

# **Appendix F**

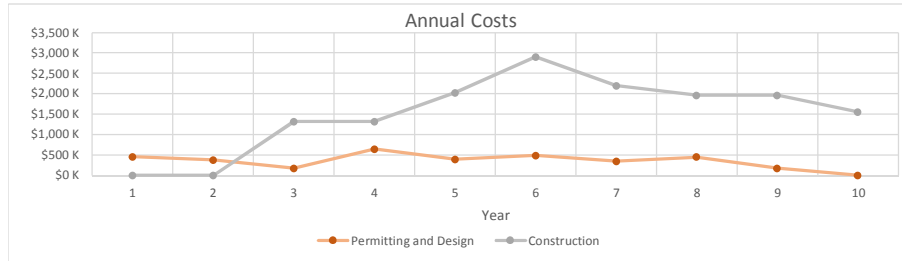
## **Preliminary Capital Improvement Plan**

Preliminary

**Irvine Slough (IS4) Capital Improvement Plan**  
**Project Schedule (Preliminary)**

Project	Phase	Stage	Est. Cost (2015 \$)	Year											
				1 2016	2 2017	3 2018	4 2019	5 2020	6 2021	7 2022	8 2023	9 2024	10 2025		
<b>Separation Alt. 4 (PS protecting DS + Direct Discharge)</b>			<b>\$ 16,646,000</b>												
<i>Phase 1a - Pump Station and Force Main</i>			\$ 4,825,000												
		Siting Pump Station, Land Acquisition, Easements, Franchise Agreements	\$ 140,000	\$70 K	\$70 K										
		Preliminary Design	\$ 264,000	\$264 K											
		Permitting (incl. Stanwood SDP)	\$ 262,000	\$131 K	\$131 K										
		Final Design	\$ 176,000	\$176 K											
		Construction	\$ 3,613,000			\$1,204 K	\$1,204 K	\$1,204 K							
		Construction Management	\$ 370,000			\$123 K	\$123 K	\$123 K							
<i>Phase 1b - Improvements Specific to Dike &amp; Drainage District 7</i>			\$ 1,707,000												
		WSDOT Franchise Agreements	\$ 20,000			\$20 K									
		Preliminary Design	\$ 96,000			\$96 K									
		Permitting (incl. Stanwood SDP)	\$ 134,000			\$67 K	\$67 K								
		Final Design	\$ 64,000			\$64 K									
		Construction	\$ 1,263,000					\$632 K	\$632 K						
		Construction Management	\$ 130,000					\$65 K	\$65 K						
<i>Phase 2 - West Downtown Conveyance Interceptor</i>			\$ 5,335,000												
		WSDOT Franchise Agreements	\$ 20,000				\$20 K								
		Preliminary Design	\$ 294,000				\$294 K								
		Permitting (incl. Stanwood SDP)	\$ 411,000				\$206 K	\$206 K							
		Final Design	\$ 196,000				\$196 K								
