

Figure 8-10. Oregon DOT Stealth Rail Installation



Photo from Oregon DOT.

Figure 8-11. Oregon DOT Stealth Rail Complete-In-Place



Photo from Oregon DOT.

9 Alternatives Cost Analysis

Cost estimates were developed for the full suite of alternatives described above at both bridge sites. All cost estimates were developed based on fiscal year 2019 prices. Prices should be adjusted to the fiscal year of expected construction. Some alternatives will require the acquisition of new permanent right-of-way and others will require construction easements. The land surrounding both project sites is part of the Ozark National Scenic Riverways and new right-of-way will involve acquisition of park land. Assessing the value of this land or the value for temporary use and necessary remediation of the land or for an in-kind swap of park land for existing state right-of-way is beyond the scope of this study and no right-of-way costs are included in the cost estimates.

Several of the options considered include removal of the existing pedestrian bridge downstream of the Current River Bridge which will require relocation of the existing utilities.

We have assumed the eight utilities believed to be attached to the pedestrian bridge could be carried under the river in five separate directional bores. The borings will likely vary in size and we have assumed the following borings: 10 inch HDPE Sewer Line; 8 inch HDPE water line; 6 inch HDPE communication line with innerducts; 4 inch HDPE for local NPS power lines; 12 inch HDPE power transmission line with innerducts. As much of this work will be through rock we have determined an average cost of \$220 per linear foot for each boring. The existing river crossing is just over 600 feet long so we have assumed each directional bore to be 800 feet resulting in an estimated boring cost of \$880,000. An additional \$200,000 is estimated to place new utility lines through the bores and connect to the existing services. This information is presented to give a general scope of the expected project cost but is not included in the following cost estimates as it is based on several assumptions. Identification of the utilities and refinement of the estimated relocation cost will require additional work and is beyond the scope of this study.

Roadway costs were estimated based on square footage of the new or temporary roadway to be constructed with consideration given to the amount and type of earthwork that would be needed. The roadway portion of the estimates were also checked for reasonableness in regards to the expected maintenance of traffic for each option considered. Due to the preliminary nature of the roadway estimates during this study phase of the project a contingency factor of 25% was included.

At the Current River crossing, the option to place either a temporary bridge or permanent bridge on an offset alignment downstream of the pedestrian bridge results in the least roadway costs even though the deviation from the existing alignment is greater than the options which remove the pedestrian bridge. The hillside topography on the northeast corner is location of most of the cut quantities. The alignment options closer to the existing alignment tie into the existing alignment further from the existing bridge and locate the revised curve closer to the hillside topography in the northeast corner resulting in additional cut quantities compared to other options. The alignment options downstream of the pedestrian bridge reduce the cut into the hillside by moving the curve away from the hillside and offer more balanced cut and fill.

Bridge costs were estimated by developing a layout for each option considered, estimating various quantities and applying accepted unit costs. From the calculated bridge costs, unit costs per square foot of bridge plan area were developed and checked for reasonableness. Since a more detailed cost estimate was developed for the bridge alternatives, no contingency factor has been included. The bridge costs presented below assume the vertical concrete barrier with steel tube rail will be selected for use on the final structure. The cost estimates should be updated if a different barrier is selected. None of the cost estimates presented below account for a new bridge option using all concrete girders. A bridge constructed of all concrete girders will be the least cost option at both sites, however this option does not address the many other aesthetic and cultural concerns for the corridor expressed during the design charrette and no cost estimate for that option is included.

9.1 Cost Estimate Summary

A summary of the cost estimates for each alternative are presented below. A breakdown of the costs for each alternative including a summary of the details and options considered can be found in Section 9.2. Costs are presented for each site independently so that the



best solution for each site can be determined. The selected project at each site could be performed together or separately based on available funding. Some savings may be obtained by combining work at each site into a single project, but that savings is not expected to affect the general magnitude of these cost estimates.

