

# PUBLIC HEARING TO REVISE THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL

DECEMBER 6, 2022

LISA KNERR, ESD

# STUDY SESSION

- DISCUSSED AT THE NOVEMBER 1, 2022 STUDY SESSION
- PUBLIC NOTICED
  - I-70 SCOUT ON NOVEMBER 15, 2022
  - COLORADO COMMUNITY MEDIA (LITTLETON INDEPENDENT, ENGLEWOOD HERALD, AND CENTENNIAL CITIZEN ON NOVEMBER 17, 2022

# COUNTY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

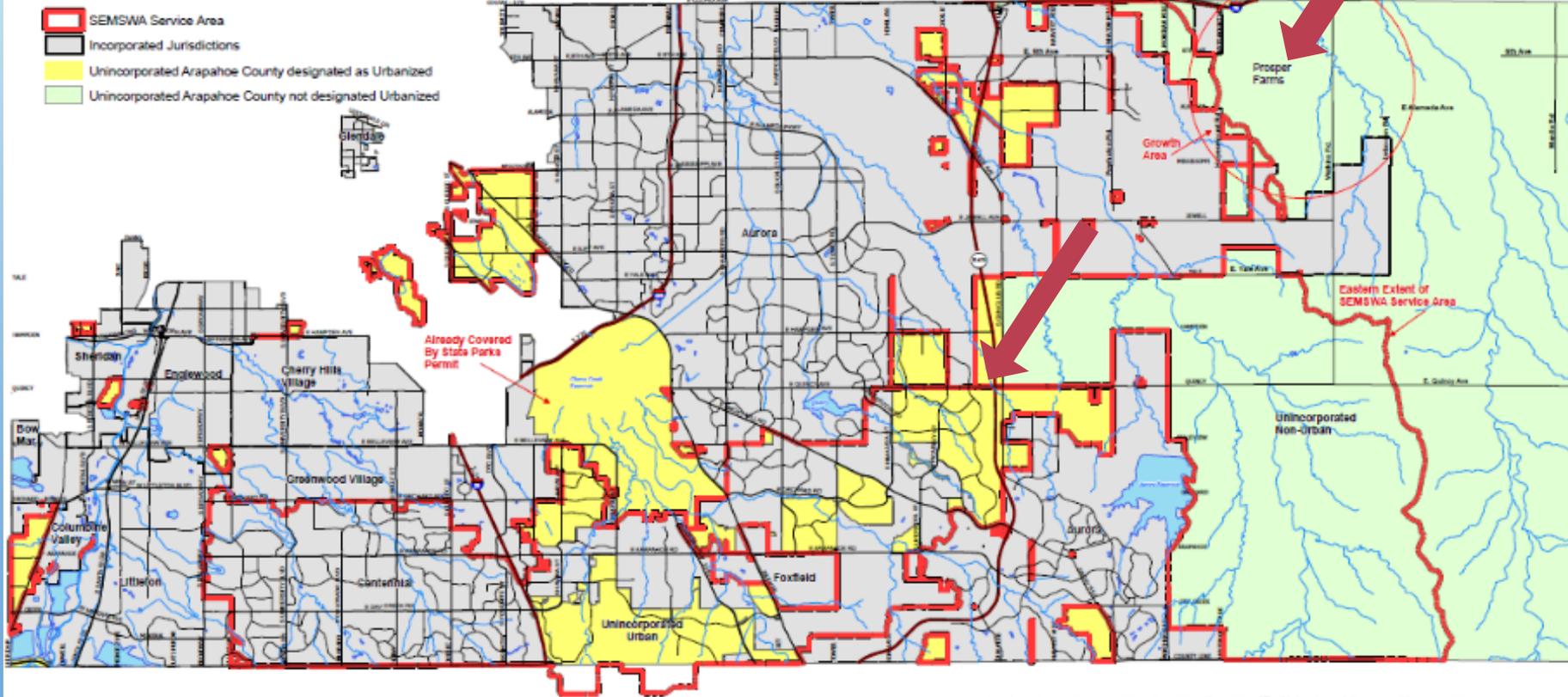
- RENEWED IN 2016
- STORMWATER DOES NOT FLOW TO A SEWAGE TREATMENT PLANT
- COUNTY PERMIT AREA ONLY COVERS
  - URBANIZED AREAS (US CENSUS BUREAU)
  - UNINCORPORATED AREAS (CITIES AND TOWNS HAVE THEIR OWN PERMIT)
  - GROWTH AREAS (E.G., PROSPER)
- COUNTY'S MS4 PROGRAM COMPONENTS
  - PUBLIC EDUCATION AND OUTREACH, PUBLIC PARTICIPATION
  - ILLICIT DISCHARGE DETECTION AND ELIMINATION
  - **CONSTRUCTION SITES (GESC)**
  - POST-CONSTRUCTION SITES (WATER QUALITY CONTROL MEASURES)
  - MUNICIPAL OPERATIONS



