

Summary of Potential Impacts from Alternatives

Potential Impacts	Alternative 1	Alternative 2	Alternative 3	Alternative 4	No Build
Meets Purpose & Need	Yes	Yes	Yes	Yes	No
Land Use/Farmland	<p>Convert 299.82 acres of farmland</p> <ul style="list-style-type: none"> • 222 acres of Prime and Unique farmland • 12 acres of Statewide and Local Importance • 97.11 acres enrolled in the Williamson Act Program • One agricultural conservation easement 	<p>Convert 446.21 acres of farmland</p> <ul style="list-style-type: none"> • 371 acres of Prime and Unique farmland • 22 acres of Statewide and Local Importance • 153.62 acres enrolled in the Williamson Act Program • One agricultural conservation easement 	<p>Convert 305.64 acres of farmland</p> <ul style="list-style-type: none"> • 237 acres of Prime and Unique farmland • 3 acres of Statewide and Local Importance • 136.12 acres enrolled in the Williamson Act Program • One agricultural conservation easement 	<p>Convert 282 acres of farmland</p> <ul style="list-style-type: none"> • 234 acres of Prime and Unique farmland • No Statewide and Local Importance • 144.74 acres enrolled in the Williamson Act Program • One agricultural conservation easement 	<p>No Impact</p>
Visual/Aesthetics	<p>Moderate Visual Impact</p> <ul style="list-style-type: none"> • Topographic feature change, vegetation loss • Reduction of views of scenic resources from the highway and homes 	<p>High Visual Impact</p> <ul style="list-style-type: none"> • Would have a high level of impact on existing visual resources 	<p>Moderately Low Visual Impact</p> <ul style="list-style-type: none"> • Topographic feature change, vegetation loss • Reduction of views of scenic resources from the highway and homes 	<p>Moderately Low Visual Impact</p> <ul style="list-style-type: none"> • Topographic feature change, vegetation loss • Reduction of views of scenic resources from the highway and homes 	<p>No Impact</p>



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Noise and Vibration	 <ul style="list-style-type: none"> • Permanently impact 5 receivers • Unavoidable noise impact 	 <ul style="list-style-type: none"> • Permanently impact 5 receivers • Unavoidable noise impact 	 <ul style="list-style-type: none"> • Permanently impact 36 receivers • No avoidance, minimization, and/or mitigation measures required 	 <ul style="list-style-type: none"> • Permanently impact 36 receivers • No avoidance, minimization, and/or mitigation measures required 	 <p>No Impact</p>
Wetlands	 <ul style="list-style-type: none"> • Permanently impact 0.053 acre 	 <ul style="list-style-type: none"> • Permanently impact 0.053 acre 	 <ul style="list-style-type: none"> • Permanently impact 0.166 acre 	 <ul style="list-style-type: none"> • Permanently impact 0.166 acre 	 <p>No Impact</p>
Paleontology	 <ul style="list-style-type: none"> • High sensitivity for paleontological resources. Anticipate 250,000 cubic yards of excavation 	 <ul style="list-style-type: none"> • High sensitivity for paleontological resources. Anticipate 300,000 cubic yards of excavation 	 <ul style="list-style-type: none"> • High sensitivity for paleontological resources. Anticipate 140,000 cubic yards of excavation 	 <ul style="list-style-type: none"> • High sensitivity for paleontological resources. Anticipate 140,000 cubic yards of excavation 	 <p>No Impact</p>
Business Displacements	 <p>No Impact</p>	 <ul style="list-style-type: none"> • One business 	 <ul style="list-style-type: none"> • Four business 	 <ul style="list-style-type: none"> • Four business 	 <p>No Impact</p>



