

	Management Strategy		Measurable Goals	Milestones	FY	FY	FY	FY	FY	Annual Goal Tracking	Annual Status Update	
					16-17	17-18	18-19	19-20	20-21			
GIS Data Review & Assessment	1. Utilize GIS data to assess shade/canopy cover, prioritize and document planting projects, and to evaluate changes in the City's tree canopy.	1A	Assess 2009 Riparian Shade Inventory to determine applicable updates that may include options for improved constraint/opportunities mapping and increasing the number of available shade categories (FY 2016-17).	Convene workgroup to review 2009 Inventory data and to develop project scope that incorporates collective data needs among different sections.	X					Identify workgroup involvement, track meetings and significant decisions/outcomes. Track progress made on desktop tasks and field verification and analysis.	Completed. Pacific Habitat Services was hired to conduct the analysis. They determined that the increase in shade categories as well as better distinction between widths is too difficult to determine with any degree of confidence. They suggested to do instream shade monitoring for our restoration projects. Future options and technology to determine the shade will be considered in subsequent years.	
				Develop scope of work with project goals (and budget if consultant services needed).	X							
				Conduct desktop/field analysis internally or with assistance of consultant services.	X	X						
		1B	Review Riparian Prioritization Database and weighting criteria for potential improvements and increased utility (FY 2016-17).	Convene workgroup to determine desired functionality for increased use.	X					Identify workgroup involvement, track meetings and significant decisions, field inspections	The stormwater retrofit prioritization tool is now complete. A portion of the tool uses riparian values in the assessment for those properties that have streams running through them. Riparian projects can be entered into this database and ranked. Generating and ranking riparian sites for planting will be on ongoing process. Currently, the area of focus for planting and enhancement is on City of Salem sites.	
				Identify high priority areas/taxlots based on data review (shade, constraints, ownership, access, opportunity for community involvement etc.)		X						
				Generate prioritized list of future targeted areas for planting and riparian enhancements (FY 2017-18).		X						
		1C	Create GIS database to document all upland and riparian projects (FY 2017-18).	Develop criteria and tracking mechanism for database.	X					Identify workgroup involvement, track meetings and significant decisions/outcomes. Track the number of fines, planting sites, and number of plants planted.	GIS and technical staff met during FY 2017-18 to discuss tracking the upland and riparian projects. However, this task will now be addressed by the Natural Resources Workgroup for further discussion so that all three milestones can be addressed together.	
				Work with Community Development to ensure knowledge of priority sites for planting (fines).	X							
				Generate a master map to assist with internal communication and update as needed based on available project data.		X						
		1D	Complete next update to 2010 Salem Canopy Study (FY 2020-21).	Develop scope of work, hire COR, and update study.						X	Track progress made on next canopy study.	The Canopy Study is scheduled to be conducted in FY 2020-21. However, during FY 2017-18, the City developed a street tree inventory to assess the number and species of street trees within the City of Salem. In summer 2018, the street tree inventory will be beta tested. The City is also developing a contract with Treecology to plant 100-150 street trees per year.

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	2A	Continue to utilize contracted services to coordinate multi-year riparian planting projects on City-owned parcels (Annually).	Update annual Scope of Work with contractor to outline project location(s), site preparation, planting plan, maintenance needs, and estimated schedule of activities.	x	x	x	x	x	Track annually the number of linear feet planted, number of trees/shrubs installed, and number of volunteers involved.	Friends of Trees will be providing continued services for the Judson Middle School site. One tree and shrub planting event is scheduled for March 9, 2019, and a follow up tree care event on May 4, 2019. Maintenance of invasive species at this site is ongoing. An additional riparian site is expected to be added for FY 2018-19.
