



## STATE OF GOOD REPAIR

An end treatment is in a State of Good Repair (SOGR) when it is replaced with MASH Compliant infrastructure or determined to be outside of clear zone.

## TARGETS AND MEASURES

### Measures:

| Rank | Cond                             | AADT         | Speed |
|------|----------------------------------|--------------|-------|
| 3    | Good/Easy Retrofit               | 0-5,000      | < 30  |
| 2    | Dented/Needs Full Replacement    | 5,000-10,000 | 30-45 |
| 1    | Wood, Heavy Damage, or Corroding | 10,000+      | > 45  |

Priority = Average(Condition + AADT + Speed Limit)

### Targets:

- 100% in SOGR

## BARRIER END TREATMENTS

This SOGR summary applies to the following guardrail end treatment types:

- Turned-down Ends (wooden)
- Twisted Ends (metal)
- Buried ends (not many in inventory)

### Annual Budget:

Currently, there are no explicit budget costs for end treatments. Safety funds from both state and federal contracts are used to replace end treatments.

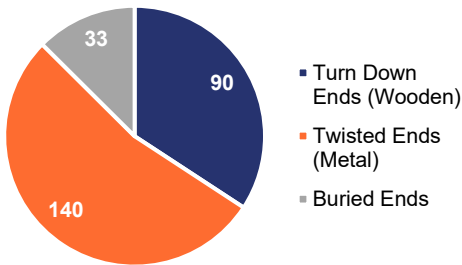
### Asset Valuation:

Replacement costs are approximately \$68K per Buried and Twisted end treatment and \$128K per Turned Down end treatment.

