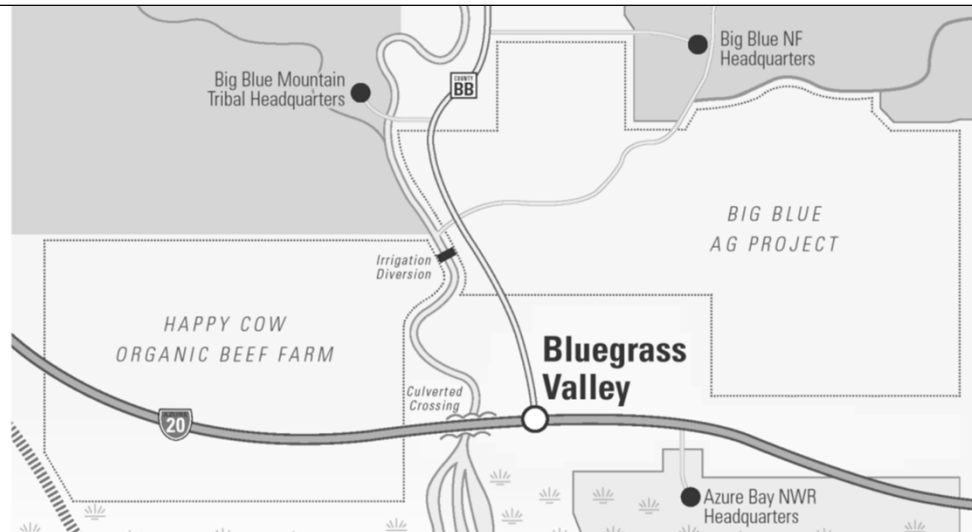


Happy Trustworthy Partners

No More Blues Project



Its all about the 'shed



Alternative A-No Action

	Pros	Cons
Environment	no temporary issues related to construction	Current poor conditions; potential listings
Cultural	no temporary issues related to construction	Current conditions
Economic	No cost of restoration	Current conditions

Alternative B-replace culvert, remove stream diversion; riparian and instream habitat restoration

<u>Culvert replacement</u>	Pros	Cons	Addressing cons
Environment	improved water quality; Increase stream flow; Increased fish passage	Temporary stream diversion; Heavy equipment in stream; Temporary increased sedimentation	Construction window outside of migration/breeding seasons; BMP's for sediment
Cultural	decreased flooding; increased recreation; Avoid restrictions assoc. with listing	temporarily longer commute times	create alt. route
Economic	increased jobs, increased tourism; decreased long term maintenance; fisheries benefits, decreased flooding on ag land and in community	cost of restoration	

Alternative B-replace culvert, remove stream diversion; riparian and instream habitat restoration			
<u>Remove irrigation diversion</u>	Pros	Cons	Addressing cons
Environment	improved water quality; Increase stream flow; Increased fish passage; increased fish populations	Equipment in stream; Temporary increased sedimentation, loss of pools behind diversion	Construction window outside of migration season; BMP's for sediments; pools replaced
Cultural	Avoid restrictions assoc. with listing; fisheries benefits; decreased flooding; increased recreation (kayaking)	changes in farming practices- training needed-resistance	Training will be provided, assessment of water needs, water storage/irrigation provided
Economic		cost of restoration; loss of land for floodplain and for tanks/reservoirs	

Alternative B-replace culvert, remove stream diversion; riparian and instream habitat restoration			
<u>Stream restoration</u>	Pros	Cons	Addressing cons
Environment	improved water quality; Increase stream flow; increased fish populations; improved species composition including native plants, improved habitat, decrease erosion, decrease flooding, stabilize banks	Equipment in stream; Temporary increased sedimentation; unstable conditions during construction	Construction window outside of migration season ; BMP's for sediment
Cultural	Avoid restrictions assoc. with listing; fisheries benefits; decreased flooding; increased recreation; increased tourism; improved aesthetics, improved relationships with tribes	need to do cultural resource evaluation	BMP's to prevent loss of artifacts
Economic	Temporary job increase, decrease \$\$ related to flooding	cost of restoration, short term water loss possibly, changes in property lines	

Alternative C-conversion of culvert to bridge and removing diversion only

	Pros	Cons	Addressing cons
Environment	Increase stream flow; increased fish passage; improved water quality	Equipment in stream; Temporary increased sedimentation	Construction window outside of migration/breeding seasons; BMP's for sediment
Cultural	decreased flooding; increased; recreation	Temporary longer commute times;	Training will be provided, assessment of water needs, water storage/irrigation provided
Economic	increased jobs, increased recreation, decreased long term maintenance; fisheries benefits, decreased flooding on ag land and in community	cost of restoration	

Alternative D-Restoring riparian and instream habitat and stream restoration only

	Pros	Cons	Addressing cons
Environment	improved water quality; Improved stream flow; increased fish populations; improved plant species composition including native plants, improved habitat, decrease erosion, decrease flooding, stabilize banks	Equipment in stream; Temporary increased sedimentation; unstable conditions during construction	Construction window outside of migration season ; BMP's for sediment
Cultural	Avoid restrictions assoc. with listing; fisheries benefits; decreased flooding; increased recreation; increased tourism; improved aesthetics, improved relationships with tribes	need to do cultural resource evaluation	BMP's to prevent loss of artifacts
Economic	Temporary job increase, decrease \$\$ related to flooding	cost of restoration, short term water loss possibly, changes in property lines	

Alternative E-Rip rap on streambank

	Pros	Cons
Environment	temporary erosion control	loss of habitat, increase soil erosion, increase sedimentation, loss of spawning recovery, reduced water quality
Cultural	Commissioner is happy	loss of tribal land, lack of tribal support
Economic	short term jobs, least expensive option for addressing erosion	long term maintenance costs











Monitoring and Management

Problem	Activity	Parameter	Target	Management Action
Limited Fish Passage	Replace culvert/water diversion	Stream flow/water velocity	Meet targets for salmonids	Work with NRDA council in estuary
Limited salmonid presence/spawning	In-stream and riparian restoration	Water quality (DO, turbidity, temperature)	Meet targets for salmonids	Address in phase 2
		Biological monitoring (redds, refugia)	Lots and lots	Address in phase 2
		Native plant growth and erosion	Native plant % and scaring	Replant/increase erosion control

Monitoring and Management

Problem	Activity	Parameter	Target	Management Action
Water diversion-limiting stream flow	Remove diversion; install storage tank; limit withdrawals	Water storage/availability	meeting daily/monthly needs	Change equipment
Flooding	All project activities	road closures due to flooding	0	Assess and address in phase 2

Summary

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Environment					
Cultural					
Economic	\$	\$	\$	\$	\$