

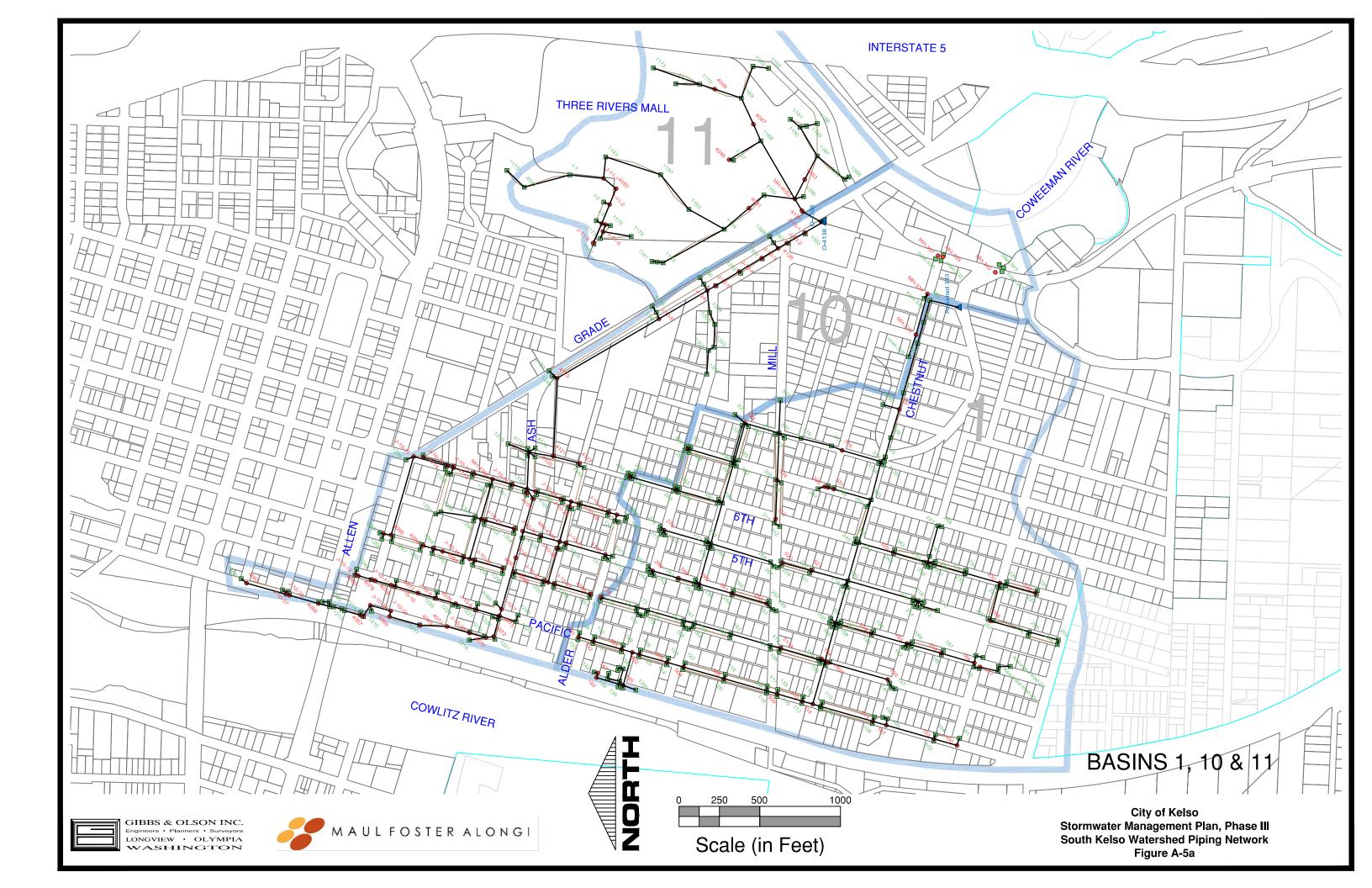


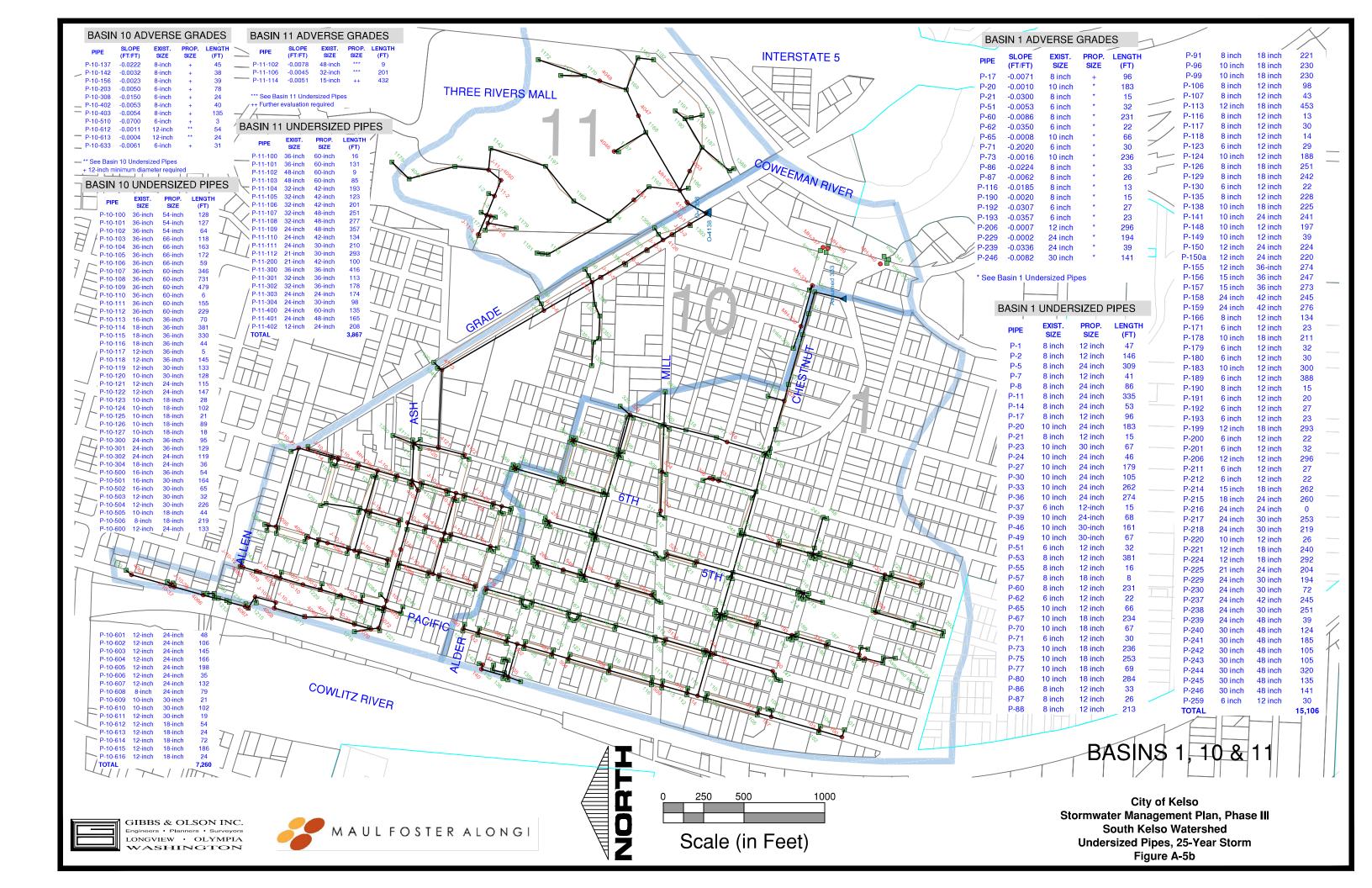






City of Kelso Stormwater Management Plan, Phase III South Kelso Watershed Area Figure A-5

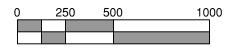








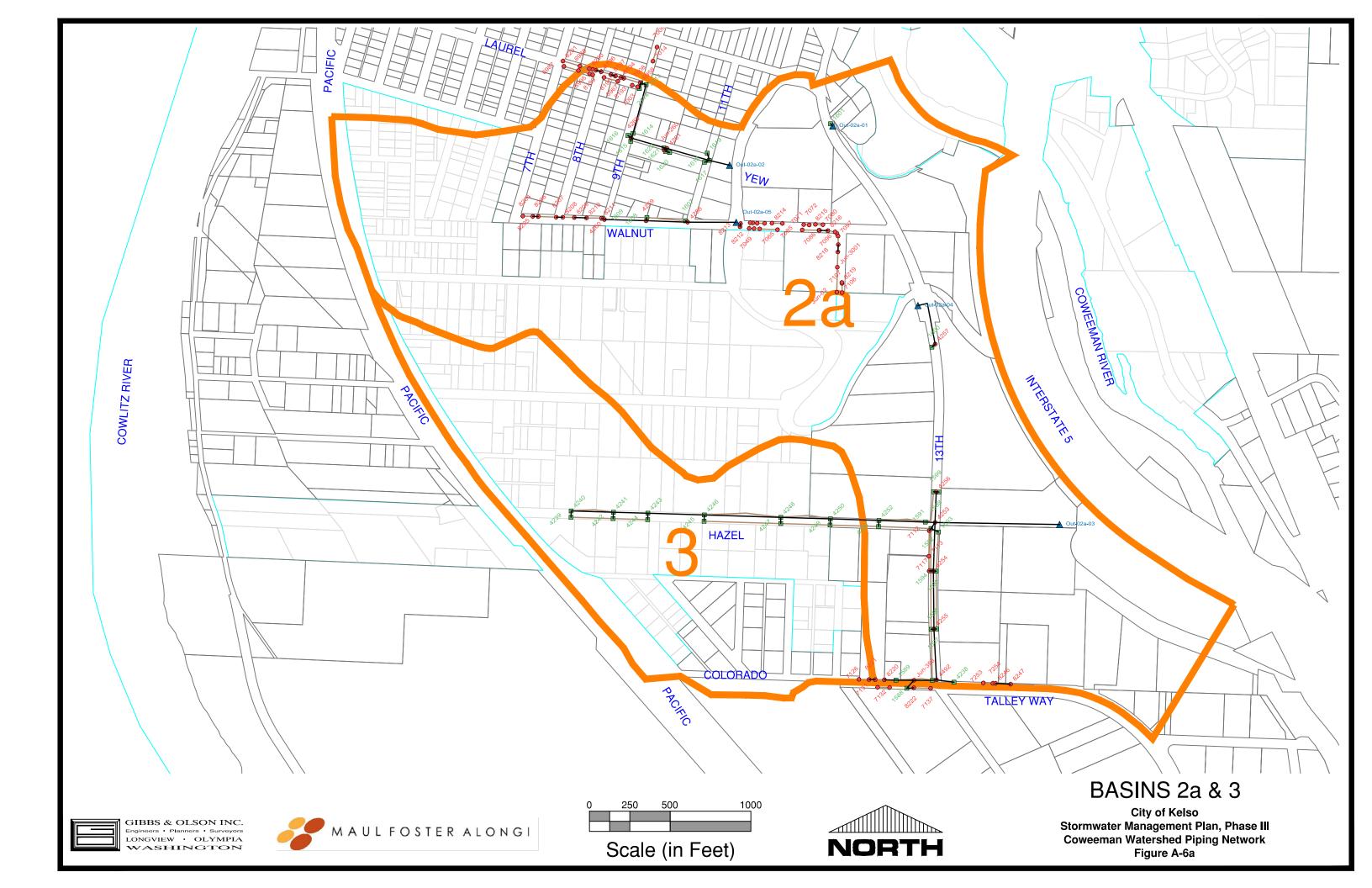


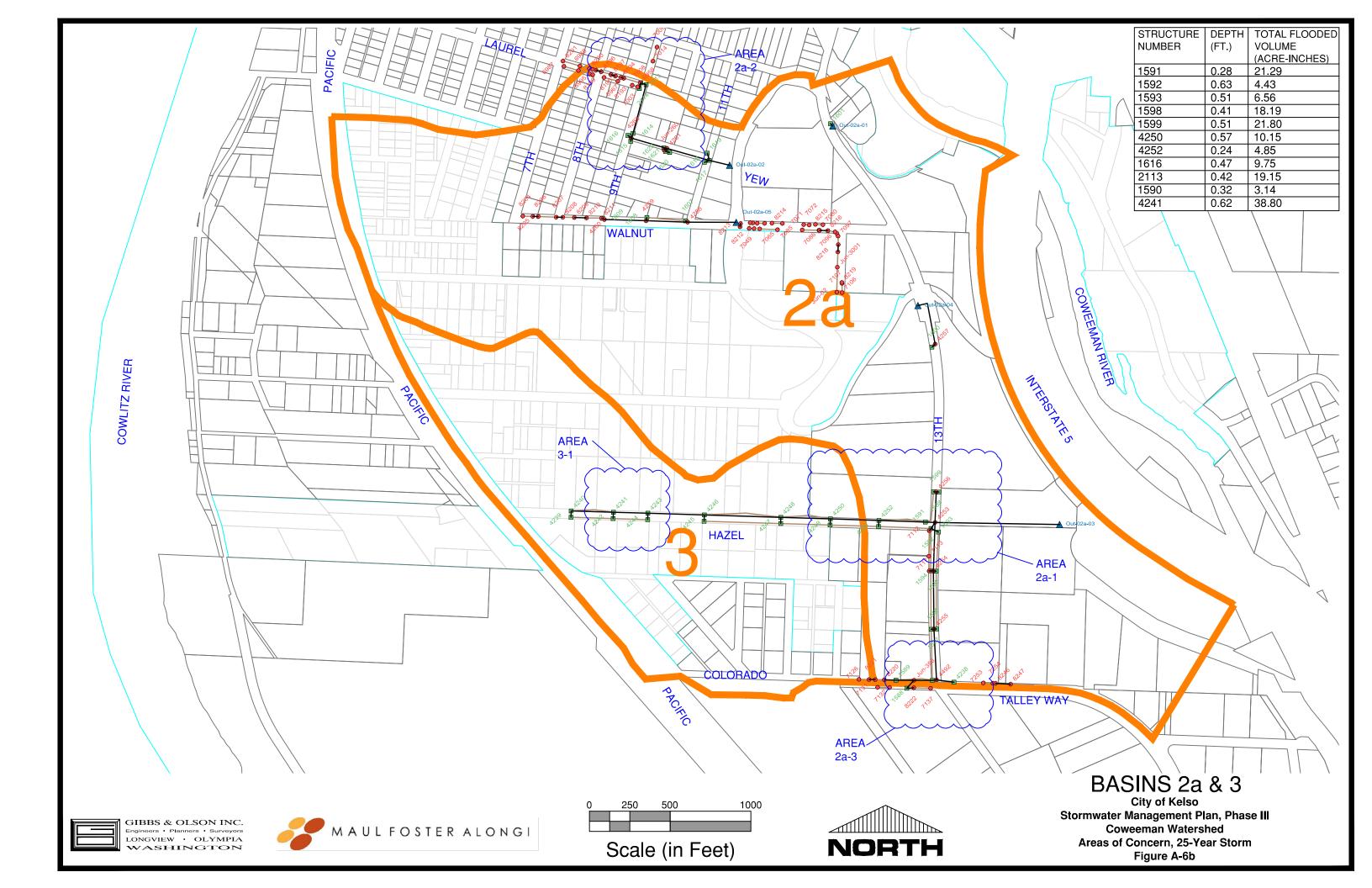


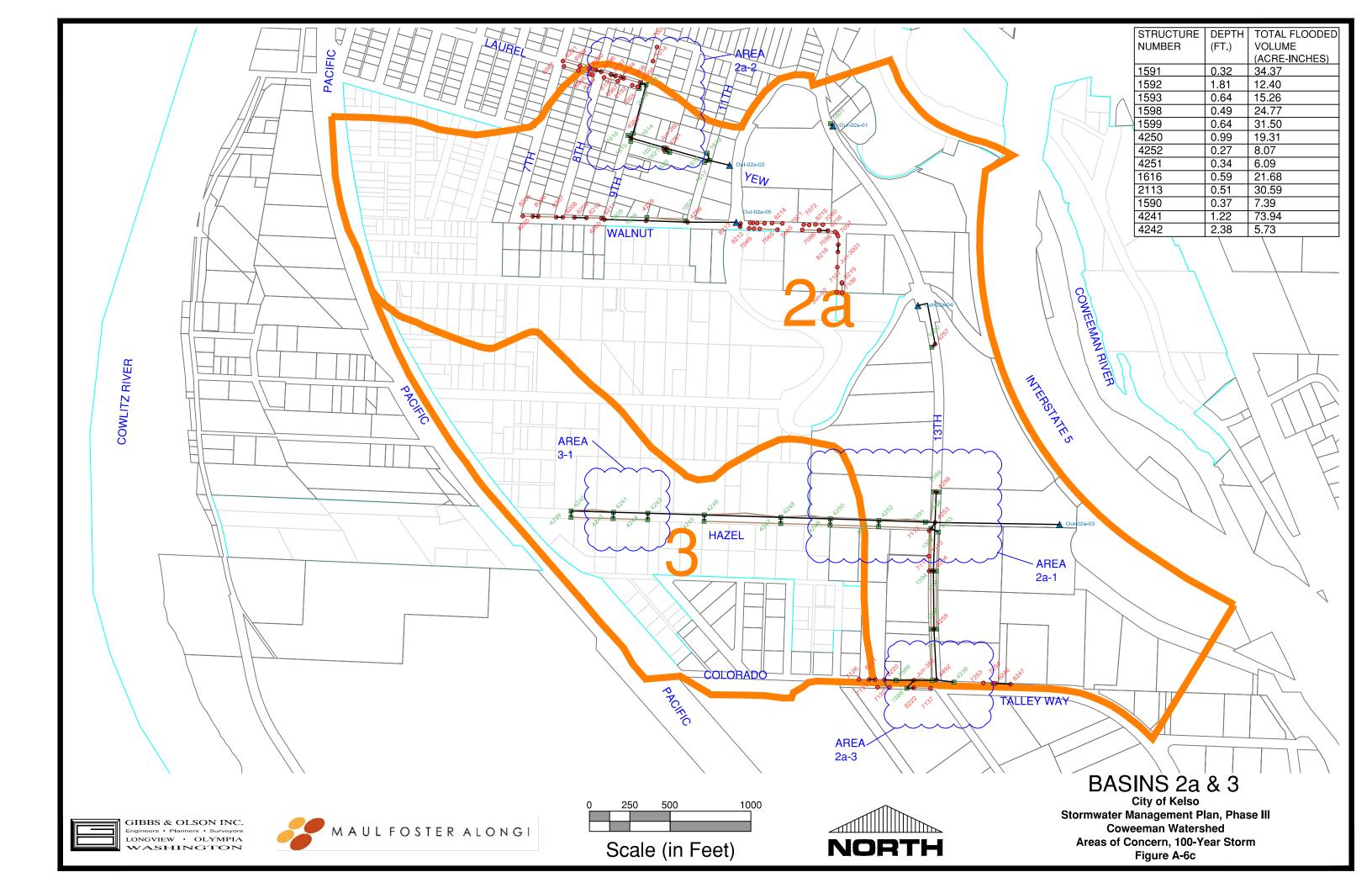
Scale (in Feet)

