



January-February-March 2011

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FACILITIES MAINTENANCE

The Facilities Maintenance Department (FMT) planted 25 sites this season for the District with a total of 13,086 trees and shrubs. The planting of these sites occurred from September 2010 to March 2011. The majority of the trees were planted by our Tree Planting and Maintenance Contractor, although 125 trees were planted by volunteer students from MacArthur High School on Units P118-19-02 and P118-37-00. Tree maintenance has already begun and will continue through September of this year. Watering will be critical to the trees' survival through this period of drought we are experiencing. Trees are scheduled to be watered on a weekly basis by the contractor. The contractor is responsible for maintaining trees planted this season and trees planted in the previous season. A total of 37,609 trees will be maintained throughout the summer. Tree maintenance also includes mowing the tree sites and maintaining mulch around the trees. This contract is scheduled to be rebid later this year.



Tree planting site at Hwy. 249 looking downstream on Unit K100-00-00.

The District's three selective clearing contracts, which began last winter, completed operations on March 31, 2011. Of the 64 total sites scheduled for selective clearing this year, 37 sites were completed, totaling 737 acres. Most of the selective clearing took place in the Greens Bayou watershed. Buffalo Bayou, from Sabine Street to Shepherd Drive, was also selectively cleared. A future selective clearing contract is scheduled to bid soon and work will begin this winter. The work will include some of the lateral channels of Buffalo Bayou.

FMT recently entered into an agreement for turf establishment on Harris County Public Infrastructure Department (HCPID) project sites after construction is completed. The projects will be accepted for maintenance and formally turned over for routine monitoring when the National Pollutant Discharge Elimination System (NPDES) requirements are met (i.e., 70% desirable vegetation is established). Currently, HCPID has released two projects to FMT with more projects to be released through the upcoming quarters.

FACILITIES MAINTENANCE *(continued from page 1)*



Wildflower site on Unit D100-00-00 south slope downstream of Calhoun St.

Approximately 50 acres of new wildflower sites were seeded last fall and 50 acres were reseeded. Our goal this fall is to seed 100 acres of new sites.

The bluebonnets this season have really bloomed well on White Oak Bayou. In the future, the District will consider narrowing the

wildflower plant pallet to include those species that seem to bloom the best, such as bluebonnets, on our channels.

Thirty-three clearing sites were added for herbicide application. Vegetation that will be sprayed includes broadleaf weeds, vines and brush. Concrete and rip-rap herbicide applications began in February and continued through mid-March. Ragweed application ran from mid-March through April. Johnson grass application will begin in June and will continue through 15 different watersheds.

MAINTENANCE ENGINEERING



Concrete slope paving failure on a lateral of Rogers Gully (Unit G103-24-03) at the confluence of Rogers Gully.

Buffalo Bayou has experienced severe erosion and sedimentation accumulation along its banks. This has adversely impacted water quality and aquatic habitat along the bayou. The Memorial Park Demonstration Project, currently under design,

will focus on the 7,800 feet of erosion repairs bordering Memorial Park. The District is working with experts in fluvial geomorphology techniques to devise slope repairs that can withstand the natural erosive stresses. Fluvial geomorphology is the study of natural stream systems and how they form over time. Results of the fluvial geomorphic techniques will provide valuable data for future erosion repairs on Buffalo Bayou. Applying geomorphic techniques will enhance the bayou's ability to naturally resist erosion for years to come.

Erosion and pipe repairs along a lateral of Rogers Gully (Unit G103-24-03) will begin during the summer of 2011. The project repair area begins at the confluence of Unit G103-24-00 and G103-24-03 continuing about 6,800 feet upstream along the channel and ending just upstream of Long Trace Drive. The bid price for the project is estimated to cost \$555,280.

The District also is moving forward with a project to repair Vogel Creek (Unit E121-00-00). The project will include sediment removal and erosion repairs along a 1-mile stretch of Vogel Creek between West Mount Houston Road and Arncliffe Drive. The project was recently awarded for \$397,590 and should begin within the next two months. The banks of Vogel Creek will continue to erode if left in its present condition. The project will reduce the amount of sediment in the creek and allow it to function more effectively.

The design phase for the Horsepen Creek (Unit U106-00-00) sediment removal project is complete and authorized by Commissioners Court to receive bids on May 3, 2011. The project limits are from Highway 6 downstream to the Addicks Reservoir, totaling 3.3 miles. The engineers' estimate for the construction is \$1.4 million. Construction is scheduled to begin in August 2011.

Upcoming repair projects on three federal channels (Brays, Vince and Little Vince bayous) will bid in June 2011. The repair projects will consist of general repairs such as concrete lining repairs, debris and sediment removal on earthen sections and outfall repairs.

COMPLIANCE



Crew members correctly using pole pruners.

The Compliance Department is always seeking ways to reduce employee work-related personal injuries. During the past quarter, the District had five fewer personal injuries compared to the same quarter in 2010, which had seven employee

injury incidents. The first quarter of 2011 resulted in two significant employee injuries: a bee sting and foreign debris in the eye. The Compliance Coordinator, Andrew Neff, attributes the decrease of injuries to an emphasis placed on “team-work” regarding injury prevention among the crews. According to Mr. Neff, “The District has been emphasizing a team effort approach for staffers to watch out for each other rather than just watching out for oneself.” If a field crew member is away from work because of a

personal injury on the job, the crew is required to work regardless of being short one member. This team approach benefits each employee to help other employees develop a high-level of safety habits on the job.

