

MEMORANDUM



DATE: June 3, 2004
TO: Electronic Distribution
RE: Activities of the Infrastructure Division

Introduction Thank you for your interest in activities of the Infrastructure Division at Harris County Flood Control District! This newsletter, sent to interested parties each quarter, describes the activities of the Infrastructure Division.

- News of Note**
- Design of stormwater pollution minimization retrofits for the South Service Center is nearly complete, and construction is to begin in early spring.
 - Renovations to the first floor of the Brookhollow Building have been completed. District departments will begin using the space this month.
 - Phase I construction of the North Service Center continues and is scheduled for completion early this summer. Phase II construction has begun and is expected to be completed in 2005.
 - River, Lakes, Bays 'N Bayous Trash Bash placed first in the Governor's Texas Environmental Excellence Awards. The Infrastructure Division has provided support for this annual event for five years.
 - The annual de-snag of Buffalo Bayou by the in-house Maintenance Construction Group has been completed. Efforts were coordinated with the annual Bayou Beckons (more information at <http://www.buffalobayou.org/>).
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Activities of the Infrastructure Division, Continued

Mechanical/ Electrical

The Maintenance Engineering Department (ME) monitors and maintains mechanical and electrical structures of the District, including cathodic protection devices, flap gates, and the gated structure at Seabrook. Status of the following projects are as noted:

- The District's mechanical/electrical consultant (Infrastructure Associates, Inc.), is working on bid documents for replacement of the groundbed at rectifier #8 (Unit D139-00-00) as well as the update of several rectifiers by replacing selenium stacks with silicone diodes.
- Lift station pumps are being serviced by Hahn Equipment at Unit M125-00-00.
- Service maintenance on the emergency generator at the A200-00-00 gated structure (Seabrook) will occur soon. The service is for typical maintenance issues and is not expected to exceed more than one day of down time.
- Pumps #1 and #3 of the J113-00-00 Northgate Pump Station are operational. Pump #2 should be repaired by the end of April 2004. Pump #4 is being evaluated.
- The flap gates at Units A104-14-00, A120-06-00, and E100-00-00 are due for an annual inspection.

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Activities of the Infrastructure Division, Continued

Citizen Service Center

The Citizen Service Center handles calls related to Infrastructure and Property Management. From January through March, the Center logged 403 calls, made 986 follow-up calls, generated 404 service requests, and closed or updated 1109 service requests. Service request categorization from January through March is as follows:

Type of Service Request	Jan.	Feb.	Mar.	2004 1 ST Qtr Totals
Redig	10	14	11	35
Gate	3	5	0	8
Desilt	5	5	8	18
Manhole Cover/Ring	1	1	1	3
Sinkhole	2	4	1	7
Environmental	3	5	4	12
Mow	2	0	8	10
Herbicide	0	0	0	0
Clear Vegetation	5	2	5	12
Debris Removal	26	27	30	83
Slope Failure	8	7	2	17
Signs	3	7	12	22
Tree Removal	8	12	21	41
Dead Animal	1	2	1	4
Other	0	0	0	0
R.O.W. Access	15	11	21	47
Erosion	15	17	34	66
Backslope Drain	3	5	1	9
Silt Bar	0	1	1	2
Inlet	0	1	0	1
Dumping	3	0	3	6
Pruning	0	0	0	0
Tree Planting	0	0	0	0
Totals	113	126	164	403

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Activities of the Infrastructure Division, Continued

Asset Management

In addition to responding to Service Requests and related tasks, Asset Management has worked on the following projects in the past month:

Outfield GIS Data Collection: The identification of inventory, such as outfall pipes, control structures, etc., and deficiencies along HCFCD rights-of-way using hand-held GPS units and lasers to record their locations. Each item identified with a GPS location is referred to as a point collected.

- Data has been collected on approximately 50% of the channel miles throughout Harris County. About 37,500 points have been collected to date.
- Points have been collected in the following watersheds: Addicks, Armand, Barker, Brays, Buffalo, Clear Creek, Greens, Sims, Vince, and White Oak.
- Data is currently being collected in the San Jacinto River and Galveston Bay Watersheds (F Units).

Maintenance Repair Program: Initiated to establish a plan for scheduling maintenance repairs by identifying and analyzing deficiencies along HCFCD rights-of-way. Many of the deficiencies are identified through the Outfield GIS Data Collection program. Scheduling is based on factors such as available right-of-way, degree of deficiency, location, and need for repair.