		Construction	\$ 4,004,000						\$2,002 K	\$2,002 K					
		Construction Management	\$ 410,000						\$205 K	\$205 K					
<i>Phase 3 - East Downtown Conveyance Interceptor</i>			\$ 4,779,000												
		WSDOT Franchise Agreements	\$ 50,000					\$50 K							
		Preliminary Design	\$ 258,000					\$258 K							
		Permitting (incl. Stanwood SDP)	\$ 359,000					\$180 K	\$180 K						
		Final Design	\$ 172,000					\$172 K							
		Construction	\$ 3,580,000							\$1,790 K	\$1,790 K				
		Construction Management	\$ 360,000							\$180 K	\$180 K				
<b>Conveyance Alt. E (Demo LD, 60' wide ISPS bypass)</b>			<b>\$ 2,187,000</b>												
<i>Phase 4 - Dam Demolition, Bypass Channel, &amp; Control Structure</i>			\$ 2,187,000												
		Siting bypass channel (land acquisition)	\$ 240,000								\$240 K				
		Preliminary Design	\$ 102,000								\$102 K				
		Permitting (incl. Stanwood SDP)	\$ 221,000								\$111 K	\$111 K			
		Final Design	\$ 68,000								\$68 K				
		Construction	\$ 1,406,000											\$1,406 K	
		Construction Management	\$ 150,000											\$150 K	
<b>Subtotals</b>															
		Permitting & Design Subtotal (target annual max. = \$400 K)	\$ 3,547,000	\$465 K	\$377 K	\$183 K	\$651 K	\$402 K	\$488 K	\$352 K	\$453 K	\$179 K	\$0 K		
		Construction Sub-total (target annual max. = \$2M )	\$ 15,286,000	\$0 K	\$0 K	\$1,328 K	\$1,328 K	\$2,024 K	\$2,903 K	\$2,207 K	\$1,970 K	\$1,970 K	\$1,556 K		
<b>Total Estimated Cost of City Funded Improvements</b>			<b>\$ 18,833,000</b>	<b>\$465 K</b>	<b>\$377 K</b>	<b>\$1,511 K</b>	<b>\$1,978 K</b>	<b>\$2,425 K</b>	<b>\$3,391 K</b>	<b>\$2,559 K</b>	<b>\$2,423 K</b>	<b>\$2,149 K</b>	<b>\$1,556 K</b>		