Table 9-1. Current River Bridge Cost Analysis Summary

Alternative Description	Estimated Cost	Cost Ranking
Alt 1A: Option 1, New Concrete Filled Arch Bridge on Alignment, Two-Lane Temporary Bridge, Ped. Bridge Removed	\$12,700,000	1
Alt 1A: Option 2, New Concrete Filled Arch Bridge on Alignment, Two-Lane Temporary Bridge, Ped. Bridge Remains	\$10,200,000	5
Alt 1B: New Concrete Filled Arch Bridge on Alignment, One-Lane Temporary Bridge Converted to Ped. Bridge	\$10,400,000	4 (tie)
Alt 2A: Option 1, New Haunched Steel Plate Girder Bridge on Alignment, Two-Lane Temporary Bridge, Ped. Bridge Removed	\$9,100,000	7
Alt 2A: Option 2, New Haunched Steel Plate Girder Bridge on Alignment, Two-Lane Temporary Bridge, Ped. Bridge Remains	\$7,700,000	11
Alt 2B: New Haunched Steel Plate Girder Bridge on Alignment, One-Lane Temporary Bridge Converted to Ped. Bridge	\$7,900,000	10
Alt 3: Option 1, New Concrete Filled Arch Bridge on Offset Alignment, Ped. Bridge Removed	\$10,800,000	3
Alt 3: Option 2, New Concrete Filled Arch Bridge on Offset Alignment, Ped. Bridge Remains	\$11,000,000	2
Alt 4: Option 1, New Haunched Steel Plate Girder Bridge on Offset Alignment, Ped. Bridge Removed	\$7,200,000	13
Alt 4: Option 2, New Haunched Steel Plate Girder Bridge on Offset Alignment, Ped. Bridge Remains	\$7,400,000	12
Alt 5A: Phased Rehabilitation of Existing Bridge with No Temporary Bridge	\$8,600,000	8
Alt 5B: Option 1, Single Phase Rehabilitation of Existing Bridge, Two-Lane Temporary Bridge, Ped. Bridge Removed	\$10,400,000	4 (tie)
Alt 5B: Option 2, Single Phase Rehabilitation of Existing Bridge, Two-Lane Temporary Bridge, Ped. Bridge Remains	\$8,400,000	9
Alt 6: Phased Replacement of Existing Bridge with New Concrete Filled Arch Structure	\$9,600,000	6
Alt 7: Phased Replacement of Existing Bridge with New Haunched Steel Plate Girder Structure	\$6,600,000	14

Table 9-2. Spring River Bridge Cost Analysis Summary

Alternative Description	Estimated Cost	Cost Ranking
Alt 1A: New Concrete Spandrel Arch Bridge on Alignment, Concrete Girder Approach Spans, Two-Lane Temporary Bridge	\$7,300,000	3
Alt 1B: New Concrete Spandrel Arch Bridge on Alignment, Haunched Steel Plate Girder Approach Spans, Two-Lane Temporary Bridge	\$7,800,000	1
Alt 2: New Haunched Steel Plate Girder Bridge on Alignment, Two-Lane Temporary Bridge	\$6,200,000	7
Alt 3A: New Concrete Spandrel Arch Bridge on Offset Alignment, Concrete Girder Approach Spans	\$6,800,000	5
Alt 3B: New Concrete Spandrel Arch Bridge on Offset Alignment, Haunched Steel Plate Girder Approach Spans	\$7,400,000	2
Alt 4: New Haunched Steel Plate Girder Bridge on Offset Alignment	\$5,700,000	8
Alt 5A: Rehabilitation of Existing Bridge, Concrete Girder Approach Spans, Two-Lane Temporary Bridge	\$6,500,000	6
Alt 5B: Rehabilitation of Existing Bridge, Haunched Steel Plate Girder Approach Spans, Two-Lane Temporary Bridge	\$7,000,000	4

9.2 Cost Estimate Details for each Alternative

Current River – Alternative 1A, Option 1

Replace existing bridge with a new concrete filled arch structure on existing alignment. Traffic to be carried on a two lane temporary shoofly bridge that includes removal of the existing pedestrian bridge.