- Maintenance repair projects have been scheduled for Fiscal Years 2005 and 2006, totaling over \$8 million for each year.
- Projects for FY 2007 are being scheduled and are projected to total approximately \$8 million.
- As new projects are identified, they are rated and placed into the schedule accordingly. As a result, some projects already scheduled may be rescheduled for a later date.

Building Maintenance:

- Elevator inspections and City of Houston code updates were completed on February 20, 2004.
- Improvements to the Climate Control System in the Brookhollow building continue.
- The first floor renovation is complete.

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Activities of the Infrastructure Division, Continued

Multi-Use

The Property Management Department actively seeks partners to develop multi-use opportunities for District property that benefit the community. These partnerships also have the potential to reduce District maintenance responsibilities and related costs.

Type of Agreement	Total # of Active Agreements	# of Agreements Executed Jan.-Mar. 2004	# of Pending Agreements
Adopt-a-Lot	17	1	6
Landscaping Maintenance	38	1	11
Encroachment	107	3	7
Grazing	6	0	0
Hike and Bike	31	1	9
Public Recreation Area	15	0	3
Channel Mowing	11	0	2

Contract Management

The Maintenance Engineering Department (ME) prepares bid packages and monitors contracts for maintenance-related (non-CIP) repairs. Contracts may encompass either single projects or multiple, smaller projects that have been batched together to create a contract that is attractive to bidders.

Contract Management: The following projects are being designed:
Projects in Design

Channel	Channel Name	Description
A119-07-00	Tributary of Turkey Creek	Slope repairs
A120-04-00	Tributary of Beamer Ditch	Slope repairs*
A120-05-00	Tributary of Beamer Ditch	Conveyance improvements
B109-00-00	Spring Gully	Outfall structure repair*
C118-03-00	Tributary of Salt Water Ditch	Conversion to storm sewer *
C128-00-00	Tributary of Sims Bayou	Slope erosion repair *
E100-00-00	White Oak Bayou	Slope erosion repair PER*
E101-10-00	Tributary of Little White Oak Bayou	Conversion to storm sewer
E115-00-00	Brickhouse Gully	Channel Repair PER
E115-04-00	Tributary of Brickhouse Gully	Slope erosion repair (MCG) *
E116-00-00	Tributary of White Oak Bayou	Slope erosion repairs

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Activities of the Infrastructure Division, Continued

Contract Management: Projects in Design (continued)

Channel	Channel Name	Description
G105-00-00	Boggy Bayou	Slope erosion repair *
I101-00-00	Little Vince Bayou	Slope erosion repair PER*
J109-01-00	Tributary of Spring Creek	Erosion repair, interceptor structure repair *
K100-00-00	Cypress Creek at Meyer Park	Slope erosion repair *
K111-00-00	Winding Creek/Turkey Creek	Slope erosion repair *
K133-00-00	Dry Gully	Concrete paving repair*
N110-00-00	Tributary of Carpenters Bayou	Slope erosion repair *
O100-00-00	Goose Creek	Sheet pile wall repair *
P100-00-00	Greens Bayou	Slope erosion repair *
P118-18-01	Tributary of Halls Bayou	Conversion to storm sewer *
Q112-00-00	Cary Bayou	Sheet pile wall repair *
T101-00-00	Mason Creek	Channel restoration
U101-05-00	Tributary of South Mayde Creek	Channel restoration
U101-06-00	Tributary of South Mayde Creek	Channel restoration
U101-07-00	Tributary of South Mayde Creek	Channel restoration PER
U101-08-00	Tributary of South Mayde Creek	Channel restoration *
U102-18-00	Tributary of Bear Creek	Channel rehabilitation*
U102-27-00	Tributary of Bear Creek	Channel rehabilitation *
U106-00-00	Horsepen Creek	Sheet pile wall repair PER *

* Denotes new project this quarter.

(MCG) denotes project for Maintenance Construction Group, the District's in-house construction group.

