

ON TRACK WITH MDT

In my last article, I discussed MDT's increasing use of context sensitive solutions to meet the public's safety and mobility needs as well as the aesthetic, historic, cultural and environmental concerns of the communities being impacted by a given construction project. This month I want to discuss an issue that is receiving a lot of nationwide attention: minimizing the impacts of our roads on the environment.

Most folks know that the National Environmental Policy Act (NEPA), the Montana Environmental Policy Act (MEPA), Section 404 of the Clean Water Act and a host of other regulations direct MDT to mitigate the impacts our roads have on their environment.

In order to do that, we must 1) limit or rectify the effects of our projects on their surroundings, and/or 2) compensate for the impacts by replacing or providing substitute resources/environments. Protecting our environment is a key component of building and maintaining our roads, and we take that commitment seriously.

Given that, I was surprised to learn a few months back that no one in MDT had ever reviewed our projects to determine how much of our construction dollars (above and beyond our normal environmental costs) were going toward mitigation efforts.

Shortly thereafter we initiated such an evaluation, and that analysis showed results similar to the context sensitive solutions review I discussed last month: the mitigation costs of each project vary depending on the job. On one of the projects we reviewed, there were no mitigation expenses; on eight others, the costs were less than 1% of the total project cost; and on the remaining five, the fees ranged from 1.58% to over 20% of the total cost. This shows that, by and large, mitigation costs constitute a minimal expense when compared to the total construction package.

On the Circle South project, for example, our \$50,000 in wetland mitigation costs accounted for just 0.45% of the total project cost of \$11.1 million.

That was not the case on the Bull Lake project. There our mitigation costs of approximately \$267,500 accounted for 3.61% of the total project cost of \$7.4 million.

So what was different about Bull Lake? One of the things MDT did was increase the size of a culvert to allow for better fish passage, as required by one of the project's environmental permits. The extra expense associated with the larger pipe was approximately \$4,621.

Other mitigation efforts on the Bull Lake project included the following:

- ◆ Riparian impacts. MDT had to plant additional shrubs to mitigate the impacts of the construction and maintain compliance with Stream Protection statutes. The cost of these shrubs was \$2,000.

- ◆ Stream impact minimization. To prevent impact to a bull trout stream, MDT used gabions (wire baskets filled with rocks that can be stacked vertically to make retaining walls) instead of riprap. The additional cost associated with this process was approximately \$148,587.
- ◆ Wetland mitigation. MDT pulled in some slopes to avoid springs and wetlands to the greatest extent possible. We were also required to mitigate 3.93 acres of wetlands. We hired a consulting firm at a cost of \$19,995 and will be creating new wetlands at an estimated expense of \$92,355.

The mitigation costs on another project we reviewed, 14 K S of Havre, accounted for approximately 11.84% of the project's \$8.1 million total.

The list of mitigation efforts for this project, which are quite different from those on the Bull Lake project, is as follows:

- ◆ Land and water conservation. MDT had to purchase additional land to compensate for the impact of the construction. The land was \$34,167. We were also required to build some rock weirs and reshape the channel. This cost an additional \$14,496. Finally, we had to develop some springs to offset the ones that were impacted. This cost \$73,009.
- ◆ Fish passage. MDT was required to build some fish habitats along the project. The expense was minimal.
- ◆ Historic preservation. MDT was asked to relocate an historic rock wall. The excavation costs totaled \$13,200.
- ◆ Mitigation avoidance. In order to minimize the impact of construction, we needed to maintain the original "footprint" or grade of the road rather than raising it as first planned. This cost \$828,111.

As these examples show, MDT looks at every project individually and does not use an exact "formula" to dictate what mitigation efforts are necessary and appropriate for a given stretch of road. Instead, we work with the local communities and our partner agencies to determine our course of action and minimize the effects of our roads on their environment.

Being responsive to the needs of the environment as well as our communities and partners is key to staying "on track," not only with MDT, but also with the future of our great state.

Have a happy Thanksgiving!

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