			With consideration for the time needed for site prep and invasive vegetation removal in mind, ensure that at least 150 linear feet of streambank are planted with native trees/shrubs and/or receive targeted invasive vegetation removal each year (Annually).	x	x	x	x	x		Approximately 450 linear feet along Pringle Creek at the Judson Middle School site was treated for invasive plants and planted with native trees and shrubs. Turnage Brook at Eola Park received 590 small native shrubs and trees and Pringle Creek at Judson Middle School received 1,200 small native shrubs and trees. Total volunteer number is 119 and the number of volunteer hours is 421.
			Reassess and document continued project maintenance needs (Annually).	x	x	x	x	x		Friends of Trees provides continued maintenance work at Judson Middle School.
			Reassess contract renewal/continued contracting needs for future planting events.		x					The contact with Friends of Trees was assessed and renewed for a 5-year period.
	2B	Pursue MOA with local school district for multi-year riparian and upland planting projects on school owned lands. (FY 2016-17).	Meet with District staff to discuss possible collaboration and potential concerns.	x					Document collaboration efforts with District, Council acceptance, progress and/or changes made to MOA, and any associated planting activities. Track number of plants provided, and area planted.	Completed in prior years.
			Draft MOA that meets District needs and clarifies project scope, boundaries, and future maintenance responsibilities.	x						Completed in prior years.
			Submit MOA to City Council for approval to execute.	x						Completed in prior years.
			Initiate planting efforts on school owned properties under MOA or alternate agreement.		x	x	x	x		The work at Judson Middle School is in progress and no new school sites are currently planned. We are recommending to complete the work at Judson successfully before continuing on with a new school.

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Trees & Native Vegetation	2. Partner with local agencies, non-profits, volunteer groups, and local residents to coordinate plantings and to control invasive vegetation along Salem streams.	2C	Continue to offer native vegetation to targeted streamside properties (Annually).	Continue to offer native vegetation to at least 20 private streamside residents to supplement public planting projects. These residents are typically adjacent to the contracted project area and identified as having low riparian shade.	X	X	X	X	X	Track number of properties receiving assistance and the number of plants provided.	The City partnered with the the Glenn-Gibson Watershed Council to provide vegetation for 20 homeowners along the "headwaters" of Goldcrest Brook. However upon assessment, they determined that erosion issues need to be addressed first. City staff are developing a plan to provide more detention upstream of this site. To be able to address this item, the City is seeking to reinstate its Free Tree Program and offer all streamside residents and businesses the ability to get free trees and shrubs for their properties.	
				If available, continue to provide native trees and shrubs (or offer alternate resources) for additional requests received.	X	X	X	X	X			
		2D	Initiate a collaborative effort with another partnering agency to assist private streamside property owners in Salem with invasive vegetation removal and control (FY 2015-16).	Finalize and submit to City Council a staff report with request to enter a MOA. If necessary, identify alternate partnering options.	X						Document Council Action, number of properties to receive assistance, and assistance provided.	Completed in prior years.
				Review existing streamside data and identify a proposed list of taxlots to receive assistance.	X					Based on stream survey information in the Pringle Creek Watershed, 10 sites were originally identified to have knotweed. Additional sites were identified and added to the list.		
				Seek approval/interest from identified streamside residents and initiate control efforts.	X					Sixteen sites along Pringle Creek received treatment.		
				Create tracking mechanism to document location of efforts and continued progress made.	X	X				A map of invasive species has been developed for field data collection by the stream crew. Data from the knotweed efforts will be forwarded to add to the map.		
				Continue to provide and track assistance as resources allow.		X	X	X	X	Surveys of the treated properties showed successful treatment of knotweed. Site surveys showed that knotweed was eliminated or highly reduced at all sites. These efforts will continue in FY 2018-19 and include the Croisan Creek Watershed.		

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		2E	Develop a process for pursuing strategic planting and/or other riparian enhancements on lands donated/vacated to the City and on newly developed/ re-developed properties (FY 2019-20).	Initiate internal meeting(s) with staff from multiple Divisions/Departments to determine core stakeholders, needs, and discuss options forward.		X	X			Document efforts/progress made on the development of an internal process.	See Strategy 1B above. Strategic planting opportunities and riparian enhancement projects will be prioritized using the Prioritization Tool.