PER = Preliminary Engineering Report

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Activities of the Infrastructure Division, Continued

Contract Management: Bid Packages The following packages have been prepared for bidding and sent to Commissioners Court for approval to bid:

Project I.D.	Pct.	Channel Name	Description
D100-00-00-X043	1,3,4	Brays Bayou	General Repairs, Federal Maintenance
K127-01-00-X001	4	Tributary of Cypress Creek	Channel restoration
N100-00-00-X016	2	Carpenters Bayou	Channel restoration
Z100-00-00-X069	1,4	Greens Bayou Watershed	General Repairs <ul style="list-style-type: none"> • P100-00-00 • P126-00-00 • P132-00-00 • P133-01-00 • P135-00-00
Z100-00-00-X072	4	Greens Bayou Watershed	General Repairs <ul style="list-style-type: none"> • P100-00-00 • P137-00-00

Contract Management: Contract Oversight The following contracts, previously awarded, are in progress:

Project I.D.	Pct.	Start Date	Active section
Z100-00-00-X065	1-4	12/15/03	Federal Maintenance General Repair Project: Channel Repairs on White Oak Bayou (E100-00-00); Designs complete for repairs on Vince Bayou (I100-00-00) and Little Vince Bayou (I101-00-00)
Z100-00-00-X068	4	10/20/03	Channel restoration on K142-07-00 (final section)
Z100-00-00-X071	4	3/15/04	Awarded 1/13/04
D139-04-01-X001	1	-	Awarded 1/27/04, Contract to Court 3/16/04
E101-10-00-X001	1	3/15/04	Awarded 1/13/04
F101-03-00-X001	2	5/3/04	Awarded 2/3/04, Contract to Court 3/30/04

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Activities of the Infrastructure Division, Continued

Contract Management: Contract Oversight (continued)

Project I.D.	Pct.	Start Date	Active section
F103-00-00-X002	2	3/22/04	Awarded 1/13/04
K167-00-00-X001	3	11/17/03	Channel Restoration (15% completed)
P110-00-00-X001	2	-	Channel rehabilitation
T101-09-00-X001	3	2/10/04	<ul style="list-style-type: none"> • Channel Restoration on T101-09-00 • Backslope swale regarding on T101-00-00

Contract Management: Completed Contracts

The following contracts have been completed in the past quarter:

Project I.D.	Pct.	Project Description	Start Date	Substan. Complete
Z100-00-00-X051	1-4	Countywide Desilts	10/28/02	1/9/04
Z100-00-00-X067	4	General repairs in Northwest Harris County	09/08/03	1/6/04
K165-00-00-X004	4	Channel restoration	11/17/03	4/1/04

Maintenance Construction Group

The Maintenance Construction Group (MCG) handles small repairs. These repairs typically take no more than three days to complete. In the past quarter, MCG has completed the following:

Channel	Channel Name	Activity
D100-00-00-X047	Brays Bayou	Parking lot removal
E122-00-00-X003	Tributary of White Oak Bayou	Rock and slope repair
E128-00-00-X001	Tributary of White Oak Bayou	Washout repair
E130-00-00-X003	Tributary of White Oak Bayou	Pipe repair
E132-00-00-X003	Tributary of White Oak Bayou	Pipe repair
K124-02-00-X003	Tributary of Seals (Bonds) Gully	Filling voids
K145-01-00-X002	Dry Creek	Silt Removal
P122-00-00-X002	Tributary of Greens Bayou	Silt Removal
P130-09-00-X003	Tributary of Garners Bayou	Silt Removal
P150-00-00-X001	Tributary of Greens Bayou	Erosion repair

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Activities of the Infrastructure Division, Continued

Maintenance Construction Group (continued)

Channel	Channel Name	Activity
P150-00-00-X002	Tributary of Greens Bayou	Erosion repair
P150-00-00-X003	Tributary of Greens Bayou	Pipe repair
P152-00-00-X005	Tributary of Greens Bayou	Repaired backslope structure
P152-00-00-X006	Tributary of Greens Bayou	Pipe repair
P161-00-00-X002	Tributary of Greens Bayou	Repaired sinkholes
P161-00-00-X003	Tributary of Greens Bayou	Repaired E-Inlet
P161-00-00-X004	Tributary of Greens Bayou	Repaired sinkholes
U106-08-00-X001	Tributary of Langham Creek	Repaired sinkholes
Various	--	Miscellaneous activities: 7 "No Trespassing" signs, 62 pipe gate repairs *

* MCG is no longer responsible for curbs and sidewalks on buyout lots.

Turf Establishment

Turf Establishment provides protection from erosion by quickly establishing grass on channels that do not have suitable cover. Because establishment frequently is on channels that have recently been repaired or built, one can examine current projects of the Maintenance Engineering Department and the Maintenance Construction Group to determine upcoming establishment projects.

