



Board Summary Report

File #: 25-114

Agenda Date: 2/10/2025

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To: Board of County Commissioners

Through: Bryan Weimer, Director, Public Works and Development

Prepared By:

Jim Katzer, Transportation Division Manager, Public Works and Development

Presenter: Jim Katzer, Transportation Division Manager, Public Works and Development

Subject:

1:15 PM *PROTECT Grant submission for Transportation Resilience

Purpose and Request:

The purpose of this study session is for the Board of County Commissioners (BOCC) to consider approving submission of a PROTECT grant application to the Federal Highway Administration (FHWA).

Background and Discussion: Arapahoe County is submitting a Planning Grant application under the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Grant program for the four projects as outline below for approximately \$4,000,000.

The PROTECT Discretionary Grant Program is a competitive grant program created by the Bipartisan Infrastructure Law to plan for and strengthen surface transportation to be more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters. The Bipartisan Infrastructure Law provides over \$1.4 billion over five years through this program to fund projects that address the climate crisis by improving the resilience of the surface transportation system, including highways, public transportation, ports, and intercity passenger rail.

Public Works and Development will be applying for the PROTECT grant this year in the Planning category. This funding type does not require a local match for the awarded money. The projects that will be submitted for will cover four projects:

- 1) Engineering Design of a new bridge at the Gun Club Road crossing at Coal Creek which is supported by the adopted Transportation Master Plan
- 2) Engineering Design of roadway improvements along Watkins Road near the crossings of Muskrat Gulch and Coyote Run to reduce the occurrence of roadway flooding
- 3) The identification of road improvements to minimize the impacts of road flooding in local rural communities, especially areas with only one access road into and out of a neighborhood
- 4) An Alternatives Analysis Study for establishing a continuous paved east-west route through the central part of the county from E-470 to Deer Trail as an alternative to I-70, following the Quincy Avenue and Woodis Road corridors

The current crossing of Coal Creek at Gun Club Road consists of a series of severely undersized culverts that convey approximately 200 cubic feet per second (cfs), despite the 2-year storm event in this area having flows over 2000 cfs, and the 100-year storm having flows over 16,000 cfs. In its current configuration, Gun Club Road frequently overtops, forcing closure of the roadway, local traffic to be detoured, and contributing to extensive flooding upstream of Gun Club Road. In 2018 the Southeast Metro Stormwater Authority (SEMSWA) completed a project to upsize the culvert to its current 200 cfs configuration to mitigate flooding and road closure events, but with the knowledge that a much more comprehensive solution was needed. A new bridge at this location will help reduce floodplain impacts upstream Gun Club Road and improve resiliency of the local transportation network by avoiding frequent closures of the roadway during storm events.

SEMSWA has signed a letter of support for the Gun Club Road at Coal Creek Bridge project. SEMSWA is the local government Drainage Authority that provides stormwater management services within its Service Area, which includes this area of unincorporated Arapahoe County.

The Watkins Road crossings of Muskrat Gulch and Coyote Run was the location of a fatality during a heavy rain event in June of 2023. During that storm event three vehicles were washed off the road. This location experiences water overtopping multiple times a year and the County is installing a flood warning system with the assistance of Mile High Flood District this year. The County has determined that traffic safety will be significantly increased with a more resilient and permanent solution that would convey larger storm events under the road.

The heavy rainfall events in 2023 resulted in significant flooding along County roads in the eastern portion of the County resulting in road closures for days and weeks. These closures impacted the delivery of emergency service routes. The PROTECT grant will be used to further develop the plan to build a continuous east-west route from the urban area to Deer Trail along the Quincy Avenue alignment and identify communities that are more susceptible to emergency services being unavailable due to roadway flooding.

The Transportation Division will manage the grant and accomplish the work listed above with coordination from the Road and Bridge Division, Sheriff's Office, the City of Aurora, SEMSWA, and local fire departments.

If Arapahoe County is awarded funds through this grant program, the money should become available during federal fiscal year 2025.

Design of the bridge and roadway drainage improvements along Gun Club Road and Watkins Road will include federal environmental clearances and will take approximately three years. Further funding would be needed for construction.

The Planning studies to identify needed roadway and drainage improvements for communities with only one access road that is vulnerable to flooding, and the east-west alternative corridor improvements will take approximately a year to year and a half to complete. The outcome of these studies would be a list of future capital projects with associated cost estimates that will require their own future funding.

These outcomes are in the public interest and align with the resiliency goals of Arapahoe County, SEMSWA, and the USDOT FHWA PROTECT Grant program.

Fiscal Impact: If approved as presented, the fiscal impact of this program would be at least \$4,000,000 in funds requested to the Federal Highway Administration, though the exact amount of the grant being asked for is still being determined as estimates are being refined. This grant program requires no local match.

Alternatives: The Board could decline to move forward with this request as presented or move forward with the pursuit of only a portion of the projects mentioned above.

Alignment with Strategic Plan:

- Be fiscally sustainable
- Provide essential and mandated service
- Be community focused

Staff Recommendation: Public Works and Development staff recommend submitting this application to address the items mentioned above.

Concurrence: The Sheriff's Office Emergency Management Office is supportive of this effort.