DS = Douglas Slough  
 ISPS = Irvine Slough Pump Station  
 LD = Larson Dam  
 PS = Pump Station  
 SDP = Site Development Permit



**Irvine Slough (IS4) Capital Improvement Plan**

**Planning Level Project Cost Estimate - Phase 1a of 4**

*Separation Alt. 4: Ditch network, eastbound gravity main, pump station, and force main*

<b>CONSTRUCTION COST ESTIMATE</b>				
<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost/Unit</b>	<b>Total</b>
<b>Easements, Franchise Agreements, and Right-of-Way Acquisition</b>				
Easements and Franchise Agreements for Piped Conveyance System	1	ls	\$ 10,000	\$ 10,000
Note: Assumed that all piped gravity conveyance system construction will be completed within WSDOT SR532 and City of Stanwood right-of-way; therefore, no right-of-way acquisition anticipated.				
Land Acquisition for Pump Station	6,000	sf	20	\$ 120,000.00
Land Acquisition for Storm Facilities - Pond	-	sf	20	\$ -
Land Acquisition - Appraisal and Negotiation	1	properties	10,000	\$ 10,000.00
<b>Conveyance System (Piping and Ditch Improvements)</b>				
Mobilization/Demobilization	1	ls	43,000	\$ 43,000
Construction Survey	1	ls	5,000	\$ 5,000
Traffic Control	1	ls	48,000	\$ 48,000
Sediment and Erosion Control	1	ls	8,000	\$ 8,000
Shoring and Trench Safety System	1,332	lf	5	\$ 6,660
Construction As-Built	1	ls	7,000	\$ 7,000
Connection to Existing System	-	ea	4,000	\$ -
72-inch Storm Gravity Main Outside of Road (avg. cover ≈ 3')	-	lf	400	\$ -
72-inch Storm Gravity Main In Road (avg. cover ≈ 3')	-	lf	400	\$ -
60-inch Storm Gravity Main Outside of Road (avg. cover ≈ 3')	-	lf	370	\$ -
60-inch Storm Gravity Main In Road (avg. cover ≈ 3')	-	lf	370	\$ -
48-inch Storm Force Main Outside of Road	770	lf	240	\$ 184,800
48-inch Storm Force Main In Road	662	lf	240	\$ 158,880
Manholes at 400-foot spacing	1	ea	20,000	\$ 20,000
Bedding	2,256	tons	20	\$ 45,120
Select Backfill	1,158	tons	20	\$ 23,160
Cold Mix Asphalt Temporary Patch	-	tons	50	\$ -
Ballast Course	269	tons	25	\$ 6,725
Crushed Surfacing Top Course	68	tons	25	\$ 1,700
Hot Mix Asphalt Trench Patch	219	tons	120	\$ 26,280
Hot Mix Asphalt Overlay - 2.5 Lane	274	tons	110	\$ 30,140
Grind Ex. HMA for Overlay	1	ls	12,500	\$ 12,500
Road Crossings	-	ea	50,000	\$ -
SR 532 Bored/Jacked Crossing & Utility Relocates	100	lf	2,500	\$ 250,000
Expand existing ditches	-	lf	10	\$ -
Misc Restoration and Hydroseed Disturbed Areas	1	ls	25,000	\$ 25,000
<b>Stormwater Pump Station</b>				
Mobilization/Demobilization	1	ls	88,000	\$ 88,000
Construction Survey	1	ls	10,000	\$ 10,000
Sediment and Erosion Control	1	ls	15,000	\$ 15,000
Construction As-Built	1	ls	10,000	\$ 10,000
Shoring	1	ls	50,000	\$ 50,000
Dewatering	1	ls	50,000	\$ 50,000
Excavation for Pump Station Foundation	825	cy	20	\$ 16,500
Foundation Crushed Rock Pad	56	tons	20	\$ 1,120
Pumps (L20K-SD Vertical)	5	ea	260,000	\$ 1,300,000
Concrete Structure for Pump Station	1	ls	100,000	\$ 100,000
Electrical and Controls for Pump Station	1	ls	80,000	\$ 80,000
CMU Building at Site	1	ls	60,000	\$ 60,000
Force Main Outfall	1	ls	75,000	\$ 75,000
<b>Subtotal</b>				
Contingency	20%	of Const. Cost		\$ 560,000
<b>Taxable Subtotal</b>				
Washington State Sales Tax 8.8%				\$ 293,000
<b>Subtotal Land Acquisition / Easement / Franchise</b>				
City Permitting Fee (excluding pump station facility & equip.)	5%	of Const. Cost		\$ 72,000
Design	12%	of Const. Cost		\$ 440,000
Permitting	5%	of Const. Cost		\$ 190,000
Construction Administration	10%	of Const. Cost		\$ 370,000
<b>PHASE 1 TOTAL COST ESTIMATE</b>				<b>\$ 4,830,000</b>