Turf Establishment contractors worked on the following sites in April:

Unit	Name	Located at
A120-00-00	Beamer Ditch	Beltway 8
B500-01-00	Detention Basin of Armand Bayou	
C120-00-00	Tributary of Sims Bayou	Carson to Willardville
D118-00-00	Kegans Bayou	D100-00-00
D126-00-00	Tributary of Brays Bayou	Synott and at Eldridge
D500-04-00	Detention Basin of Brays Bayou	Eldridge
D500-06-00	Detention Basin of Brays Bayou	Arthur Storey Park
E100-00-00	White Oak Bayou	Various locations
E101-18-00	Tributary of Little White Oak Bayou	Little York
E115-09-00	Tributary of Brickhouse Gully	Gessner to upstream end

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Activities of the Infrastructure Division, Continued

Turf Establishment (continued)

Unit	Name	Located at
E121-00-00	Vogel Creek	W. Mt. Houston to Breen
E141-00-00	Tributary of White Oak Bayou	Beltway 8
F101-06-02	Tributary of San Jacinto Bay	Downstream end
F101-06-03	Tributary of San Jacinto Bay	Downstream end
G103-24-00	Tributary of Rogers Gully	FM 1960 to upstream end
G103-24-02	Tributary of Rogers Gully	Aerobic to downstream end
G103-24-04	Tributary of Rogers Gully	Entire reach
G103-38-00	Tributary of San Jacinto River	Kingwood Dr.
G103-43-00	Jordan Gully	Treeline to Wilson
G103-80-01	San Jacinto River (East Fork)	Mills Branch
G105-00-00	Boggy Bayou	San Augustine to Golf Course
K111-07-00	Tributary of Turkey Creek	E. Richey
K142-00-00	Faulkey Gully	Lakewood Forest Dr.
K142-05-00	Tributary of Faulkey Gully	Louetta to Downstream end
K142-07-00	Tributary of Faulkey Gully	N. Eldridge Parkway
N104-00-00	Tributary of Carpenters Bayou	Ashland to Sheldon
N111-00-00	Tributary of Carpenters Bayou	Beltway 8 to downstream end
P100-00-00	Greens Bayou	Greens Rd. to Knobcrest
P114-00-00	Tributary of Greens Bayou	Mesa Rd.
P118-00-00	Halls Bayou	P118-23-00 to P118-24-00
P125-03-00	Tributary of Greens Bayou	Annunciation, Spottswood
P127-01-00	Tributary of Greens Bayou	Lockwood
P127-01-01	Tributary of Greens Bayou	Entire reach
P130-05-00	Tributary of Garners Bayou	Highway 59
P130-09-00	Tributary of Garners Bayou	Memorial Dr.
P148-00-00	Tributary of Greens Bayou	Veterans Memorial
P152-00-00	Tributary of Greens Bayou	Bammel North Houston
Q112-03-00	Tributary of Cary Bayou	Crosby Cedar Bayou
R103-00-00	Tributary of Jackson Bayou	Crosby Fairgrounds
T101-00-00	Mason Creek	Katy Hockley Cutoff
U101-03-01	Tributary of South Mayde Creek	Misty Cove
U108-00-00	Tributary of Langham Creek	W. Little York

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Activities of the Infrastructure Division, Continued

Mowing Contracts

Vegetation cutting, also known as mowing, typically occurs in three cycles. Each cycle lasts approximately 40-45 calendar days. Each mowing sector is mowed once from start to end during each cycle. Starting dates may vary by about two weeks, and may be adjusted based on growth.

Cycle	Description
1	Typically begins May 1
2	Typically begins July 15
3	Typically begins October 1

Buyout Mowing

Contractors began mowing buyout lots the first week of April 2004. Buyout lots are mowed once each month during the growing season, April through November.

This year, HCFCD is participating in the Houston Mowdown and Keep Houston Beautiful Partner Program for the month of April. "Get the low down on the Houston Mowdown" by visiting their website at www.houstonbeautiful.org.

Herbicide

Licensed Service Center crews are completing backpack application of broadleaf vegetation such as ragweed on Brays Bayou and Cypress Creek. Crews are preparing to treat Johnson Grass on selected channels. These crews will follow about two weeks behind the channel mowers.

Wildflowers

Wildflower plantings are blooming beautifully. Along White Oak Bayou from 11th St. upstream to Pinemont, look for interpretive signs about the District's wildflower planting program. The program is growing (in more ways than one), and the District expects to plant 100 acres of wildflowers along its channels later this year.



