



**Animals and Agriculture Workgroup
Meeting Agenda
Wednesday, January 20, 2016
10:00 AM to 12:00 PM
Houston Advanced Research Center – 4800 Research Forest
Dr, The Woodlands, TX 77381**

Call to Order/Welcome/Introductions

Review Summary from 12/8/2014 Meeting

Discussion: Preparing BIG 2016 Annual Report – I-Plan Strategy 7.0 Animal and Agriculture Sources

Workgroup will:

- review the 2015 Annual Report
- review the timeline for preparing the 2016 report
- report on implementation activities accomplished in the 2015 calendar year,
- discuss expectations for the 2016 Annual Report, and
- discuss focus and priorities for 2016 calendar year.

Discussion: Review I-Plan Strategy 7.0 Animals and Agriculture Language

Workgroup will:

- review approved I-Plan wording
- discuss potential editorial changes
- agree on any updates, and
- develop recommendations, if necessary, that will be presented at the annual BIG meeting for approval.

Adjourn

Upcoming Meeting Schedule

Monitoring and Research: 2:00 PM on 1/26/2016

BIG Annual Meeting: 1:00 PM on 5/24/2016

Instructions to call into BIG meetings:

To call in, dial 713-481-0090 (or 800-240-3895). You will be asked to enter your pass code, followed by the # sign. The pass code is 1084242. If you dial in before H-GAC, you will hear "music on hold". Once H-GAC dials in, the music will cease and the conference call will begin. During the course of the conference, you may hear beeps. A single beep indicates someone has joined the conference call. A double beep indicates someone has left the conference call. Remember—if you do press hold, everyone will hear your hold music.

In compliance with the Americans with Disabilities Act, H-GAC provides for reasonable accommodation for persons attending H-GAC functions. Requests should be received by H-GAC 24 hours prior to the function.



Animals and Agriculture Workgroup
Draft Meeting Summary
Monday, December 8, 2014
10:00 AM to 12:00 PM
US Geological Survey – 19241 David Memorial Dr, Shenandoah,
TX 77385

Call to Order/Welcome/Introductions

Ernest Bailes (Citizen), Danielle Cioce (Harris County), Winston Denton (TPWD), Brian Koch (Texas State Soil Water Conservation Board), Helen Lane (Houston Audubon), Michael Lee (USGS), Brandt Mannchen (Houston Sierra Club), Kyle Wright (NRCS)

Review Summary from 2/11/2014 Meeting

The workgroup reviewed the notes from the previous meeting.

Discussion: Preparing BIG 2014 Annual Report – I-Plan Strategy 7.0 Animal and Agriculture Sources

The group reviewed the 2014 Annual Report and discussed the timeline for preparing the 2015 report. Members were interested in seeing if there were any success stories for feral hog removal and documentation of water quality improvements. The group discussed Harris County's project for the Barker/Cypress Reservoirs. It was stated that the data would likely not be available for the 2015 report. Additionally the group would like to determine if there has been any research completed on removal or the use of reproductive and poison use to control feral hog populations. It was noted that the Texas Department of Agriculture provides grants to counties that can be used to pay hunters for shooting feral hogs. It was also noted that the EPA 319 program does not support through their grants, the use of hunting as a reimbursable method of control.

TSSWCB stated that there were no water quality management plans created in 2014. NRCS stated that they would work on pulling data for USDA programs like EQIP in the BIG project area for the annual report. The group would also like to see documented the percent of agricultural land use change over time to other uses.

For the 2015 calendar year, the group recommended that the BIG's Research workgroup consider evaluating feral hog effective population control methods and also determine the best approach to track populations. Also, the group would like to see a workshop on feral hogs with the topic of what is working to control populations.