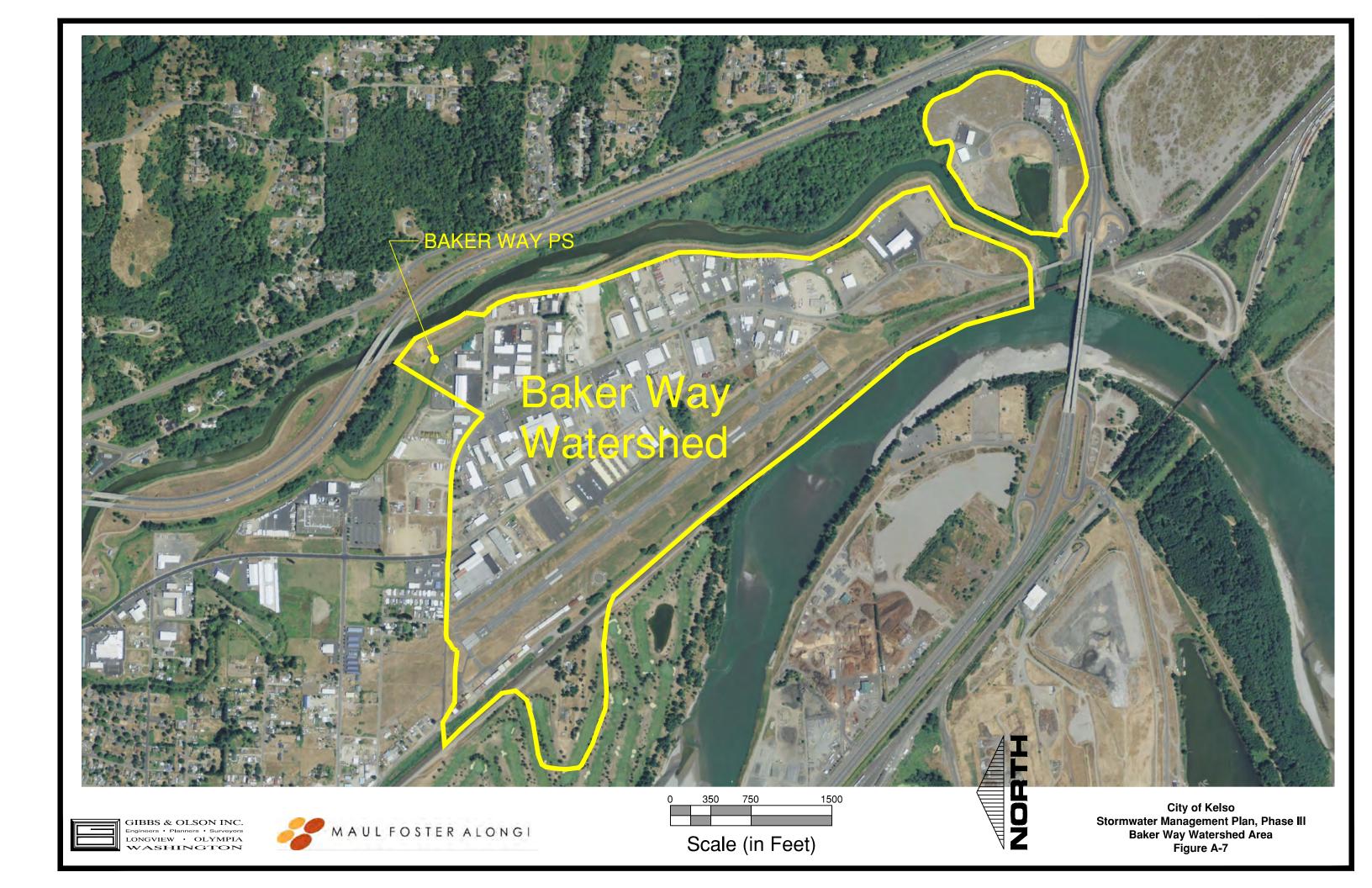


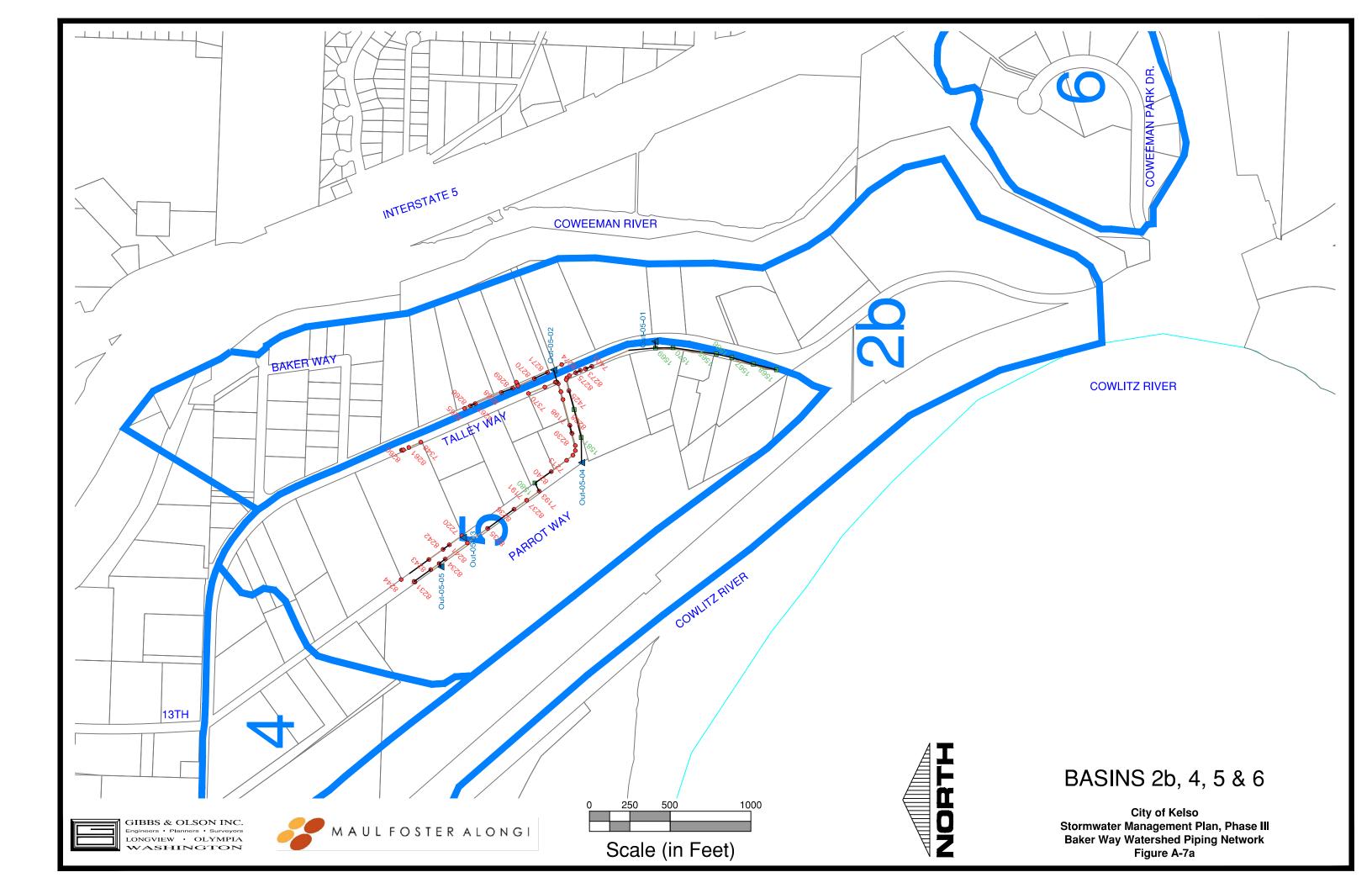
City of Kelso Stormwater Management Plan, Phase III Coweeman Watershed Area Figure A-6