				Finalize and document internal procedures based on predetermined need.				X			
		2F	Develop mechanism to offer replacement trees to residents/businesses where fallen trees have been removed (FY 2017-18).	Develop long-term approach for providing replacement trees/vegetation and planting assistance if needed.		X				Document internal coordination and determined approach for replacement trees.	Replacement trees and vegetation will be offered to residents when the opportunity is identified or requested. No requests or opportunities based on fallen trees were identified during this reporting period.
				Ensure appropriate tracking mechanism for this assistance is developed, as needed.		X					
Stream Mitigation Bank	3. Implement Stream Mitigation Banking (SMB) Program as a means to offset impacts to waterways from public infrastructure improvements projects.	3A	Continue to monitor the approved SMB Project Site (Waln Creek) according to established performance standards (Annually).	Maintain riparian vegetation and control noxious/invasive weeds to ensure establishment of the approved native plant communities.	X	X	X	X	X	Track completion of required monitoring activities. Implement management recommendations.	The site is meeting all vegetation and channel stability requirements. City will pursue developing a management plan for the area that will allow for more credits to be released. The monitoring work is being done by contracted services with Pacific Habitat Services.
				Monitor established stream cross-sections to ensure continued streambank stability.	X	X	X	X	X		
				Document site conditions with photographs from established points.	X	X	X	X	X		
				Meet permit and SMB standards for channel stability and habitat.	X	X	X	X	X		
		3B	Submit an annual monitoring report and SMB Report to the ACOE and DSL by January 31 of each year (Annually).	Report to agencies for seven years.	X	X	X	X	X	Track completion of required reports.	Staff submitted the report to agencies prior to January 1, 2017.
				Develop a Long-term Management Plan for the SMB Project Site.		X					

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Stream Stabilization	4. Pursue options for streambank stabilization and riparian enhancement projects that incorporate bioengineering practices, the instream placement of woody debris, and native plants.	4A	Complete at least one streambank stabilization/enhancement pilot project per TMDL plan cycle that incorporates bioengineering practices and the instream placement of large woody debris and (FY 2020-21).	Evaluate options for project funding (FY 2016-17).	X					Document determined funding mechanism, identified project location/scope, and efforts to project completion.	Completed in prior years.	
				Based on available funding mechanism determine pilot project location and estimated scope of effort.		X					Detrmined in prior years for Woodmansee Park in the Pringle Creek Watershed.	
				Finalize project scope and design.			X	X			In February 2018, a consultant produced the West Fork Pringle Creek Design Concepts report, which summarizes design concepts for the enhancement of a stretch of Pringle Creek flowing through the City's Woodmansee Park. Design concepts have been developed to address the various impacts from watershed hydromodification and instream erosion, lack of stream diversity, and temperature TMDL. The report summarizes the West Fork Pringle Creek assessment, recomends enhancement strategies and overall design concepts, a stand-alone package to support the City's CIP planning process, and provides visualizations of concept designs. Next phase is to continue stakeholder coordination and develop a schedule for public meetings and community outreach.	
				Initiate bioengineering methods and installation of large woody debris.				X				
				Complete intitial pilot project per final scope and design.					X			
		4B	Pursue development of no cost home new options/programs to assist residents with streambank erosion and planting (FY 2019-20).	Initiate internal meetings to determine best approach forward toward development of a new alternative for assistance.		X			Identify workgroup involvement, track meetings and significant decisions, and progress made on assistance program.	Staff met to address this milestone. It was determined to continue the use of the City's Watershed Protection and Preservation Grant to assist homeowners with streambank erosion. An additional \$25,000 was proposed for stormwater services' FY 2018-19 budget for streamside erosion projects, if needed; however, the Watershed Protection and Preservation Grant is the primary source for resident and business projects.		
