



## Legislation Details (With Text)

**File #:** 20-1050      **Version:** 1

**Type:** Agenda Item      **Status:** Approved

**File created:** 8/4/2020      **In control:** Board of Supervisors

**On agenda:** 9/22/2020      **Final action:** 9/22/2020

**Title:** Department of Transportation, in cooperation with the Planning and Building Department, recommending the Board adopt and authorize the Chair to sign Resolution 140-2020 to approve updates to the El Dorado County Drainage Manual.

FUNDING: Road Fund.

**Sponsors:**

**Indexes:**

**Code sections:**

**Attachments:** 1. A - Approved CRS - Drainage Manual, 2. B - Approved CRS - Resolution, 3. C - Resolution, 4. D - 2020 EDC Drainage Manual, 5. E - REDLINE\_Drainage Manual, 6. F - 1995 EDC Drainage Manual, 7. G - DM Runoff Table\_2007 Revision, 8. Executed Resolution 140-2020

Date	Ver.	Action By	Action	Result
9/22/2020	1	Board of Supervisors	Approved	Pass

Department of Transportation, in cooperation with the Planning and Building Department, recommending the Board adopt and authorize the Chair to sign Resolution **140-2020** to approve updates to the El Dorado County Drainage Manual.

**FUNDING:** Road Fund.

### DISCUSSION / BACKGROUND

In Fiscal Year 1989-90, the Board of Supervisors directed the Department of Transportation (Transportation) to begin the El Dorado County Master Plan of Drainage program. The goal of the program was to develop a capital improvement program with a funding mechanism to construct needed drainage infrastructure and to repair and/or replace existing inadequate drainage facilities throughout the County. The first phase of the program was to develop a County Drainage Manual. Storm events in recent years have shown us that our current drainage systems are not meeting the increasing demands of climate change and that we need to move forward with enhanced maintenance and operations upgrades. To that end, Transportation’s Maintenance Division is currently working on a county-wide drainage infrastructure inventory.

The objective of the drainage manual was and continues to be to furnish users with computational techniques and criteria required for the performance of hydraulic analysis and design of drainage facilities within the County. The Drainage Manual is intended to outline procedures necessary to provide uniform methodology in the performance of the analysis and design of these facilities.

The Drainage Manual was completed in December 1994. The document was prepared on the basis of research, development of criteria consistent with state of the art procedures, and actual design experience, and it satisfies the above objectives and intentions. Support materials for procedures in the manual are on file at the Department of Transportation. On March 14, 1995 (Item 22), the Board

of Supervisors adopted the El Dorado County Drainage Manual and it has not been updated since.

The reasons for the current revisions are summarized in the following points:

In 2007, it was discovered that the charts on pages 2-21 through 2-24 of the Drainage Manual were in error. Charts labeled as applicable below the 1640-foot contour were actually applicable to storm events above the 1640-foot contour, and visa-versa. These changes were never incorporated into the printed document.

In 2008, after some large runoff events, Transportation had private consultant hydrologist, Jim Goodridge, update his original rainfall data which is statistically converted to "Design" rainfall events based on risk. This new revised Design rainfall was published to the Transportation website at the time, so the information is not new information for the public, but the revised data was never incorporated in the printed document.

With the widespread use of computers, internet, and digital publishing, having an accessible PDF saves users time and provides a direct link to the information they seek. With this update, staff incorporated an interactive Table of Contents for ease of reference.

Many of the reference documents listed in the back of each chapter were out of date, or out of publication. With this edition, every effort was made to provide up-to-date references and/or find replacement documentation, where appropriate. The department now maintains a Drainage Manual Reference Library of almost every referenced document should a member of the public request to view or inquire about any references made.

Phase 2 of the Clean Water Act (Stormwater Management) was implemented in 2003 and the County is required to comply with the State Water Resources Control Board (SWRCB) Water Quality Order 2013-0001-DWQ. Clear reference to these requirements was added to the Manual.

County Counsel reviewed and provided staff direction on updating several legal references to reflect current legal standards and laws.

This is not a comprehensive update. Transportation is not changing the standards for performing drainage analysis or studies, the methodology used, or how storm runoff is to be transported or discharged. Further updates are anticipated to incorporate an entire chapter on the Clean Water Act and to ensure the County's Drainage Manual references the most current version of source documents. Staff anticipates conducting periodic reviews to determine if updates are needed.

Stakeholder input was sought and obtained from S.A.G.E. (Surveyors, Architects, Geologists, Engineers) and from the Stormwater Unit within the Planning and Building Department. Chapter reviews were conducted by internal Transportation staff who are considered subject matter experts on the specific chapters they reviewed.

## **ALTERNATIVES**

The Board could choose not to approve this update to the Drainage Manual, leaving the 1995 Drainage Manual as the document of record.

## **PRIOR BOARD ACTION**

Outlined in the Discussion / Background section above.

**OTHER DEPARTMENT / AGENCY INVOLVEMENT**

County Counsel and Risk Management

**CAO RECOMMENDATION / COMMENTS**

Approve as recommended.

**FINANCIAL IMPACT**

There is no fiscal impact or change to Net County Cost associated with this item.

**CLERK OF THE BOARD FOLLOW UP ACTIONS**

The Clerk of the Board to provide a copy of the signed Resolution to the Department of Transportation, attention Julie Millard.

**STRATEGIC PLAN COMPONENT**

Infrastructure, Good Governance

**CONTACT**

Rafael Martinez, Director  
Department of Transportation