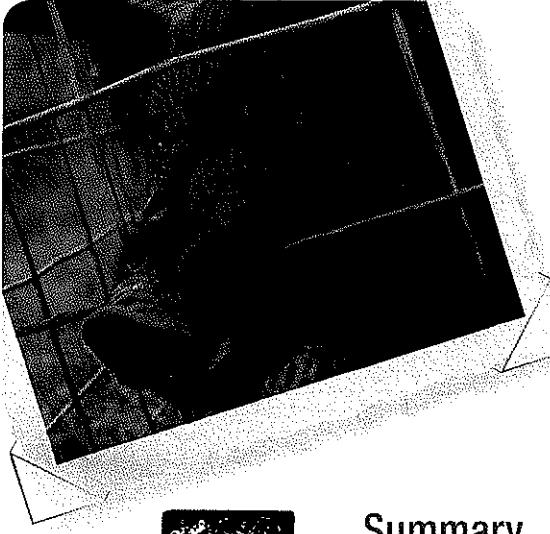
Discussion: Review I-Plan Strategy 7.0 Animals and Agriculture Language
The work group did not make any recommendations to change the I-Plan.

Adjourn

Upcoming Meeting Schedule

May 12, 2015: BIG Annual Meeting

December 15, 2014: Waste Water Treatment Facilities and Sanitary Sewer Systems – 1:00 PM at H-GAC



ANIMALS AND AGRICULTURE

7

Summary

Animals and agricultural practices contribute to increased bacteria levels in sediment runoff to waterbodies. Cattle and poultry operations are the most common agriculture animals of concern in the BIG project area. However, clusters of other animals—such as horses, swine, sheep, and goats—also may contribute to water quality impairments throughout the area. Of particular interest to BIG stakeholders are feral hogs, considered a state and national problem, estimated to cause \$52 million in crop loss in the state each year. Feral hogs damage property due to their rooting and wallowing. They also defecate, often directly into waterways, contributing large amounts of bacteria and nutrients into the environment.

Most agricultural management programs are either voluntary or apply only to confined animal feeding operations (CAFOs) designated by the EPA. These operations are not present in the BIG project area. On December 8, 2014, eight members of the Animals and Agriculture Workgroup met and recommended continuing support of local initiatives that focus on promoting participation in existing voluntary- and incentive-based programs, collecting and sharing the latest research on feral hog control, and encouraging counties to consider the Texas Department of Agriculture's bounty program for hog removal.

2015 Focus

- H-GAC and BIG stakeholders aim to
 - Continue to encourage agriculture producer involvement in existing Texas State Soil and Water Conservation Board (TSSWCB), Texas A&M AgriLife Extension Service (AgriLife Extension), and Texas Water Resources Institute (TWRI) programs;
 - Continue to provide technical support and education opportunities;
 - Gather the latest research on implementation practices that are successfully reducing feral hog populations; and
 - Track success of Harris County's feral hog management project.
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Implementation Strategies

7.1 Promote Increased Participation in Existing Programs for Erosion, Control Nutrient Reduction and Livestock Management

- **Interim Measure:** Each year, participation by farmers and ranchers in financial and technical assistance programs should increase by 5%.

Project Status

- | | | |
|---|--|--|
| <input type="checkbox"/> Not Started | <input type="checkbox"/> Behind Schedule | |
| <input type="checkbox"/> Initiated | <input type="checkbox"/> On Schedule | – This activity is <i>On Schedule</i> to meet the annual target. |
| <input checked="" type="checkbox"/> In Progress | <input type="checkbox"/> Ahead of Schedule | |
| <input type="checkbox"/> Completed | | |

Implementation Effort

Implementation.

- TSSWCB reported that there were no new water quality management programs in the BIG project area.
- National Resources Conservation Services (NRCS) and TSSWCB reported owners of 8,816 acres accepted federal funding and technical assistance under agriculture programs (Conservation Technical Assistance, Environmental Quality Incentives Program, and Wildlife Habitat Incentive Program) in 2014 to implement agricultural BMPs.
- **Education.** The Texas Water Resources Institute (TWRI), as part of its Lone Star Healthy Streams Program, hosts a website to educate Texas farmers, ranchers, and landowners about proper grazing, feral hog management, and riparian area protection to reduce the levels of bacterial contamination in streams and rivers. (<http://lshs.tamu.edu/>) In 2014, TWRI conducted four Lone Star Healthy Stream workshops in the region, Chambers, Fort Bend, Montgomery, and Walker counties, with 298 people in attendance.