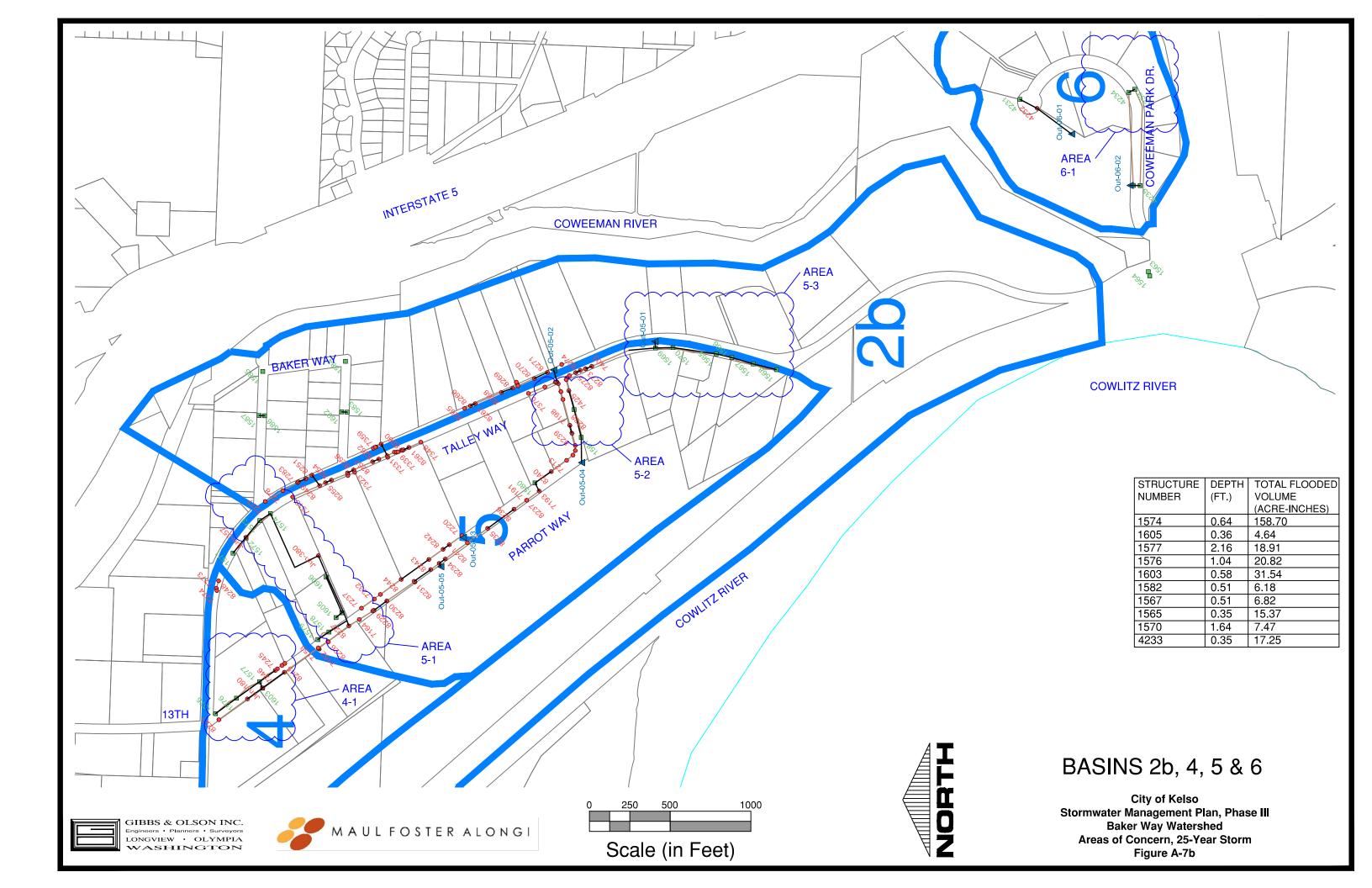


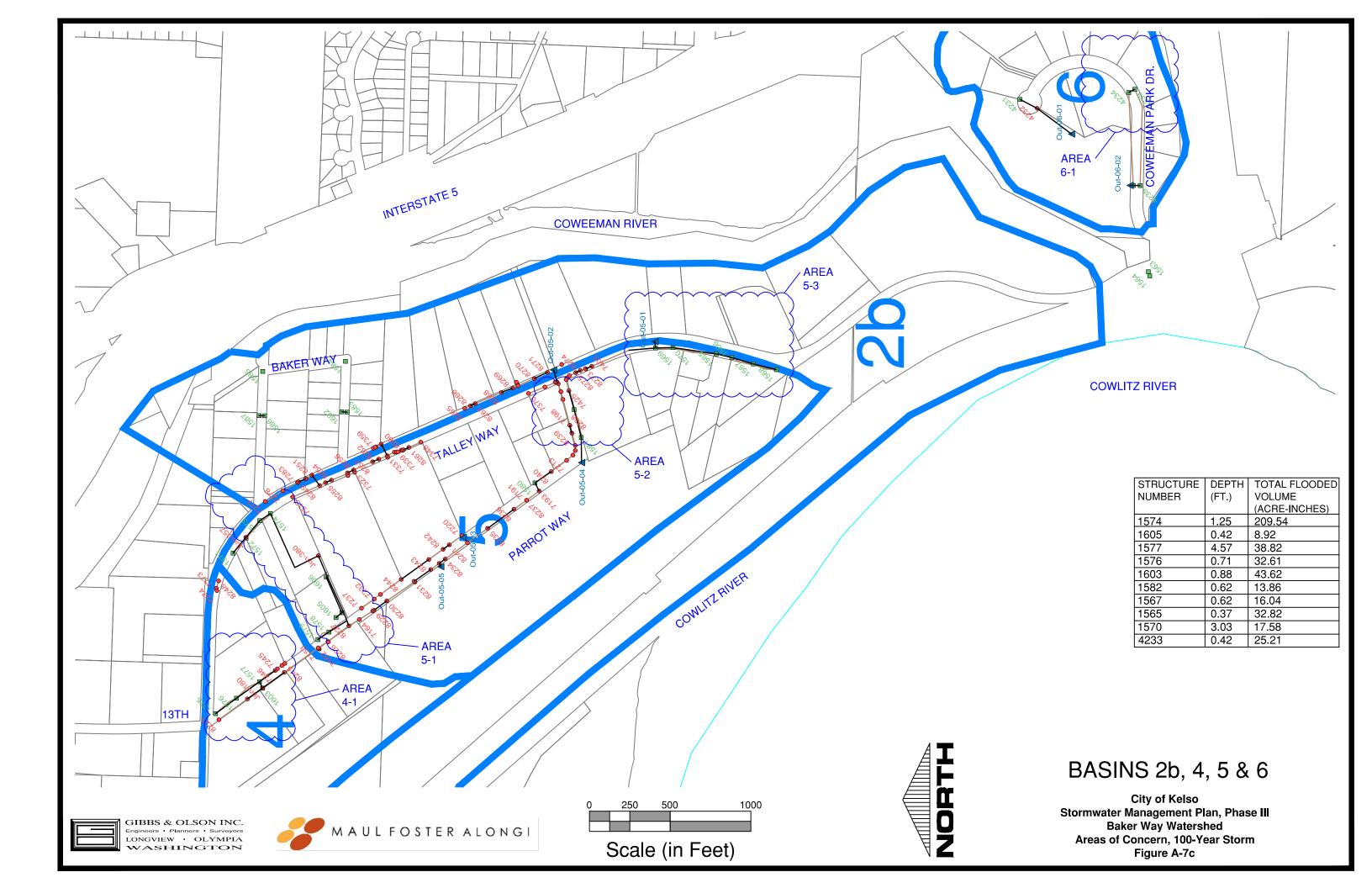


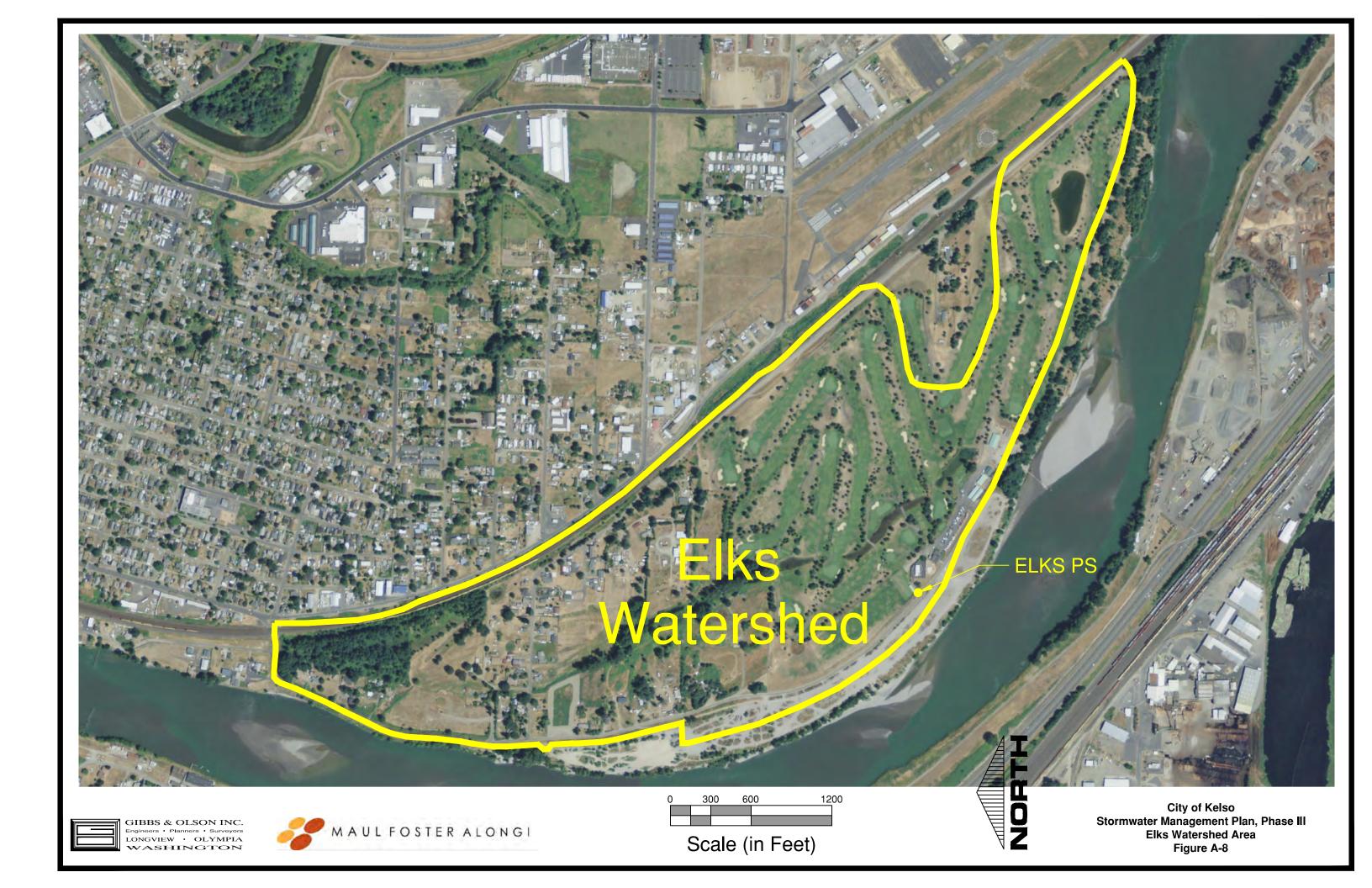


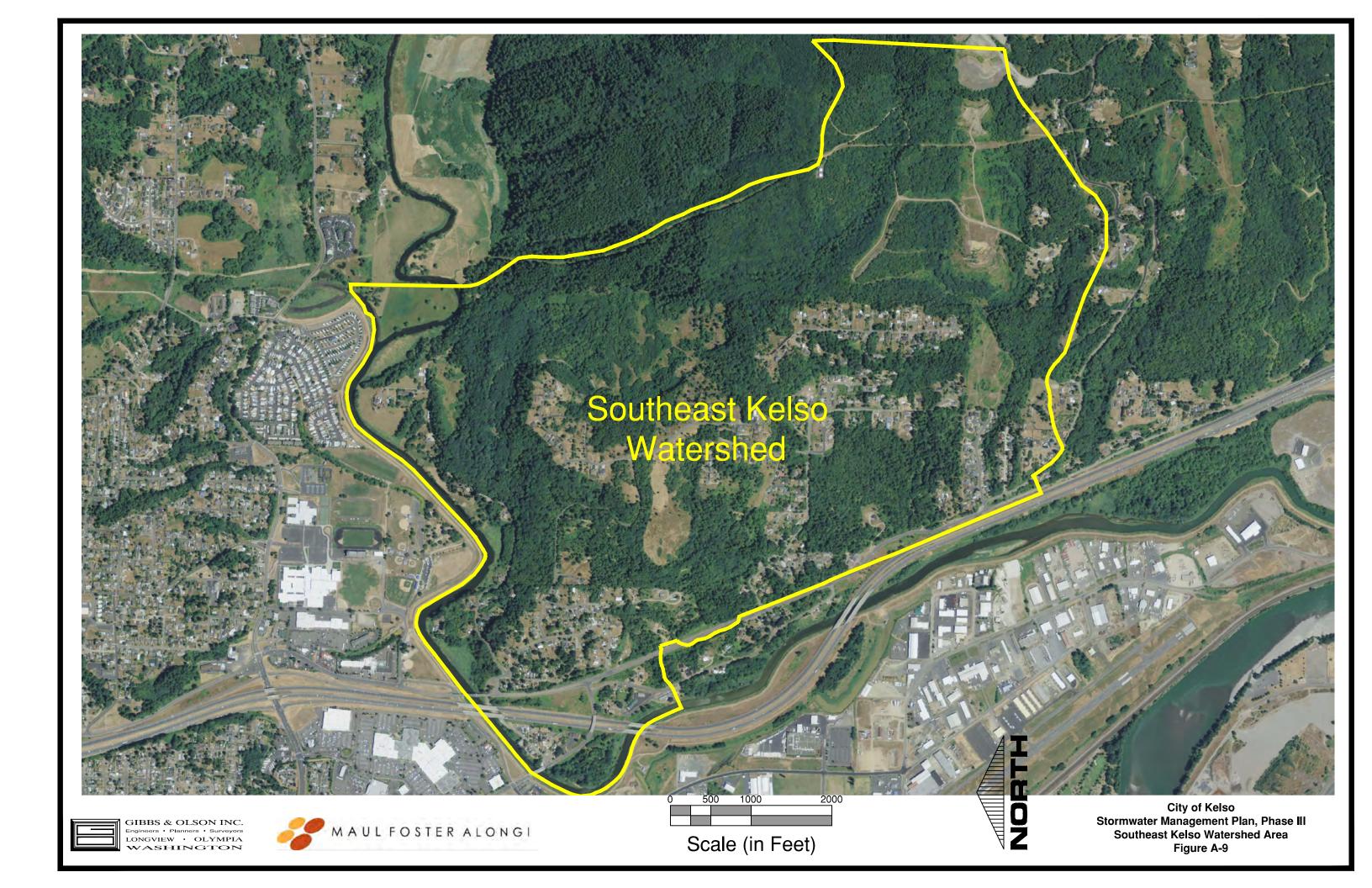


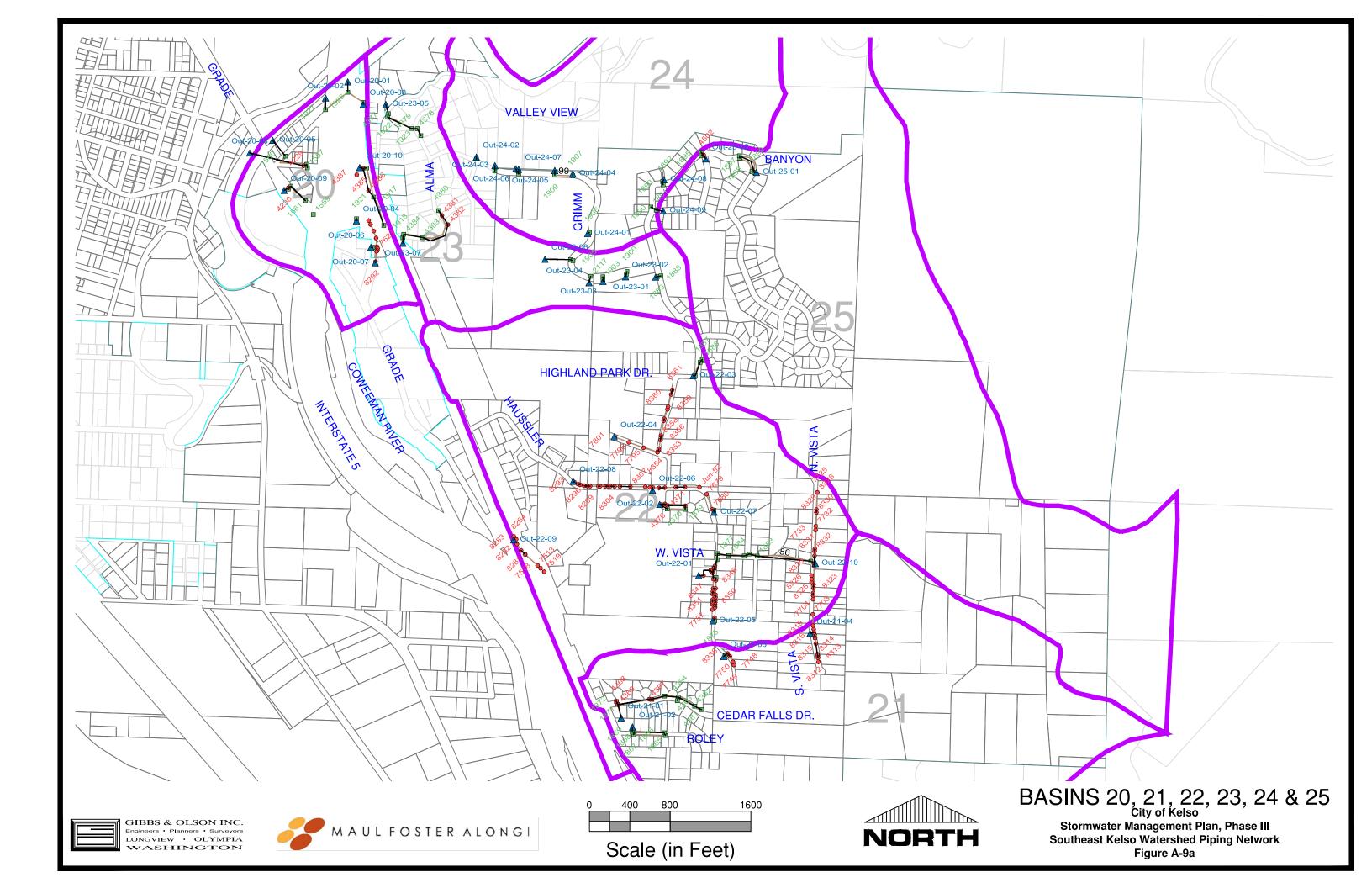


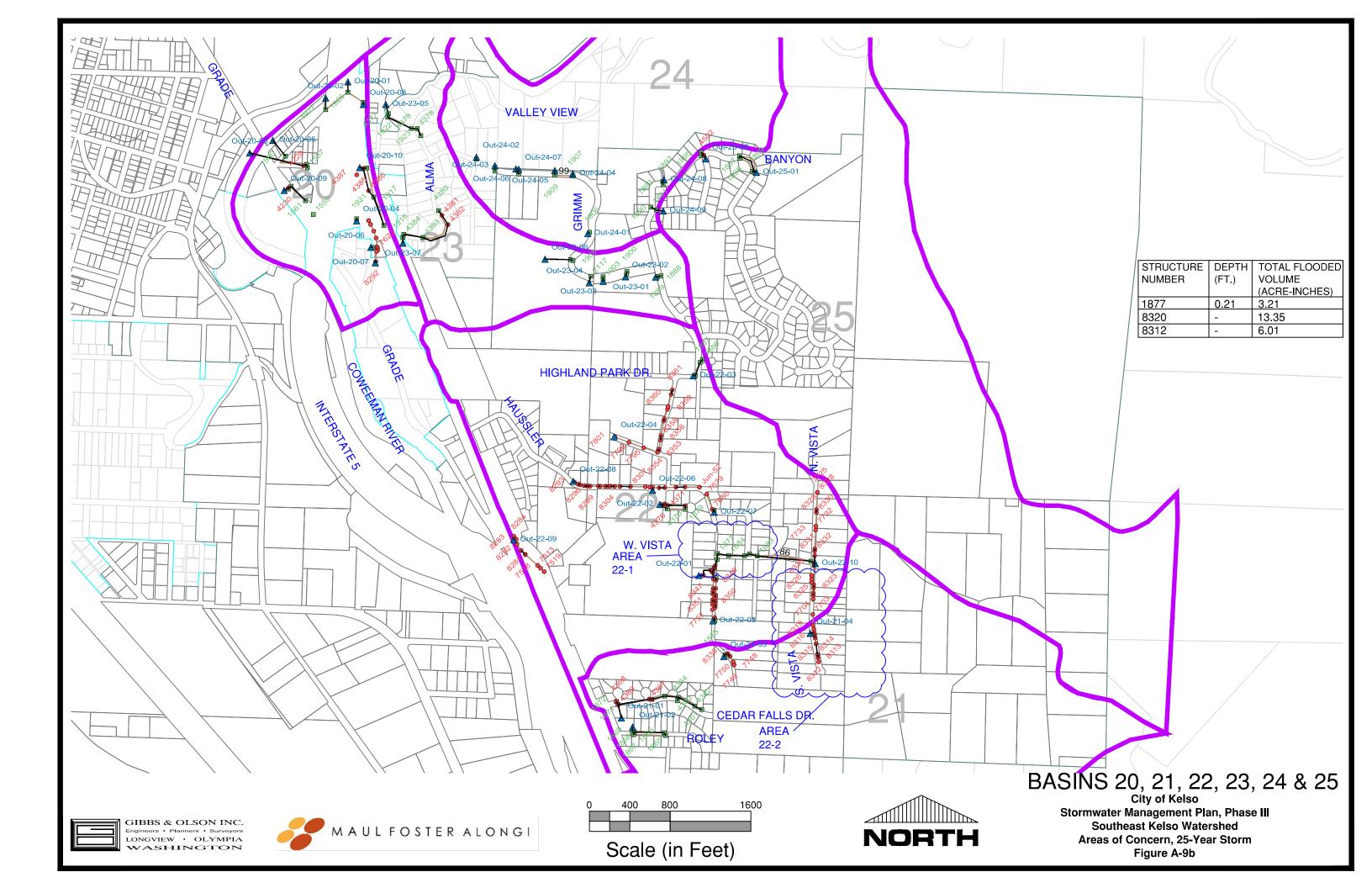


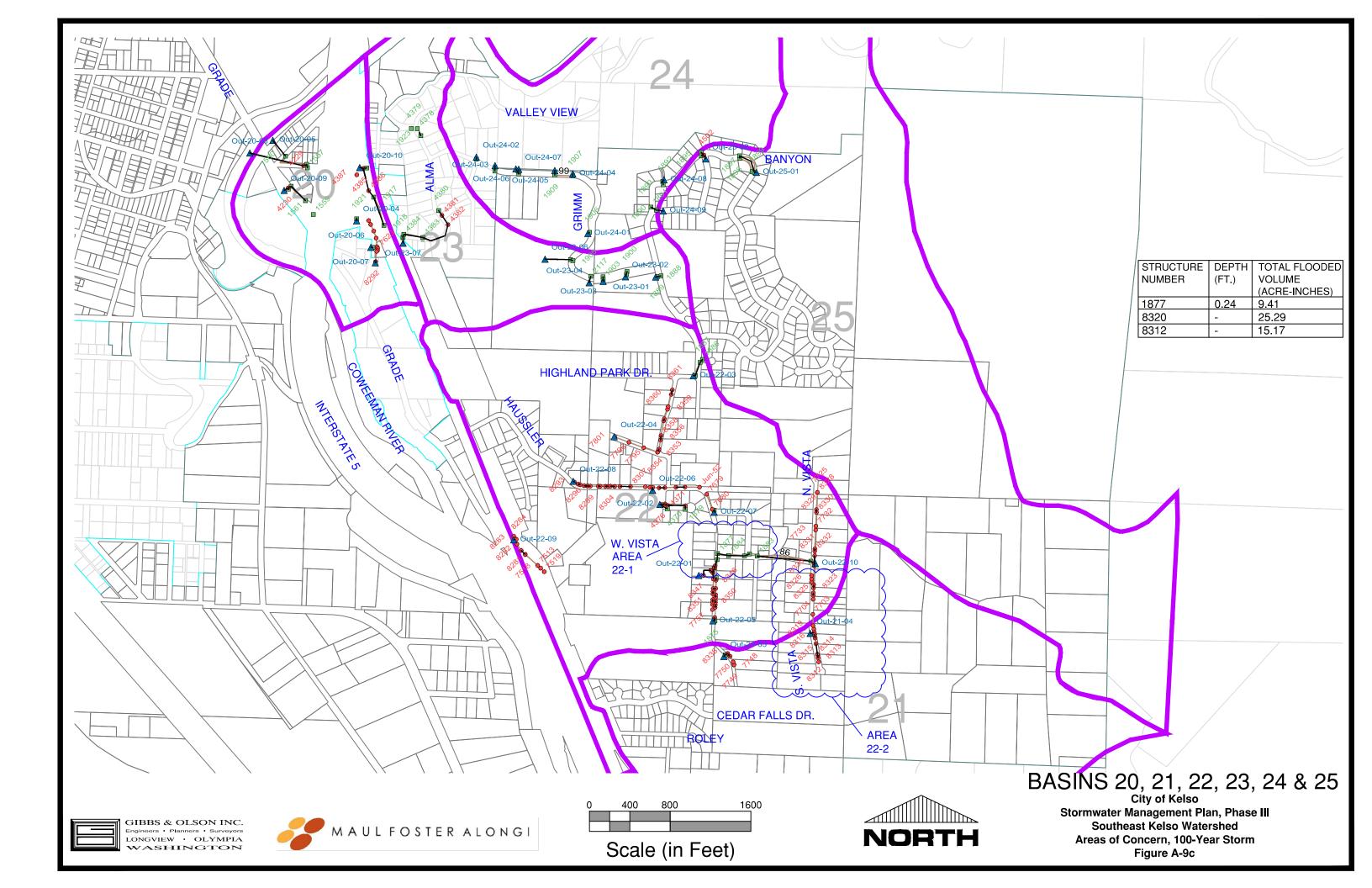


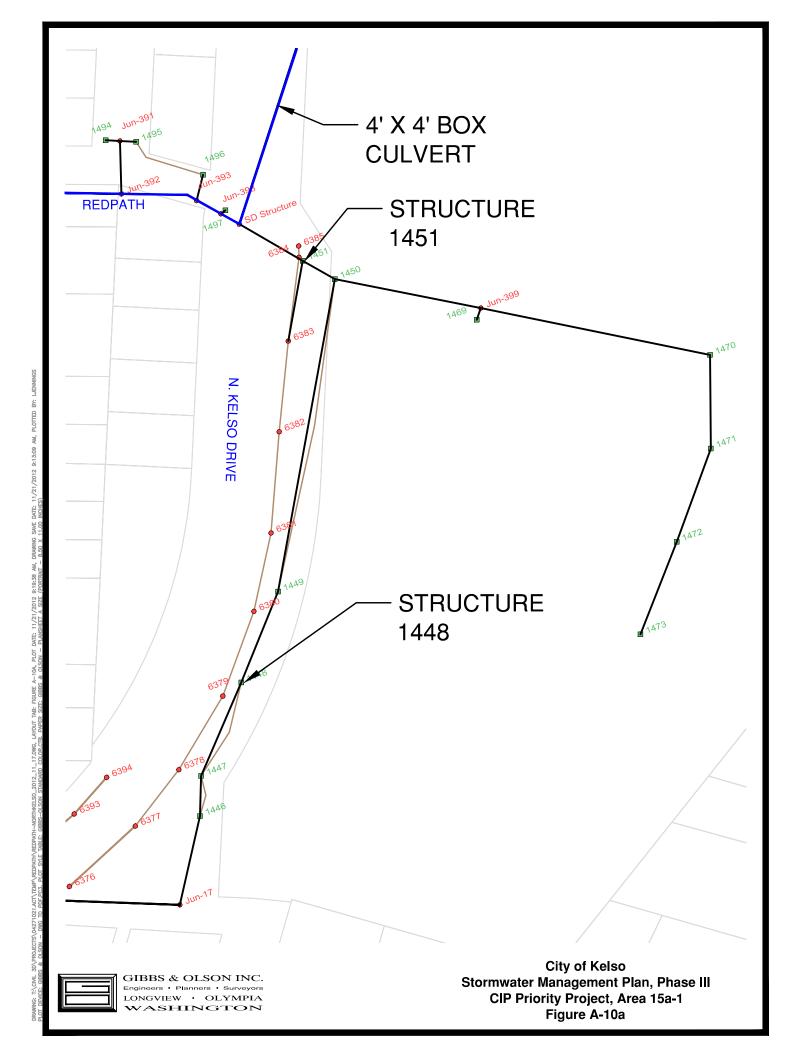


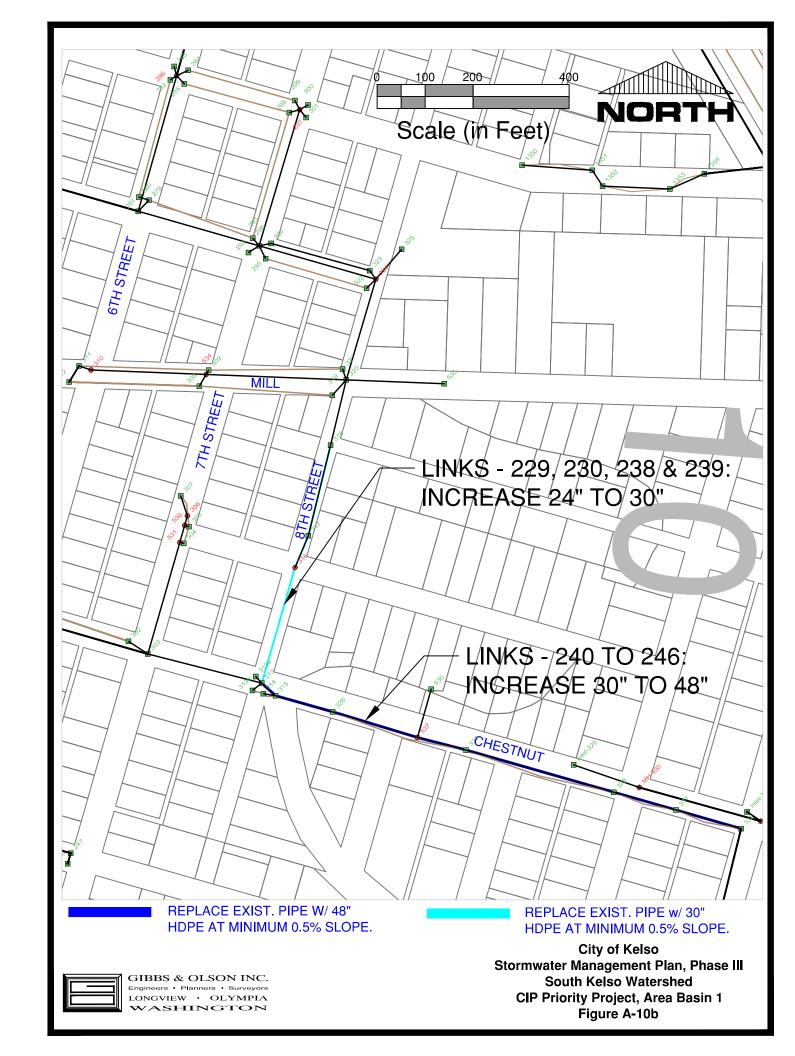


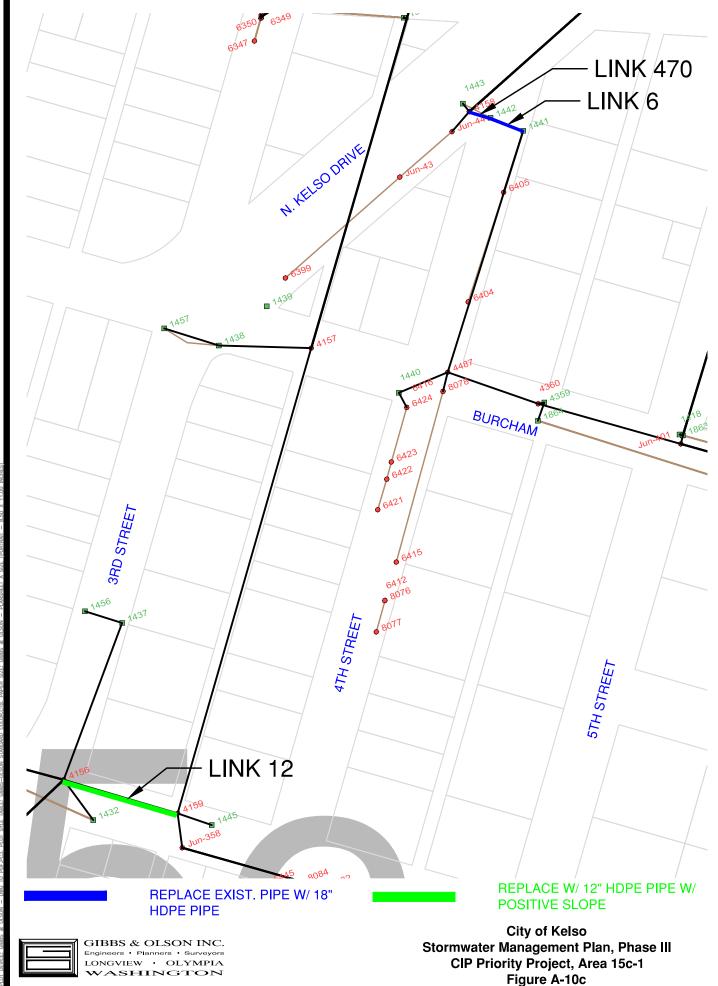


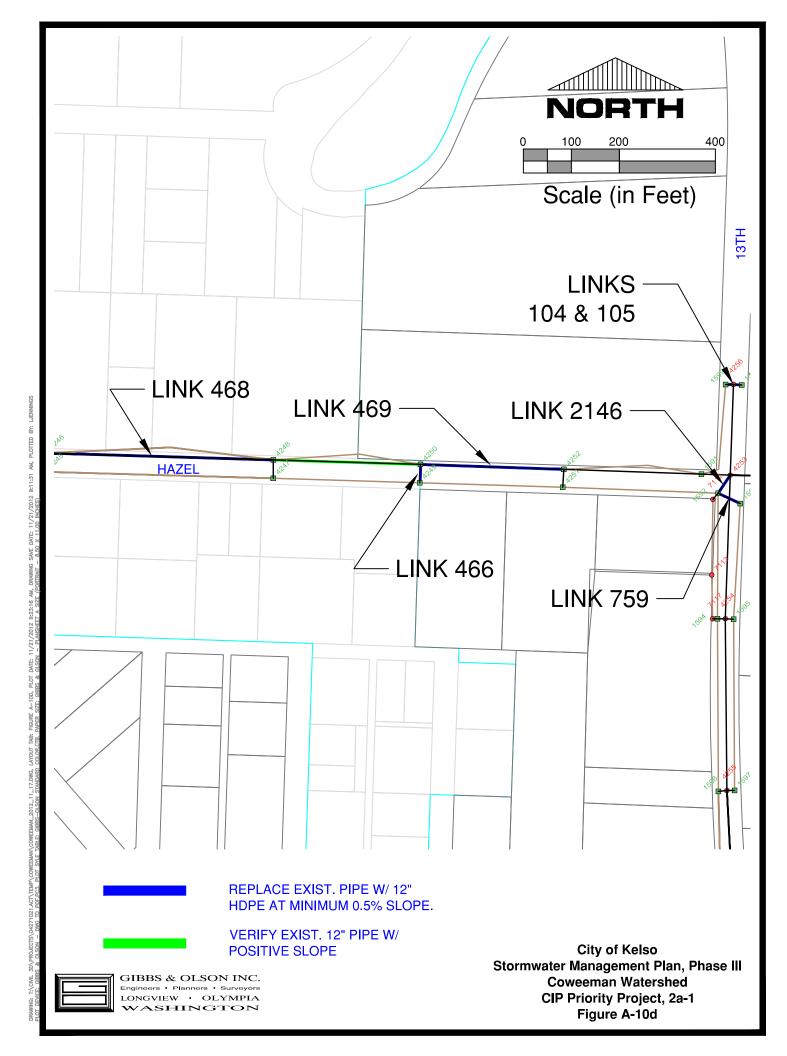


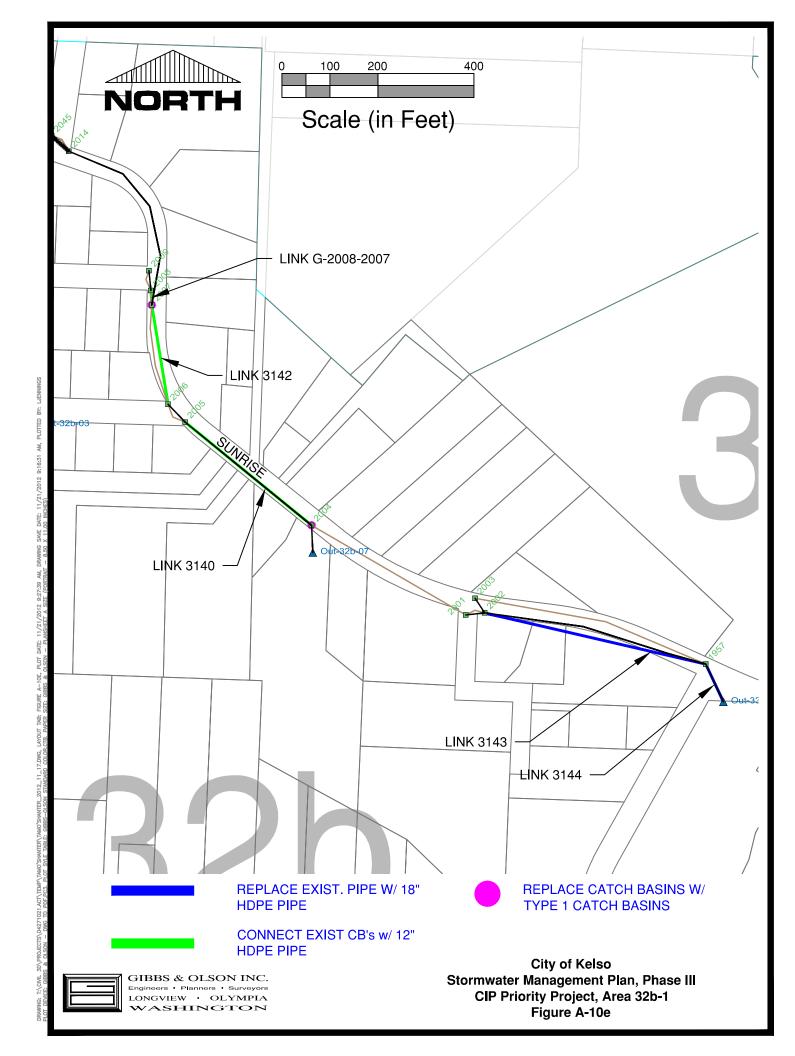


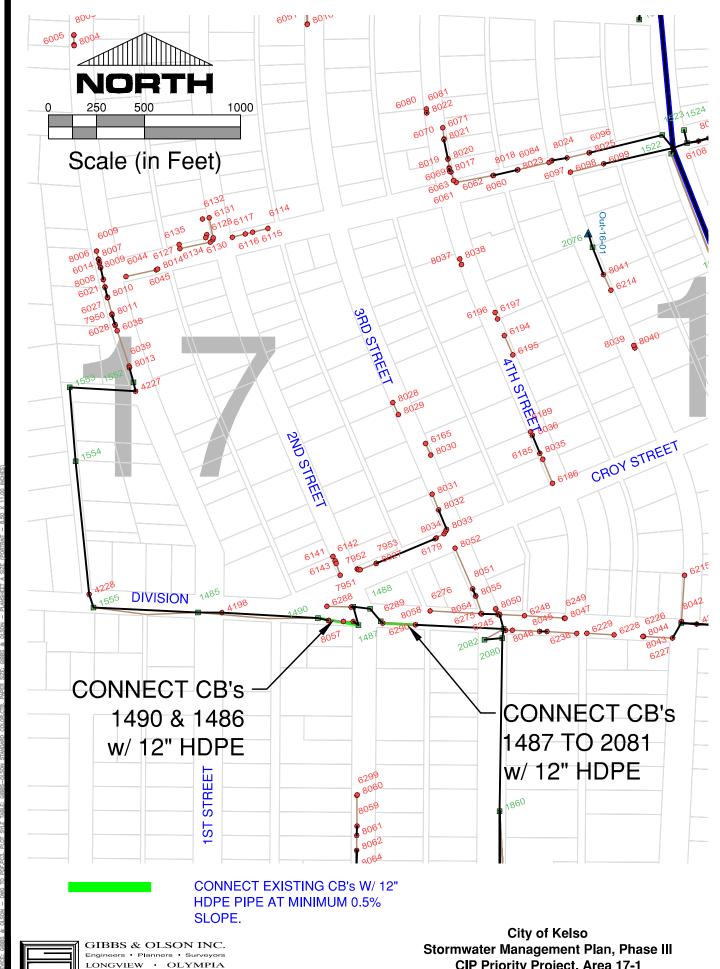




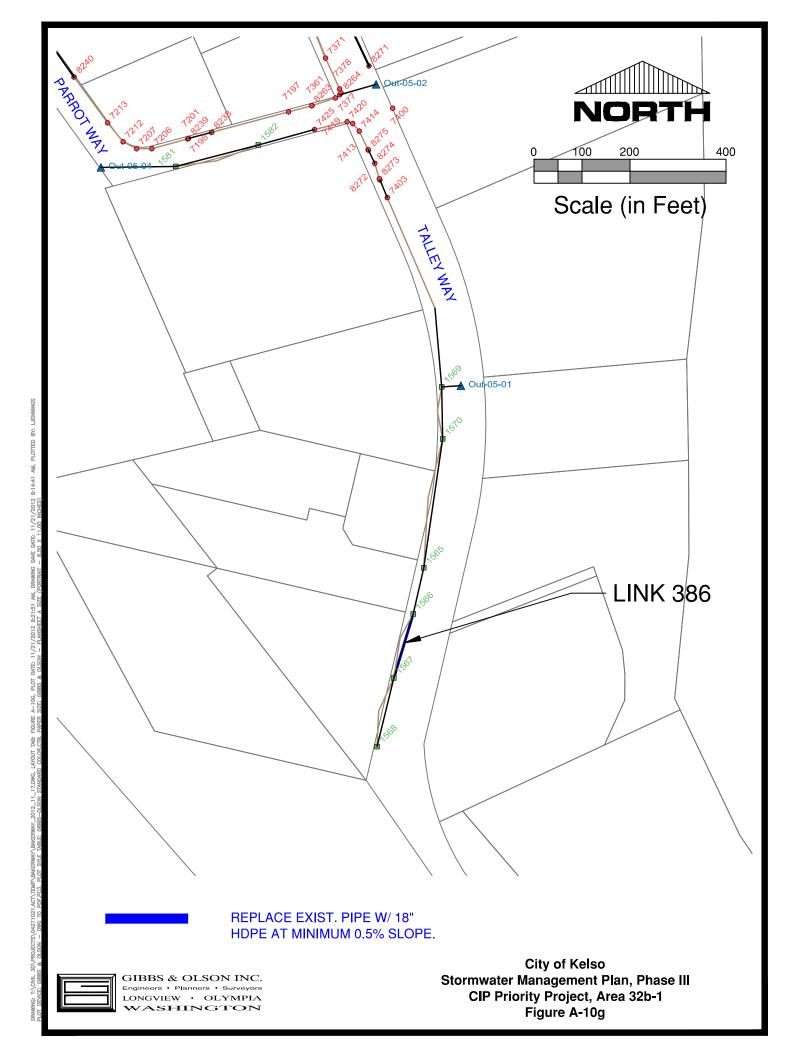


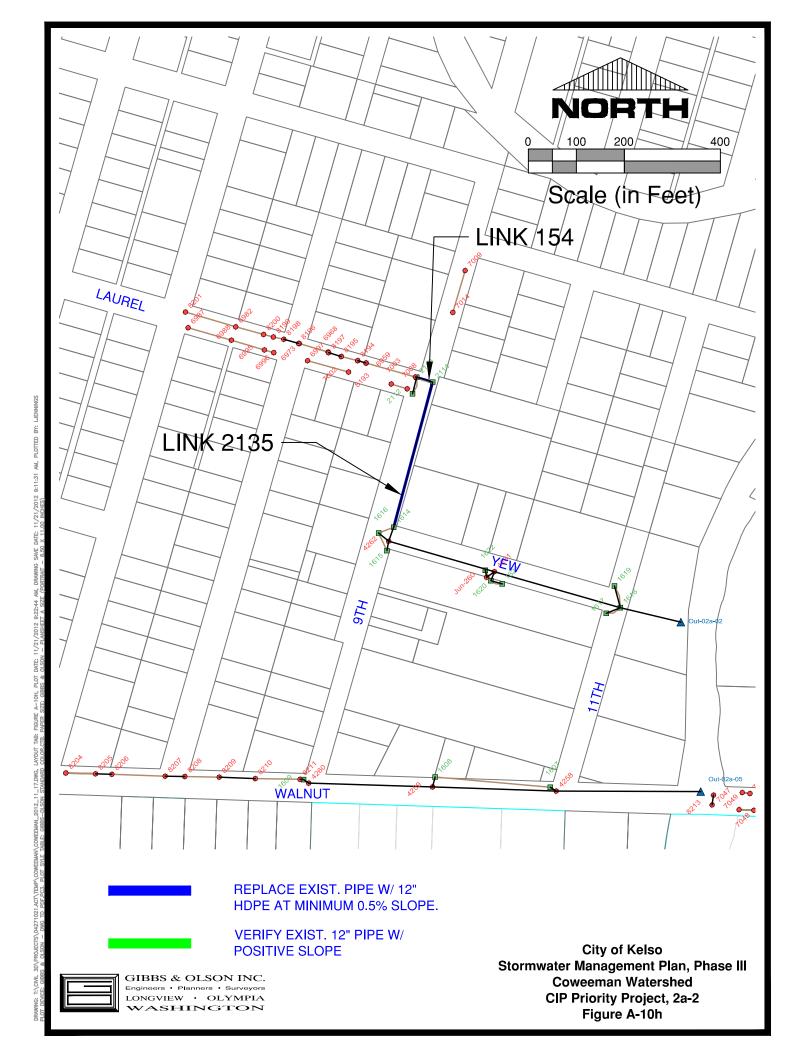


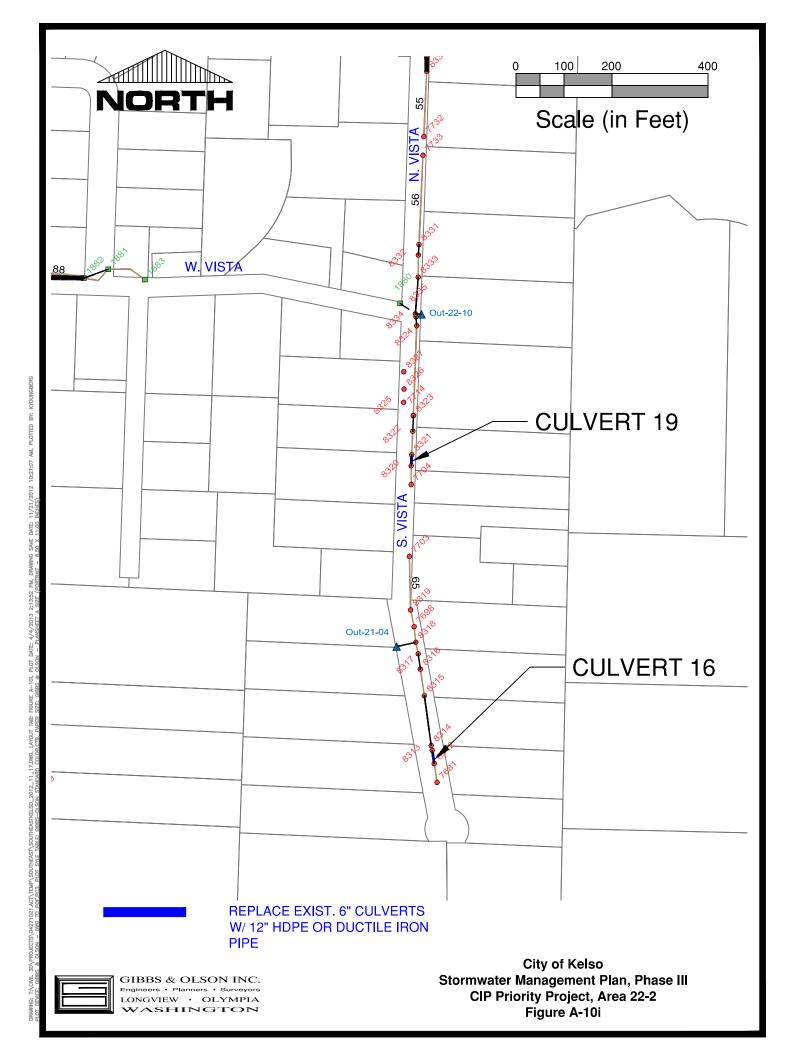




CIP Priority Project, Area 17-1 Figure A-10f







APPENDIX B

CAPITAL IMPROVEMENT PROJECT INFORMATION

CITY OF KELSO 2013-2018 CAPITAL IMPROVEMENT PROGRAM

D-01 NPDES Permit Implementation

D-02 Burcham Street Canyon Upgrade

D-03 Chestnut Street Drainage

D-04 Operations Stormwater Upgrades

D-05 Minor Road Pipe Replacement

D-06 Outfall Restoration at Grade St. Bridge

D-07 S. 9th Avenue Drainage

D-08 304 Harris St. Stormwater System

D-09 Harris Street Drainage

D-10 Cedar Street Drainage

D-11 Redpath Investigation

D-12 Division Street Drainage System Evaluation

D-13 Talley Way Drainage Pipe

D-14 S. 9th Ave. Drainage Pipe Upgrade

D-15 S. 8th Ave. Drainage Pipe Upgrade

D-16 N. 4th Ave. Drainage Pipe Upgrade

D-17 Hazel St. Drainage Pipe Upgrade

D-18 Allen Street Flood Prevention Improvements

D-19 Riverside Drive Flood Prevention Improvements

D-20 N. 20th Ave Drainage

D-21 Sunrise Street Drainage Pipe Replacement

D-22 S. Vista Way Culvert Replacement

City of Kelso CAPITAL IMPROVEMENT PROJECT REQUEST FORM 2012 - 2017

Department: DRAINAG	DRAINAGE			CIP Reference Number: D - 08				
Project Title: 304 HARRIS ST STORMWATER SYSTEM RENOVATION Location: Harris Street from N. 3 rd Ave to N. 4 th Ave				Year Submitted: 2010 Department Priority: 08 Urgent Project: No				
sanitary sewer revisions in I	Harris Street. Vib be determined.	ideos and locates of the	the alley at 304 Harris Street is clogged or plugged, likely due to prior the stormwater system on this block needs to be performed. Routing of eatch basin at 4 th and Harris may need to be rerouted. Possible installation pipe and fill in ditch.					
JUSTIFICATION : Stormwater backs up in catch basin and causes flooding to two parcels. Sanitary sewer installation on Harris Street blocked storm line and the storm line should be repaired/rerouted.							n on Harris Street	
PROJECT STATUS:			LAND S	LAND STATUS:				
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 			 No Land Involved City Owned Partially Owned Not Yet Acquired 					
TOTAL ESTIMATED CAPITAL COSTS				SED METHOD	OF FINAN	CING (Percent)	
Planning, Design, Engineering: Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$7,000 \$33,000 \$33,000 \$40,000			General C Revenue Reserve I Special A State Aid Federal A Private Sc Unknown Other:	Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:				
CAPITAL IMPROVEMEN	T PROJECT'S	S COST PER YEA	AR					
	2012	2013	2014	2015	2016	2017	TOTAL	
Planning, Design,								
Engineering					\$7,000		\$7,000	
Land Acquisition					422.000		ф22.000	
Construction					\$33,000		\$33,000	
Other TOTAL COST					\$40,000		\$40,000	

Maintenance and Operation Costs

City of Kelso **DEPARTMENTAL CAPITAL IMPROVEMENT PROJECT EVALUATION GUIDE**2012 - 2017

Department: DRAINAGE	CIP Reference Number: D - 08			
Project Title: 304 HARRIS ST STORMWATER SYSTEM RENOVATION	Department Priority: 08			
Funding Source	All costs to be funded from Drainage Fund revenues.			
Benefit to the Local Economy and Tax Base				
Health and Safety Effects	Removal of standing water protects health by removal of mosquito breeding areas.			
Environmental, Aesthetics, or Social Effects				
Responds to an Urgent Need or Opportunity				
Number of City Residents Served	Two Parcels.			
Feasibility, including Public Support and Project Readiness	Public generally supports drainage improvements.			
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.			
Conforms to Legal or Contractual Obligations				
Responds to State and/or Federal Mandate	Adheres to the state Phase I Municipal Stormwater Permit requirements			
Benefits to other Capital Projects				
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan.			
Implications of Deferring the Project	Continued standing water and flooding.			
Other				

City of Kelso CAPITAL IMPROVEMENT PROJECT REQUEST FORM 2012 - 2017

Department: DRAINAGE				CIP Reference Number: D - 18					
Project Title: ALLEN STR IMPROVEMENTS Location: Allen St Inters		Year Submitted: 2009 Department Priority: 18 Urgent Project: No							
DESCRIPTION : Raise ap	proximately	800 linear fee	et of roadwa	Iway 8-feet and install a pump station to prevent future flooding.					
JUSTIFICATION: This roadway floods during high river events causing residents and emergency services to detour around area.								nd area.	
PROJECT STATUS: Concept/Preliminary Planning Preliminary Design Final Plans & Specifications Prior Construction				LAND STATUS: ☐ No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired					
TOTAL ESTIMATED CAPITAL COSTS Planning, Design, Engineering: \$190,000 Land Purchase: Construction: \$830,000 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$1,020,000				PROPOSED METHOD OF FINANCING (Percent) Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:					
CAPITAL IMPROVEMEN	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL	
Planning, Design, Engineering Land Acquisition				2020	2020		\$190,000	\$190,000	
Construction Other							\$830,000	\$830,000	

TOTAL COST

Maintenance and Operation Costs

\$1,020,000

\$1,020,000

City of Kelso **DEPARTMENTAL CAPITAL IMPROVEMENT PROJECT EVALUATION GUIDE**2012 - 2017

Department: DRAINAGE	CIP Reference Number: D – 18
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Project Title: ALLEN STREET FLOOD PREVENTION IMPROVEMENTS	Department Priority: 18
Funding Source	No funding has been secured. A match from the Drainage Fund may be required.
Potential Funding Sources	Potential grant funds include WA Military Department Flood Mitigation Assistance Program, and Department of Ecology Flood Control Assistance Account Program, a CDBG Planning Grant could be used to develop plans. If City funds are used for design a PWTF Construction Loan could be used to complete the project
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	This project will allow access to the area by emergency service providers during flood events without having to use a lengthy detour.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	This roadway was underwater during the recent flooding (January 2009).
Number of City Residents Served	Drivers using Allen Street and residents of Archdiocese housing.
