
CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___/___/___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Water Resources Report

The Water Resource Report shall document the requirements of Section 49.5 of the Land Development Code and shall include the following data, documentation and analysis:

A. Summary of the proposed subdivision:

1. Location including streets, Township and Range, a copy of all maps required with Sketch and Preliminary Plan and Final Plat submittals, and legal description.

2. Description of subdivision including acreage of each proposed land use, number of dwelling units, etc. For phased projects the description shall clearly describe the acreages, land uses and number of units of each phase. The location of each proposed land use shall be shown on appropriate maps.

B. Determination of sufficient quantity of water:

1. Calculation of water demand:
Separate calculations of the type, number and annual water requirements of existing, proposed and potential maximum uses of the site and a general timetable when such demands are expected. See Section 49 D.3. of the *Land Development Code* for methods of determining water demand.

2. Calculation of quantity of water available:

a. Clearly identify and describe each source of water.

b. Include a map showing the location of any off-site water to be used and the location of major water transmission lines, reservoirs, etc.

c. Calculate the quantity of water available from each source. Onsite and off-site sources shall be determined independently.

d. Ground water sources:

1. List each aquifer to be used. Identify each aquifer as tributary, nontributary, not nontributary or from a designated basin. Identify renewable and non-renewable aquifers. Discuss the need for and the status of any augmentation plans required to use the proposed supply.

2. Describe the annual and the three hundred (300) year quantity of water available from each proposed aquifer

3. Discuss location, construction and production details of existing and proposed production wells. The following shall be included:

a. Estimated number, size and short- and long-term yields of wells necessary to serve the proposed subdivision; estimated life expectancy of wells; estimated short- and long-term well development schedule indicating probable timing of bringing additional wells on line

b. A map showing locations of wells to be used during the first five (5) years of the subdivision and probably locations of wells in the out years.

c. Well drilling logs and well completion reports.

d. Pumping test data and analysis, including data and analysis of constant rate and step drawdown tests

e. Surface water sources:

1) List each surface water supply to be used. Identify each source as tributary, nontributary, or from a designated basin. Discuss the need for and the status of any augmentation plans required to use the proposed supply.

2) Describe the annual and the three hundred (300) year quantity of water available from each proposed surface water supply.

3) Calculate the number of years of water supply. For phased projects the calculation shall delineate the years of water available for each phase.

C. Determination of sufficient dependability of water supply:

1. Proof of ownership or right of acquisition of use of existing or proposed water rights sufficient in quality, quantity and dependability to serve the proposed use. Include well permits, court decrees, well permit applications, export permits, etc.

2. Financial plan and capital improvements plan of water provider.

3. Description of the water supply, location shown on maps, and, when appropriate, engineering designs of existing and proposed water supply facilities, including wells, storage facilities, major transmission lines, etc.

4. Calculations demonstrating that the aquifers are capable of supplying the required quantity of water and analysis showing the wells are capable of producing the required water supplies, if ground water is to be used.

5. If a public or private water source is to be used, evidence that the source can and will supply water to the proposed subdivision stating the amount of water available for use within the subdivision and the feasibility of extending service to the area. This evidence shall, in addition to the data required in Sections 49.5 and 51.2, include the following information:

a. A letter indicating a commitment to serve.

b. Name and address of the municipality, quasi-municipality, or water company which will supply the water.

- c. Current capacities of the existing system.
- d. Total amount of current and committed use.
- e. Amount and timing of water to be supplied to the subdivision. This requirement does not apply to subdivisions to be supplied by individual wells.

6. Evidence that short-term water supply needs of the subdivision can be met to satisfy fire demand and reduction of supplies as a result of flooding, and damaged or otherwise incapacitated systems. Short-term dependability can be satisfied by such features as reservoirs, standby wells and standby connections with other water supply or distribution systems.

D. Determination of sufficient quality and potability of water:

- 1. Chemical analyses of proposed water from each proposed source.
- 2. Evidence of compliance with County and/or State water quality standards.
- 3. Discussion of potential for water quality degradation from onsite and off-site sources.