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Housing Displacements	<ul style="list-style-type: none"> • Four single-family homes 	<ul style="list-style-type: none"> • Seven single-family homes 	<ul style="list-style-type: none"> • 34 single-family homes 	<ul style="list-style-type: none"> • 25 single-family homes • One duplex • 14 mobile homes. 	<p>No Impact</p>
Hydrology and Floodplain	<ul style="list-style-type: none"> • Addition of 40 acres of an impervious surface area, affecting existing watershed flow and volume of stormwater runoff 	<ul style="list-style-type: none"> • Addition of 40 acres of an impervious surface area, affecting existing watershed flow and volume of stormwater runoff 	<ul style="list-style-type: none"> • Addition of 40 acres of an impervious surface area, affecting existing watershed flow and volume of stormwater runoff 	<ul style="list-style-type: none"> • Addition of 40 acres of an impervious surface area, affecting existing watershed flow and volume of stormwater runoff 	<p>No Impact</p>
Water Quality and Stormwater Runoff	<p>Potential for discharges from construction, increased impervious areas, operation and maintenance activities</p> <ul style="list-style-type: none"> • 15 drainage basins 	<p>Potential for discharges from construction, increased impervious areas, operation and maintenance activities</p> <ul style="list-style-type: none"> • 24 drainage basins 	<p>Potential for discharges from construction, increased impervious areas, operation and maintenance activities</p> <ul style="list-style-type: none"> • 13 drainage basins 	<p>Potential for discharges from construction, increased impervious areas, operation and maintenance activities</p> <ul style="list-style-type: none"> • 11 drainage basins 	<p>No Impact</p>



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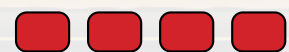
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Hazardous Waste and Materials	<ul style="list-style-type: none"> • 11 low-risk residential properties 	<ul style="list-style-type: none"> • 11 low-risk residential properties 	<ul style="list-style-type: none"> • 34 low-risk single-family properties • 1 high-risk property from the Cortese list 	<ul style="list-style-type: none"> • 25 low-risk single-family properties • 1 high-risk property from the Cortese list 	<p>No Impact</p>
Air Quality	<ul style="list-style-type: none"> • Short term construction impacts 	<ul style="list-style-type: none"> • Short term construction impacts 	<ul style="list-style-type: none"> • Short term construction impacts 	<ul style="list-style-type: none"> • Short term construction impacts 	<p>No Impact</p>
Waters of the U.S.	<ul style="list-style-type: none"> • Permanently impact 0.304 acre • Temporarily impact 0.124 acre 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<p>No Impact</p>
Cultural Resources (Archaeological)	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<ul style="list-style-type: none"> • Would have a low potential for buried archaeological deposits 	<p>No Impact</p>



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Animal Species	<ul style="list-style-type: none"> • Modesto song sparrow (Melospiza melodia) • Burrowing owls (Athene cunicularia) 	<ul style="list-style-type: none"> • Modesto song sparrow (Melospiza melodia) • Burrowing owls (Athene cunicularia) 	<ul style="list-style-type: none"> • Modesto song sparrow (Melospiza melodia) • Burrowing owls (Athene cunicularia) 	<ul style="list-style-type: none"> • Modesto song sparrow (Melospiza melodia) • Burrowing owls (Athene cunicularia) 	<p>No Impact</p>
Air Quality	<ul style="list-style-type: none"> • Vernal pool fairy shrimp (Branchinecta lynchi) • Tricolored blackbirds (Agelaius tricolor) • Swainson's hawk (Buteo swainsoni) • California tiger salamander (Ambystoma californiense) 	<ul style="list-style-type: none"> • Vernal pool fairy shrimp (Branchinecta lynchi) • Tricolored blackbirds (Agelaius tricolor) • Swainson's hawk (Buteo swainsoni) • California tiger salamander (Ambystoma californiense) 	<ul style="list-style-type: none"> • Vernal pool fairy shrimp (Branchinecta lynchi) • Tricolored blackbirds (Agelaius tricolor) • Swainson's hawk (Buteo swainsoni) • California tiger salamander (Ambystoma californiense) 	<ul style="list-style-type: none"> • Vernal pool fairy shrimp (Branchinecta lynchi) • Tricolored blackbirds (Agelaius tricolor) • Swainson's hawk (Buteo swainsoni) • California tiger salamander (Ambystoma californiense) 	<p>No Impact</p>
Waters of the U.S.	<ul style="list-style-type: none"> • Would not have an adverse impact on Butler Ditch 	<ul style="list-style-type: none"> • Would not have an adverse impact on Butler Ditch 	<p>No Impact</p>	<p>No Impact</p>	<p>No Impact</p>

