



Asset Management Case Study

Local Authority	Cornwall Council
Region	South West
Sector	Highways
Theme	Highways Asset Management
Benefits	Enhanced casualty reduction related surface treatment programme.
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Key Lessons

- A high level commitment to safety by the Council provides the framework for the casualty reduction programme.
- Extensive data over several years is required to develop a fully targeted casualty reduction programme through surface treatment to address both known and predicted problem areas.
- A specific set of local road skidding resistance intervention levels provide a more appropriate approach to targeting investment than the Highways Agency levels often applied by local authorities.

Summary

Cornwall has a Local Transport Plan aim to improve local safety. This is being pursued partly through reducing casualties which are occurring, or are predicted to occur, on roads with low skidding resistance. The reward funds allowed additional roads to be added to the established surface treatment programme and to bring forward the casualty reduction benefits.

A further benefit is that additional roads have benefited from an established preventative maintenance treatment which will help to preserve the life of the asset.

Background

Cornwall has a Local Transport Plan aim to improve local safety. This is being pursued partly through reducing casualties are occurring, or are predicted to occur, on roads with skidding resistance below established intervention levels. The usual Highways Agency based standards were not regarded as appropriate to the largely rural county and a bespoke set of local skidding resistance standards had been developed. The local standards were derived from examining the relationship between casualties and road

skidding resistance over a 10 year period. A programme was in place to treat roads where low skidding resistance was a contributory factor in incidents resulting in casualties and which represented value for money against cost savings to the community.

Drivers for Change

The Element 2 submission was in the form of a proposal to achieve a higher level of skidding resistance on roads identified through analysis which would result in casualty savings, whilst maintaining network condition through continuing existing levels of funding on the rest of the network. The cost of improvement was an additional investment of £600k per annum for 10 years. The submission was in the form of a proposal for 2009/10 and 2010/11, which are the last two years of the current Local Transport Plan period.

Improvement Action

Cornwall's 'Element 2' submission to DfT describes in detail its methodology and success in using data to make investment decisions on the highway with particular reference to reducing casualties and achieving value for money for the community, see www.helg.org/asset_management. Reward funding of £500,000 was awarded.

The skidding resistance analysis rates roads in terms of the likelihood that treatment will prevent casualties in the future and categorises them in terms of value for money. The reward funds allowed the identified high and medium to high risk roads to be added to the established annual programme of surface treatment. Within the programme roads are treated for a variety of reasons including casualty reduction and preventative maintenance. Treatment is usually surface dressing, but resurfacing is carried out where appropriate. Where minor repairs are required they are usually carried the year before surface treatment.

Surface dressing treatments are generally used on secondary roads in the UK and employ standard single layer dressings (bitumen spray and crushed rock chippings). The majority of the additional casualty reduction led programme was however on high speed rural roads which would often suggest resurfacing. To achieve maximum value for money these roads were also surface dressed using appropriate polymer modified bitumen products and double layer dressing techniques. Where sites require particularly high skidding resistance, high grade chips are used.

The sites funded from the Element 2 reward money were repaired in 2009/10 and surfaced dressed in 2010/11.

Barriers

No barriers to the project or to delivery were identified.

Outcomes

The additional funding has allowed Cornwall to improve the skidding resistance of more roads than would have otherwise been possible. The benefit of this work will be evaluated over successive years through the established casualty analysis described in the submission document. Cornwall also intends to carry out a review of its skidding resistance related treatment programme to ensure it continues to deliver value for money.

An additional benefit of the enhanced surface treatment programme is that additional roads have benefited from an established preventative maintenance treatment which will help to preserve the life of the road asset.

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