7.2 Promote the Management of Feral Hog Populations

- **Interim Measure:** During the next five years, AgriLife Extension will host two feral hog management workshops per year for landowners, local governments, and other interested people.

Project Status

- | | | |
|---|---|---|
| <input type="checkbox"/> Not Started | <input type="checkbox"/> Behind Schedule | |
| <input type="checkbox"/> Initiated | <input type="checkbox"/> On Schedule | – This activity is <i>Ahead of Schedule</i> to meet the five-year target. |
| <input checked="" type="checkbox"/> In Progress | <input checked="" type="checkbox"/> Ahead of Schedule | |
| <input type="checkbox"/> Completed | | |

Implementation Effort

Education.

- AgriLife Extension conducted 15 one-hour feral hog programs in the BIG area in 2014.
- In 2014, Texas AgriLife Extension developed an application providing land owners the latest science and field-based information available on hog control measures. (<https://itunes.apple.com/us/app/feral-hog-management/id784847089?mt=8>)
- TPWD shared latest information on bait control. <https://www.youtube.com/watch?v=GigpxLnbgeg>
- **Implementation.** In 2014, Harris County Precinct 3 accelerated feral hog trapping activities in Addicks and Barker reservoirs as part of a \$630,000 Coastal Impact Assistance Program grant received in 2013. Funds were used to build feral hog traps, cover baseline water quality monitoring, and pay to process meat to donate to a local food bank. Baseline water quality monitoring began in September 2014 and is scheduled to be completed in Spring 2015.

AGRICULTURE PRACTICES IN BIG PROJECT AREA (Source: NRCS, TSSWCB)

