Section 7

Implementation

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Section 7. Implementation

Implementation is the process of transforming the concerns, ideas, and commitment that went into developing this WPP into tangible action and results. This section details the principles that will guide implementing the solutions identified in Sections 5 and 6, the estimated schedule of implementation, and interim milestones along the way that can be used to gauge progress.

Implementation Strategy

The Partnership balanced the development of potential solutions with the considerations of the logistics of implementation. Some solutions were discarded because they were infeasible to implement, some were focused to specific areas of the watershed, *etc*. The starting point for developing the WPP's implementation strategy is the water quality goals and guiding principles (described in Section 1). From there, the local stakeholders of the Partnership discussed the best ways to translate project ideas into achievable timelines of activity that would be acceptable to the community. The implementation of this WPP will be based on:

- Coordination provided by a watershed coordinator serving as a focal point for WPP efforts;
- Decisions made locally, implemented on a voluntary basis;
- Siting of solutions that considers local needs and conditions, but overall favors areas closest to waterways;
- An opportunistic approach that is flexible enough to maximize resources and opportunities;
- Timelines that consider the changing mix of sources through the implementation period;
- An integrated approach that uses education and outreach to support related solutions;
- A recognition that human waste sources represent a relatively greater pathogenic risk to human health;
- An ongoing focus on adapting plans to meet changing conditions; and
- A special focus on coordinating implementation activities with flood mitigation, source water protection, conservation, and forestry projects in the watershed and region.

Locally Based Watershed Coordinator

Implementing, maintaining, evaluating, and adapting the ongoing and proposed solutions is essential to the success of this project and the future of water quality in the East Fork San Jacinto River watershed. A local watershed coordinator will be necessary to guide

implementation, education, and outreach solutions as the focal point for coordinating these efforts for the WPP. The coordinator will work with local partners to seek opportunities to implement solutions and to find common priorities. The coordinator will maintain a high awareness of and involvement in water quality issues in the area through engagement with related efforts, educational programs, outreach through social media, and communication with the local media. The position will routinely interact with local city councils, county commissioner courts, SWCDs, and other stakeholder groups to keep them informed and involved in implementation activities being carried out in the watershed. Coordinating efforts among key partners is crucial for success and should be one of the primary roles of the position. The watershed coordinator will also work to secure external funding to facilitate implementation activities and coordinate with partner efforts following the initial implementation phase facilitation provided by H-GAC. An estimated $70,000 per year including travel expenses will be necessary for this position, which assumes only a portion of the time of a full-time senior level position, or a greater portion of an entry level position. Initial funding for the watershed coordinator will be incorporated into a CWA §319(h) grant proposal. The Partnership will consider after that point how best to house ongoing facilitation of the Partnership through a watershed coordinator, including consideration of integrating coordination of other local watershed efforts and other local partners.

Coordination with Adjacent Efforts

Coordination with the adjacent practice areas of flood mitigation, conservation, and forestry will be key to successful implementation of this WPP.

Flood Mitigation

While this effort is focused mainly on issues related to water quality, many of the primary grant funding sources (as referenced in **Appendix D**) currently available to local partners focus on resiliency and flood mitigation, a water quantity issue. To maintain visibility as an effort and have the opportunity to tie water quality messages and considerations to flood mitigation efforts, the Partnership will maintain a strong focus on coordinating with local partners (Harris County Flood Control District, and others) and actively participating, as appropriate, in public processes linked to the flood mitigation efforts.

Conservation

The strong tradition of conservation in the watershed and existing organizational capacity among local governments and NGOs provides an opportunity to enhance water quality through the ecosystem services. The Partnership will seek to actively engage with and support conservation initiatives in the watershed and help represent the unique character and needs of the watershed in regional initiatives.

Current efforts include the Gulf-Houston Regional Conservation Plan (Houston Wilderness), the H-GAC Regional Conservation Initiative, and others.

Forestry

Supporting forestry practices is critical in this watershed. Regional efforts include:

- Large scale planting programs by the Harris County Flood Control District, CenterPoint Energy, Texas Department of Transportation, and others;
- Significant research and restoration work by Texas A&M Forest Service and conservation NGOs;
- Broad regional partnerships (e.g., Texas Forests and Drinking Water Partnership[107]).

Project staff have been engaged with local partners in all these pursuits, and the Partnership will continue to participate and actively promote water quality considerations and appropriate areas of the watershed within these efforts.