E. Requirements of the State Engineer:

State statute requires the State Engineer to review all proposed water supplies. The State Engineer requires a narrative discussion. The following is the minimal information requirements of the State Engineer for "minor subdivisions":

- 1. Plat and legal description of the property and a description of previous actions of the State Engineer's Office regarding the property (e.g. previous exemptions, well permit applications).
- 2. Well permit number or numbers of existing and permitted wells when available. Names of previous owners, dates of well construction, depth, etc., if permit numbers are not available.
- 3. Use of water supply on the property as it now exists. Include number and locations of dwellings supplied, area of irrigated lawn and garden, water use for livestock, etc.
- 4. Proposed water supply. Description of wells or water provider to be used for each lot and what aquifer(s) the applicant intends to use.
- 5. Water requirements for each proposed lot. Include quantity to be used for dwellings, irrigation and livestock. It is not necessary to include this information for subsection 8.e. as a separate discussion item provided it is included in the Water Resources Report.

F. Public and private commercial water providers:

Although it is the responsibility of the applicant to provide information regarding the availability of water supplies from any source, including public and private commercial water providers, many providers have elected to submit a general Water Resource Report. Such a report may then be used to evaluate the water resources available for a series of projects within their service area.

1. Water providers report:

In those cases where the water provider submits a general Water Resources Report, it is requested that the report be updated annually, preferably in January or February. Update information should include:

- a. volume of water sold in the previous year,
- b. new water acquisitions, augmentation plans, etc.,
- c. water trades or other losses of water supplies,
- d. anticipated water acquisitions for the upcoming year,
- e. legal documentation accompanying new water acquisitions and augmentation plans,
- f. major capital improvements accomplished during the past year and anticipated major capital improvements for the upcoming year, and
- g. other information which would be useful in evaluating the availability of water supplies.

2. Annual County Report:

The County will prepare preliminary and final reports containing an analysis of the water availability of those water providers who elect to submit an annual Water Resources Report. These County reports will be jointly prepared by the County Hydrogeologist, County Attorney, Planning Department and the County Department of Health and Environment. The preliminary report will be issued in January and will include a summary of the past year's subdivision and building activity. The Final County Report will be issued after receipt of the water providers' Water Resource Reports. After the water provider has had the opportunity to review and comment on the Final County Report, the report will be used for the following twelve (12) months as the basis for evaluating the availability of water supplies for proposed projects.

G. Other relevant information as deemed necessary.

Water Performance Report

For lots of between two and one-half (2 ½) and five (5) acres, where individual wells are proposed, a report conforming to the following standards shall be submitted in addition to the report outlined in Section 51.2. The report shall be prepared by a registered professional engineer licensed to practice in Colorado and shall include the following information:

- A. A map drawn to the same scale as the preliminary plan, locating all lots, water-forms, drainageways, floodplains, cones of influence (if applicable), aquifers, and surface or subsurface hazards. Individually noted shall be any point sources of water pollution or identified polluted waterforms. Water quality of aquifers and surface waters on and immediately adjacent to the site shall be noted..
- B. A report addressing the following:
 - 1. Location, type, depth (estimated maximum), pumping rates capacity of all wells existing or proposed on the site or within three hundred (300) feet of the site. Also noted shall be casing requirements, water table depth, aquifers, and water requirement per well (2.25 ac ft./yrs. shall be the maximum usage rate).
 - 2. An analysis of soils, subsurface geology, hydrology, aquifer recharge capability, aquifer characteristics, and relationship to surface waterforms. Said analysis shall identify any probably well interference or the interference

with surface waterforms and shall describe the maximum probable cones of influence of wells relative to adjoining wells, waterforms, and leach fields. Analysis shall include identification of probable impacts on adjoining wells, agricultural uses, and general aquifer level stability.

3. The report shall identify maximum number of lots and minimum lot sizes.

4. The availability of a central water system and the feasibility of inclusion into such a system. If there is a central water system within one (1) mile of the proposed subdivision or if the subdivision is within an organized water district or municipality is incapable of serving the site, exclusive of line extension costs.

5. The County Health Department, Planning Director, or State Engineer may require the developer to submit additional engineering or geological reports or data and to conduct a study of the economic feasibility of a public water system prior to making recommendations. No plan or plat shall be forwarded to the County Commissioners for final approval without the approval of the Planning Director and the County Health Department or State Engineer except as otherwise provided for herein.

