

Cleaning and Straightening of Waterways at Culverts and Bridges

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Nature and, in some cases, the property owners have forced upon the county highway departments the duty of cleaning and straightening waterways at bridges and culverts and at points along our highways near streams which tend to cut in and undermine the road bed.

The gradual lowering of the water table in the past years and the quick run-off of rain water result in the failure of springs to supply water to the streams throughout the summer season, thereby causing the stream beds to dry up. The resulting heavy growth of vegetation along the banks of the streams tends to close them and cause changes in the channel. Much of this growth does not wash away in time of high water unless it is kept loosened up in some manner.

Several things may close a channel or change the course of a stream, such as fallen trees, accumulation of drift and other material from high water, rubbish dumped into small branches by property owners, fences, and growth of willows, sycamores, or other vegetation which gets started on banks of the stream or in a gravel bar. In and around this, trash, dirt, rocks, and gravel accumulate, gradually forcing their way out into the stream and causing a shift in the current that often cuts under or in back of abutments, and in time will close the stream bed to a point where the water will be forced over the road in rainy seasons.

In my county, and I am sure in many of yours, delegations have appeared before the Commissioners asking for larger culverts or bridge extensions, and condemning the Highway Department and past officials for placing structures that were too small. However, when an investigation was made, the particular structure may have taken care of the water for years past and up until the past two or three years. In almost every case you will find that the stream is partly closed above or below the structure, or in many cases both above and below.

The method of cleaning and straightening these waterways will, of course, vary with the existing conditions and type of equipment on hand.

In many streams, cutting out the trees and bushes, and keeping them out, will remedy the condition, and in all cases will be a great help even if you do not have equipment to do more. In small streams a power shovel is very good if the stream dries up sufficiently to get down into it, and the material does not have to be moved too far. It is necessary or better to use a dragline where there is much water or a soft stream bed, or where the material needs to be cast some distance from the bank.

A bulldozer or angledozer will do a good job in straightening out bends where the material needs to be pushed from one side of the stream to the other or for the removal of bushes, trees, or gravel bars while the stream bed is dry or nearly so.

We all realize that equipment is hard to get or even rent at the present time, but it is important that in some way we keep the waterways clean and straight above and below our bridges and culverts to the extent that normal high water can get away without causing damage.

It is well to contact the land owners before doing this work. In most cases you will find them co-operative; however, if they object, the law provides that you can go in and do this work. Consult your County Attorney if in doubt as to your rights in this matter.

We have used the above-mentioned methods in our county and find them satisfactory. Perhaps some of you may have better plans to take care of this work. If so, we would be glad to have you express your opinion as to how this can best be done.