																Total			
HUC 8	HUC 12		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Acres	Practices Applied	Program		
(12040101) West Fork San Jacinto	(120401010401) Stewart's Creek-West Fork San Jacinto River										687.3		36.0		947.7	Forest Stand Improvement, Upland Wildlife Habitat Management, Fence, Seasonal High Tunnel	CTA, EQIP		
(12040102) Spring	(120401020101) Round Creek-Cypress Creek	7.3	50.8	537.8	1,693.8	792.0	740.0	724.2	47.6	554.7	180.5	553.6	5,882.3				Prescribed Grazing, Forage & Biomass Planting, Livestock Pipeline, Nutrient Mgt, Fence, Pond Critical Area Planting, Upland Wildlife Habitat Mgt, Prescribed Burning, Integrated Pest Mgt, Range Planting, Wetland Enhancement, Wetland Wildlife Habitat Mgt, Forage Harvest Mgt, Brush Mgt, No-Till, Tree Establishment, Conservation Crop Rotation, Herbaceous Weed Control, Seasonal High Tunnel,	CTA, EQIP, WHIP	
(12040102) Spring	(120401020102) Live Oak Creek	158.5	491.2	521.7	1,588.2	439.4	171.4	1,574.9	406.1	396.2	697.2	6,484.8				Access Control, Conservation Crop Rotation, Fence, Forage & Biomass Planting, Integrated Pest Mgt, Livestock Pipeline, Nutrient Mgt, Prescribed Grazing, No Till/Strip Till, Shallow Water Development & Mgt, Spill Prevention, Control & Countermeasure, Wetland Creation, Wetland Habitat Mgt,	CTA, EQIP, CSP, WHIP		
(12040102) Spring	(120401020103) Wallard Lake-Cypress Creek															Brush Mgt, Cover Crop, Fence, Forage & Biomass Planting, Herbaceous Weed Control, Integrated Pest Mgt, Irrigation Land Leveling, Irrigation Water Mgt, Livestock Pipeline, Nutrient Mgt, Pond, Prescribed Grazing, Residue Mgt, Retrofit Water Facilities for Wildlife, Shallow Water Development & Mgt, Upland Wildlife Habitat Mgt, Water Wall, Wetland Creation, Wetland Wildlife Habitat Mgt	CTA, EQIP, CSP, WHIP		
(12040102) Spring	(120401020104) Dry Creek-Cypress Creek	53.0	305.0	782.6	1,566.9	5,080.2	4,367.9	4,759.8	3,394.5	3,634.9	6,752.4	34,401.7							
(12040102) Spring	(120401020105) Little Cypress Creek	59.9	349.4	381.5	475.0	1,030.1	246.8	865.7	220.7	1,226.3	56.2	808.4	5,497.2			Brush Mgt, Prescribed Grazing, Filter Strip, Conservation Crop Rotation, Critical Area Planting, Fence, Forage & Biomass Planting, Forage Harvest Mgt, Herbaceous Weed Control, Integrated Pest Mgt, Irrigation Water Mgt, Nutrient Mgt, Pond, Prescribed Grazing, Residue Mgt, Seasonal High Tunnel, Upland Wildlife Habitat Mgt	CTA, EQIP, CTA, EQIP		
(12040102) Spring	(120401020106) Marshall Lake-Cypress Creek																		
(12040102) Spring	(120401020107) Kitapoo Creek-Spruce Creek	12.4	509.4	271.3					616.7	283.0	77.6	98.4	47.8	64.0		Forage & Biomass Planting, Integrated Pest Mgt, Nutrient Mgt, Prescribed Grazing	CTA		
(12040102) Spring	(120401020201) Threemile Creek-Brushy Creek	148.0	308.0	332.0	168.8	589.6	168.5				115.7			1,916.6					
(12040102) Spring	(120401020202) Birch Creek-Walnut Creek															Access Control, Fence, Filter Strip, Forage & Biomass Planting, Forest Stand Improvement, Herbaceous Weed Control, Integrated Pest Mgt, Nutrient Mgt, Prescribed Grazing, Upland Wildlife Habitat Mgt, Windbreak/Silvobelt Establishment	CRP, CTP, EQIP		
(12040102) Spring	(120401020203) Birch Creek-Walnut Creek															1,825.6	Brush Mgt, Fence, Forage & Biomass Planting, Integrated Pest Mgt, Livestock Pipeline, Nutrient Mgt, Prescribed Grazing, Upland Wildlife Habitat Mgt	CTA, EQIP	
(12040102) Spring	(120401020204) Mink Branch-Walnut Creek															Firebreak, Forest Stand Improvement, Forest Wildlife Structure, Prescribed Burning, Tree/Shrub Establishment	CTA, CSP, EQIP		
(12040102) Spring	(120401020205) Sugar Creek-Spruce Creek	36.8	21.5	250.2							139.8	402.3	220.1	469.4	19.5	Seasonal High Tunnel	EOIP		
(12040102) Spring	(120401020206) Hurricane Creek-Mill Creek															435.4	Brush Mgt, Forage & Biomass Planting, Forest Stand Improvement, Integrated Pest Mgt, Nutrient Mgt, Prescribed Grazing, Upland Wildlife Habitat Mgt	CTA, EQIP	
(12040102) Spring	(120401020207) Kachet Lake-Mill Creek															109.6	16.6	Forage & Biomass Planting, Forest Stand Improvement, Integrated Pest Mgt, Tree/Shrub Establishment	CTA
(12040102) Spring																209.9	Tree/Shrub Site Preparation	CTA	
																	209.9	Forest Stand Improvement	CTA