WASTEWATER DISPOSAL / PERFORMANCE REPORT CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___ / ___ / ___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Wastewater Disposal Report

All preliminary plans submitted for review shall be accompanied with a wastewater disposal report containing information on the relative items herein. This report will be reviewed by agencies to evaluate the area being subdivided or developed.

The pertinent information shall be prepared by a professional engineer licensed to practice in the State of Colorado.

A. PUBLIC SANITARY SEWER SYSTEM

The following shall be fully addressed or submitted:

1. An estimate of the ultimate population and quantity of effluent to be treated.
2. The location of the wastewater treatment plant or the location of connection(s) with an existing system; and explanation of the effects on the existing system.
3. A letter committing to the acceptance or maintenance of the system from a municipality, district, or sanitation company.
4. An estimate of construction costs (to be included in the Improvement Guarantee Estimate).
5. If not within an existing municipality or district, the subdivider shall create or be annexed into a special sewer district in accordance with Colorado Revised Statutes prior to recording of the final plat. Applications for creation of special water and sewer districts shall be submitted to El Paso County Planning Commission. Private sanitation companies must be approved by the State Public Utilities Commission prior to recording of the final plat.
6. A map showing all existing and proposed facilities, their capacities and current use levels.

B. INDIVIDUAL SANITARY SEWER SYSTEMS

The following shall be fully addressed or submitted. If any of these items are addressed in other reports, refer to these reports appropriately:

1. Soil conditions, Soil Conservation Service soils classification, slope of the terrain, underground water table, subsurface rock, and limitations on site location of the system.
2. Conditions which may cause deleterious effects to systems in the area, such as runoff or irrigation.
3. The availability of a central sewage system and the feasibility of inclusion into the system.
4. The proximity of water wells, lakes, streams, irrigation ditches, and other water sources

in the area being subdivided.

5. Soils tests:

a. The subdivider shall submit a minimum of one percolation test per SCS standard soils category. Additional tests may be required if necessary to evaluate the site. Conditions requiring additional tests shall include presence of steep slopes or major drainage channels in the area being subdivided. The percolation test procedure shall comply with the El Paso County Individual Sewage Disposal System regulations. All test sites shall be clearly flagged in order that reviewing agencies may make field checks of test locations.

b. An eight (8) foot deep soil/groundwater profile analysis shall be made at the site of each percolation test.

6. County Health Department may require the subdivider to submit additional engineering or geological reports or data and to conduct a study of the economic feasibility of a sewage treatment works prior to making its recommendations. No plan shall receive the approval of the Board of County Commissioners unless County Health Department has made a favorable recommendation regarding the proposed method of sewage disposal.

7. A narrative summary of the conditions of the land to be subdivided shall include any precautions to developers and residents, construction constraints, and special problems foreseen by the investigation engineer.

Wastewater Disposal Performance Report

For lots between two and one-half (2 ½) to five (5) acres where individual sewer systems are proposed, a report conforming to the following standards shall be submitted in addition to the report outlined in Section 51.3. The report shall be prepared by a registered professional engineer licensed to practice in Colorado and shall include the following:

A. A map drawn to the same scale as the preliminary plan locating all lots, drainageways, floodplains, slopes in excess of thirty percent (30%), surface and subsurface soils hazards, geologic hazards, depth to bedrock, water table depth, and other hazards.

B. A report addressing the following:

1. Percolation tests shall be conducted for no fewer than twenty percent (20%) of the total number of lots in the filing. In cases in which unique geologic, topographic, or soils conditions, such as: depth to bedrock, depth of water, slopes in excess of ten percent (10%), etc. are found, additional tests may be required by the appropriate review agency.
2. All locations not suited for placement of leach fields due to soils, geologic, topographic, or hazard conditions shall be noted on the preliminary plan. The final plat shall be designed as to insure that each lot has a minimum of two (2) sites appropriate for individual treatment systems which do not fall in the restricted zones noted on the preliminary plan.
3. Relationship of the leach fields to leach fields, wells, and structures, lakes, streams, irrigation systems, and other waterforms on adjoining parcels and identification of any possible hazards. Such identification shall be based on an analysis of the probably effects of water on the soils, geology, and hydrology of the area.