Feasibility, including Public Support and Project Readiness	Adjacent residents will support improvements that help to minimize flood impacts.
Amount of Public Disruption and Inconvenience Caused	Noise, dust, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	
Implications of Deferring the Project	Continued roadway flooding and property isolation during episodes of high river flows.
Other	

City of Kelso CAPITAL IMPROVEMENT PROJECT REQUEST FORM 2012 - 2017

Department: DRAINAGE	CIP Reference Number: D - 02				
Project Title: BURCHAM STREET CANYON UPGRADE Location: Across from Rotary Park	Year Submitted: 2005 Department Priority: 02 Urgent Project: No				
DESCRIPTION : Improving access, grate and 40 linear feet of	of retaining wall with ecology blocks.				
	drainage system to a closed (piping) system plugs during heavy rains in the residences. This inlet is difficult to access in good weather and dangerous to				
PROJECT STATUS: Concept/Preliminary Planning Preliminary Design Final Plans & Specifications Prior Construction	LAND STATUS: ☐ No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired				
Planning, Design, Engineering: \$16,000 Land Purchase: Construction: \$64,000 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$80,000	PROPOSED METHOD OF FINANCING (Percent) Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:				
CAPITAL IMPROVEMENT PROJECT'S COST PER YE.	AR 2014 2015 2017 TOTAL				

Planning, Design,					
			1		
Engineering	\$16,000				\$16,000
Land Acquisition					
Construction	\$64,000				\$64,000
Other					
TOTAL COST	\$80,000				\$80,000

City of Kelso **DEPARTMENTAL CAPITAL IMPROVEMENT PROJECT EVALUATION GUIDE**2012 - 2017

Department: DRAINAGE	CIP Reference Number: D - 02
Project Title: BURCHAM STREET CANYON UPGRADE	Department Priority: 02
Funding Source	All costs to be paid from the Drainage Fund.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Increased safety to staff during maintenance activities.
Environmental, Aesthetics, or Social Effects	Allows the drainage way to continue functioning without flooding adjacent areas.
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	
Feasibility, including Public Support and Project Readiness	Adjacent property owners will support a project that decreases their risk of flooding.
Amount of Public Disruption and Inconvenience Caused	Noise and dust during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan.
Implications of Deferring the Project	Adjacent areas will continue to flood and downstream areas will be subjected to heavier lows as plugs clear.
Other	

Department: DRAINAGE	(CIP Reference Number: D - 10								
Project Title: CEDAR STR	EET DRAINAC	GE		Year Submitted: 2005						
Location: S. 7 TH Ave to Gra	ade Street			Department F	riority:	10	Urgent Project	ct: No		
	I.									
DESCRIPTION : Installation	on of 5 catch bas	sins and 225 line	ear feet of	piping along	Cedar S	Street.				
JUSTIFICATION: Existing system is inadequate and there is standing water on the roadway during rain events.										
PROJECT STATUS: L				ND STATUS:						
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired 						
TOTAL ESTIMATED CA	APITAL COST	S	PRO	PROPOSED METHOD OF FINANCING (Percent)						
Planning, Design, Engineering: Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10%)			Gen Rev Res Spe Stat	Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid:						
TOTAL CIP			Priv	Private Sector:						
CAPITAL COST: \$100,000			_	Unknown: Other:						
CAPITAL IMPROVEMEN	T PROJECT'S	S COST PER Y	EAR							
	2012	2012	201/	20	1.5	2016	2017	TOTAL		
Planning, Design, Engineering	2012	2013	2014	20	13	\$15,000	2017	\$15,000		
Land Acquisition										
Construction						\$85,000		\$85,000		
Other										

\$100,000

\$100,000

TOTAL COST

Maintenance and Operation Costs

Department: DRAINAGE CIP Reference Number: D - 10

Project Title: CEDAR STREET DRAINAGE	Department Priority: 10
Funding Source	All project funds to be paid from Drainage Fund revenues.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removal of standing water from roadways reduces accident potential.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All.
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan.
Implications of Deferring the Project	Continued standing water and increased pavement deterioration.
Other	

Department: DRAINAGE	CIP Reference Number: D - 03							
Project Title: CHESTNUT STREET DRAINAGE Location: S. Pacific Ave to S. 13 th Ave	Year Submitted: 2008 Department Priority: 03 Urgent Project: No							
Location. S. Facilic Ave to S. 13 Ave	Department Friority. 03 Orgent Froject. No							
DESCRIPTION : This project will consist of a review of the exscopes (2011) and construction improvements.	xisting piping to determine the system needs and development of project							
	t one section of pipe has failed and the existing pipe is full of debris. This entation of the plan to minimize drainage problems in the area and to							
PROJECT STATUS: Concept/Preliminary Planning Preliminary Design Final Plans & Specifications Prior Construction	LAND STATUS: No Land Involved City Owned Partially Owned Not Yet Acquired							
TOTAL ESTIMATED CAPITAL COSTS Planning, Design, Engineering: \$60,000 Land Purchase: \$249,290 Equipment & Furniture: \$249,290 Equipment & Furniture: \$500 Contingency Allowance (10%) TOTAL CIP CAPITAL IMPROVEMENT PROJECT'S COST PER YEAR	PROPOSED METHOD OF FINANCING (Percent) Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:							

CAPITAL IMPROVEMENT PROJECT'S COST PER YEAR

	2012	2013	2014	2015	2016	2017	TOTAL
Planning, Design,							
Engineering	\$20,000	\$40,000					\$60,000
Land Acquisition							
Construction		\$249,290					\$249,290
Other							
TOTAL COST	\$20,000	\$289,290					\$309,290
Maintenance and							
Operation Costs							

Department: DRAINAGE	CIP Reference Number: D – 03
Project Title: CHESTNUT STREET DRAINAGE	Department Priority: 03
Funding Source	All costs to be paid from the Drainage Fund.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Improved drainage increases roadway safety.
Environmental, Aesthetics, or Social Effects	Proper conveyance of surface water is environmentally sound.
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All.
Feasibility, including Public Support and Project Readiness	Support of this project is expected by all the citizens who reside in the project area.
Amount of Public Disruption and Inconvenience Caused	Minimal traffic disruption during the construction phase only.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan.
Implications of Deferring the Project	
Other	

Department: DRAINAGE				CIP Reference Number: D - 12							
Project Title: DIVISION STREET DRAINAGE SYSTEM EVALUATION Location: Sub-basin 17-1, Repath Watershed, Division St. near N. 2 nd & N. 3 rd Ave.				Year Submitted: 2012 Department Priority: 12 Urgent Project: ☐ Yes ☒ No							