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Activities of the Infrastructure Division, Continued

Selective Clearing

- Contracted Selective Clearing has been completed on the lower ends of Greens Bayou (P100-00-00) and Halls Bayou (P118-00-00).
- Service Center crews completed de-snag operations, removing downed limbs and trees from the waterway, along Cypress Creek (K100-00-00) and Willow Creek (M100-00-00).
- Selective clearing crews have completed projects along a tributary of Halls Bayou (P118-14-02), Vince Bayou (I100-00-00 at I106-00-00), and Bear Creek (U102-00-00).
- Selective clearing projects being considered for execution within the next few months include:

Channel	Name	Location
A104-00-00	Taylor Creek	From McCabe Rd. to Shore Acres
A115-00-00	Tributary of Clear Creek	Entire Channel
A125-00-00	Tributary of Clear Creek	From A100-00-00 (Clear Creek) to Beltway 8
C106-03-00	Tributary of Berry Bayou	Forest Oaks Drive to downstream end
C123-00-00	Tributary of Sims Bayou	From C100-00-00 (Sims Bayou) to South Acres
G103-38-00	Tributary of the San Jacinto River	Oak Channel to downstream end
K120-00-00	Lemm Gully	From North Hill Estates subdivision to K100-00-00 (Cypress Creek)
K124-00-00	Seals Gully	From Spring Cypress to Louetta
P118-05-00	Kennedy Gully	Woodlyn to downstream end
P138-03-00	Tributary of Greens Bayou	Rockshire Rd. to Gault Rd.
U120-00-00	Dinner Creek	At U100-00-00 (Langham Creek)
U121-00-00	Tributary of Langham Creek	From the upstream end to confluence
U101-20-00	Tributary of South Mayde Creek	Barker-Cypress to Greenhouse Rd.

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Activities of the Infrastructure Division, Continued

Channel Clean-ups

Each Wednesday, a crew of probationers cleans up litter on targeted segments of channels. Please let us know if you have a site to recommend for clean-ups. The following list shows the channels that have been cleaned in the fifteen months, and how often:

Channel	Name	Frequency
D500-06-00	Detention Basin of Brays Bayou, Arthur Storey Park	15
D140-00-00	Tributary of Brays Bayou	10
E100-00-00	White Oak Bayou	6
H100-00-00	Hunting Bayou	6
H110-00-00	Tributary of Hunting Bayou	6
H112-00-00	Schramm Gully	6
D100-00-00	Brays Bayou	4
P145-00-00	Tributary of Greens Bayou	4
C100-00-00	Sims Bayou	3
D120-00-00	Tributary of Brays Bayou	3
P145-03-00	Tributary of Greens Bayou	3
C118-00-00	Tributary of Sims Bayou	2
E135-00-00	Tributary of White Oak Bayou	2
B100-00-00	Armand Bayou	1
C122-00-00	Tributary of Sims Bayou	1
D103-00-00	Country Club Bayou	1
P100-00-00	Greens Bayou	1
P118-00-00	Halls Bayou	1
P145-03-01	Tributary of Greens Bayou	1
U101-18-00	Tributary of South Mayde Creek	1
U102-01-00	Tributary of Bear Creek	1

Tree Maintenance

A trained Service Center crew has been assessing existing tree planting locations; in addition to regular tasks of staking; watering; and mowing, weeding, and mulching around trees.

Tree Planting Preparations

- The District purchased 18,175 tree seedlings from the Texas Forest Service. They were potted by staff and volunteers. They will be planted in the future when they are more mature.
- An irrigation system has been installed at the South Service Center tree grow-out center.
- A tree grow-out contract will be awarded to L&L Landscape services to supply 100,000 trees over the next five years.

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Activities of the Infrastructure Division, Continued

Development Coordination and Inspection

DCI is currently monitoring the following 148 active development construction projects which affect HCFCD infrastructure:

- Channels: 28
- Outfalls: 66
- Basins: 26
- Bridges: 6 (four vehicular access and two pedestrian/golf cart)
- Utilities: 17
- Hike and Bike: 2
- Adjacent development: 3

Coordination with the District's Plan Review Section (PRS) is an important function within the group. The group meets with PRS to review plans and discuss designs to identify and alleviate problems that may arise prior to the construction stage.

DCI is also coordinating with the Harris County Permits Dept. as the New Permit Management System is developed. All projects that break the plain of HCFCD right-of-way will be monitored as to permit status.

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