4. **The availability of a central sewage system and the feasibility of inclusion into such systems. If there is a central sewage system within one (1) mile of the proposed subdivision, or if the subdivision is within an organized sewage district or municipal service area, the subdivider must submit proof that the district or municipality is incapable of serving the site, exclusive of line extension costs.**

5. **The County Health Department, Planning Director, or State Engineer may require the developer to submit additional engineering or geological reports or data and to conduct a study of the economic feasibility of a public water system prior to making recommendations. No plan or plat shall be forwarded to the County Commissioners for final approval without the approval of the Planning Director and the County Health Department or State Engineer except as otherwise provided for herein.**

Preliminary Drainage Report (PDR) Checklist

The purpose of the Preliminary Drainage Report is to identify specific solutions to problems onsite and offsite resulting from the development of the subdivision to be platted. In addition, those problems that exist prior to development must be addressed in the preliminary report. The PDR shall be in accordance with the following outline and contain the applicable information listed. Drainage reports must utilize the following format and major headings as noted below.

Report Contents

- 1) Table of contents, pages numbered.

General Location

- 2) City and County, and local streets within and adjacent to the subdivision.
3) Township, range, section, ¼ section.
4) Major drainageways and existing facilities.
5) Names or surrounding platted developments.

Description of Property

- 6) Area in acres.
7) Ground cover (type of trees, shrubs, vegetation).
8) General topography.
9) General soil conditions.
10) Major drainageways.
11) Irrigation facilities.
12) Utilities and other encumbrances.

Major Basin Descriptions

- 13) Reference should be made to major drainageway planning studies; such as drainage basin planning studies, flood hazard delineation reports, and flood insurance studies or maps, if available.
14) A flood plain statement shall be provided indicating whether any portion of the development is in a designated floodplain as delineated on the current FEMA mapping.
15) Major basin drainage characteristics.
16) Identification of all nearby irrigation facilities and other obstructions which could influence or be influenced by the local drainage.

Sub-Basin Description

- 17) Discussion of historic drainage patterns of the property in question.
18) Discussion of offsite drainage flow patterns and their impact on the development.

Drainage Design Criteria

- 19) Reference all criteria, master plans, and technical information used for report preparation and design; any deviation from such material must be discussed and justified.
- 20) Discussion of previous drainage studies (i.e. PDR, drainage basin planning studies, master plans, flood insurance studies) for the site in question that influence or are influenced by the drainage design and how the studies affect drainage design for the site.

Hydrologic Criteria

- 21) Identify design rainfall.
- 22) Identify runoff calculation method.
- 23) Identify design storm recurrence intervals.
- 24) Identify detention discharge and storage calculation method.

Drainage Facility Design – General Concept

- 25) Discussion of compliance with offsite runoff considerations.
- 26) Discussion of anticipated and proposed drainage patterns.
- 27) Discussion of the content of tables, charts, figures, plates or drawings presented in the report.

Drainage Facility Design – Specific Details

- 28) Presentation of existing and proposed hydrologic conditions including approximate flow rates entering and exiting the subdivision with all necessary calculations.
- 29) Presentation of approach to accommodate drainage impacts on existing or proposed improvements and facilities.
- 30) Presentation of proposed facilities with respect to alignment, material and structure type.
- 31) Discussion of drainage impact of site constraints such as streets, utilities, existing and proposed structures.
- 32) Environmental features and issues shall be presented if applicable.
- 33) Discussion of maintenance access and aspects of the preliminary design.
- 34) Discussion and analysis of existing and proposed downstream drainage facilities and their ability to convey developed runoff from the proposed development.

Drawing Contents

- 35) General Location Map: A map shall be provided in sufficient detail to identify drainage flows entering and leaving the development and general drainage patterns. The map should be at a scale of 1"=50' to 1"=2000'. The map shall identify any major construction (i.e. development, irrigation ditches, existing detention facilities, culverts, storm sewers, etc.) that shall influence or be influenced by the subdivision.
- 36) Drainage Plan: Map (s) of the proposed development at a scale of 1"=20' to 1"=200' shall be included to identify existing and proposed conditions on or adjacent to the site in question.
- 37) The drainage plan shall delineate all sub-basins and proposed initial and major facilities as well as provide a summary of all initial and major flow rates at design points. All floodplains effecting the site shall be shown.