Table 9-3. Current River Bridge Cost Analysis – Alternative 1A, Option 1

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Concrete Filled Arch Bridge (Assumed 41' x 612')	\$317	\$7,950,000
Roadway Work	--	\$980,000
Mobilization (Assumed 11% of project)	11%	\$1,260,000
Total Cost	--	\$12,700,000

Current River – Alternative 1A, Option 2

Replace existing bridge with a new concrete filled arch structure on existing alignment. Traffic to be carried on a two lane temporary shoofly bridge downstream of the existing pedestrian bridge and does not remove the existing pedestrian bridge.

Table 9-4. Current River Bridge Cost Analysis – Alternative 1A, Option 2

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Concrete Filled Arch Bridge (Assumed 30' x 612')	\$317	\$5,820,000
Roadway Work	--	\$900,000
Mobilization (Assumed 11% of project)	11%	\$1,010,000
Total Cost	--	\$10,150,000

Current River – Alternative 1B

Replace existing bridge with a new concrete filled arch structure on existing alignment that matches the current span arrangement. Traffic to be carried on a single lane temporary shoofly bridge that becomes the permanent pedestrian bridge after construction. Temporary traffic bridge estimated as a haunched steel plate girder bridge with aesthetic considerations since it will become permanent.

Table 9-5. Current River Bridge Cost Analysis – Alternative 1B

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
Temporary Bridge (Assumed 14' x 616')	\$258	\$2,220,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Concrete Filled Arch Bridge (Assumed 30' x 612')	\$317	\$5,820,000
Roadway Work	--	\$900,000
Mobilization (Assumed 11% of project)	11%	\$1,030,000
Total Cost	--	\$10,370,000

Current River – Alternative 2A, Option 1

Replace existing bridge with a new haunched steel girder structure on existing alignment that matches the current span arrangement. Traffic to be carried on a two lane temporary shoofly bridge that includes removal of the existing pedestrian bridge.

Table 9-6. Current River Bridge Cost Analysis – Alternative 2A, Option 1

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Steel Girder Bridge (Assumed 41' x 612')	\$188	\$4,720,000
Roadway Work	--	\$980,000
Mobilization (Assumed 11% of project)	11%	\$900,000
Total Cost	--	\$9,110,000

Current River – Alternative 2A, Option 2

Replace existing bridge with a new haunched steel girder structure on existing alignment that matches the current span arrangement. Traffic to be carried on a two lane temporary shoofly bridge downstream of the existing pedestrian bridge and does not remove the existing pedestrian bridge.

Table 9-7. Current River Bridge Cost Analysis – Alternative 2A, Option 2

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Steel Girder Bridge (Assumed 30' x 612')	\$193	\$3,540,000
Roadway Work	--	\$900,000
Mobilization (Assumed 11% of project)	11%	\$760,000
Total Cost	--	\$7,620,000

Current River – Alternative 2B

Replace existing bridge with a new haunched steel girder structure on existing alignment that matches the current span arrangement. Traffic to be carried on a single lane temporary shoofly bridge that becomes the permanent pedestrian bridge after construction. Temporary traffic bridge estimated as a haunched steel plate girder bridge with aesthetic considerations since it will become permanent.

Table 9-8. Current River Bridge Cost Analysis – Alternative 2B

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
Temporary Bridge (Assumed 14' x 616')	\$258	\$2,220,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
New Steel Girder Bridge (Assumed 30' x 612')	\$193	\$3,540,000
Roadway Work	--	\$900,000
Mobilization (Assumed 11% of project)	11%	\$780,000
Total Cost	--	\$7,840,000

Current River – Alternative 3, Option 1

Replace existing bridge with a new concrete filled arch structure on an offset alignment that matches current span arrangement and includes removal of the existing pedestrian bridge. Traffic to be maintained on the existing bridge during construction.