Timelines for Implementation

Implementation of this WPP is intended to take place over a 16-year initial implementation timeframe (2024-2040). Some of the recommended solutions and outreach elements are intended for the whole implementation period, while some are intended for specific timeframes within that period. Some activities recommended by the Partnership are already underway or are likely to initiate prior to the approval of the WPP. The schedules were developed with the stakeholders to ensure that implementation took place at a feasible rate and meshed with other planned activities and priorities.

Interim Milestones for Measuring Progress

The timelines are intended to reflect the period in which each solution will be implemented, along with the responsible entities and costs they will incur. Additional information about each solution, its intended implementation, and estimated costs can be found in Sections 5 and 6[108]. Interim milestones are identified as goalposts to measure the progress of implementation. Whereas water quality and other criteria will be used to measure the effectiveness of implementation (Section 8), interim milestones measure whether implementation is occurring on schedule (**Table 40**). This table will be updated as part of future WPP updates, after each implementation phase, or as needs warrant.

[107] For more information, see: https://tfsweb.tamu.edu/partnership/#:~:text=The%20Texas%20Forests%20and%20Drinking,important%20and%20interdependent%20natural%20resource

[108] While not specifically noted in Sections 5 and 6, the Supporting Research tasks identified in Section 8, following, are also included in the planning for implementation.

Table 40. Interim milestones for solutions and outreach activities

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
General (N/A)	General – Watershed Coordinator	Retain a Watershed Coordinator to manage day-to-day coordination, pursue resources, and guide implementation	Partnership[112]	Funding application is made for a 2026 start date	Partnership reassess facilitation need	Partnership reassess facilitation need	Partnership reassess facilitation need
Wastewater Treatment Facilities (N/A)	WWTF 1 – Address Aging Facilities and Consider Regionalization	Improve treatment of sewage	Utilities; Cities; Special Districts		At least 1 WWTF makes operational/ structural changes resulting in effluent improvement	At least 1 additional WWTF makes operational/ structural changes resulting in effluent improvement	At least 1 additional WWTF makes operational/ structural changes resulting in effluent improvement

[109] Numbers in parentheses indicate the estimated relative units that will be addressed by the solutions for each target as calculated in **Table 33**, **Table 34**, and **Table 35**.

[110] Availability and timing of all solutions, especially those not directly facilitated by the Partnership, are subject to changes in partner schedules in the future. Timing of some events (workshops, *etc.*) may be adjusted based on partner availability as needed.

[111] Target goals are based on **Table 33**, **Table 34**, and **Table 35**, and may vary based on opportunity, resources, and regulatory changes in the future. All numeric targets (*i.e.*, number of dogs) refer to representative units. Actual units addressed may change based on pollutant removal efficiency, location, *etc.* Outreach and education elements are designated with italics.

[112] Where Partnership appears on this table, it indicates H-GAC, a successor agency, or a watershed coordinator for the WPP acting on behalf of the stakeholders and WPP. While H-GAC is currently acting as the watershed coordinator for the Partnership, this table refers to elements conducted by H-GAC under other projects (CRP, *etc.*) as "H-GAC."