**Irvine Slough (IS4) Capital Improvement Plan**

**Planning Level Project Cost Estimate - Phase 1b of 4**

*Separation Alt. 4: Ditch network, eastbound gravity main, pump station, and force main*

<b>CONSTRUCTION COST ESTIMATE</b>				
<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost/Unit</b>	<b>Total</b>
<b>Easements, Franchise Agreements, and Right-of-Way Acquisition</b>				
Easements and Franchise Agreements for Piped Conveyance System	1	ls	\$ 20,000	\$ 20,000
Note: Assumed that all piped gravity conveyance system construction will be completed within WSDOT SR532 and City of Stanwood right-of-way; therefore, no right-of-way acquisition anticipated.				
Land Acquisition for Pump Station	-	sf	20	\$ -
Land Acquisition for Storm Facilities - Pond	-	sf	20	\$ -
Land Acquisition - Appraisal and Negotiation	-	properties	10,000	\$ -
<b>Conveyance System (Piping and Ditch Improvements)</b>				
Mobilization/Demobilization	1	ls	45,000	\$ 45,000
Construction Survey	1	ls	5,000	\$ 5,000
Traffic Control	1	ls	51,000	\$ 51,000
Sediment and Erosion Control	1	ls	8,000	\$ 8,000
Shoring and Trench Safety System	863	lf	5	\$ 4,315
Construction As-Built	1	ls	7,000	\$ 7,000
Connection to Existing System	3	ea	4,000	\$ 12,000
72-inch Storm Gravity Main Outside of Road (avg. cover ≈ 4')	-	lf	400	\$ -
72-inch Storm Gravity Main In Road (avg. cover ≈ 4')	863	lf	400	\$ 345,200
60-inch Storm Gravity Main Outside of Road (avg. cover ≈ 4')	-	lf	370	\$ -
60-inch Storm Gravity Main In Road (avg. cover ≈ 4')	-	lf	370	\$ -
48-inch Storm Force Main Outside of Road	-	lf	240	\$ -
48-inch Storm Force Main In Road	-	lf	240	\$ -
Manholes at 400-foot spacing	3	ea	20,000	\$ 60,000
Bedding	2,097	tons	20	\$ 41,940
Select Backfill	861	tons	20	\$ 17,220
Cold Mix Asphalt Temporary Patch	114	tons	50	\$ 5,700
Ballast Course	438	tons	25	\$ 10,950
Crushed Surfacing Top Course	110	tons	25	\$ 2,750
Hot Mix Asphalt Trench Patch	356	tons	120	\$ 42,720
Hot Mix Asphalt Overlay - 2.5 Lane	356	tons	110	\$ 39,160
Grind Ex. HMA for Overlay	1	ls	12,500	\$ 12,500
Road Crossings	1	ea	50,000	\$ 50,000
SR 532 Bored/Jacked Crossing & Utility Relocates	-	lf	2,500	\$ -
Expand existing ditches	16,853	lf	10	\$ 168,530
Misc Restoration and Hydroseed Disturbed Areas	1	ls	25,000	\$ 25,000
<b>Stormwater Pump Station</b>				
Mobilization/Demobilization	-	ls	-	\$ -
Construction Survey	-	ls	10,000	\$ -
Sediment and Erosion Control	-	ls	15,000	\$ -
Construction As-Built	-	ls	10,000	\$ -
Shoring	-	ls	50,000	\$ -
Dewatering	-	ls	50,000	\$ -
Excavation for Pump Station Foundation	-	cy	20	\$ -
Foundation Crushed Rock Pad	-	tons	20	\$ -
Pumps (L20K-SD Vertical)	-	ea	260,000	\$ -
Concrete Structure for Pump Station	-	ls	100,000	\$ -
Electrical and Controls for Pump Station	-	ls	80,000	\$ -
CMU Building at Site	-	ls	60,000	\$ -
Force Main Outfall	-	ls	75,000	\$ -
Subtotal			\$	960,000
Contingency	20%	of Const. Cost	\$	200,000
Taxable Subtotal			\$	1,160,000
Washington State Sales Tax 8.8%			\$	103,000
Subtotal Land Acquisition / Easement / Franchise			\$	20,000
City Permitting Fee (excluding pump station facility & equip.)	5%	of Const. Cost	\$	64,000
Design	12%	of Const. Cost	\$	160,000
Permitting	5%	of Const. Cost	\$	70,000
Construction Administration	10%	of Const. Cost	\$	130,000
<b>PHASE 1 TOTAL COST ESTIMATE</b>				<b>\$ 1,710,000</b>

