

**Water and Environmental Programs
Engineering Success Stories**

State: Nebraska

Borrower Name: Village of Winslow

Engineering Firm: Bartlett & West Engineers, Inc.

RD Contact: Roger Meeks, (402) 423-9683

Congressional Information: Congressman Douglas Bereuter

County: Dodge

Keywords: River crossing

River Crossing

A part of the water improvement for this community of 140 population was a water supply transmission line that would need to cross under the Elkhorn River.

PROBLEMS:

1. Environmental impacts during construction such as:
 - (a) Retaining of existing river banks.
 - (b) Partial blockage of river during construction.
 - (c) Impacts to fish.
 - (d) Silting during construction.
 - (e) Area of adjacent floodplain disturbed by construction.
2. Construction Problems:
 - (a) Cost.
 - (b) Maintaining depth of cover.
 - (c) Disturbing bed of river.
 - (d) Size of construction site.

SOLUTIONS:

Project engineer specified that the 540 foot river crossing would be by directional bore with a minimum bury of 6 feet below river bed.

Construction of this 4" river crossing took approximately one day to complete. The contractor installed the line with a minimum depth of bury of 12 feet below river bed.

The actual construction site was kept at a minimum. Neither the river banks or any part of the river were disturbed during construction.