# GESC MANUAL CHANGES

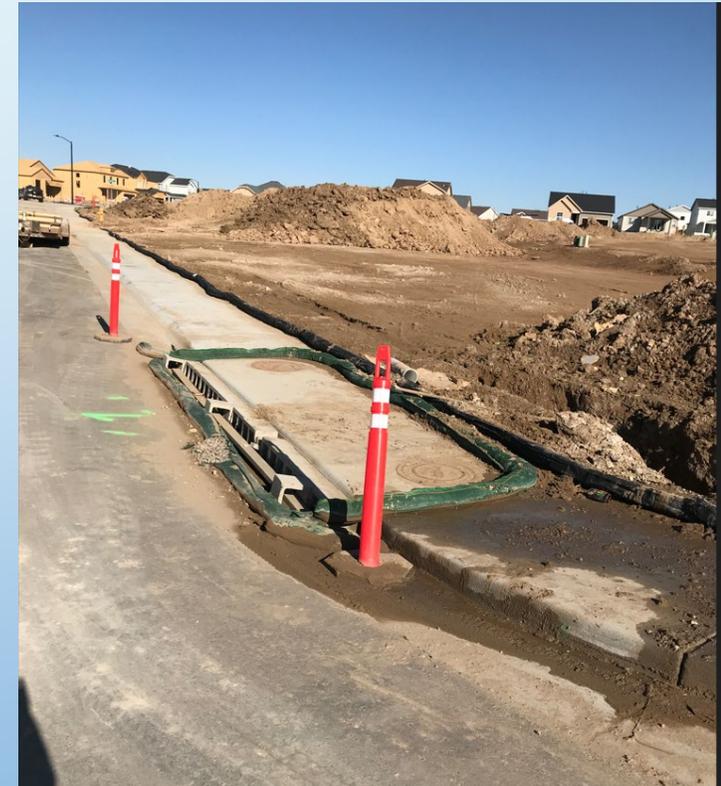
- CHANGE #1—CLARIFY THAT EITHER SEMSWA OR THE COUNTY ISSUES GESC PERMITS (ALSO ADDED “CASE-BY-CASE”)

General NPDES Permit Application for Unincorporated Arapahoe County, Colorado



# GESC MANUAL CHANGES

- CHANGE #2—REDESIGNED CHAPTERS 1 AND 2
  - REMOVED REFERENCES TO THE CITY OF CENTENNIAL
  - UPDATED OUTDATED INFORMATION
  - REFERENCED CHAPTER 4 OF THE COUNTY'S *RURAL ENGINEERING STANDARDS*



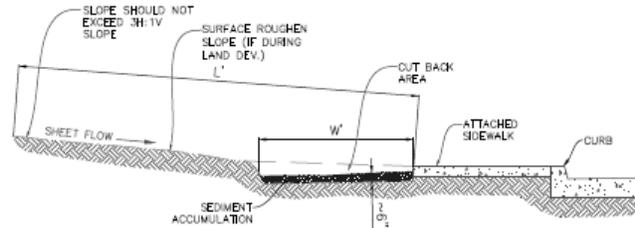
# GESC MANUAL CHANGES

- CHANGE #3—MINOR UPDATES TO CHAPTERS 2 AND 4
  - CLARIFIED GOAL OF MANUAL
  - DEFINE A CONSTRUCTION ACTIVITY
  - SEMSWA **CONTINUE** TO NOT COLLECT PERMIT FEES FOR COUNTY PROJECTS



# GESC MANUAL CHANGES

- CHANGE #4—UPDATE TO APPENDICES
  - RETURNED THREE APPENDICES—UTILITY CONSTRUCTION ACTIVITY, OIL AND GAS CONSTRUCTION ACTIVITY, AND SINGLE FAMILY LOT CERTIFICATIONS
- UPDATED THE CURB CUT DETAIL
  - STANDARD MEASUREMENTS FOR THE SEDIMENT ACCUMULATION AND TRIBUTARY AREAS