	Finalize plan for providing assistance with streambank erosion.				X							
Riparian Protections	5. Continue to review and revise Salem Revised Code (SRC) provisions to ensure protection of riparian area buffers.	5A	Complete next review of SRC and Administrative Rules to identify inconsistencies and/or barriers to adequate enforcement (FY 2020-21)	Initiate internal workgroup to review recently reorganized SRC.		X				Identify workgroup involvement, track meetings and significant decisions, and changes proposed to SRC.	A small work group has been identified and this project will become a part of the discussion for the Natural Resources committee to further address in FY 2018-19.	
				Coordinate with staff from Public Works, Community Development, and Legal on any proposed adjustments to SRC and/or the Administrative Rules.			X	X	X			X
				Ensure protections for areas identified as having ample riparian canopy cover based on available GIS data.		X	X	X	X			

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Public Education & Outreach	6. Assess and engage the community in education efforts focused on stream temperature.	6A	Assess the low-shade audience for development of a targeted outreach plan and schedule (FY 2017-18).	Use updated riparian shade inventory and prioritization database to identify low canopy areas for targeted outreach.	x	x				Determine feasible target number for yearly outreach. Create schedule and track number of contacts, interested parties, and plants planted.	Shade inventory was not updated based on consultant recommendations. Staff will still continue to use the current shade inventory for targeting outreach areas.	
				Assess barriers to audience identified above.			x	x			A consultant was hired in this fiscal year to conduct a study in FY 2018-19 that identifies audience barriers. The study is designed to identify barriers and relate those to the shade categories: low, medium, or high canopy cover.	
				Develop outreach schedule for targeted properties.			x	x			Outreach schedule will be developed based on information gained from the survey conducted in FY 2018-19.	
				Pursue the development of incentives to encourage planting along streambanks.			x	x	x		x	The 2018-19 survey is designed to help determine incentives that encourage planting along streambanks.
		6B	Update Riparian Outreach Plan incorporating results of streamside survey (FY 2018-19)	Develop and conduct survey for streamside residents.			x				Track survey development, number of surveys completed, and results.	A consultant was hired in this fiscal year to conduct a study in FY 2018-19.
				Update outreach plan based on the survey results.			x	x		This item is set for a due date of July 2019.		
		6C	Use a variety of tools to convey riparian values to the general public (Annually).	Update retooled website with "key components" information from Riparian Outreach Plan.	x	x	x	x	x	Track #/content of updated materials to website. Document planting incentives (materials, trainings, etc.) provided to citizens.	Staff has written riparian information for the web. Staff is currently addressing the web redesign and is slated to have the website complete by June 2019.	
				Compile updated information for streamside mailers, online ads, radio, presentations.	x	x	x	x	x		The City's streamside guide to homeowners living along a stream was mailed in spring 2018. The City also uses the radio and social media to provide information on riparian values and volunteer opportunities for tree plantings along streams.	
		6D	Continue/develop partnerships to share messages and leverage resources (Annually).	Assist with development and implementation of a local backyard habitat program.	x	x	x	x	x	Track progress made on habitat program, number of applications, partners and participants.	Staff continue to assist the Marion Soil and Water Conservation District with the program where needed.	
				Continue to participate in MWOG and regional coalition.	x	x	x	x	x		Staff attend monthly MWOG meetings. The two culminating events are the annual Erosion Control Summit designed for construction professionals, agency staff, engineers, operations staff; and the Water Festival designed for 4th and 5th grade students to learn about water-related urban issues. (ECS attendance: 110 registered participants and Water Festival attendance: 210)	

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		6E	Continue to support/promote weed control efforts of Salem-based volunteer groups (Annually).	Develop and implement streamside workshops for riparian landowners.			X	X	X	Track advertising activities and all efforts associated with planting projects on public or private streamside properties.	The FY 2018-19 survey to riparian property owners asks questions aimed to develop these workshops.