Table 9-9. Current River Bridge Cost Analysis – Alternative 3, Option 1

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
New Concrete Filled Arch Bridge (Assumed 41' x 612')	\$317	\$7,950,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
Roadway Work	--	\$1,350,000
Mobilization (Assumed 11% of project)	11%	\$1,070,000
Total Cost	--	\$10,770,000

Current River – Alternative 3, Option 2

Replace existing bridge with a new concrete filled arch structure on an offset alignment downstream of the existing pedestrian bridge that matches current span arrangement. Traffic to be maintained on the existing bridge during construction and the existing pedestrian bridge to remain in place.

Table 9-10. Current River Bridge Cost Analysis – Alternative 3, Option 2

Item	Unit Cost per Sq. Ft.	Cost
New Concrete Filled Arch Bridge (Assumed 41' x 612')	\$317	\$7,950,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
Roadway Work	--	\$1,630,000
Mobilization (Assumed 11% of project)	11%	\$1,090,000
Total Cost	--	\$10,980,000

Current River – Alternative 4, Option 1

Replace existing bridge with a new haunched steel girder structure on an offset alignment that matches current span arrangement and includes removal of the existing pedestrian bridge. Traffic to be maintained on the existing bridge during construction.

Table 9-11. Current River Bridge Cost Analysis – Alternative 4, Option 1

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
New Steel Girder Bridge (Assumed 41' x 612')	\$188	\$4,720,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
Roadway Work	--	\$1,350,000
Mobilization (Assumed 11% of project)	11%	\$710,000
Total Cost	--	\$7,180,000



Current River – Alternative 4, Option 2

Replace existing bridge with a new haunched steel girder structure on an offset alignment downstream of the existing pedestrian bridge that matches current span arrangement. Traffic to be maintained on the existing bridge during construction and the existing pedestrian bridge to remain in place.

Table 9-12. Current River Bridge Cost Analysis – Alternative 4, Option 2

Item	Unit Cost per Sq. Ft.	Cost
New Steel Girder Bridge (Assumed 41' x 612')	\$188	\$4,720,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
Roadway Work	--	\$1,630,000
Mobilization (Assumed 11% of project)	11%	\$730,000
Total Cost	--	\$7,390,000

Current River – Alternative 5A

Perform a phased rehabilitation and widening of the existing bridge. Phased bridge rehabilitation is assumed to include a 20% cost premium. Final alignment to match the existing alignment. Single lane of traffic to be maintained on the existing or widened structure. A mixed use path is included in the widened bridge, but existing pedestrian bridge to remain in place.

Table 9-13. Current River Bridge Cost Analysis – Alternative 5A

Item	Unit Cost per Sq. Ft.	Cost
Rehabilitate and Widen Concrete Filled Arch Bridge (Assumed 41' x 602')	\$302	\$7,440,000
Roadway Work	--	\$230,000
Mobilization (Assumed 11% of project)	11%	\$850,000
Total Cost	--	\$8,520,000

Current River – Alternative 5B, Option 1

Perform a non-phased rehabilitation and widening of the existing bridge. Final alignment to match the existing alignment. Traffic to be carried on a two lane temporary shoofly bridge that includes removal of the existing pedestrian bridge.

Table 9-14. Current River Bridge Cost Analysis – Alternative 5B, Option 1

Item	Unit Cost per Sq. Ft.	Cost
Pedestrian Bridge Removal (Assumed 10' x 605')	\$15	\$90,000
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Rehabilitate and Widen Concrete Filled Arch Bridge (Assumed 41' x 602')	\$252	\$6,200,000
Roadway Work	--	\$980,000
Mobilization (Assumed 11% of project)	11%	\$1,030,000
Total Cost	--	\$10,410,000

Current River – Alternative 5B, Option 2

Perform a non-phased rehabilitation and widening of the existing bridge. Final alignment to match the existing alignment. Traffic to be carried on a two lane temporary shoofly bridge downstream of the existing pedestrian bridge and does not remove the existing pedestrian bridge.