GEOLOGY AND SOILS REPORT CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___ / ___ / ___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Geology and Soils Report

- A. All preliminary plans submitted for review shall be accompanied with a geology report containing information on the specific items herein. This report will be reviewed by agencies to evaluate the area being subdivided or developed.
- B. The soils and geology report shall be prepared by a professional geologist, as defined by State statutes.
- C. The following concerns shall be fully addressed. If any of these items are addressed in other reports, refer to these reports appropriately.

It is recognized that certain geologic interpretations cannot be firm or complete, at least in advance of grading operations, but it is expected that all pertinent data will be presented fully and clearly, so that interpretations and recommendations can be critically reviewed by others.

1. Mapping

A detailed large-scale map normally will be required for a report on a tract, as well as for a report on a smaller area in which the geologic relationships are not simple.

Where three-dimensional relationships are significant but cannot be described satisfactorily in words alone, the report should be accompanied by one or more appropriately positioned structure sections.

The locations of test holes and other specific sources of subsurface information should be indicated in the text of the report, or better, on the map and any sections that are submitted with the report.

2. General Information

Each report should include definite statements concerning the following matters:

- a. Location and size of subject area and its general setting with respect to major geographic and geologic features.
- b. Who did the geologic mapping upon which the report is based and when the mapping was done.
- c. Any other kinds of investigations made by the geologist and where pertinent, reasons for doing such work.
- d. Topography and drainage in the subject area.

e. **Abundance, distribution, and general nature of exposures of earth materials within the area.**

f. **Nature and source of available subsurface information. Suitable explanations should provide any technical reviewer with the means for assessing the probable reliability of such data. (Subsurface relationships can be variously determined or inferred, for example, by projection of surface features from adjacent areas, by the use of test hole logs, and by interpretation of geophysical data, and it is evident that different sources of such information can differ markedly from one another in degree of detail and reliability according to the method used).**

3. Geologic Descriptions

The report should contain brief but complete descriptions of all natural materials and structural features recognized or inferred within the subject area. Where interpretations are added to the recording of direct observations, the basis for such interpretations should be clearly stated.

The following checklist may be useful as a general, though not necessarily complete, guide for descriptions:

a. Bedrock (igneous, sedimentary, metamorphic types):

- (1) **Identification as to rock type (e.g. granite, silty sandstone, mica schist).**
- (2) **Relative age, and where possible, correlations with named formations.**
- (3) **Distribution.**
- (4) **Dimension features (e.g. thickness, outcrop breadth, vertical extent).**
- (5) **Physical characteristics (e.g. color, grain size, nature of stratification, foliation, or schistosity, hardness, coherence).**
- (6) **Special physical or chemical features (e.g. calcareous or siliceous cement, concretions, mineral deposits, alteration other than weathering).**
- (7) **Distribution and extent of weather zones; significant differences between fresh and weathered rock.**
- (8) **Response to natural surface and nearsurface processes (e.g. raveling, gullyng, mass movement).**

b. Structural features, stratification, foliation, schistosity, folds, zones of contortion or crushing, joints, shear zones, faults, etc.

- (1) **Occurrence and distribution.**
- (2) **Dimensional characteristics.**
- (3) **Orientation, and shifts in orientation.**
- (4) **Relative ages (where pertinent).**
- (5) **Special effects upon the bedrock. (Describe conditions of planar surfaces).**

(6) Specific features of faults (e.g. zones of gouge and breccia, nature of offsets, timing of movements); are faults active in either the geological sense or the historical sense?

c. Surficial (unconsolidated) deposits: artificial (man-made) fill, topsoil, stream-laid alluvium, beach sands and gravels, residual debris, lake and pond sediments, swamp accumulations, dune sands, marine and nonmarine terrace deposits, talus accumulations, creep and slopewash materials, various kinds of slump and slide debris, etc.