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Wastewater Treatment Facilities (N/A)	WWTF 2 – Recommend Increased Testing	Enhance monitoring to better characterize effluent	Utilities; Partnership		Partnership worked with at least 1 plant to identify capacity for increased testing	Partnership worked with at least 1 additional plant to identify capacity for increased testing	Partnership worked with at least 1 additional plant to identify capacity for increased testing
	WWTF E1 – Promote FOG Awareness	*Reduce SSOs by affecting utility customer behavior regarding FOG*	*Partnership; Utilities*	*Model materials identified and added to website in appropriate translations; distribute printed materials at local events*	*Consistent promotion with partners throughout implementation period*	*Consistent promotion with partners throughout implementation period*	*Consistent promotion with partners throughout implementation period*
Sanitary Sewer Overflows (N/A)	SSO 1 – Remediate Infrastructure	Reduce contamination from human fecal waste by reducing overflows from WWTF collection systems	Utilities		1 fewer SSO occurred than average since 2025 over implementation period	1 fewer SSO occurred than average since 2030 over implementation period	1 fewer SSO occurred than average since 2035 over implementation period
	SSO E1– Increase Public SSO Reporting	*Enhance reporting by increasing public visibility and community knowledge*	*H-GAC; Partnership; Utilities*	*Model materials identified and added to website in appropriate translations; distribute printed materials at local events*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
On-site Sewage Facilities (410)	OSSF 1 – Remediate Failing OSSFs	In conjunction with OSSF 2, address failing OSSFs	H-GAC; Homeowners; Counties (enforcement); Utilities (for conversion projects)		First third of OSSFs addressed, or failures prevented	Second third of OSSFs addressed, or failures prevented	Final third of OSSFs addressed, or failures prevented
	OSSF 2 – Convert to Sanitary Sewer	In conjunction with OSSF 1, address failing OSSFs	H-GAC; Counties; Special Districts; Utilities; Homeowners		First third of OSSFs addressed, or failures prevented	Second third of OSSFs addressed, or failures prevented	Final third of OSSFs addressed, or failures prevented
	OSSF 3 – Improve Spatial Data	Improve OSSF location spatial data to guide remediation efforts	H-GAC; Counties; Authorized Agents	Partners have reviewed and commented on existing spatial data, which is revised accordingly	Authorized Agents continue to provide new data regularly	Authorized Agents continue to provide new data regularly	Authorized Agents continue to provide new data regularly
	OSSF E1 – Hold Residential OSSF Workshop	*Empower homeowners and real estate inspectors to identify the signs of failing/failed OSSFs and promote proper OSSF management to avoid failures*	*H-GAC; Partnership; AgriLife Extension*		*5 workshops held*	*5 additional workshops held*	*5 additional workshops held*
	OSSF E2 – Participate in County-wide OSSF Workshop for Practitioners	*Harris and Montgomery County's annual OSSF workshop provides a point of coordination with practitioners*	*Partnership; Harris County; Montgomery County*		*Partnership participates in annual meetings*[113]	*Partnership participates in annual meetings*	*Partnership participates in annual meetings*

[113] This education and outreach measure is an activity of Montgomery and Harris counties. The counties may change the nature or frequency of these meetings in the future.

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
On-site Sewage Facilities (410)	*OSSF E3 – Promote Model Educational Materials*	*Provide model educational materials online to facilitate education by other organizations*	*H-GAC; Partnership; Utilities*	*Model materials identified and added to website in appropriate translations; distribute printed materials at local events*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*	*Partnership works consistently with local utilities to develop and disseminate materials to customers/ community members*
	OSSF E4 – Texas Well Owner Network Events	*Educate well owners about potential risks from OSSFs and potential contamination of drinking water wells*	*Partnership; TWRI; AgriLife Extension; TSSWCB*	*First TWON event held*[114]		*Second TWON event held*	*If available, third TWON event held*
	OSSF E5 – Signage at Remediation Sites	*Use OSSF remediation sites as outreach to neighbors via signage*	*H-GAC; Harris County; TCEQ*		*Signage placed at OSSF remediation locations*	*Signage placed at OSSF remediation locations*	*Signage placed at OSSF remediation locations*
Urban Stormwater (N/A)	Urban Stormwater 1 – Install Stormwater Inlet Markers	Raise awareness and shift behavior of residents served by stormwater systems to reduce pollutants entering drains/waterways	Local Governments; Special Districts; HOAs; Local Volunteers		At least 1 neighborhood has markers added	At least 1 additional neighborhood has markers added	At least 1 additional neighborhood has markers added

[114] These workshops are expected to occur in 7-year intervals which do not align with usual milestone intervals.

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Urban Stormwater (N/A)	Urban Stormwater 2 – Investigate Drainage Channels	Locate potential sources of pollutants in urban channels[115]	H-GAC; Non-Profit Organizations; Local Governments		Priority areas and grant resources identified ; at least 1 field reconnaissance project completed	At least 1 additional field reconnaissance project completed	At least 1 additional field reconnaissance project completed
	Urban Stormwater 3 – Low Impact Development	To reduce pollutants in stormwater flows through promoting and implementing infrastructure that mimics or improves on natural hydrology	H-GAC; Developers; Local Governments; Special Districts	LID materials developed and hosted on website in appropriate translations		At least 1 LID demonstration project installed	
	Urban Stormwater E1 – Expand Texas Stream Team Participation	*Supplement existing monitoring data with volunteer sites and empower volunteers to acts as water quality ambassadors*	*H-GAC; Partnership; TST Partners*		*1 volunteer added*	*2 additional volunteers added*	*2 additional volunteers added*
Pet Waste (2,781)	Pet Waste 1 – Install Pet Waste Stations	Reduce wastes by facilitating use of bags in public areas	Local Governments; HOAs; Apartment Complexes		At least 20 pet waste stations installed	At least 20 additional stations installed; all stations maintained throughout the implementation period	At least 20 additional stations installed; all stations maintained throughout the implementation period

[115] This solution is intended as a supplement to MS4 activities to detect illicit discharges, *etc.* It is expected additional investigations will take place as part of TPDES MS4 permits. This activity will not replace requirements under permits.