Table 9-15. Current River Bridge Cost Analysis – Alternative 5B, Option 2

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 616')	\$132	\$2,110,000
Rehabilitate and Widen Concrete Filled Arch Bridge (Assumed 30' x 602')	\$252	\$4,550,000
Roadway Work	--	\$900,000
Mobilization (Assumed 11% of project)	11%	\$830,000
Total Cost	--	\$8,390,000



Current River – Alternative 6

Perform a phased replacement of the existing bridge with a new concrete filled arch structure that matches the existing span arrangement. Phased bridge rehabilitation assumed to include a 20% cost premium. Final alignment to be moderately offset of the existing alignment. Single lane of traffic to be maintained on the existing or new structure.

Table 9-16. Current River Bridge Cost Analysis – Alternative 6

Item	Unit Cost per Sq. Ft.	Cost
New Concrete Filled Arch Bridge (Assumed 30' x 612')	\$380	\$6,980,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
MSE Walls (Assumed 8'x100' and 8'x75')	\$55	\$80,000
Roadway Work	--	\$1,220,000
Mobilization (Assumed 11% of project)	11%	\$950,000
Total Cost	--	\$9,540,000

Current River – Alternative 7

Perform a phased replacement the existing bridge with a new steel girder structure that matches the existing span arrangement. Phased bridge rehabilitation assumed to include a 20% cost premium. Final alignment to be moderately offset of the existing alignment. Single lane of traffic to be maintained on the existing or new structure.

Table 9-17. Current River Bridge Cost Analysis – Alternative 7

Item	Unit Cost per Sq. Ft.	Cost
New Steel Girder Bridge (Assumed 30' x 612')	\$232	\$4,260,000
Remove Existing Bridge (21' x 602')	\$25	\$310,000
MSE Walls (Assumed 8'x100' and 8'x75')	\$55	\$80,000
Roadway Work	--	\$1,220,000
Mobilization (Assumed 11% of project)	11%	\$650,000
Total Cost	--	\$6,520,000

Spring Valley – Alternative 1A

Replace existing bridge with a new concrete spandrel arch structure with concrete girder approach spans on existing alignment. Traffic to be carried on a temporary shoofly bridge composed of temporary spans owned by MoDOT.

Table 9-18. Spring Valley Bridge Cost Analysis – Alternative 1A

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 550')	\$102	\$1,460,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
New Concrete Spandrel Arch Bridge (Assumed 28' x 545')	\$263	\$4,010,000
Roadway Work	--	\$800,000
Mobilization (Assumed 11% of project)	11%	\$720,000
Total Cost	--	\$7,230,000

Spring Valley – Alternative 1B

Replace existing bridge with a new concrete spandrel arch structure with haunched steel girder approach spans on existing alignment. Traffic to be carried on a temporary shoofly bridge composed of temporary spans owned by MoDOT.

Table 9-19. Spring Valley Bridge Cost Analysis – Alternative 1B

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 550')	\$102	\$1,460,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
New Concrete Spandrel Arch Bridge (Assumed 28' x 545')	\$294	\$4,490,000
Roadway Work	--	\$800,000
Mobilization (Assumed 11% of project)	11%	\$770,000
Total Cost	--	\$7,760,000

Spring Valley – Alternative 2

Replace existing bridge with a new haunched steel girder structure on existing alignment. Traffic to be carried on a temporary shoofly bridge composed of temporary spans owned by MoDOT.