(1) Distribution, occurrence, and relative age; relationships with present topography.

(2) Identification of material as to general type.

(3) Dimensional characteristics (e.g. thickness, variations in thickness, shape).

(4) Surface expression and correlation with features such as terraces, dunes, undrained depressions, anomalous protuberances.

(5) Physical or chemical features (e.g. moisture content, mineral deposits, content of expansible clay minerals, alteration, cracks and fissures, fractures).

(6) Physical characteristics (e.g. color, grain size, hardness, compact-ness, coherence, cementation).

(7) Distribution and extent of weathered zones; significant differences between fresh and weathered material.

(8) Response to natural surface and near-surface processes (e.g. raveling, gullying, subsidence, creep, slope-washing, slumping, and sliding).

d. Drainage: surface water and groundwater.

(1) Distribution and occurrence (e.g. streams, ponds swamps, springs, seeps, subsurface basins).

(2) Relations to topography.

(3) Relations to geologic features (e.g. previous strata, fractures, faults).

(4) Sources and permanence.

(5) Variations in amounts of water (e.g. intermittent spring and seeps, floods).

(6) Evidence for earlier occurrence of water at localities now dry.

(7) The effect of water on the properties of the in-place materials.

e. Features of special significance (if not already included in foregoing descriptions).

(1) Features representing accelerated erosion (e.g. cliff reentrants, badlands, advancing gully heads).

(2) Features indicating subsidence or settlement (e.g. fissures, scarplets, offset reference features, historic records and measurements).

(3) Features indicating creep (e.g. fissures, scarplets, distinctive patterns of cracks and/or vegetation, topographic bulges, displaced or tilted reference features, historic records and measurements).

(4) Slump and slide masses in bedrock and/or surficial deposits; distribution, geometric characteristics, correlation with topographic and geologic features, age and rates of movement.

(5) Deposits related to recent floods (e.g. talus aprons, debris ridges, canyon-bottom trash).

(6) Active faults and their recent effects upon topography and drainage.

4. Mineral Resources

The types, location and value of mineral resources within the land to be sub-divided. These include, but are not limited to, limestone used for construction, coal, sand, gravel, and quarry aggregate, for which extraction by an extractor is or will be commercially feasible, or which is a deposit having significant economic or strategic value to the county, state, or nation. Any area known to contain a commercial mineral deposit shall not be subdivided until such deposit is extracted, unless the Board of County Commissioners finds that extraordinary environmental damage or public hazard results from such extraction. Upon adoption of the El Paso County Mineral Resources Master Plan, said plan will supersede this section.

5. The Bearing of Geologic Factors upon the Intended Land Use

Treatment of this general topic, whether presented as a separate section or integrated in some manner with the geologic descriptions, normally constitutes the principal contribution of the report. It involves both (1) the effects of geo-logic features upon the proposed grading, construction, and land use; and (2) the effects of these proposed modifications upon future geological processes in the area.

The following checklist includes the topics that ordinarily should be considered in submitting discussion, conclusions, and recommendations in the geologic reports:

a. General compatibility of natural features with proposed land use:

Is it basically reasonable to develop the subject area?

(1) Topography.

(2) Lateral stability of earth materials.

(3) Problems of flood inundation, erosion, and deposition.

(4) Problems caused by features or conditions in adjacent properties.

(5) Other general problems.

b. Proposed Cuts:

(1) Prediction of what materials and structural features will be encountered.

(2) Prediction of stability based on geologic factors.

(3) Problems of excavation (e.g. unusually hard or massive rock, excessive flow of groundwater).

(4) Recommendations for reorientation or repositioning of cuts, reduction of cut slopes, development of compound cut slopes, special stripping above daylight lines, buttressing, protection against erosion, handling of seepage water, setbacks for structures above cuts, etc.