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Pet Waste (2,781)	Pet Waste 2 – Expand Dog Parks	Increase availability of controlled dog recreation areas to sequester wastes in public areas	Apartment Complexes; Local Governments; HOAs; Developers			1 new dog park area developed	
	Pet Waste 3 – Promote Spay and Neuter Events	Reduce pollutants from feral populations through voluntary population control	Service provider (such as SPCA or similar); Local Partners		1 spay/neuter event held	1 spay/neuter event held	1 spay/neuter event held
	Pet Waste 4 – Consider Additional Enforcement	Reduce dog waste by promoting enforcement	Local Governments; Special Districts; HOAs; Apartment Complexes		The Partnership will have worked with at least 1 local partner to promote enforcement	The Partnership will have worked with at least 1 additional local partner to promote enforcement	The Partnership will have worked with at least 1 additional local partner to promote enforcement
	Pet Waste E1 – Handheld Pet Waste Bag Dispensers at Local Events	*Educate residents about impacts of dog waste and reduce waste in stormwater*	*Partnership; H-GAC*		*Distribution of 500 dispensers at 10 local events*	*Distribution of 500 dispensers at 10 local events*	*Distribution of 500 dispensers at 10 local events*
	Pet Waste E2 – Elementary School Visits	*Educate children on pet waste and other water quality issues*	*H-GAC*		*5 visits held*	*5 additional visits held*	*5 additional visits held*

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Pet Waste (2,781)	*Pet Waste E3 – Promote Model Educational Materials*	*Provide model materials to facilitate other organizations' education efforts*	*H-GAC; Partnership; Local Partners*	*Model materials identified and added to website in appropriate translations; distribute printed materials at local events*	*Partnership works consistently with local partners to develop and disseminate materials to community members*	*Partnership works consistently with local partners to develop and disseminate materials to community members*	*Partnership works consistently with local partners to develop and disseminate materials to community members*
Agricultural Operations (2,896)	Agricultural Operations 1 – WQMPs and Conservation Plans	Address waste from 2,896 livestock units through 58 WQMPs, Conservation Plans or other agricultural plans	TSSWCB; SWCDs; USDA NRCS; Agricultural Producers/Land owners		First third of plans (or plans representing one third of the reduction load) addressed by the solution	Second third of plans (or plans representing one third of the reduction load) addressed by the solution	Last third of plans (or plans representing one third of the reduction load) addressed by the solution
	Agricultural Operations 2 – Maintain or Restore Riparian Buffers	In conjunction with, or in supplement to, Agricultural Operations 1, install or maintain riparian buffers in agricultural areas to reduce transmission of pollutants; this strategy coincides with Conservation and Land Management 1	Landowners/ producers (on a voluntary basis); NGOs; Agricultural Agencies		At least 1 rural property has a riparian project	At least 1 additional rural property has a riparian project	At least 1 additional rural property has a riparian project

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Agricultural Operations (2,896)	*Agricultural Operations E1 – Develop and Implement Education Measures and Materials for Livestock Operations (non-CAFO)*	*Develop specific recommendations for stabling and other livestock operations to reduce contributions from these sources*	*Partnership; TSSWCB; AgriLife Extension*	*Identify needs and potential local partners*	*Materials developed in appropriate translations and reviewed locally; hosted and disseminated*	*Materials hosted and disseminated*	*Materials hosted and disseminated*
	Agricultural Operations E2 – Hold Agricultural Resources Workshops	*Promote agricultural programs by facilitating one on one meetings with landowners*	*Partnership; TSSWCB; AgriLife Extension; USDA NRCS*		*First workshop held*[116]	*Second workshop held*	*Third workshop held*
	Agricultural Operations E3 – Support Local Agricultural Conservation	*Increase conservation efforts by lending support and coordination to local partners pursuing opportunities*	*Landowners; Partnership; USDA NRCS; Other local conservation partners*		*Collaborate with at least 1 local partner on a project proposal*	*Collaborate with at least 1 additional partner on a project proposal*	*Collaborate with at least 1 additional partner on a project proposal*
Feral Hogs (2,314)	Feral Hogs 1 – Remove Feral Hogs	Implement trapping/other removal programs to remove feral hogs from the watershed, reduce pollutants/ancillary damages	Landowners; Local Governments; NGOs; Forest Service	Develop or augment trapping program with local partners	Expand program to additional properties	Expand program to additional properties	Expand program to additional properties

[116] These workshops are expected to occur in 3-year intervals which do not align with usual milestone intervals.