Table 9-20. Spring Valley Bridge Cost Analysis – Alternative 2

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 550')	\$102	\$1,460,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
New Steel Girder Bridge (Assumed 28' x 545')	\$199	\$3,040,000
Roadway Work	--	\$800,000
Mobilization (Assumed 11% of project)	11%	\$610,000
Total Cost	--	\$6,150,000

Spring Valley – Alternative 3A

Replace existing bridge with a new concrete spandrel arch structure with concrete girder approach spans on an offset alignment. Traffic to be maintained on the existing bridge during construction.

Table 9-21. Spring Valley Bridge Cost Analysis – Alternative 3A

Item	Unit Cost per Sq. Ft.	Cost
New Concrete Spandrel Arch Bridge (Assumed 28' x 545')	\$263	\$4,010,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
Roadway Work	--	\$1,890,000
Mobilization (Assumed 11% of project)	11%	\$680,000
Total Cost	--	\$6,820,000

Spring Valley – Alternative 3B

Replace existing bridge with a new concrete spandrel arch structure with haunched steel girder approach spans on an offset alignment. Traffic to be maintained on the existing bridge during construction.

Table 9-22. Spring Valley Bridge Cost Analysis – Alternative 3B

Item	Unit Cost per Sq. Ft.	Cost
New Concrete Spandrel Arch Bridge (Assumed 28' x 545')	\$294	\$4,490,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
Roadway Work	--	\$1,890,000
Mobilization (Assumed 11% of project)	11%	\$730,000
Total Cost	--	\$7,350,000

Spring Valley – Alternative 4

Replace existing bridge with a new haunched steel girder structure on an offset alignment. Traffic to be maintained on the existing bridge during construction.

Table 9-23. Spring Valley Bridge Cost Analysis – Alternative 4

Item	Unit Cost per Sq. Ft.	Cost
New Steel Girder Bridge (Assumed 28' x 545')	\$199	\$3,040,000
Remove Existing Bridge (23' x 523')	\$20	\$240,000
Roadway Work	--	\$1,890,000
Mobilization (Assumed 11% of project)	11%	\$570,000
Total Cost	--	\$5,740,000

Spring Valley – Alternative 5A

Rehabilitate and widen the existing spandrel arch span; replace the approach spans with new concrete girder spans. Final alignment to match the existing alignment. Traffic to be carried on a temporary shoofly bridge composed of temporary spans owned by MoDOT.

Table 9-24. Spring Valley Bridge Cost Analysis – Alternative 5A

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 550')	\$102	\$1,460,000
Rehabilitate Concrete Spandrel Arch Bridge (Assumed 28' x 540')	\$238	\$3,600,000
Roadway Work	--	\$800,000
Mobilization (Assumed 11% of project)	11%	\$650,000
Total Cost	--	\$6,510,000

Spring Valley – Alternative 5B

Rehabilitate and widen the existing spandrel arch span; replace the approach spans with new haunched steel girder spans. Final alignment to match the existing alignment. Traffic to be carried on a temporary shoofly bridge composed of temporary spans owned by MoDOT.

Table 9-25. Spring Valley Bridge Cost Analysis – Alternative 5B

Item	Unit Cost per Sq. Ft.	Cost
Temporary Bridge (Assumed 26' x 550')	\$102	\$1,460,000
Rehabilitate Concrete Spandrel Arch Bridge (Assumed 28' x 540')	\$265	\$4,010,000
Roadway Work	--	\$800,000
Mobilization (Assumed 11% of project)	11%	\$690,000
Total Cost	--	\$6,960,000

10 Studied Alternatives Performance Summary

The following tables list the advantages and disadvantages identified for the various alternatives and options studied for this report. The estimated cost of the alternatives studied is included and cost estimates were ranked from most expensive to least expensive. 15 alternatives were studied to cross the Current River and the costs are ranked from 1 (highest) to 14 (lowest) with a tie in 4th place. The alternatives ranked 11 through 14 vary by approximately \$1,000,000 and are considered to have an advantage over the remaining alternatives. Eight alternatives were studied to cross Spring Valley and the costs are ranked from 1 (highest) to 8 (lowest). The variance is about \$2,000,000 the