**Irvine Slough (IS4) Capital Improvement Plan**  
**Planning Level Project Cost Estimate - Phase 2 of 4**  
*Separation Alternative 4: Westbound Gravity Main (western half)*

<b>CONSTRUCTION COST ESTIMATE</b>				
<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost/Unit</b>	<b>Total</b>
<b>Easements, Franchise Agreements, and Right-of-Way Acquisition</b>				
Franchise Agreements for Piped Conveyance System	1	ls	\$ 20,000.00	\$ 20,000
Note: Assumed that all piped gravity conveyance system construction will be completed within WSDOT SR532 and City of Stanwood right-of-way; therefore, no right-of-way acquisition anticipated.				
Land acquisition for Pump Station		sf	\$ 20	\$ -
Land Acquisition for Storm Facilities - Pond	-	sf	\$ 20	\$ -
Land acquisition - Appraisal and Negotiation		properties	\$ 10,000	\$ -
<b>Piping</b>				
Mobilization/Demobilization	1	ls	\$ 145,000	\$ 145,000
Construction Survey	1	ls	\$ 10,000	\$ 10,000
Traffic Control	1	ls	\$ 95,000	\$ 95,000
Sediment and Erosion Control	1	ls	\$ 8,000	\$ 8,000
Shoring and Trench Safety System	3,645	lf	\$ 5	\$ 18,225
Construction As-Built	1	ls	\$ 3,000	\$ 3,000
Connection to Existing System	7	ea	\$ 4,000	\$ 28,000
72-inch Storm Gravity Main Outside of Road (avg. cover ≈ 14')	1,520	lf	\$ 400	\$ 608,000
72-inch Storm Gravity Main In Road (avg. cover ≈ 14')	2,125	lf	\$ 400	\$ 850,000
60-inch Storm Gravity Main Outside of Road (avg. cover ≈ 14')	-	lf	\$ 370	\$ -
60-inch Storm Gravity Main In Road (avg. cover ≈ 14')	-	lf	\$ 370	\$ -
48-inch Storm Force Main Outside of Road	-	lf	\$ 240	\$ -
48-inch Storm Force Main In Road	-	lf	\$ 240	\$ -
Manholes at 400-foot spacing	10	ea	\$ 20,000	\$ 200,000
Bedding	8,857	tons	\$ 20	\$ 177,140
Select Backfill	21,523	tons	\$ 20	\$ 430,460
Cold Mix Asphalt Temporary Patch	279	tons	\$ 50	\$ 13,950
Ballast Course	1,079	tons	\$ 25	\$ 26,975
Crushed Surfacing Top Course	270	tons	\$ 25	\$ 6,750
Hot Mix Asphalt Trench Patch	877	tons	\$ 120	\$ 105,240
Hot Mix Asphalt Overlay - 2.5 Lane	877	tons	\$ 110	\$ 96,470
Grind Ex. HMA for Overlay	1	ls	\$ 12,500	\$ 12,500
Road Crossings	4	ea	\$ 50,000	\$ 200,000
SR 532 Bored/Jacked Crossing & Utility Relocates		lf	\$ 2,500	\$ -
Expand existing ditches		lf	\$ 2,500	\$ -
Misc Restoration and Hydroseed Disturbed Areas	1	ls	\$ 20,000	\$ 20,000
<b>Stormwater Pump Station</b>				
Mobilization/Demobilization		ls	\$ -	\$ -
Construction Survey		ls	\$ 10,000	\$ -
Sediment and Erosion Control		ls	\$ 15,000	\$ -
Construction As-Built		ls	\$ 10,000	\$ -
Shoring		ls	\$ 50,000	\$ -
Dewatering		ls	\$ 50,000	\$ -
Excavation for Pump Station Foundation		cy	\$ 20	\$ -
Foundation Crushed Rock Pad		tons	\$ 20	\$ -
Pumps (L20K-SD Vertical)		ea	\$ 260,000	\$ -
Concrete Structure for Pump Station		ls	\$ 100,000	\$ -
Electrical and Controls for Pump Station		ls	\$ 80,000	\$ -
CMU Building at Site		ls	\$ 60,000	\$ -
Force Main Outfall		ls	\$ 75,000	\$ -
Subtotal			\$	\$ 3,060,000
Contingency	20%	of Const. Cost	\$	\$ 620,000
Taxable Subtotal			\$	\$ 3,680,000
Washington State Sales Tax 8.8%			\$	\$ 324,000
Subtotal Land Acquisition / Easements / Franchise			\$	\$ 20,000
City Permitting Fee	5%	of Const. Cost	\$	\$ 201,000
Design	12%	of Const. Cost	\$	\$ 490,000
Permitting	5%	of Const. Cost	\$	\$ 210,000
Construction Administration	10%	of Const. Cost	\$	\$ 410,000
<b>PHASE 2 TOTAL COST ESTIMATE</b>				<b>\$ 5,340,000</b>

**Irvine Slough (IS4) Capital Improvement Plan**  
**Planning Level Project Cost Estimate - Phase 3 of 4**  
*Separation Alternative 4: Westbound Gravity Main (eastern half)*

