



**Table 1**  
**Construction Cost Estimates Summary**

Major Basin	Basin 5		
Alternative	Conveyance	Detention	Local
Item	Total Cost (\$)	Total Cost (\$)	Total Cost (\$)
Channels	419,654	531,147	163,700
Culverts	942,750	1,501,600	13,524,300
Drop Structures	94,400	155,600	-
Detention Facilities	-	-	-
Bridges	-	-	-
Leaves	-	-	-
<b>Sub-Total (Rounded)</b>	<b>\$1,457,000</b>	<b>\$2,188,000</b>	<b>\$13,688,000</b>
<b>30% Construction Contingency</b>	<b>\$437,100</b>	<b>\$656,400</b>	<b>\$4,106,400</b>
<b>15% Engineering Contingency</b>	<b>\$218,550</b>	<b>\$328,200</b>	<b>\$2,053,200</b>
<b>Total (Rounded)</b>	<b>\$2,113,000</b>	<b>\$3,173,000</b>	<b>\$19,848,000</b>



**Table 7-1-CH**  
**Channel Cost Estimates**  
**Major Basin 5 Alternative - Conveyance**

Channel and Reach	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length	Channel Type	Material	Excavation (CY)	Unit Cost (\$)	Total Cost (\$)
Diversion 504 Channel Capacity (DP 5-225 to Hannum)	641	636	800	4000	Flat Channel Design	Grass	31,111	83	333,118
Diversion 504 Channel Capacity (Hannum to Burlington Pond)	679	726	800	1300	Steep Channel Design	Grass	7,800	67	86,537

**Sub-Total      \$419,654**

**Table 7-2-CH**  
**Channel Cost Estimates**  
**Major Basin 5 Alternative - Detention**

Channel and Reach	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length	Channel Type	Material	Excavation (CY)	Unit Cost (\$)	Total Cost (\$)
Diversion 504 Channel Capacity (DP 5-225 to Hannum)	641	1704	1,700	4000	Flat Channel Design	Grass	55,111	98	391,491
Diversion 504 Channel Capacity (Hannum to Burlington Pond)	679	1704	1,700	1300	Steep Channel Design	Grass	13,397	107	139,656

**Sub-Total      \$531,147**



**Table 7-1-CU**  
**Culvert Cost Estimate**  
**Major Basin 5 Alternative - Conveyance**

Design Point	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
5-247	Hannum Rd.	Lower Stone Pile Creek	CMP 2-5'	727	2- 10' x 5' CBC	2	90	850	40,000	193,000
5-236	I-90	Tributary 506	CMP 1 - 6'	351	8'x6' CBC	1	285	650	40,000	225,250
5-239	I-90	Tributary 505	CMP 1 - 6'	591	2 -9'x5' CBC	2	285	850	40,000	524,500

**Sub-Total \$942,750**

**Table 7-2-CU**  
**Culvert Cost Estimate**  
**Major Basin 5 Alternative - Detention**

Facility Number	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
5-247	Hannum Rd.	Lower Stone Pile Creek	CMP 2-5'	1,704	Culvert Replacement w/ 4-9'x5'	4	100	850	40,000	380,000
5-243		Lower Stone Pile Creek	none	1,704	Culvert Replacement w/ 4-9'x5'	4	120	850	40,000	448,000
5-243		Lower Stone Pile Creek	none	300	Add 72" RCP	1	1980	320	40,000	673,600

**Sub-Total \$1,501,600**

**Table 7-2-CU**  
**Culvert Cost Estimate**  
**Major Basin 5 Alternative - Local**

Facility Number	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
5-210	HWY 51	Tributary 510	CMP 1-24"	578	CBC 12' x 6'	1	110	1,300	40,000	183,000
5-211	Railroad	Tributary 510	CMP 1 - 30"	578	CBC 12' x 6'	1	75	1,300	40,000	137,500
5-212	I-90	Tributary 510	CMP 2-24"	616	CBC 2-7' x 6'	2	420	700	40,000	628,000
5-213	Gurley Ave.	Tributary 509	Storm sewer	100	CBC 5' x 3'	1	1025	350	40,000	398,750
5-214	5th Street Storm Sewer	Tributary 508	Storm sewer	269	CBC 8' x 4'	1	1875	650	40,000	1,258,750
5-220	Gillette Ave. Storm Sewer		Storm sewer	203	CBC 8' x 2'	1	2210	650	40,000	1,476,500
5-249	1st Ave. Storm Sewer		Storm sewer	475	CBC 5'x4'; CBC 2-4' x 10'	3	2340	850	40,000	6,007,000
5-224	6th St.	Tributary 502	Storm sewer	181	CBC 9' x 2'	1	1560	550	40,000	898,000
5-234	Westover Rd	Tributary 503	CMP 2 - 48"	864	CBC 2- 12' x 5'	2	148	1,300	40,000	424,800
5-235	Bridger Rd.	Tributary 501	Street Capacity	402	CBC 8'x4'	1	2000	650	40,000	1,340,000
5-237	Westover Rd	Tributary 506	CMP 36"	511	CBC 3- 10' x4'	3	50	850	40,000	167,500
5-240	Foothills Blvd.	Tributary 501	CMP 36" x 24" Arch	332	CBC 5- 7' x 3'	5	95	700	40,000	372,500
5-246	W. Warlow Dr.	Tributary 502	RCP 1 - 6'	555	Add 2 - 6' RCP	2	300	320	40,000	232,000

**Sub-Total \$13,524,300**

**Table 7-2-CU**

**Table X**  
**Drop Structure Cost Estimate**  
**Major Basin 5 Alternative - Conveyance**

Channel	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length (ft)	Existing Slope	Proposed Slope	Elevation Change (ft)	No. of Drops	Unit Cost (\$)	Total Cost (\$)
Diversion 504 Channel Capacity (Hannum to Burlington Pond)	679	726	800	1,300	1.40%	0.20%	15.6	4	23,600	94,400

**Sub-Total**      **\$94,400**  
**30% Construction Contingency**      **\$28,320**  
**15% Engineering Contingency**      **\$14,160**  
**Total**      **\$136,880**

**Major Basin 5 Alternative - Detention**

Channel	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length (ft)	Existing Slope	Proposed Slope	Elevation Change (ft)	No. of Drops	Unit Cost (\$)	Total Cost (\$)
Diversion 504 Channel Capacity (Hannum to Burlington Pond)	679	1,700	1,700	1,300	1.40%	0.20%	15.6	4	38,900	155,600

**Sub-Total**      **\$155,600**