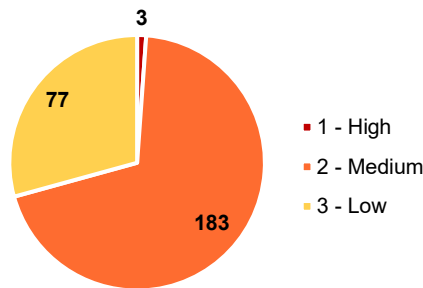
## INVENTORY & CONDITION

Non-Compliant End Treatment Inventory Summary: 263 end treatments

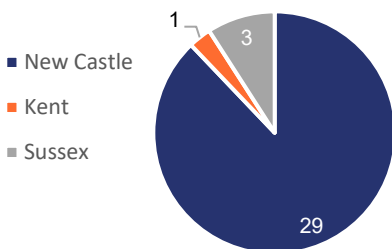
Total Inventory Summary



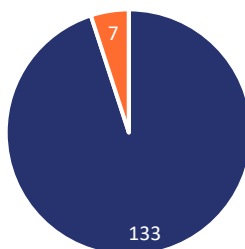
Total End Treatments by Priority



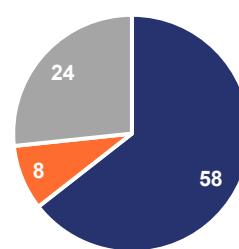
Buried Ends by County



Twisted Ends by County



Turned Down Ends by County

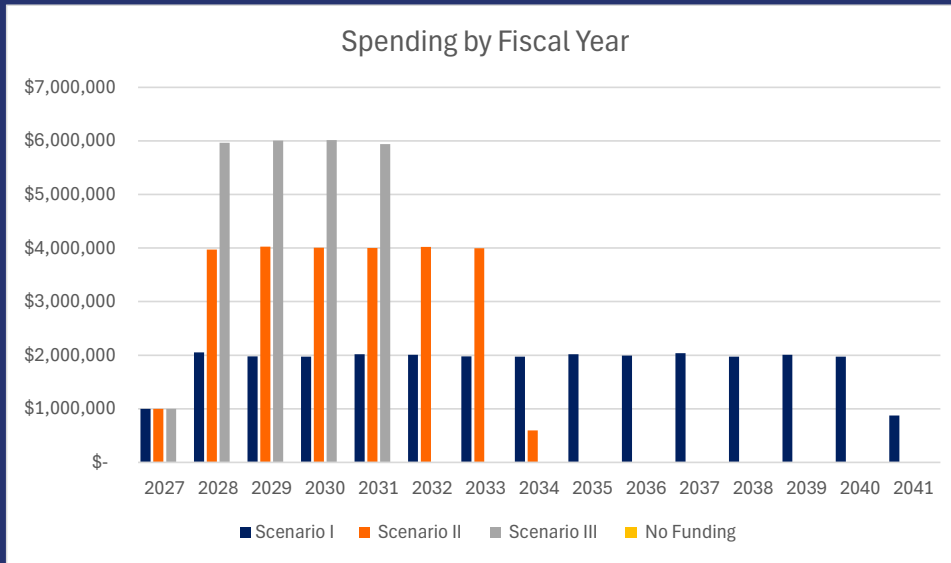


| County             | #          | \$ to Replace   |
|--------------------|------------|-----------------|
| Buried and Twisted |            |                 |
| New Castle         | 162        | \$11.02M        |
| Kent               | 8          | \$0.54M         |
| Sussex             | 3          | \$0.20M         |
| Turned Down        |            |                 |
| New Castle         | 58         | \$7.42M         |
| Kent               | 8          | \$1.02M         |
| Sussex             | 24         | \$3.07M         |
| <b>Total</b>       | <b>263</b> | <b>\$23.27M</b> |



# PERFORMANCE PROJECTIONS

The following charts illustrate the current funding level and three alternative funding scenarios. Each scenario includes \$1 million in design funding during the first year, with the remaining design, right-of-way, and construction costs distributed across the subsequent years of each scenario.

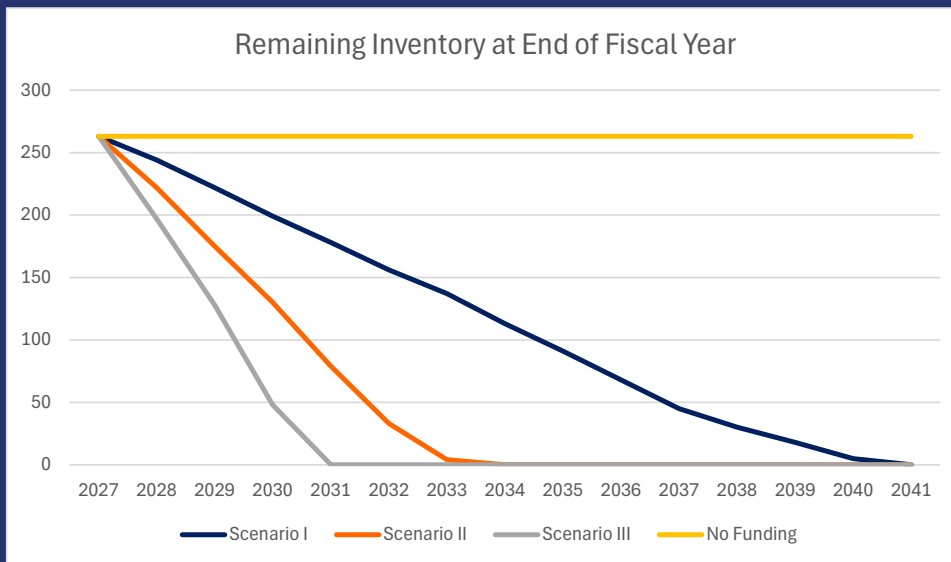


**Scenario I** – \$1M in design costs in year 1. Annual budget of \$2M for remainder of design, ROW, and Construction starting in FY 28.

**Scenario II** – \$1M in design costs in year 1. Annual budget of \$4M for remainder of design, ROW, and Construction starting in FY 28.

**Scenario III** – \$1M in design costs in year 1. Annual budget of \$6M for remainder of design, ROW, and Construction starting in FY 28.

**Current** – There is not an existing budget dedicated to end treatment upgrades. Inventory is static through the analysis period. End treatments will only be replaced when they fall within the limits of an otherwise funded contract.



## POTENTIAL RISKS

**Financial:** There is currently no funding allocated, and time is needed for design. Funding types and sources are uncertain which could require additional time for development.

**Inventory:** The lack of a complete inventory poses a risk to the program, which could lead to financial losses due to unaccounted assets. Over time, this risk may escalate, potentially resulting in higher costs and more severe compliance issues.

**Material availability:** Material availability may increase lead times and costs for implementing new infrastructure and repairing/replacing existing assets as needed.