- c. Proposed masses of fill:**
- (1) General evaluation of planning with respect to canyon-filling and sidehill masses of fill.
 - (2) Comment on suitability of existing natural materials for fill.
 - (3) Recommendations for positioning of fill masses, provision for underdrainage, buttressing, special protection against erosion.
- d. On-Site Waste Disposal (if applicable):**
- (1) Soil types, depths, distributions and relationship to bedrock.
 - (2) General slope conditions, and limitations of slope to building sites and disposal sites.
 - (3) Present and expected percolation rates.
- e. Recommendations for subsurface testing and exploration:**
- (1) Cuts and test holes needed for additional geologic information.
 - (2) Program of subsurface exploration and testing, based upon geologic considerations, that is most likely to provide data needed by the soils engineer.
- f. Special recommendations:**
- (1) Areas to be left as natural ground.
 - (2) Removal or buttressing of existing slide masses.
 - (3) Flood protection.
 - (4) Problems of groundwater circulation.
 - (5) Position of structures, with respect to active faults.
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EROSION CONTROL PLAN CHECKLIST

Plan Standards

The plan shall be annotated with appropriate symbols as shown on the List of Standard Symbols. The Symbols should be bold and tend to "stand out" on the plans. Unless otherwise approved one of the following scales shall be used for the erosion control plan: 1" = 20', 1" = 30', 1" = 40', 1" = 50', or 1" = 100'. The contour interval for these plans shall be two feet or closer except when property grades exceed 15% in which case the contour interval may be five feet.

Information to be included in the Erosion Control Plan

The plan shall provide the following information for the entire tract of land to be disturbed, whether or not the tract will be developed in stages:

- 1) A vicinity map indicating the proposed development in relationship to roadways, jurisdictional boundaries and streams.
- 2) A site plan showing soil types, existing and proposed contours, existing vegetation, existing and proposed water courses, critical erosion areas, adjacent existing and proposed development affected, and the proposed features of the site.
- 3) A plan for temporary and permanent vegetative and structural controls, which specify the conservation measures to be used during all phases of clearing, grading, filling, construction, and permanent development.
- 4) A schedule of anticipated starting and completion dates for each sequence and stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed.
- 5) A detailed description of the maintenance program for erosion control facilities, including inspection programs, vegetative establishment on exposed soils, method and frequency of removal and disposal of waste materials from control facilities, and disposition of temporary structural measures.
- 6) Soil borings and tests.
- 7) All plats, maps, or other drawings submitted for this site shall be compatible with the erosion control plan.
- 8) The Erosion Control Plan is to be certified by a Colorado Registered Professional Engineer and to be signed by the Owner with a statement "The Owner will comply with the requirements of the Erosion Control Plan".

- 9) The following note shall be placed on all Erosion Control Plans: □
At least 10 days prior to the anticipated start of construction, for projects that will disturb 1 acre or more, the owner or operator of the construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Control Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this grading and erosion control plan may be a part. For information or application materials contact:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD – Permits
4300 Cherry Creek Drive South
Denver, CO 80246-1530
Attn: Permits Unit

Scope and Exclusions

These criteria shall apply to any land disturbing activity undertaken by any person on any lands, except minor land-disturbing activities, such as individual home landscaping and gardening, agricultural and related activities, maintenance and repair work, and those land-disturbing activities which, in the judgement of the County Department of Transportation as set forth in writing, will not result in significant soil erosion or the movement of significant sediment into water or onto lands off the project site.

Factors to be considered when making such determination shall be:

- Projects involving land-disturbing activity of one (1) acre or less.
- Construction of single-family residences when they are constructed by, or under contract with, the owner for the owner's occupancy.
- A project which disturbs less than 500 cubic yards of material (cut and/or fill).

Correction of Deficiencies

Should the approved erosion control be observed ineffectual, modifications to correct deficiencies shall be made immediately.

Guarantee

A financial guarantee of all temporary and permanent measures to prevent and control anticipated erosion shall be provided.

STREAMS, LAKES, PHYSICAL FEATURES AND WILDLIFE HABITATS REPORT CHECKLIST

PROJECT NAME: _____
SUBMITTAL DATE: ___/___/___
SUBMITTED BY: _____
SUBMITTAL REVIEWED BY: _____

Streams, Lakes, Physical Features and Wildlife Habitats

Report concerning lakes, streams, significant topographical features, and wildlife.
Report shall include the following:

1. Narrative description of major lakes, streams, topographical features, and wildlife habitats affected by the proposal.
2. Inspection of the proposal of such features and mitigation techniques, if necessary.