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Potential Impacts	Alternative 1	Alternative 2	Alternative 3	Alternative 4	No Build
2026 Measures of Effectiveness	Morning: 30.6 (-30.1 percent) Total Vehicle Hours of Delay 46 (7 percent) Average Speed 7,954 (-20 percent) Vehicle Miles of Travel	Morning: 16.9 (-61.4 percent) Total Vehicle Hours of Delay 57 (32.6 percent) Average Speed 10,912 (9.7 percent) Vehicle Miles of Travel	Morning: 65.4 (49.32 percent) Total Vehicle Hours of Delay 46 (7 percent) Average Speed 13,091 (31.6 percent) Vehicle Miles of Travel	Morning: 65.4 (49.32 percent) Total Vehicle Hours of Delay 46 (7 percent) Average Speed 13,091 (31.6 percent) Vehicle Miles of Travel	Morning: 43.8 Total Vehicle Hours of Delay 43 Average Speed 9,949 Vehicle Miles of Travel
	Morning: 30.6 (-30.1 percent) Total Vehicle Hours of Delay 46 (7 percent) Average Speed 7,954 (-20 percent) Vehicle Miles of Travel	Evening: 24.5 (-62.6 percent) Total Vehicle Hours of Delay 54 (31.7 percent) Average Speed 12,299 (-4.2 percent) Vehicle Miles of Travel	Evening: 64.9 (-0.9 percent) Total Vehicle Hours of Delay 46 (12.2 percent) Average Speed 14,026 (9.3 percent) Vehicle Miles of Travel	Evening: 64.9 (-0.9 percent) Total Vehicle Hours of Delay 46 (12.2 percent) Average Speed 14,026 (9.3 percent) Vehicle Miles of Travel	Evening: 65.5 Total Vehicle Hours of Delay 41 Average Speed 12,838 Vehicle Miles of Travel

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2046 Measures of Effectiveness	Morning: 49.8 (-78 percent) Total Vehicle Hours of Delay 44 (69.2 percent) Average Speed 10,158 (-11.4 percent) Vehicle Miles of Travel	Morning: 36.8 (-83.7 percent) Total Vehicle Hours of Delay 52 (100 percent) Average Speed 13,779 (20.2 percent) Vehicle Miles of Travel	Morning: 105.9 (-53.2 percent) Total Vehicle Hours of Delay 42 (61.5 percent) Average Speed 15,123 (31.9 percent) Vehicle Miles of Travel	Morning: 105.9 (-53.2 percent) Total Vehicle Hours of Delay 42 (61.5 percent) Average Speed 15,123 (31.9 percent) Vehicle Miles of Travel	Morning: 226.2 Total Vehicle Hours of Delay 26 Average Speed 11,465 Vehicle Miles of Travel
	Evening: 57.4 (-75.9 percent) Total Vehicle Hours of Delay 44 (57.1 percent) Average Speed 12,534 (-17 percent) Vehicle Miles of Travel	Evening: 36.5 (-84.7 percent) Total Vehicle Hours of Delay 52 (85.7 percent) Average Speed 13,603 (-9.9 percent) Vehicle Miles of Travel	Evening: 89.8 (-62.35 percent) Total Vehicle Hours of Delay 44 (57.1 percent) Average Speed 16,419 (8.8 percent) Vehicle Miles of Travel	Evening: 89.8 (-62.35 percent) Total Vehicle Hours of Delay 44 (57.1 percent) Average Speed 16,419 (8.8 percent) Vehicle Miles of Travel	Evening: 238.4 Total Vehicle Hours of Delay 28 Average Speed 15,093 Vehicle Miles of Travel
Cost Estimate	\$116.1 million	\$182.4 million	\$181.7 million	\$147.7 million	No Cost