DESCRIPTION : A mix of pipe and ditches results in poor drainage; however, the area needs a detailed survey and site specific hydrologic modeling to determine the necessary improvements to resolve flooding issues.											
JUSTIFICATION : Predicted flooding during the 25-year, 24-hour storm in this area is significant.											
PROJECT STATUS:				LAND S'	TATUS:						
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved City Owned Partially Owned Not Yet Acquired 							
TOTAL ESTIMATED CA	APITAL COS	STS		PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$10,000 Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$10,000			Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:								
CAPITAL IMPROVEMEN	NT PROJEC	Γ'S COST P	ER YEA	ÅR							
Planning, Design, Engineering	2012	2013	2014	1 20	015	2016		2017	\$10,		*10,000
Construction Other TOTAL COST									\$10,	000	\$10,000
Maintenance and Operation Costs											

Department: DRAINAGE	CIP Reference Number: D - 12
Project Title: DIVISION STREET DRAINAGE SYSTEM EVALUATION	Department Priority: 12
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund when the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Would remove the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	

Other

Department: DRAINAGE				CIP Reference Number: D - 09							
Project Title: HARRIS ST.	DRAINAGE			Year Submitted: 2005							
Location: N. 8 TH AVE to I-5				Department Priority	: 09	Urgent Projec	et: No				
			*								
DESCRIPTION : Install 75	0 linear feet of	12-inch drainage s	system a	nd 5 catch basins or	the south side	e of the roadway	·.				
JUSTIFICATION: Residents have filled in ditch line creating no place for storm water to flow.											
PROJECT STATUS:			LAN	D STATUS:							
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved City Owned Partially Owned Not Yet Acquired 							
TOTAL ESTIMATED CA	PITAL COST	S	PRO	PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$10,000 Land Purchase: \$40,000 Equipment & Furniture: \$ Miscellaneous: Contingency Allowance (10%)			Gene Reve Rese Spec State Fede	Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid:							
TOTAL CIP CAPITAL COST: \$50,000			Unkı	Private Sector: Unknown: Other:							
CAPITAL IMPROVEMEN	Γ PROJECT'S	COST PER YEA	AR								
Г	2012	2012	2014	2017	2016	2015	TOTAL				
Planning, Design,	2012	2013	2014	2015	2016	2017	TOTAL				
Engineering					\$10,000		\$10,000				
Land Acquisition					7-2,000		T,000				
Construction					\$40,000		\$40,000				
Other							,				
TOTAL COST					\$50,000		\$50,000				

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 09
Project Title: HARRIS ST. DRAINAGE	Department Priority: 09
Funding Source	Project costs to be paid from Drainage Fund revenue.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Efficient storm water collection improves driving safety and removes potential mosquito breeding grounds.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	Approximately 24 homes.
Feasibility, including Public Support and Project Readiness	Residents would support removal of potential flooding.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, parking closures and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan.
Implications of Deferring the Project	Continued flooding potential, and standing water in ditch and shoulder.
Other	

Department: DRAINAGE					CIP Reference Number: D - 17						
Project Title: HAZEL ST	DRAINAGE	PIPE UPGRA	ADE	Year Submitted: 2012							
Location: Sub-basin 2a-1, Coweeman Watershed, S. 13 th Ave & Hazel Street				Department Priority: 17 Urgent Project: ☐ Yes ☒ No							
DESCRIPTION : Replace 770 lineal feet of undersized pipe with 12-inch pipe.											
JUSTIFICATION: Predicted flooding during the 25-year, 24-hour storm in this area is significant.											
PROJECT STATUS:				LAND S'	TATU	S :					
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired 							
TOTAL ESTIMATED CA	APITAL CO	STS		PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$6,880 Land Purchase: Construction: \$45,850 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) \$5,270 TOTAL CIP CAPITAL COST: \$58,000				Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:							
CAPITAL IMPROVEMEN	NT PROJEC	T'S COST P	ER YEAI	R							
	2012	2013	2014	20	15	2016	201	7	Unfunde	ed	TOTAL
Planning, Design, Engineering									\$6,880		\$6,880
Land Acquisition Construction									\$51,120)	\$51,120
Other											,
TOTAL COST									\$58,000)	\$58,000
Maintenance and Operation Costs									_		

Department: DRAINAGE	CIP Reference Number: D - 17
Project Title: HAZEL ST DRAINAGE PIPE UPGRADE	Department Priority: 17
Funding Source	A funding source for this project has not been obtained.
Potential Funding Sources	Drainage Fund when project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	
Other	

Department: DRAINAGE				CIP Reference Number: D - 05						
Project Title: MINOR RO	NT	Year Submitted: 2012								
Location: Allen St. to Bu		Department Priority: 05 Urgent Project: ☐ Yes ☒ No								
			I .							
DESCRIPTION: Replace	e existing 48-	inch CMP wi	ith new 48-i	nch pipe.						
JUSTIFICATION: Exist	ing pipe is de	eteriorating ar	nd approach	ing failure.						
PROJECT STATUS:			I	AND STATU	S:					
				□ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired						
TOTAL ESTIMATED CA	APITAL CO	STS	F	PROPOSED M	IETHOD OF	FINANCIN	G (Percent) *			
Planning, Design, Engineering: \$100,000			(Current Revenu	e:	<u>10%</u>				
Land Purchase:			(General Obligat	ion Bonds:					
Construction:	<u>\$400</u>	,000		Revenue Bonds:	:					
Equipment & Furniture:		_		Reserve Funds:						
Miscellaneous:		<u> </u>		Special Assessment: State Aid: 80%						
Contingency Allowance (10	J%)	_		Federal Aid:						
TOTAL CIP				Private Sector:						
CAPITAL COST:	<u>\$500.</u>	,000		Unknown:						
			(Other: CDID <u>10%</u>						
				*Pred	licted Funding	g Amounts				
CAPITAL IMPROVEMEN	NT PROJEC	T'S COST I	PER YEAR							
	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL		
Planning, Design,	2012	2013	2017	2013	2010	4017	Omunded	IOIAL		
Engineering			\$100,000					\$100,000		
Land Acquisition								. ,		
Construction			\$400,000					\$400,000		
Other										
TOTAL COST		1	\$500,000				1	\$500,000		

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 05
Project Title: MINOR RD PIPE REPLACEMENT	Department Priority: 05
Funding Source	WSDOT (CHAP), Diking District, and Drainage Fund.
Potential Funding Sources	
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	
Amount of Public Disruption and Inconvenience Caused	Dust and noise during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	
Implications of Deferring the Project	The pipe will continue deteriorating and could collapse causing a sinkhole and/or upstream flooding.