<b>CONSTRUCTION COST ESTIMATE</b>				
<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost/Unit</b>	<b>Total</b>
<b>Easements, Franchise Agreements, and Right-of-Way Acquisition</b>				
Franchise Agreements for Piped Conveyance System	1	ls	\$ 50,000.00	\$ 50,000
Note: Assumed that all piped gravity conveyance system construction will be completed within WSDOT SR532 and City of Stanwood right-of-way; therefore, no right-of-way acquisition anticipated.				
Land Acquisition for Pump Station	-	sf	\$ 20.00	\$ -
Land Acquisition for Storm Facilities - Pond	-	sf	\$ 20.00	\$ -
Land Acquisition - Appraisal and Negotiation	-	properties	\$ 10,000.00	\$ -
<b>Piping</b>				
Mobilization/Demobilization	1	ls	\$ 127,000.00	\$ 127,000
Construction Survey	1	ls	\$ 10,000.00	\$ 10,000
Traffic Control	1	ls	\$ 83,000.00	\$ 83,000
Sediment and Erosion Control	1	ls	\$ 8,000.00	\$ 8,000
Shoring and Trench Safety System	3,440	lf	\$ 5.00	\$ 17,200
Construction As-Built	1	ls	\$ 3,000.00	\$ 3,000
Connection to Existing System	3	ea	\$ 4,000.00	\$ 12,000
72-inch Storm Gravity Main Outside of Road (avg. cover ≈ 7')	560	lf	\$ 400.00	\$ 224,000
72-inch Storm Gravity Main In Road (avg. cover ≈ 7')	-	lf	\$ 400.00	\$ -
60-inch Storm Gravity Main Outside of Road (avg. cover ≈ 7')	3,080	lf	\$ 370.00	\$ 1,139,600
60-inch Storm Gravity Main In Road (avg. cover ≈ 7')	-	lf	\$ 370.00	\$ -
48-inch Storm Force Main Outside of Road	-	lf	\$ 240.00	\$ -
48-inch Storm Force Main In Road	-	lf	\$ 240.00	\$ -
Manholes at 400-foot spacing	10	ea	\$ 18,000.00	\$ 180,000
Bedding	7,481	tons	\$ 20.00	\$ 149,620
Select Backfill	5,566	tons	\$ 20.00	\$ 111,320
Cold Mix Asphalt Temporary Patch	-	tons	\$ 50.00	\$ -
Ballast Course	-	tons	\$ 25.00	\$ -
Crushed Surfacing Top Course	-	tons	\$ 25.00	\$ -
Hot Mix Asphalt Trench Patch	-	tons	\$ 120.00	\$ -
Hot Mix Asphalt Overlay - 2.5 Lane	-	tons	\$ 110.00	\$ -
Grind Ex. HMA for Overlay	-	ls	\$ 12,500.00	\$ -
Road Crossings	2	ea	\$ 50,000.00	\$ 100,000
BNSF Bored/Jacked Crossing	200	lf	\$ 2,500.00	\$ 500,000
Expand existing ditches	-	lf	\$ 10.00	\$ -
Misc Restoration and Hydroseed Disturbed Areas	1	ls	\$ 20,000.00	\$ 20,000
<b>Stormwater Pump Station</b>				
Mobilization/Demobilization	ls		\$ -	\$ -
Construction Survey	ls		\$ 10,000.00	\$ -
Sediment and Erosion Control	ls		\$ 15,000.00	\$ -
Construction As-Built	ls		\$ 10,000.00	\$ -
Shoring	ls		\$ 50,000	\$ -
Dewatering	ls		\$ 50,000.00	\$ -
Excavation for Pump Station Foundation	cy		\$ 20.00	\$ -
Foundation Crushed Rock Pad	tons		\$ 20.00	\$ -
Pumps (L20K-SD Vertical)	ea		\$ 260,000.00	\$ -
Concrete Structure for Pump Station	ls		\$ 100,000.00	\$ -
Electrical and Controls for Pump Station	ls		\$ 80,000.00	\$ -
CMU Building at Site	ls		\$ 60,000.00	\$ -
Force Main Outfall	ls		\$ 75,000.00	\$ -
Subtotal				\$ 2,740,000
Contingency	20%	of Const. Cost		\$ 550,000
Taxable Subtotal				\$ 3,290,000
Washington State Sales Tax 8.8%				\$ 290,000
Subtotal Land Acquisition / Easement / Franchise				\$ 50,000
City Permitting Fee	5%	of Const. Cost		\$ 179,000
Design	12%	of Const. Cost		\$ 430,000
Permitting	5%	of Const. Cost		\$ 180,000
Construction Administration	10%	of Const. Cost		\$ 360,000
<b>PHASE 3 TOTAL COST ESTIMATE</b>				<b>\$ 4,780,000</b>

## Irvine Slough (IS4) Capital Improvement Plan

### Planning Level Project Cost Estimate - Phase 4 of 4

Flood Conveyance Alt. E: Removal of Larson Dam. No change to Irvine Slough width. Pump bypass consists of six 10-ft-wide by 13-ft-tall box culverts with flood gates.