				Promote efforts by local volunteer groups by providing materials to the public during community events, utilizing social media and internal communications, and advertising their efforts and the associated benefits through other tools as the resources are available.	X	X	X	X	X		Both tasks are ongoing. The Salem No Ivy Coalition helped promote weed control efforts and participated in ivy pulls at the following events: August 12–materials distributed at Englewood Forest Fest; October 2017–2 events at Deepwood (Chemeketa students) 40 trees saved; October 2017–Wallace event, 90 trees saved; October 2017–Hilfiker Park Property, 100 trees; November 2017–SOLVE/SWCD event, 120 trees saved; November 28–native planting at Waldo Park; December 2017–Deepwood, 26 trees saved; April 2018–2 events at Woodmansee Park, 40 trees saved; May 2018–Orchard Heights, 22 trees saved; May 2018–Deepwood, 18 trees saved.
				Pursue options to utilize volunteer weed removal services to supplement both public planting projects and efforts to assist private streamside properties.	X	X	X	X	X		
Internal Communication	7. Ensure internal awareness of TMDL requirements, Implementation Plan strategies, and project updates/needs.	7A	Develop informational report that provides an overview of the City's TMDL Implementation Plan (Plan) and annual reporting requirements to Salem City Council (FY 2016-17). Ensure that information about TMDL requirements and/or associated tree planting events is included in management reports and internal newsletter. (Ongoing/Annually)	Provide staff report to City Council once per 5-year TMDL cycle.	X					Track progress made/comments on staff report, number of event summaries provided in management reports, and number of articles completed.	This item is slated for the final year of the plan to coincide with the renewal process.
				Draft an event summary following each coordinated planting event.	X	X	X	X	X		Event summaries are provided to the City's Public Information Officers and posted on the Clean Streams Facebook page.
				Complete 2 TMDL related articles per year for internal newsletter.	X	X	X	X	X		The internal PW newsletter, <i>In the Trenches</i> , is currently not being produced. Other options to share information are being determined.

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Additional Items												
Other: Groundwater Recharge	8. Identify mechanisms for groundwater recharge	8A	Promote infiltration rain gardens to the public to help recharge groundwater.	Assist with community development of rain gardens.						Development of community rain gardens or other projects that promote groundwater recharge.	With funding from the Watershed Preservation and Protection grant, Temple Beth Shalom removed a portion of impervious parking lot and created a rain garden to filter and infiltrate water from their building and parking lot. The Friends of Mill Creek and students from North Salem High School helped identify, develop a planting plan, and plant a rain garden at 13th and Marion Street that will help treat road runoff. Proposed rain gardens along Court Street are slated to be placed into the retrofit project process in FY 2018-19.	
				Seek mechanisms to provide enhance wetland function.						Development of city projects that enhance wetland function.	Observations of dry/cracked soil and widespread invasive species cover led to an experimental sandbag dam at Fairview Wetlands, Parcel 5. The dam resulted in increased water levels throughout winter and into summer for two consecutive years. Due to the success of increasing hydrology and the cover of native wetland vegetation, a permanent structure was built enabling the wetland to have a more natural hydrologic regime.	
	9. Support protection and enhancement of North Santiam River	9A	Provide mechanisms for the support and enhancement of the North Santiam River function.	Provide funding to North Santiam Watershed Council to support their work plan.							Develop list of projects that are in part funded by the City's Grant.	Funds from the City's Watershed Protection and Preservation Grant were used to help fund the North Santiam Watershed Council's projects during FY 2016-17. Funding helped the Watershed Council plant 67,550 trees and shrubs in 77 riparian acres of the North Santiam Watershed.
				Assist efforts with the North Santiam Watershed Drought Contingency Plan.						List efforts of coordination.	The City partnered with the North Santiam Watershed Council and the North Santiam Irrigation District for a two-year Bureau of Reclamation grant to develop a Drought Contingency Plan. The plan includes establishing watershed specific drought indicators as well as specific actions to address drought (or water scarcity).	