Other

Project Title: N. 20 TH AVE DRAINAGE Year Submitted: 2005								
Location: Burcham St. to Harris St. Department Priority: 20 Urgent Project: No								
DESCRIPTION : Improve access to canyon and pipe inlet. Install neighborhood grate. Turn back to private.								
JUSTIFICATION : Currently grate is hard to access and clean. This project would allow easier access, decrease pipe plugging and improve safety.								
PROJECT STATUS: LAND STATUS:								
□ Concept/Preliminary Planning □ Preliminary Design □ Final Plans & Specifications □ Prior Construction □ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired □ Not Yet Acq	☐ City Owned ☐ Partially Owned							
TOTAL ESTIMATED CAPITAL COSTS PROPOSED METHOD OF FINANCING (Percent)								
Planning, Design, Engineering: \$10,000 Land Purchase: General Obligation Bonds: General Obligation Bonds: Revenue Bonds: Revenue Bonds: Sequipment & Furniture: Reserve Funds: Special Assessment: Special Assessment: State Aid: State Aid:	General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid:							
Federal Aid: Private Sector: Unknown: Other: 100% 100								
CAPITAL IMPROVEMENT PROJECT'S COST PER YEAR								
2012 2013 2014 2015 2016 2017 Unfunded TOTAL								
Planning, Design, Engineering \$10,000 \$10,000								
Land Acquisition								
Construction \$90,000 \$90,000								
Other \$100,000 \$100,000)							

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 20
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Project Title: N. 20 TH AVE DRAINAGE	Department Priority: 20
Funding Source	A funding source for this project has not been secured.
Potential Funding Source	Drainage Fund when this project becomes a higher priority.
Benefit to the Local Economy and Tax Base	Decrease insurance claims.
Health and Safety Effects	
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	6 homes.
Feasibility, including Public Support and Project Readiness	Residents will support.
Amount of Public Disruption and Inconvenience Caused	Dust and noise during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan.
Implications of Deferring the Project	Continued uncontrolled storm runoff.
Other	

Department: DRAINA (GE			CIP Reference Number: D - 16							
Project Title: N. 4 TH AVE	DRAINAGE	PIPE UPGR	ADE	Year Submitted: 2012							
Location: Sub-basin 15c- Street and N. 4 th Ave.	1, Redpath W	atershed, Do	nation	Department Priority: 16 Urgent Project: Yes No							
DESCRIPTION : Replace 160 lineal feet of 12-inch pipe with 18-inch pipe.											
JUSTIFICATION: Predi	cted flooding	during the 2:	5-year, 24	-hour storm in th	nis area is sign	nificant.					
PROJECT STATUS:				LAND STATU	JS:						
□ Concept/Preliminary Planning □ Preliminary Design □ Final Plans & Specifications □ Prior Construction			 No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired 								
TOTAL ESTIMATED CAPITAL COSTS				PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$3,700 Land Purchase: Construction: \$24,500 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) \$2,800 TOTAL CIP CAPITAL COST: \$31,000				Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:							
CAPITAL IMPROVEMENT PROJECT'S COST PER YEA			ER YEAR								
2012 2013 2014					2016	2017	Unfunded	TOTAL			
Planning, Design, Engineering				2020			\$3,700	\$3,700			
Land Acquisition											
Construction							\$27,300	\$27,300			
Other COST							¢21 000	\$31,000			
TOTAL COST			<u> </u>				\$31,000	\$31,000			

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 16

Project Title: N. 4 TH AVE DRAINAGE PIPE UPGRADE	Department Priority: 16
Funding Source	A funding source for this project has not been obtained.
Potential Funding Sources	When this project becomes a higher priority Drainage Funds will be used.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	
Other	

Department: DRAINA	GE			CIP Reference Number: D - 22							
Project Title: N VISTA V	VAY CULVE	RT REPLAC	CEMENT	Year Submitted: 2012							
Location: Sub-basin 22-2 North Vista Way	2, Southeast K	Celso Watersh	ned,	Department Pr	iority: 22	Urge	nt Project: 🗌 Y	es 🖾 No			
DESCRIPTION: Replace	e several culv	verts with 12-	inch culve	rt pipe.							
JUSTIFICATION: Pred	licted flooding	g during the 2	25-year, 24	-hour storm in th	is area is sign	nificant.					
PROJECT STATUS:				LAND STATU	S:						
□ Concept/Preliminary F □ Preliminary Design □ Final Plans & Specific □ Prior Construction		 No Land Involved ☑ City Owned ☑ Partially Owned ☑ Not Yet Acquired 									
TOTAL ESTIMATED C	APITAL CO	STS		PROPOSED M	IETHOD OI	F FINANCIN	G (Percent)				
Planning, Design, Enginee Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (1 TOTAL CIP CAPITAL COST:		Current Revenu General Obligat Revenue Bonds Reserve Funds: Special Assessn State Aid: Federal Aid: Private Sector: Unknown: Other:	ion Bonds:	100%							
CAPITAL IMPROVEME	NT PROJEC	CT'S COST I	PER YEA	R							
	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL			
Planning, Design, Engineering	2012	2010	2014	2010	2010	2017	\$1,000	\$1,000			
Land Acquisition								·			
Construction							\$4,000	\$4,000			
Other TOTAL COST							\$5,000	ቀ ደ ሰሰሰ			
TOTAL COST	1						\$5,000	\$5,000			

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 22
Project Title: N. VISTA WAY CULVERT REPLACEMENT	Department Priority: 22
Funding Source	A funding source for this project has not been obtained.
Potential Funding Sources	Drainage Fund when the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construciton.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and the Stormwater Management Plan.
Implications of Deferring the Project	
Other	

Department: DRAINAGE	CIP Reference Number: D - 01					
Project Title: NPDES PERMIT IMPLEMENTATION Location: Entire City	Year Submitted: 2005 Department Priority: 01 Urgent Project: Yes					
DESCRIPTION : Implement permit requirements including cor	npletion of mapping, code update and development of programs.					
JUSTIFICATION : Permit is a federal mandate. The final prog pollution from entering stormwater runoff.	ram will help protect the waterways from pollution by preventing					
PROJECT STATUS: Concept/Preliminary Planning Preliminary Design Final Plans & Specifications Prior Construction	LAND STATUS: □ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired					
TOTAL ESTIMATED CAPITAL COSTS Planning, Design, Engineering: \$150,000 Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$150,000	PROPOSED METHOD OF FINANCING (Percent) Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:					

	2012	2013	2014	2015	2016	2017	TOTAL
Planning, Design,							
Engineering	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$150,000
Land Acquisition							
Construction							
Other							
TOTAL COST	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$150,000
Maintenance and							
Operation Costs							

Department: DRAINAGE	CIP Reference Number: D - 01				
Project Title: NPDES PERMIT IMPLEMENTATION	Department Priority: 01				
Funding Source	All funds to come from the Drainage Fund.				
Benefit to the Local Economy and Tax Base					
Health and Safety Effects					
Environmental, Aesthetics, or Social Effects	Program to address water quality issues within the community.				
Responds to an Urgent Need or Opportunity					
Number of City Residents Served	All.				
Feasibility, including Public Support and Project Readiness					
Amount of Public Disruption and Inconvenience Caused					
Conforms to Legal or Contractual Obligations					
Responds to State and/or Federal Mandate	NPDES permit required by Federal and State Law.				
Benefits to other Capital Projects					
Conforms to Adopted Plans and Programs					
Implications of Deferring the Project	If not complete the city will be out of compliance with State and Federal Law.				
Other					

Department: DRAINAGE	CIP Reference Number: D - 04							
Project Title: OPERATIONS STORMWATER UPGRADES Location: Operations Maintenance Facility	Year Submitted: 2010 Department Priority: 04 Urgent Project: No							
DESCRIPTION : Install cover over equipment washpad, installation of compost boom, and disconnection of building floor drains from stormwater system that includes connection to the oil/water separator.								
JUSTIFICATION : Disconnect illicit discharges to the storm drain and sanitary sewer systems as outlined in the Operations Maintenance Facility Stormwater Pollution Prevention Plan (SWPPP)								
PROJECT STATUS: Concept/Preliminary Planning Preliminary Design Final Plans & Specifications Prior Construction	LAND STATUS: ☐ No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired							
TOTAL ESTIMATED CAPITAL COSTS Planning, Design, Engineering: \$2,000 Land Purchase: Construction: \$18,000 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$20,000 CAPITAL IMPROVEMENT PROJECT'S COST PER YEAR	PROPOSED METHOD OF FINANCING (Percent) Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:							

	2012	2013	2014	2015	2016	2017	TOTAL
Planning, Design,							
Engineering	\$2,000						\$2,000
Land Acquisition							
Construction	\$18,000						\$18,000
Other							
TOTAL COST	\$20,000						\$20,000
Maintenance and			1	I			- /
Operation Costs							

Department: DRAINAGE	CIP Reference Number: D – 04				
Project Title: OPERATIONS STORMWATER UPGRADES	Department Priority: 04				
Funding Source	All costs to be funded from current revenues. Costs are to be split between drainage, water, sewer and street funds.				
Benefit to the Local Economy and Tax Base					
Health and Safety Effects	Pollution control and treatment of stormwater runoff helps to create clean waters for swimming and fishing. Pollution control and treatment of stormwater runoff				
Environmental, Aesthetics, or Social Effects	increases the water quality of surface waters.				
Responds to an Urgent Need or Opportunity					
Number of City Residents Served	AII.				
Feasibility, including Public Support and Project Readiness	Site is ready for installation and project components are feasible. Public support is not necessary for this project.				
Amount of Public Disruption and Inconvenience Caused	None anticipated.				
Conforms to Legal or Contractual Obligations					
Responds to State and/or Federal Mandate	Adheres to the state Phase II Municipal Stormwater Permit requirements.				
Benefits to other Capital Projects					
Conforms to Adopted Plans and Programs	Conforms to the Operations Maintenance Facility Stormwater Pollution Prevention Plan.				
Implications of Deferring the Project	Potential fines for not implementing Permit requirements.				
Other					

Department: DRAINAG	E		CIP	Reference Num	ber: D - 06				
Project Title: OUTFALL F STREET BRIDGE Location: South End of G	L RESTORATION AT GRADE Year Submitted: 2010 Department Priority: 06 Urgent Project: No								
Coweeman River. From the	DESCRIPTION : Install a 48-inch diameter drop manhole and approximately 40 linear feet of 18-inch pipe with a rip-rap outfall to the Coweeman River. From the drop manhole, the discharge stormwater pipe will be lower in order to pass under the bridge abutment and in between the abutment piers. A pier analysis may be required by a geotechnical engineer.								
JUSTIFICATION : The 18-inch concrete stormwater pipe was plugged with concrete near the south bridge abutment, likely during the construction of the bridge. At this location the last pipe section is displaced. Stormwater in the pipe has been exfiltrating and may be the cause of subsidence at the south end of the bridge.									
PROJECT STATUS: Concept/Preliminary Plans Preliminary Design Final Plans & Specifica Prior Construction	☐ No La ☐ City (☐ Partia	LAND STATUS: ☐ No Land Involved ☐ City Owned ☐ Partially Owned ☐ Not Yet Acquired							
Planning, Design, Engineeric Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10) TOTAL CIP CAPITAL COST:	Current R General C Revenue I Reserve F	evenue: Obligation Bond Bonds: Funds: ssessment: id: ector:	<u>100</u>	CING (Percent)					
CAPITAL IMPROVEMEN	T PROJECT'S	S COST PER Y	EAR						
Planning, Design, Engineering Land Acquisition Construction	2012	2013	\$4,000 \$14,000	2015	2016	2017	\$4,000 \$14,000		
Other TOTAL COST			\$18,000				\$18,000		

Maintenance and **Operation Costs**

Department: DRAINAGE	CIP Reference Number: D - 06
Project Title: OUTFALL RESTORATION AT GRADE STREET BRIDGE	Department Priority: 06
Funding Source	Cost to be paid with Drainage Fund revenues.
Benefit to the Local Economy and Tax Base	Repairs to pavement that addressed subsidence will not be required.
Health and Safety Effects	Improve driver safety at south end of the bridge.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Residents impacted would support.
Amount of Public Disruption and Inconvenience Caused	Dust, noise and traffic impacts during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	
Implications of Deferring the Project	Continued subsidence at the south end of the bridge.
Other	

Department: DRAINA	GE			CIP R	eference Numb	per: D - 11				
Project Title: REDPATH	INVESTIGA	TION		Year Submit	ted: 2012	2				
Location: Sub-basin 15a-	1. N. Kelso A	ve and Redpa	ath St.	Department l	Priority: 11	Urge	nt Project:] Yes 🔀 No		
DESCRIPTION : Investignment of the station.	DESCRIPTION : Investigate alternative solutions for a major drainage district deficiency in the box culvert to the Redpath Pump Station.									
JUSTIFICATION : This project ranks highest in the volume of flooding that occurs in the immediate vicinity of the location. The District's box culvert is the major cause of the flooding and solutions need to be investigated in conjunction with the District.										
PROJECT STATUS: LAND STATUS:										
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved City Owned Partially Owned Not Yet Acquired 						
TOTAL ESTIMATED C	APITAL CO	STS		PROPOSED METHOD OF FINANCING (Percent)						
Planning, Design, Engineering: \$15,000 Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$15,000				Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:						
CAPITAL IMPROVEMEN	NT PROJEC	T'S COST P	PER YEAI	R						
	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL		
Planning, Design, Engineering						\$15,000		\$15,000		
Land Acquisition										
Construction										
Other TOTAL COST						\$15,000		\$15,000		
TOTAL COST		<u> </u>	<u> </u>			\$15,000		\$15,000		
Maintenance and Operation Costs										

Department: DRAINAGE	CIP Reference Number: D - 11
Project Title: REDPATH INVESTIGATION	Department Priority: 11
Funding Source	Drainage Fund.
Potential Funding Sources	
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and minor traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	

Other

Department: DRAINA	GE			CIP Reference Number: D - 19								
Project Title: RIVERSII IMPROVEMENTS Location: Riverside Dr. Parcel #2127801 to the s	- Approx. fro	m the north pi	roperty line of		Year Submitted: 2009 Department Priority: 19 Urgent Project: No							
DESCRIPTION : Raise	e approximate	ly 300 linear f	feet of roadway	2-feet to pr	event future f	looding.						
JUSTIFICATION: The vehicles.	is roadway flo	ods during hi	gh river events	isolating re	sidents from t	own and pre	venting access by	y emergency				
PROJECT STATUS:				LAND	STATUS:							
Concept/Preliminary Preliminary Design Final Plans & Specif Prior Construction			⊠ Cit	 □ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired 								
TOTAL ESTIMATED	CAPITAL C	OSTS		PROP	OSED METH	HOD OF FI	NANCING (Per	cent)				
Planning, Design, Engine Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance TOTAL CIP CAPITAL COST:	<u>,000</u> 		Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:									
CAPITAL IMPROVEM												
Planning, Design,	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL				
Engineering							\$20,000	\$20,000				
Land Acquisition Construction							\$81,000	\$81,000				
Other							ψ01,000	ψο1,000				
TOTAL COST							\$101,000	\$101,000				
Maintenance and												

Operation Costs

Department: DRAINAGE	CIP Reference Number: D – 19
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Project Title: RIVERSIDE DRIVE FLOOD PREVENTION IMPROVEMENTS	Department Priority: 19
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund as this project becomes a higher priority.
Benefit to the Local Economy and Tax Base	This project will allow for additional development in the area.
Health and Safety Effects	This project will allow access to the area by emergency service providers during flood events.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	This roadway was underwater during the recent flooding (January 2009).
Number of City Residents Served	Approximately 2 dozen directly served.
Feasibility, including Public Support and Project Readiness	Adjacent residents will support improvements that help to minimize flood impacts.
Amount of Public Disruption and Inconvenience Caused	Noise, dust, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	
Implications of Deferring the Project	Continued roadway flooding and property isolation during episodes of high river flows.
Other	

Department: DRAINA	GE			CIP Reference Number: D - 15							
	Project Title: S. 8 TH AVE DRAINAGE PIPE UPGRADE Location: S. 8 th Ave - Coweeman Lane to Chestnut St.,					Urge	nt Project: 🔲 Y	′es ⊠ No			
Vicinity of Inlet 536 (Basin		to Chestnut	Jt.,	Department Pr		Orgo	iit i roject. 🔝 i	C3 [Z] 140			
	DESCRIPTION : 517 lineal feet of 24-inch and 163 feet of 30-inch pipe need to be replaced with 30-inch and 48-inch pipe, respectively. Some of the 48-inch pipe will likely have to be arch pipe to compensate for shallow depth of cover.										
JUSTIFICATION: Predicted flooding during the 25 year, 24-hour storm in this area is significant.											
PROJECT STATUS: LAND STATUS:											
□ Concept/Preliminary Planning □ Preliminary Design □ Final Plans & Specifications □ Prior Construction □ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired □ Not Yet Acq											
TOTAL ESTIMATED C.	APITAL CO	STS		PROPOSED M	ETHOD OF	FINANCIN	G (Percent)				
Planning, Design, Engineer Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (19	Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid:										
TOTAL CIP CAPITAL COST:	TOTAL CIP Private Sector:										
CAPITAL IMPROVEMEN	NT PROJEC	T'S COST F	PER YEAR	R							
	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL			
Planning, Design, Engineering							\$10,000	\$10,000			
Land Acquisition											
Construction							\$66,000	\$66,000			
Other							\$7,600	\$7,600			
TOTAL COST					1	1	\$83,600	\$83,600			

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 15

Project Title: S. 8 TH AVE DRAINAGE PIPE UPGRADE	Department Priority: 15
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund monies will be used when this project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	
Other	

Department: DRAINAGE	CIP Reference Number: D - 07
Project Title: S. 9 TH AVE DRAINAGE Location: 1200 Block	Year Submitted: 2005 Department Priority: 07 Urgent Project: No
DESCRIPTION : Install drainage system.	
JUSTIFICATION: Currently there is no system and rainwater	puddles in yards.
PROJECT STATUS: ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction	LAND STATUS: No Land Involved City Owned Partially Owned Not Yet Acquired
TOTAL ESTIMATED CAPITAL COSTS Planning, Design, Engineering: \$20,000 Land Purchase: Construction: \$80,000 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) TOTAL CIP CAPITAL COST: \$100,000	PROPOSED METHOD OF FINANCING (Percent) Current Revenue: 100% General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector: Unknown: Other:

CAPITAL IMPROVEMENT PROJECT'S COST PER YEAR

	2012	2013	2014	2015	2016	2017	TOTAL
Planning, Design,							
Engineering			\$15,000	\$5,000			\$20,000
Land Acquisition							
Construction				\$80,000			\$80,000
Other							
TOTAL COST			\$15,000	\$85,000			\$100,000
Maintenance and							
Operation Costs							

Department: DRAINAGE	CIP Reference Number: D - 07
Project Title: S. 9 TH AVE DRAINAGE	Department Priority: 07
Funding Source	All costs shall be paid from Drainage Fund revenues.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removal potential mosquito breeding ground.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	Approximately two dozen residents.
Feasibility, including Public Support and Project Readiness	
Amount of Public Disruption and Inconvenience Caused	Dust, noise and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	
Implications of Deferring the Project	Continued standing water.
Other	