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Feral Hogs (2,314)	*Feral Hogs E1 – Lone Star Healthy Streams – Workshops and Feral Hog Resource Manual*	*Educate local stakeholders to promote feral hog reduction*	*AgriLife Extension; TSSWCB; Partnership*		*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
Wildlife (N/A)	Wildlife 1 – Restore Upland Habitat	Restore upland habitat to provide wildlife alternative areas and reduce concentration in riparian zones	Landowners; NGOs; Local Governments; Agricultural Agencies (technical support)			Develop at least 1 acre or greater restoration project	
	Wildlife E1 – Homeowner Education Materials and Mailing	*Work with AgriLife Extension, HOAs and Local Partners to distribute exclusionary device materials for homeowners*	*H-GAC; Partnership; AgriLife Extension; HOAs; Local Partners*	*Model materials identified and added to website in appropriate translations; distribute printed materials at local events*	*Partnership works consistently with local partners to develop and disseminate materials to community members*	*Partnership works consistently with local partners to develop and disseminate materials to community members*	*Partnership works consistently with local partners to develop and disseminate materials to community members*
Conservation and Land Management (N/A)	Conservation and Land Management 1 – Riparian Buffers	Promote riparian buffers in all land uses to reduce transmission of pollutants (in conjunction with Land Management 2 – Voluntary Conservation); this strategy coincides with Agricultural Operations 2	Landowners; NGOs		At least 1 property has a riparian project	At least 1 additional property has a riparian project	At least 1 additional property has a riparian project

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Conservation and Land Management (N/A)	Conservation and Land Management 2 – – Voluntary Conservation	Promote voluntary conservation to reduce pollutants from developed areas	Landowners; NGOs		At least one 1+ acre property has a conservation project	At least 1 additional property has conservation projects	At least 1 additional property has conservation projects
	Conservation and Land Management E1 – Promote Riparian Buffers (Tools and Workshops)	*Reduce pollutant loads by promoting riparian buffer areas*	*Landowners; Partnership; TWRI; TSSWCB/TCEQ (granting)*		*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
	Conservation and Land Management E2 – Texas Watershed Stewards	*Educate stakeholders on water quality/watershed issues*	*AgriLife Extension*		*First workshop has been held*	*Second workshop has been held*	*Third workshop has been held*
	Conservation and Land Management E3 – Conservation Coordination	*Promote and help coordinate conservation efforts in the watershed*	*Partnership; NGOs; USDA NRCS; Other local conservation partners*		*Partnership has been active in all appropriate conservation initiatives in the watershed*	*Partnership has been active in all appropriate conservation initiatives in the watershed*	*Partnership has been active in all appropriate conservation initiatives in the watershed*
Trash and Illegal Dumping (N/A)	Trash and Illegal Dumping 1 – Report Chronic Dump Sites and Consider Increased Efficiency	Promote enforcement efforts to reduce chronic dumping sites	Local Governments; Residents; Landowners		Identify dumping sites and enforcement priorities with local partners	Address at least 1 chronic site	Address at least 1 additional chronic site

Target[109]	Solutions[110]	Overall Implementation Goal[111]	Responsible Parties	Initial Implementation Phase Milestone	2030 Milestone	2035 Milestone	2040 Milestone
Trash and Illegal Dumping (N/A)	*Trash and Illegal Dumping E1 – Trash Bash Site*	*Reduce trash and educate participants on water quality issues*	*H-GAC; Partnership;*		*Ongoing (annual event)*	*Ongoing (annual event)*	*Ongoing (annual event)*
Flooding (N/A)	Flooding 1 – Coordinate with Ongoing Flood Mitigation Efforts	Promote water quality features as supplementary elements in flood mitigation studies and projects	Partnership	Identify flood mitigation priority projects for water quality enhancements	Partnership or successor maintains presence in flood mitigation projects through public processes, comments, *etc.*	Partnership or successor maintains presence in flood mitigation projects through public processes, comments, *etc*	Partnership or successor maintains presence in flood mitigation projects through public processes, comments, *etc*

It should be noted that developing and ensuring funding to cover the cost of implementation activities without current funding sources is a primary challenge and focus for the successful implementation of a WPP. While the WPP recognizes the need for support from a local coordinator and local partners to identify funding resources, and emphasizes an opportunistic approach to utilizing funding sources, funding will be a primary determining factor in the pace and extent of implementation.