LENGTH (L) OF DISTURBED AREA PERPENDICULAR TO CURB (FT)	AREA PER FT. OF DISTURBED LENGTH (FT <sup>2</sup> )	DEPTH OF CURB CUT (D) (IN)	(FT)	REQUIRED STORAGE VOLUME (FT <sup>3</sup> /ACRE)	REQUIRED MIN. WIDTH (W) OF CURB CUT BACK (FT)	
20	20	6	0.50	1800	0.0413	1.7
30	30	6	0.50	1800	0.0413	2.5
40	40	6	0.50	1800	0.0413	2.3
50	50	6	0.50	1800	0.0413	4.1
60	60	6	0.50	1800	0.0413	5.0
70	70	6	0.50	1800	0.0413	5.9
80	80	6	0.50	1800	0.0413	6.6
90	90	6	0.50	1800	0.0413	7.4
100	100	6	0.50	1800	0.0413	8.3

1. FROM DOUGLAS COUNTY, GRADING, EROSION, AND SEDIMENT CONTROL MANUAL SEDIMENT TRAP STORAGE VOLUME REQUIREMENT.

#### DESCRIPTION AND PURPOSE

- A TEMPORARY SEDIMENT BARRIER AND TRAP FORMED BY EXCAVATION BEHIND CURB OR SIDEWALK TO RETAIN SEDIMENT ON SITE DURING CONSTRUCTION.

#### SUITABLE APPLICATIONS

- DURING LAND DEVELOPMENT AFTER PAVING OR DURING VERTICAL CONSTRUCTION.
- USE IN TREE LAWNS OR IN LANDSCAPE ISLAND.
- USE SURFACE ROUGHENING ON UPGRADIENT SLOPES IF DURING LAND DEVELOPMENT.

#### LIMITATIONS

- NOT FOR USE EXCEEDING 3H:1V SLOPES.
- NOT FOR USE FOR CONCENTRATED FLOW AREAS.
- PROLONGED STANDING WATER MAY AFFECT SUB-BASE OF PAVING AND COULD CAUSE SOIL TO SETTLE AND POTENTIALLY DAMAGE CONCRETE.

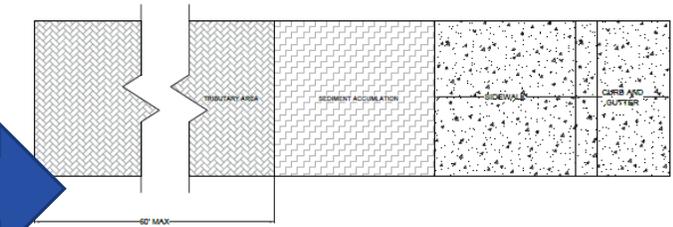
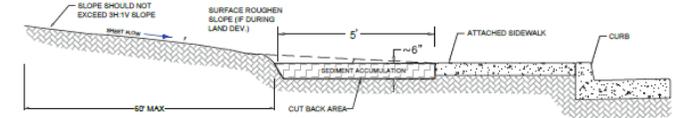
#### INSPECTION AND MAINTENANCE

- THE GESC MANAGER SHALL INSPECT AS NECESSARY TO ENSURE THE ADEQUACY AND FUNCTIONALITY OF THE CONTROL MEASURE.
- REMOVE ACCUMULATED SEDIMENT WHEN 1/2 CAPACITY, DO NOT ALLOW SEDIMENT TO OVERFLOW ONTO CURB OR SIDEWALK.
- IMPLEMENT ADDITIONAL CONTROL MEASURES SUCH AS DOWNGRADIENT SEDIMENT CONTROL WATTLES, CURB CHECKS, OR OTHER BARRIERS AS ON-SITE CONDITIONS REQUIRE.



CUT BACK CURB

1



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#### SIZING

- SEDIMENT ACCUMULATION VOLUME IS SIZED PER 100CF/AC OF TRIBUTARY AREA. 5' WIDTH AND 6" DEPTH IS ACCEPTABLE FOR TRIBUTARY SHEET FLOW UP TO 60 LF. TRIBUTARY SHEET FLOW OVER 60 LF MUST COMPUTE CUSTOM SEDIMENT ACCUMULATION BASIN.

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CUT BACK CURB

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**QUESTIONS?**