2012 - 2017

Department: DRAINAGE					CIP Reference Number: D - 14						
Project Title: S. 9 TH AVE DRAINAGE PIPE UPGRADE					Year Submitted: 2012						
Location: Sub-basin 2a-2, Coweeman Watershed, S. 9 th Ave at Yew Street				Departn	Department Priority: 14 Urgent Project: ☐ Yes ☒ No						
DESCRIPTION : Replace 770 lineal feet of pipe with 12-inch diameter pipe.											
JUSTIFICATION: Predi	JUSTIFICATION: Predicted flooding during the 25-year, 24-hour storm in this area is significant.										
PROJECT STATUS:				LAND S	TATUS	S :					
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved City Owned Partially Owned Not Yet Acquired 							
TOTAL ESTIMATED CAPITAL COSTS				PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$3,400 Land Purchase: Construction: \$22,600 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) \$2,600 TOTAL CIP CAPITAL COST: \$28,600			Current F General C Revenue Reserve I Special A State Aid Federal A Private S Unknown Other:	Obligati Bonds: Funds: Assessm : Aid: ector:	on Bond	- - - -	00%				
CAPITAL IMPROVEMENT PROJECT'S COST PER YEA)15	2016	201	7 Unfu	.dod	TOTAL	
Planning, Design, Engineering	2012	2013	2014	20	113	2010	201	**************************************		\$3,400	
Land Acquisition										Í	
Construction Other								\$25,	200	\$25,200	
TOTAL COST								\$28,	500	\$28,600	
Maintenance and Operation Costs											

Department: DRAINAGE	CIP Reference Number: D - 14
Project Title: S. 9 TH AVE DRAINAGE PIPE UPGRADE	Department Priority: 14
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund when the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and the Stormwater Management Plan.
Implications of Deferring the Project	
Other	

Department: DRAINA	GE			CIP Reference Number: D - 21					
Project Title: SUNRISE S REPLACEMENT Location: Catch Basin 19	Year Submitted: 2012 Department Priority: 21 Urgent Project: ☐ Yes ☒ No								
DESCRIPTION : Replace 562 lineal feet of pipe with 18-inch and replace existing basin with large energy-dissipating manhole.								anhole.	
JUSTIFICATION: Predicted flooding during the 25-year, 24-hour storm in this area is significant.									
PROJECT STATUS:				LAND STATU	S :				
 ☐ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 				 No Land Involved City Owned Partially Owned Not Yet Acquired 					
TOTAL ESTIMATED C	APITAL CO	STS		PROPOSED METHOD OF FINANCING (Percent)					
Planning, Design, Engineering: \$9,000 Land Purchase: \$60,000 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) \$6,900 TOTAL CIP				Current Revenue: General Obligation Bonds: Revenue Bonds: Reserve Funds: Special Assessment: State Aid: Federal Aid: Private Sector:					
CAPITAL COST: \$75,900				Unknown: 100% Other:					
CAPITAL IMPROVEME	NT PROJEC	CT'S COST I	PER YEAR	R					
	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL	
Planning, Design, Engineering					-	-	\$9,000	\$9,000	
Land Acquisition			1				. ,	. ,	
Construction							\$66,900	\$66,900	
Other								,	
TOTAL COST							\$75,900	\$75,900	

Maintenance and Operation Costs

Department: DRAINAGE	CIP Reference Number: D - 21
Project Title: SUNRISE STREET DRAINAGE PIPE REPLACEMENT	Department Priority: 21
Funding Source	A funding source for this project has not been obtained.
Potential Funding Sources	Drainage Fund when the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to Comprehensive Plan and Stormwater Management Plan.
Implications of Deferring the Project	
Other	

City of Kelso CAPITAL IMPROVEMENT PROJECT REQUEST FORM 2012 - 2017

Department: DRAINAGE				CIP Reference Number: D – 13							
Project Title: TALLEY WAY DRAINAGE PIPE UPGRADE Location: Sub-basin 5-3, Baker Way Watershed, Talley Way south of Parrott Way.				Year Submitted: 2012 Department Priority: 13 Urgent Project: ☐ Yes ☒ No							
DESCRIPTION: Replace	e 140 lineal fe	et of pipe wi	th 18-incl	n diamete	er pipe.						
JUSTIFICATION: Predi	cted flooding	during the 25	5-year, 24	1-hour sto	orm in th	is area is	significant.				
PROJECT STATUS:				LAND	STATU	S :					
 ∑ Concept/Preliminary Planning ☐ Preliminary Design ☐ Final Plans & Specifications ☐ Prior Construction 			 □ No Land Involved □ City Owned □ Partially Owned □ Not Yet Acquired 								
TOTAL ESTIMATED CA	APITAL CO	STS		PROPOSED METHOD OF FINANCING (Percent)							
Planning, Design, Engineering: \$3,200 Land Purchase: Construction: \$21,400 Equipment & Furniture: Miscellaneous: Contingency Allowance (10%) \$2,500 TOTAL CIP CAPITAL COST: \$27,100			General Revenu Reserve	e Bonds: Funds: Assessnid: Aid: Sector:	ion Bond	- - - -	00%				
CAPITAL IMPROVEMEN	T PROJECT	'S COST PE	ER YEAI	3							
Planning, Design,	2012	2013	2014	1 2	2015	2016	201	7	Unfunde	ed	TOTAL
Engineering									\$3,200	,	\$3,200
Land Acquisition Construction									\$23,900)	\$23,900
Other											,
TOTAL COST									\$27,100	0	\$27,100
Maintenance and Operation Costs											

City of Kelso

DEPARTMENTAL CAPITAL IMPROVEMENT PROJECT EVALUATION GUIDE 2012 - 2017

Department: DRAINAGE	CIP Reference Number: D – 13
Project Title: TALLEY WAY DRAINAGE PIPE UPGRADE	Department Priority: 13
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund as the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	Removes the potential for significant flooding.
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	Public will support drainage improvements.
Amount of Public Disruption and Inconvenience Caused	Dust, noise, and traffic delays during construction.
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Conforms to the Comprehensive Plan and the Stormwater Management Plan.
Implications of Deferring the Project	
Other	

City of Kelso CAPITAL IMPROVEMENT PROJECT REQUEST FORM 2012 - 2017

Department: DRAINAGE				CIP Refe	rence Numbe	er: D – 23		
Project Title: Stormwater Location: System-wide	Management	Plan Update		Year Submitted Department Pri		Urger	nt Project: 🗌 Y	″es ⊠ No
DESCRIPTION : The Stothe work may begin in 2017		nagement Plan	n is to be ı	updated on a five	-year cycle.(Cost is includ	ed in the 2017 t	fiscal year as
JUSTIFICATION: Publi	c Works requ	irement to up	date plan	on a five-year cy	cle.			
PROJECT STATUS: Concept/Preliminary Pl Preliminary Design Final Plans & Specificatory Prior Construction	C			LAND STATUS No Land Inv City Owned Partially Ow Not Yet Acc	volved vned			
TOTAL ESTIMATED CA		STS		PROPOSED M		FINANCIN	G (Percent)	
Planning, Design, Engineer Land Purchase: Construction: Equipment & Furniture: Miscellaneous: Contingency Allowance (10) TOTAL CIP CAPITAL COST:				Current Revenue General Obligati Revenue Bonds: Reserve Funds: Special Assessm State Aid: Federal Aid: Private Sector: Unknown: Other:	on Bonds:	100%		
CAPITAL IMPROVEMEN			1		2016	2015	T. 6 1 1	TOTAL Y
Planning, Design, Engineering	2012	2013	2014	2015	2016	\$30,000	Unfunded \$30,000	*30,000

	2012	2013	2014	2015	2016	2017	Unfunded	TOTAL
Planning, Design,								
Engineering						\$30,000	\$30,000	\$30,000
Land Acquisition								
Construction								
Other								
TOTAL COST						\$30,000	\$30,000	\$30,000
		_						
Maintenance and								
Operation Costs								

City of Kelso **DEPARTMENTAL CAPITAL IMPROVEMENT PROJECT EVALUATION GUIDE**2012 - 2017

Department: DRAINAGE	CIP Reference Number: D – 23

Project Title: Stormwater Management Plan Update	Department Priority: 13
Funding Source	A funding source for this project has not been secured.
Potential Funding Sources	Drainage Fund as the project becomes a higher priority.
Benefit to the Local Economy and Tax Base	
Health and Safety Effects	
Environmental, Aesthetics, or Social Effects	
Responds to an Urgent Need or Opportunity	
Number of City Residents Served	All
Feasibility, including Public Support and Project Readiness	The 2013 SMP can be readily updated.
Amount of Public Disruption and Inconvenience Caused	None
Conforms to Legal or Contractual Obligations	
Responds to State and/or Federal Mandate	
Benefits to other Capital Projects	
Conforms to Adopted Plans and Programs	Plan update is needed to set current priorities for system improvement.
Implications of Deferring the Project	System improvements and changes to the system's performance will not be captured in the plan, which will make the plan obsolete.
Other	

APPENDIX C

MODELING OUTPUT DATA SHEETS (ON CD) STORMWATER PIPE PROFILE GRAPHS (ON CD) SPREADSHEET-SOUTH KELSO WATERSHED (ON CD)

STORMWATER PROFILE GRAPH LEGEND

The stormwater pipe profile sheets included on the CD indicate the Area, CB numbers, storm event and watershed at the top of the sheet. The profiles indicate the nodes (manholes or other junction point) and links (pipes) in the stretch of the profile represented. The color legend is as follows:

Green Shading—Color for the top of the ground surface and the background color for soil around the pipe. The ground surface does not represent a surveyed surface and was created by connecting the rim elevations between structures.

Blue Shading— Color indicating the water level in the pipes and manholes under the given storm event

Red – Color of the line indicating the hydraulic profile for the top of the potentiometric water surface under the given storm event

INTERPRETATION OF PROFILE GRAPHS

There are two types of pipe profiles included in this report: Areas of Concern and Major Trunkline profiles. The titles of the profiles showing Areas of Concern list the area name and the flooded structures within that area, such as "Area 15c-1 = CB 1500 & 1501." The titles of major trunkline profiles list the street in which the profile follows and then approximate beginning and end nodes along that street, such as "Parrot Way | #8240 to Talley Way." The storm event and basin name are listed underneath the profile title, for example, "25-Year Storm Event, Baker Way" is one of the major trunkline profile subtitles. The elevation is shown the on y-axis on the left side of profile sheet. Stationing is located along the bottom of the profile diagram. The stationing always begins at 1+00 for each of the independently generated profiles and continues until it reaches the last structure in the profile.

APPENDIX D STORM CHECKLIST

STORM CHECKLIST

Check the following locations during or after large rainstorm events.	Comments
W Stormwater Pond at Main Street and SW 1st Avenue Inspect: Check stormwater pond/treatment facility to see if flooding. Maintenance: Clear outlet structure outlets	
W SW 1st Ave (Hwy 411) and Catlin St. Inspection: Check to see if standing water/flooding in street. Maintenance: Remove debris from catch basin grates.	Ponding occurs on Catlin just east of 1st. Could flood Cowlitz County maintenance shop. An upgraded stormwater system is scheduled for installation here in 2013 as part of the Main Street realighnment project.
W SW 7th Avenue and Lincoln Street Inspection: Check to see if flooding is in roadway. Maintenance: Remove debris from catch basin grates and vactor CBs and flush storm pipes.	Floods every 2-3 years and may be because of sedimentation in the pipe or because of pipe capacity. Pipes were cleaned December 2012. Bark mulch has clogged CB in the past. Newer installed cinders may reduce this problem.
W Long Avenue at Cowlitz Way Inspection: Check to see if catch basin grates are clogged. Maintenance: Clear catch basin grates if clogged.	Localized flooding if catch basin grates clogged with leaves. No property damage. Cowlitz Way bridge dumps lots of debris to this CB and CB's along the east side of Long Ave. to 413 Long. Ponding at the CB at 300 Long can extend across the road.
N Allen Street from 1st Ave. to 5th Ave. Inspection: Check to see if flooding is in street and if catch basins are flowing. Maintenance: Clear catch basin grates if clogged.	Floods 1-3 times per year and has flooded Tim's Bar. Other properties can receive flooding. Flooding occurs due to a pipe capacity issue. Catch basin grates clog generally on first flush after fall leaves drop.
N Academy Street and 5th Avenue Inspection: Check to see if catch basin grates on the east side of 5th Ave. are clogged. Maintenance: Remove debris from catch basins.	
N Cowlitz Way and North 3rd Avenue Inspection: Check to see if NE and NW catch basins are flooding to the street. Maintenance: Remove debris from catch basin grates and clean storm pipes if clogged.	Floods 2-3 times per year. Can either be a debris or possibly a storm pipe capacity problem. Leaves in the Fall causes clogging. Since storm pipes cleaned in 2012, catch basin has been working well.
N N. 1st and Harris Street Inspection: Check to see if catch basin grates on SW and SE corners are clogged with debris. Maintenance: Clear catch basin grates if clogged.	Catch basins get clogged with leaves weekly in Fall. Localized flooding. No property damage.
N 800 North Pacific Ave. (in alley near Rhododendron Park) Inspection: Check to see if catch basin in this low spot is plugged and alley is flooding. Maintenance: Remove debris from catch basin.	Flooding occurred in basement at 802 Harris until installation of catch basin about 2009.
N 804 N. 4th ditch Inspection: Check for sedimentation in ditch and upstream culvert. Maintenance: Back hoe to clean out sedimentation in ditch.	Sediment from intermittent stream fills the ditch and blocks 804 N. 4th culvert. Flooded onto road and property damage hasn't been seen in the past.
N 304 Harris Street Inspection: Check for flooding at catch basin in alley by house. Maintenance: Clear catch basin grate if clogged and vactor pipe to north if necessary.	Flooding has not been observed since March 2009 vactor of catch basin and stormline approximately 30 feet to south. Jetting in 2012 showed connection from CB to MH in 4th Ave. Needs more investigation with camera to verify pipe locations and good connections.
N 500 block of Burcham Street (west end of street) Inspection: Check to see if catch basin grate on southwest side is clogged with debris. Maintenance: Remove debris from catch basins.	Catch basin grate clogging has caused water to go over curb and down the hill. The street sweeper can not reach this catch basin and so it must be manually cleaned.
N 1200 block of Harris Inspection: Check for clogging in ditches, culverts and catch basins from 8th to 12th. Maintenance: Clear any blockage.	Culverts in ditches cause flooding. Outfall to I-5: Outfall eroding bank, storm pipe broken; Check for WSDOT ROW.

STORM CHECKLIST

Check the following locations during or after large rainstorm events.	Comments
NE 1905 Allen Street Inspection: Check to see if inlet grate from creek to storm pipe is clogged. Maintenance: Clear inlet grate if clogged.	Flooding every few years at 1905 Allen Street, such as into the garage, is runoff from adjacent driveway to west. Flooding on Allen Street: may be an undersized pipe problem. In early 2000's, the high school parking lot was upgraded but this flooding is still an issue.
NE Allen Street and Bates Road Inspection: Check to see if catch basin grate at northwest corner is clogged. Maintenance: Clear grate if clogged.	
NE Allen Street and Swanson Road Inspection: Check to see if leaves clog the catch basin grate. Maintenance: Clear grate if clogged.	Flooding causes ponding that reaches centerline of Allen Street.
NE 400 Block of 23rd Avenue Inspect: All state grates on street from 400 to 608 N. 23rd for clogging on grates. Maintenance: Clear grate of debris.	23rd Avenue was completely covered with runoff in January 2009 Storm. Next to church. Outlet pipes on state grate catch basin need cleaning.
NE Allen Street at N 23rd Avenue Inspect: Check to see if north & south catch basins on Allen Street, across from church, are clogged. Maintenance: Clear grate of debris.	Clogged grate on south side caused flooding during storm of 2009.
NE Allen Street at Corduroy Inspection: Check to see if tributary to Coweeman River has flooded roadway. Maintenance: If Allen Street is flooded, place road closed signs in road.	Allen Street flooded in storm of January 2009.
NE Bloyd (Little) Canyon - 2100 block of Bloyd Inspection: Check inlet structure/grate for clogging with sediment and debris. Maintenance: Clear debris from inlet structure grate.	Creek enters storm pipe here with inlet grate. Water used to go over road and continue down canyon. Maintenance near inlet has stopped flooding at this location, however, downstream problems at privately installed culverts. Grate is cleaned 2-3 times per week during storms.
NE Burcham (Big) Canyon - across from Rotary Park Inspection: Check to see if inlet structure grate is clogged with debris. Maintenance: Clear debris from inlet structure grate.	Floods several times per year, no property damage. CIP project for design/construct new intake structure in 2013.
NE Reservoir Road at Mt. Brynion Road Inspection: Check to see if catch basin grate is clogged with gravel. Maintenance: Clear catch basin grate.	Grate becomes clogged with gravel. This catch basin is in the County. Check with Larry Higgins to see if the County will inspect/maintain this catch basin. The City likely installed this CB as part of installing the road to the reservoir.
NE 1306 Minor Road Inspection: Check for clogging at CB on east side of road and catch basin grate. Maintenance: Clear catch basin grate if plugged.	Blocked CB causes stormwater to cross the road and down drainage ditch. Two City catch basin in extended right-of-way to east. East CB needs maintenance/replacement. No flooding or property damage.
NE Teresa Way at Florence Avenue Inspection: Check to see if catch basin at NE corner is clogged. Maintenance: Clear any clogging.	Flooding issues haven't been a problem for quite awhile.
NE Florence Avenue Inspection: Check for clogging in manhole on west side of road and check catch basin at NE corner and manhole at SE corner of intersection. Maintenance: Clear any clogging.	Stormwater surcharges out of manhole and down bank to 1600 block of Minor Road. Maybe an undersized pipe is the problem. Flooding issues haven't been a problem for quite awhile.
S Train Depot - So. 1st Avenue and Ash Street Inspection: Check to see if flooding in basement walkway of train depot. Maintenance: See if flapper valve in manhole at SE corner works properly.	Flooding in train depot basement has occurred. In January 2013, a flapper valve installed in manhole at SE corner of intersection for flooding.