(12040102) Spring	(120401020205) Dry Creek-Spring Creek		104.0	16.4	120.5	54.0	53.0		20.9	20.9	Access Control	CTA, EQIP
	(12040102010) Willow Creek										400.9	Critical Area Planting, Forage & Biomass Planting, Integrated Pest Mgt, Nutrient Mgt, Pond, Prescribed Grazing.
(12040103) East Fork San Jacinto	(120401030101) Heger Branch-Caney Creek											CTA, EQIP
	(120401030102) McRae Creek-Caney Creek		433.5	289.9	755.6	4,429.5	261.4	1,082.4	115.9	2,778.2	60.0	21.8
			222.7	843.0	561.6	1,433.6	60.0	86.2	82.5	74.5	136.6	3,588.2
(12040103) East Fork San Jacinto	(120401030104) Cagle Branch-Caney Creek					20.4	10.2			16.0		10,342.3
	(120401030105) Dry Creek-Caney Creek											Mgt.
(12040103) East Fork San Jacinto	(120401030106) Boggy Creek-Peach Creek		153.7	21.6	149.4	220.9	148.0	541.0	214.6	13.6	33.6	1,496.4
	(120401030107) Lawrence Creek-Peach Creek											Forage & Biomass Planting, Forage Harvest Mgt, Forest Stand Improvement, Herbaceous Weed Control, Integrated Pest Mgt, Nutrient Mgt, Prescribed Grazing, Tree/Shrub Establishment, Tree/Shrub Site Preparation, Upland Wildlife Habitat Mgt
(12040103) East Fork San Jacinto	(120401030108) Jayhawker Creek					212.8	62.1	113.5			16.6	14.2
	(120401030109) Gully Branch-Peach Creek											30.8
	(120401030110) Willow Fork											Firebreak, Forest Stand Improvement, Tree/Shrub WHIP
(12040103) East Fork San Jacinto	(120401040101) Willow Fork											Establishment, Tree/Shrub Site Prep
	(120401040102) Cane Island Branch											388.4
	(120401040103) Cane Island Branch											Forage & Biomass Planting, Forage Harvest Mgt, Integrated Pest Mgt, Nutrient Mgt, Upland Wildlife Habitat Mgt
(12040104) Buffalo-San Jacinto	(120401040104) Buffalo-San Jacinto											39.4
	(120401040105) Little Dong-Buffalo Bayou											Irrigation Pipeline
	(120401040106) Langham Creek		70.0									13,230.3
	(120401040107) Bear Creek		323.4	160.5	162.9	323.0		1,095.2	1,042.2	2,138.6	4,905.4	2,723.1
	(120401040108) Bear Creek											Mgt, Integrated Pest Mgt, Irrigation Land Leveling, Irrigation Pipeline, Irrigation Water Mgt, Nutrient Mgt, Prescribed Grazing, Pumping Plant, Residue Mgt, Seasonal Shallow Water Development & Mgt, Water Well, Wetland Wildlife Habitat Mgt
(12040104) Buffalo-San Jacinto	(120401040109) Little Dong-Buffalo Bayou											1,848.3
	(120401040110) Langham Creek											Forage & Biomass Planting, Integrated Pest Mgt, Nutrient Mgt, Prescribed Grazing, Upland Wildlife Habitat Mgt
	(120401040111) Bear Creek											1,848.3
	(120401040112) Bear Creek											1,848.3
	(120401040113) South Mayde Creek											1,848.3
	(120401040114) Keegans Bayou-Bayou Bayou											1,848.3
	(120401040115) Upper Greens Bayou											1,848.3
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(12040204) West Galveston Bay	(120402040100) Clear Creek-Frontal Galveston Bay	8.4	150.6	597.0	257.4	1,381.6	1,288.1	615.0	805.7	915.5	247.5	519.6	6,786.4	Brush Mgt; Fence, Forage & Biomass Planting, Heavy Use Area Protection; Integrated Pest Mgt; Livestock Pipeline; Nutrient Mgt; Prescribed Grazing, Range Planting; Tree/Shrub Establishment; Upland Wildlife Habitat Mgt	CTA, EQP
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