CONSTRUCTION COST ESTIMATE				
Item	Quantity	Unit	Cost/Unit	Total
<b>General</b>				
Mobilization/Demobilization	1	ls	\$ 61,000.00	\$ 61,000
Construction Survey & Staking	1	ls	\$ 30,000.00	\$ 30,000
Traffic & Pedestrian Control	1	ls	\$ 12,000.00	\$ 12,000
Sediment and Erosion Control	1	ls	\$ 30,000.00	\$ 30,000
Construction As-Builts	1	ls	\$ 10,000.00	\$ 10,000
<b>Right-of-way</b>				
Land Acquisition for Bypass Channel Around ISPS	28,900	sf	\$ 8.00	\$ 231,200
Land Acquisition for Bypass Channel Around WWTP	-	sf	\$ 6.00	\$ -
Land Acquisition - Appraisal	1	properties	\$ 3,000.00	\$ 3,000
Land Acquisition - Negotiation	1	properties	\$ 5,000.00	\$ 5,000
<b>Irvine Slough Improvements</b>				
Excavation and Haul for Channel Improvements	-	cy	\$ 13.00	\$ -
Berm Construction (Both Sides)	-	cy	\$ 20.00	\$ -
Hydroseed	-	acre	\$ 4,000.00	\$ -
98th Dr. NW Bridge Reconstruction	-	lf	\$ 2,500.00	\$ -
<b>Flood Bypass Channel Around ISPS</b>				
Excavation and Haul for Channel Improvements	5,553	cy	\$ 13.00	\$ 72,193
Dewatering	60	lf	\$ 500.00	\$ 30,000
Cofferdam	60	lf	\$ 1,000.00	\$ 60,000
Hydroseed	1	acre	\$ 4,000.00	\$ 4,000
10' Wide x 13' Tall Box Culverts	6	ea	\$ 75,000.00	\$ 450,000
Crushed Rock for Box Culvert Structural Fill	180	tons	\$ 20.00	\$ 3,600
Maintenance System	60	lf	\$ 500.00	\$ 30,000
Access Bridge to Existing Pump Station	80	lf	\$ 2,500.00	\$ 200,000
<b>Flood Bypass Channel Through WWTP</b>				
Excavation and Haul for Channel Improvements	-	cy	\$ 13.00	\$ -
Dewatering	-	lf	\$ 500.00	\$ -
Cofferdam	-	lf	\$ 1,000.00	\$ -
Hydroseed	-	acre	\$ 4,000.00	\$ -
Berm Construction (Both Sides)	-	cy	\$ 20.00	\$ -
10' Wide x 13' Tall Box Culverts	-	ea	\$ 75,000.00	\$ -
Crushed Rock for Box Culvert Structural Fill	-	tons	\$ 20.00	\$ -
Fill Material for over Culverts	-	tons	\$ 20.00	\$ -
Maintenance System	-	lf	\$ 500.00	\$ -
Concrete, Rebar and Placement for Spillway	-	sy	\$ 400.00	\$ -
Crushed Rock for Spillway	-	tons	\$ 20.00	\$ -
Asphalt Treated Base - for 98th Ave. Overlay	-	tons	\$ 100.00	\$ -
HMA CL. 1/2 IN. - for 98th Ave. Overlay	-	tons	\$ 120.00	\$ -
<b>Larson Dam Removal</b>				
Demolition of Existing Dam	1	ls	\$ 40,000.00	\$ 40,000
<b>Miscellaneous</b>				
Wetland Mitigation	-	sf	\$ -	\$ -
<b>Summary</b>				
Subtotal			\$	1,033,000
Contingency	25% of Const. Cost		\$	259,000.00
Taxable Subtotal			\$	1,292,000
Washington State Sales Tax 8.8%			\$	114,000
Subtotal Land Acquisition			\$	240,000
City Permitting Fee	5% of Const. Cost		\$	71,000
Design	12% of Const. Cost		\$	170,000
Permitting	10% of Const. Cost		\$	150,000
Construction Administration	10% of Const. Cost		\$	150,000
<b>PHASE 4 TOTAL COST ESTIMATE</b>				<b>\$ 2,190,000</b>

#### Assumptions:

New channel will be fully excavated below the existing ground level.

No right of way purchase for Irvine Slough widening.

Dewatering, cofferdam and maintenance system quantities are based upon the width of the box culverts.

Channels will not be paved and will instead be hydroseeded.