STORM CHECKLIST

Check the following locations during or after large rainstorm events.	Comments
S 1000 Block of Oak Street (cul-de-sac) Inspection: Check to see if two catch basins are flooding. Maintenance: Remove any debris from catch basins. Place barricades in street.	Capacity issue. Flooding by surcharging catch basin in storm of January 2009.
S 900 block Cedar Street Inspection: Check to see if road is flooded. Maintenance: If flooded, place road closed signs on the street.	Flooding issues. Road floods during storm from curb to curb. Between 8th & 9th, Cedar Street floods on south side. Pipe pumps water to road at 909 Cedar. Investigate storm system for blockage between 9th - 11th Avenues and potential need for capacity upgrade.
S Elm Street and S 7th Avenue Inspection: Check catch basins at NW and SW corners at intersection. Maintenance: Remove debris from catch basin grates. May need upsizing of pipes.	Likely a capacity issue. Storm pipes were cleaned and TV'd but unsuccessful. Needs more investigation. Flooding can get 12+ inches deep and floods during every significant rainfall. Has flooded basement at 1112 So. 7th Ave. May get property damage.
S Riverside Drive Inspection: Check to see if the road is flooded due to rising waters from the Cowlitz River. Maintenance: Place road closed signs in road.	Rising Cowlitz River floods onto Riverside Drive at S-curve. Flooding occurs less than once every 10 years. May have property damage if it floods. Riverside Drive Flood Prevention Improvements project is a CIP project to address the issue.
S Coweeman Drive Inspection: Check to see if road is flooded. Maintenance: If flooded, place road closed signs on the street.	A sag in the road causes ponding on the road. A catch basin with outfall to river would help.
E Haussler Road culverts Inspection: Check to see if all culvert inlets along road are clogged. Maintenance: Clear clogged inlets.	Culvert inlets at Kelso Drive plug more often than those up the hill and must be cleared monthly during wet season. Flooding occurs over roadway but no property damage.
E 136 West Vista Way culvert Inspection: Check to see if all culvert inlet is clogged. Maintenance: Clear clogged inlet.	Stormwater can flood 128 W. Vista Way basement. June 2010 culvert blockage/flooding resulted in claim. Ditch rehabilitation upstream from culvert in Nov. 2011 may have solved culvert blocking.
Inspection: Check for flooding at catch basin on north side of road and drain pipe to gully. Maintenance: Remove debris from catch basin. Repair drain pipe is necessary.	Catch basin at road sag has caused flooding at house gargage in the past. Its drain pipe that outfalls to gully has deteriorated and is scheduled for replacement in 2013.
Is 122 Roley Court - gully culvert Inspection: Check to see if culvert in creek bed is plugged with debris and sediment. Maintenance: If clogged, clear culvert inlet.	Culvert becomes clogged less than once every 10 years. If culvert gets blocked, an area of the canyon will flood but with no property damage. A waterline crosses the canyon here and is the reason for the culvert. Culvert is becoming rusted and may fail.
E Carroll Road culverts Inspection: Check to see if all culvert inlets along road are clogged. Maintenance: Clear clogged inlets.	Leaves and limbs plug culvert inlets and stormwater floods over road but no property damage. Clogging can occur as often as weekly.
E Old Highway 99 south to City Limits Inspection: Check to see if all culvert inlets and catch basins along road are clogged and if intermitent stream discharge sediment into ditch/road, especially across from U-Neek Trailers. Maintenance: Clear clogged inlets and catch basin grates. Excavate sediment to ditch flowline & remove sediment from road.	Flooding and sedimentation occurs in street. No property damage. An intermittent stream discharges lots of soil/rocks/debris into ditch across from U-Neek Trailers. Ditch maintenance here in 2009/2010 removed excess debris.

APPENDIX E GRANT AND LOAN PROGRAMS

Summary of Some Grant and Loan Programs for Drinking Water and Wastewater Projects Updated 2-1-13

Please contact Cathi Read at cathi.read@commerce.wa.gov if you would like to update your program information or if you would like an electronic copy of this document

PLANNING

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
CDBG-POG Community Development Block Grant – Planning-Only Grant Program	 Comprehensive plans Infrastructure plans Feasibility studies Community action plans Low-income housing assessments 	Projects must principally benefit low- to moderate-income people in nonentitlement cities and counties. Cities or towns with fewer than 50,000 people Counties with fewer than 200,000 people	 Grant Up to \$24,000 for a single jurisdiction Up to \$35,000 for single jurisdiction projects that address urgent public health and safety needs Up to \$40,000 for multiple jurisdictions/joint application 	2013 applications accepted beginning May 2013 through April 2014 on a fund-available basis. Contacts: Phyllis Cole, 360-725-4001 phyllis.cole@commerce.wa.gov Jon Galow, 509-847-5021 Jon.galow@commerce.wa.gov
PWTF PLANNING Public Works Trust Fund – Planning Program	 Single or multiple system plans covering eligible systems Updates to existing capital facilities plans Environmental studies Cultural/historical project reviews 	Counties, cities, and special- purpose districts that meet certain requirements (contact Client Service Representative). No school or port districts	No planning funding is currently available.	Note: Availability of future funds is dependent on approval by the Governor and Legislature. Contact: Isaac Huang, Client Service Representative, 360-725-3162, isaac.huang@commerce.wa.gov
CERB PLANNING AND FEASIBILITY GRANTS Community Economic Revitalization Board — Project-Specific Planning Program	Project-specific feasibility and pre-development studies that advance community economic development goals for industrial sector business development.	Counties, cities, towns, port districts, special districts Federally recognized tribes Municipal corporations, quasi-municipal corporations w/ economic development purposes	 Up to \$50,000 per application Requires 25 percent matching funds 	Applications accepted year-round. The Board meets six times a year. Contacts: Janea Eddy, 360-725-3151 janea.eddy@commerce.wa.gov Chris Gagnon, 360-725-3158 Christina.gagnon@commerce.wa.gov
RCAC RURAL COMMUNITY ASSISTANCE CORPORATION Feasibility and Pre-Development Loans	Water and/or wastewater planning; environmental work; and other work to assist in developing an application for infrastructure improvements	Non-profit organizations, public agencies, tribes, and low-income rural communities with a 50,000 population or less, or 10,000 or less if guaranteed by USDA Rural Development financing	 Maximum \$50,000 for feasibility loan Maximum \$350,000 for predevelopment loan 1 year term 5.5% interest rate 	Applications accepted anytime Contact: Josh Griff 720-951-2163 jgriff@rcac.org Applications available on-line at www.rcac.org

PLANNING – continued

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
ECOLOGY: INTEGRATED WATER QUALITY FUNDING PROGRAM State Water Pollution Control Revolving Fund Centennial Clean Water Fund	Planning projects associated with publicly-owned wastewater and stormwater facilities. The integrated program also funds planning and implementation of nonpoint source pollution control activities.	Counties, cities, towns, conservation districts, or other political subdivision, municipal or quasi-municipal corporations, and tribes Preconstruction Set-aside Jurisdictions listed above with a population of 25,000 or less and a MHI (median household income) below the statewide average receive priority for loan funds. Preconstruction Set-aside (Distressed Communities) Jurisdictions listed above with a population of 25,000 or less and a MHI below 80% of the statewide average.	Loan, at either: (SFY 2014 interest rates) • 2.3% interest for 6-20 year term, or • 1.1% interest for 5 year term Pre-Construction Set-aside (Distressed Communities) 50% forgivable principal loan and 50% loan, at either: (SFY 2014 interest rates) • 2.3% interest for 6-20 year term, or • 1.1% interest for 5 year term	State Fiscal Year 2015 application cycle closes on November 1, 2013. Applications typically accepted September 1 through first Friday in November. Contact: David Dunn 360-407-6503 david.dunn@ecy.wa.gov http://www.ecy.wa.gov/programs/wq/funding/funding.html
RD PRE-DEVELOPMENT GRANTS (PPD) U.S. Dept. of Agriculture Rural Development – Rural Utilities Service – Water and Waste Disposal Direct Loans and Grants RD 'SEARCH' GRANTS: SPECIAL EVALUATION ASSISTANCE FOR RURAL COMMUNITIES U.S. Dept. of Agriculture Rural Development – Rural Utilities Service – Water and Waste Disposal Direct Loans and Grants	Water and/or sewer planning; environmental work; and other work to assist in developing an application for infrastructure improvements Water and/or sewer planning; environmental work; and other work to assist in developing an application for infrastructure improvements.	Low-income, small communities and systems serving areas under 10,000 population. Low-income, small communities and systems serving areas under 2,500 population.	Loans; Grants in some cases, depending on funding availability. Maximum \$25,000 grant Requires minimum 25% match Maximum \$30,000 grant. No match required.	Applications accepted year-round, on a fund-available basis. Contact: Gene Dobry 360-704-7733 eugene.dobry@wa.usda.gov http://www.rurdev.usda.gov/wa Applications accepted year-round, on a fund-available basis Contact: Gene Dobry 360-704-7733 eugene.dobry@wa.usda.gov http://www.rurdev.usda.gov/wa

PRE-CONSTRUCTION

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
PWTF PRE-CON Public Works Trust Fund – Pre-Construction Program	Low-interest pre-construction loans are available to fund activities that prepare a specific project for construction.	Counties, cities, special purpose districts, and quasi-municipal organizations that meet certain requirements. School districts and port districts are not eligible.	 The Public Works Board has requested \$22.5 million for FY 2013-15. Availability of future funds is dependent on approval by the Governor and Legislature. Loan terms to be made available once program is funded. 	Check the Public Works Board website periodically at http://www.pwb.wa.gov to obtain the latest information on program details. You can also contact your region's Client Services Representative for current information, or Contact: Terry Dale Client Service Representative 360-725-3155 terry.dale@commerce.wa.gov

PRE-CONSTRUCTION - continued

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
ECOLOGY: INTEGRATED WATER QUALITY FUNDING PROGRAM State Water Pollution Control Revolving Fund Centennial Clean Water Fund	Design projects associated with publicly- owned wastewater and stormwater facilities. The integrated program also funds planning and implementation of nonpoint source pollution control activities.	Counties, cities, towns, conservation districts, or other political subdivision, municipal or quasimunicipal corporations, and tribes Preconstruction Set-aside Jurisdictions listed above with a population of 25,000 or less and a MHI (median household income) below the statewide average receive priority for loan funds. Preconstruction Set-aside (Distressed Communities) Jurisdictions listed above with a population of 25,000 or less and a MHI below 80% of the statewide average.	Loan, at either: (SFY 2014 interest rates) • 2.3% interest for 6-20 year term, or • 1.1% interest for 5 year term Pre-Construction Set-aside (Distressed Communities) 50% forgivable principal loan and 50% loan, at either: (SFY 2014 interest rates) • 2.3% interest for 6-20 year term, or • 1.1% interest for 5 year term	State Fiscal Year 2015 application cycle closes on November 1, 2013. Applications typically accepted September 1 through first Friday in November. Contact: David Dunn 360-407-6503 david.dunn@ecy.wa.gov http://www.ecy.wa.gov/programs/wq/funding/funding.html
RCAC RURAL COMMUNITY ASSISTANCE CORPORATION Feasibility and Pre-Development Loans	Water and/or wastewater planning; environmental work; and other work to assist in developing an application for infrastructure improvements	Non-profit organizations, public agencies, tribes, and low-income rural communities with a 50,000 population or less, or 10,000 or less if guaranteed by USDA Rural Development financing	 Maximum \$50,000 for feasibility loan Maximum \$350,000 for predevelopment loan 1 year term 5.5% interest rate 	Applications accepted anytime Contact: Josh Griff 720-951-2163 jgriff@rcac.org Applications available on-line at www.rcac.org

CONSTRUCTION and DESIGN/CONSTRUCTION

Program Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
CDBG-GP Community Development Block Grant – General Purpose Grant Program	Final design and construction of wastewater, drinking water, side connections, stormwater, streets, bridge, community facility, economic development, and housing rehabilitation projects.	Projects must principally benefit low- to moderate-income people in non-entitlement cities and counties. Cities or towns with fewer than 50,000 people Counties with fewer than 200,000 people	 Grant Up to \$250,000 - \$1,000,000, depending on project type, financial need, and past grant awards No match required, but local contribution and gap financing preferred 	Applications due once a year. Due date January 31, 2013. Contact: Kaaren Roe 360-725-3018 kaaren.roe@commerce.wa.gov
PWTF Public Works Trust Fund – Construction Program	New construction, replacement, and repair of existing infrastructure for domestic water, sanitary sewer, stormwater, solid waste, road or bridge projects, and reasonable growth.	Counties, cities, special purpose districts, and quasi-municipal organizations that meet certain requirements (contact a Client Service Representative for more information). No school districts or port districts. NEW: • Affordability Index: Affordability Index (AI) is a measure of the consumers' financial ability to pay for utility services. Applicants that qualify for AI terms can receive lower cost loan terms • Performance based incentives: Projects that meet contract incentives can qualify for slightly lower interest rate or longer repayment term.	Loan (pending Legislature approval) \$ \$ million per jurisdiction for the 2015 funding year • Must complete work within 60 months Interest rates are set by loan term: • 10 years – 0.5% • 15 years – 0.75% • 20 years – 1.0% • 25 years – 1.5% • 30 years – 2.0% • Standard loan term is 1% interest at 20 years. • The repayment term cannot exceed the life of the improvement. • No local match is required.	2015 Application Cycle opens March 15, 2013 and closes in May 2013. Please visit http://www.pwb.wa.gov for information. Contact: Isaac Huang, Client Service Representative 360-725-3162 isaac.huang@commerce.wa.gov
RD U.S. Dept. of Agriculture Rural Development - Rural Utilities Service - Water and Waste Disposal Direct Loans and Grants	Pre-construction and construction associated with building, repairing, or improving drinking water, solid waste facilities and wastewater facilities	 Cities or towns with fewer than 10,000 population Counties, special purpose districts, non-profit corporations or tribes unable to get funds from other sources at reasonable rates and terms 	Loans; Grants in some cases Interest rates vary (currently 1.875 – 3.125%) Up to 40-year loan term No pre-payment penalty	Applications accepted year-round on a fund-available basis Contact: Gene Dobry 360-704-7733 eugene.dobry@wa.usda.gov http://www.rurdev.usda.gov/wa

CONSTRUCTION AND DESIGN/CONSTRUCTION – continued

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
DWSRF Drinking Water State Revolving Fund	Drinking water system infrastructure projects aimed at increasing public health protection. The program now includes dedicated funding for subsidy. There is a limited amount of principal forgiveness for communities with high affordability index numbers and water system restructuring/ consolidation projects.	Community and non-community water systems (includes for-profit and non-profit systems, but not federal or state-owned systems); both privately- and publicly-owned systems are eligible	 Loan 1 percent loan fee (water systems receiving subsidy are not subject to loan fees) \$12 million per jurisdiction per year \$24 million for jointly-owned projects 1 to 1.5 percent interest rate Loan repayment period: 20 years or life of the project, whichever is less No local match required 	Applications due March 1, 2013 Contact: Karen Klocke 360-236-3116 karen.klocke@doh.wa.gov www.doh.wa.gov/ehp/dw/our_m ain_pages/dwsrf.htm
ECOLOGY: INTEGRATED WATER QUALITY FUNDING PROGRAM State Water Pollution Control Revolving Fund Centennial Clean Water Fund	Construction projects associated with publicly- owned wastewater and stormwater facilities. The integrated program also funds planning and implementation of nonpoint source pollution control activities.	Counties, cities, towns, conservation districts, or other political subdivision, municipal or quasi-municipal corporations, and tribes Hardship Assistance Jurisdictions listed above with a population of 25,000 or less	Loan, at either: (SFY 2014 interest rates) 2.3% interest for 6-20 year term, or 1.1% interest for 5-year term Hardship assistance for the construction of wastewater treatment facilities may be available in the form of a reduced interest rate, grant subsidy, or loan forgiveness. Hardship assistance is based on impact to residential ratepayers and the community MHI. Hardship funding is only available for the portion of a facility serving existing residential need.	State Fiscal Year 2015 application cycle closes on November 1, 2013. Applications typically accepted September 1 through first Friday in November. Contact: David Dunn 360-407-6503 david.dunn@ecy.wa.gov http://www.ecy.wa.gov/programs/wq/funding/funding.html

CONSTRUCTION and DESIGN/CONSTRUCTION – continued

Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
CERB Community Economic Revitalization Board - Construction Program	Projects must support significant job creation or significant private investment in the state. Bridges, roads and railroad spurs, domestic and industrial water, sanitary and storm sewers Electricity, natural gas and telecommunications General purpose industrial buildings, port facilities Acquisition, construction, repair, reconstruction, replacement, rehabilitation	 Counties, cities, towns, port districts, special districts Federally-recognized tribes Municipal and quasimunicipal corporations with economic development purposes. 	Loans; grants in unique cases Public facility projects required by private sector expansion and job creation Projects without a committed business allowed for rural areas \$1 million maximum per project, per policy Interest rates: 3% for non-distressed and 2.5% for distressed counties 20-year term maximum Requires 10% minimum match Applicants must demonstrate gap in public project funding and need for CERB assistance CERB is authority for funding approvals	Applications accepted year-round. The Board meets six times a year. Contacts: Janea Eddy 360-725-3151 janea.eddy@commerce.wa.gov Chris Gagnon 360-725-3158 Christina.gagnon@commerce.wa.gov
RCAC RURAL COMMUNITY ASSISTANCE CORPORATION Construction Loans	Water, wastewater, solid waste and stormwater facilities that primarily serve low-income rural communities. Can include predevelopment costs.	Non-profit organizations, public agencies, tribes, and low-income rural communities with a 50,000 population or less, or 10,000 populations or less if using Rural Development financing as the takeout	 Maximum \$2 million with commitment letter for permanent financing Security in permanent loan letter of conditions 1-3 year term: 5.5% interest rate 1% loan fee 	Applications accepted anytime Contact: Josh Griff 720-951-2163 jgriff@rcac.org Applications available on-line at www.rcac.org
RCAC RURAL COMMUNITY ASSISTANCE CORPORATION Intermediate Term Loan	Water, wastewater, solid waste and stormwater facilities that primarily serve low-income rural communities.	Non-profit organizations, public agencies, tribes, and low-income rural communities with a 50,000 population or less.	 For smaller capital needs, normally not to exceed \$100,000 Maximum 20 year term 5% interest rate 1% loan fee 	Applications accepted anytime Contact: Josh Griff 720-951-2163 jgriff@rcac.org Applications available on-line at www.rcac.org

EMERGENCY

Project Phase/Program	Eligible Projects	Eligible Applicants	Funding Available	How To Apply
PWTF Public Works Trust Fund – Emergency Program	Projects necessary due to natural disaster, or immediate/emergent threat to public health and safety For domestic water systems, sanitary sewer, stormwater, solid waste, roads and bridges	Counties, cities, special purpose districts, and quasi-municipal organizations that meet certain requirements (contact a Client Service Representative for more information). No school or port districts.	No emergency funding is currently available.	Note: Availability of future funds is dependent on approval by the Governor and Legislature. Contact: Isaac Huang Client Service Representative 360-725-3162 Isaac.huang@commerce.wa.gov
CDBG - IT Community Development Block Grant – Imminent Threat Grant Program	Repair unanticipated water, sewer and other public drainage facility damages that pose an immediate, urgent threat to public health and safety. A formal disaster must be declared	 Non-entitlement cities or towns with fewer than 50,000 people Non-entitlement counties with fewer than 200,000 people 	Grant; pending availability of funds Only eligible costs incurred after an emergency is formally declared can be reimbursed	Applications accepted year-round. Contact: Kaaren Roe 360-725-3018 kaaren.roe@commerce.wa.gov
RD – ECWAG Emergency Community Water Assistance Grants	Domestic water projects needing emergency repairs due to an incident such as: a drought; earthquake; flood; chemical spill; fire; etc. A significant decline in quantity or quality of potable water supply that was caused by an emergency	Public bodies, tribes and private non-profit corporations serving rural areas with populations under 10,000	 Grant; pending availability of funds \$150,000 limit for incident related emergency repairs to an existing water system \$500,000 limit to alleviate a significant decline in potable water supply caused by an emergency 	Applications accepted year-round on a fund-available basis Contact: Gene Dobry 360-704-7733 eugene.dobry@wa.usda.gov http://www.rurdev.usda.gov/wa
RCAC RURAL COMMUNITY ASSISTANCE CORPORATION Intermediate Term Loan	Water, wastewater, solid waste and stormwater facilities that primarily serve low-income rural communities.	Non-profit organizations, public agencies, tribes, and low-income rural communities with a 50,000 population or less.	 For smaller capital needs, normally not to exceed \$100,000 Maximum 20 year term 5% interest rate 1% loan fee 	Applications accepted anytime Contact: Josh Griff 720-951-2163 jgriff@rcac.org Applications available on-line at www.rcac.org