The Flood Control District installed Artificial External Defibrillators (AED) in each building. In January, 10 employees were certified in CPR, First Aid and AED usage. These certifications were required before any of the five AEDs could be installed at District facilities.

A new vehicle inspection procedure was implemented last quarter affecting field employees who operate District vehicles. The vehicle operator must conduct a 5-minute inspection of the vehicle prior to operation. The new procedure requires the driver to perform a “walk-around” to check for tools lying on the ground near the vehicle, a clear driving path before backing up, and for open doors, etc. This procedure was implemented to reduce accidents and to reduce damages to various tools.

FLEET MANAGEMENT



Inside the North Service Center Fleet Maintenance Shop.

The Fleet Management Department maintains information related to repairs and preventative maintenance on vehicles and monitoring distribution inventory. Currently, the biggest issue facing most fleets is

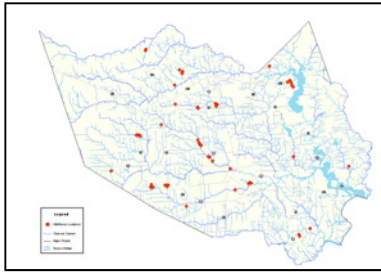
the price of fuel. In 2010 the District’s average fuel cost was approximately \$2.60 per gallon. For 2011 the District’s current average cost per gallon is \$3.40 per gallon, but current fuel prices are between \$3.70 and \$4.00 per gallon. Fleet Management anticipated the increase in fuel prices this year and budgeted accordingly (up to \$4.00 per gallon), which helps the District meet fuel costs.

There were no new vehicles included in the District’s 2012 budget, but fortunately, all of the District’s vehicles are fairly new and in good condition. This

department continually monitors and stays current with the preventative maintenance on District-owned vehicles including changing oil every 5,000 miles. Proper preventative maintenance is key to keeping vehicles in good working order. Two new ATVs were added to the fleet this past quarter. The ATVs provide better mobility for District staff when administering herbicide in areas with limited access and dense vegetation.

The Distribution Center is considering the idea of an “off-the-shelf” software program that will track consumable inventory and link to the vehicle maintenance process within the Fleet Management Department. Having an inventory system that is linked to our vehicle maintenance program would allow us to transfer parts and consumable items automatically. If the two systems are not linked, the items would have to be manually entered by an employee. The goal is continued success in implementing a more approachable and reliable customer service team for all District employees.

GEOGRAPHIC INFORMATION SYSTEMS



Identified wildflower planting sites.

across the county. The sites were identified with the

The Geographic Information Systems Department (GIS) provides accurate and reliable spatial information that is easily displayed. GIS created a list of potential sites for wildflower plantings

use of GIS tools that perform analysis of datasets selected for wildflower site identification. The data used in the study came from information regarding sites for hike-and-bike trails, bridges and road crossings, parks and school proximity, vegetation management and citizen requests. With the help of GIS, the Property Management Department can easily determine new locations for wildflower planting sites and the Facilities Maintenance Department can implement those plantings.

PROPERTY MANAGEMENT



Selective clearing on a tributary of Unit P114-00-00 looking downstream of Unit P114-01-00.

The System Repair Program for FY 2012 has been implemented by Asset Management, and 68 projects were identified with an estimated cost of \$12.9 million. The District is using a new system called “Condition Index” as a tool that depicts the

(bought, sold or dedicated), property rights must be researched to verify ownership. As part of an easement dedication project, the Property Rights team identified 20 channels within Harris County that are currently not being maintained because of questionable property ownership. The District hopes to rectify the ownership issue and maintain these channels in the future.

overall condition of a channel based on outfield data collection. Developed areas will be the first areas targeted.

During the first quarter of 2011, the majority of activity for the Development Coordination and Inspection Section (DCIS) has been monitoring Harris County public infrastructure, such as roadway projects. DCIS monitors and inspects construction activity on all District property to ensure design requirements match the District’s maintenance criteria. DCIS works regularly with the Watershed Coordination Department regarding plan review before construction begins on District property. Occasionally, construction standards may change because the District is always striving for improvements in channel design. In such cases, DCIS works closely with the District’s Chief Engineer regarding any design criteria changes.

The Vegetation Management Program includes selective clearing, tree planting, tree spading and rescue, wildflower planting, water based operations, debris removal and buyout lot maintenance. Selective clearing consists of pruning and the removal of underbrush, vegetation, invasive species and the removal of hazardous trees from the banks of the channel. Phase 1 of selective clearing program was completed on March 1, 2011, with a total of 760 acres being selectively cleared. Phase 2 will begin in October 2011 on the east side of Harris County including Buffalo Bayou (Unit W100-00-00) and Spring Creek (Unit J100-00-00).

The Community Services Section (CSS) sponsored 16 students from MacArthur High School for the planting of 65 trees and shrubs on the east side of a tributary of Halls Bayou (Unit P118-19-02). The District provided the trees and crew members to help with the planting. The District also hosted its 8th Annual Tree Seedling Potting event on February 5 at the South Service Center. This event usually features three different high schools competing to see which school can plant the most seedlings. Because of to inclement weather, two schools dropped out of the event. Clear Brook High School braved the icy conditions and 17 Jr. ROTC students participated. Those students, along with District staff, successfully planted 1,600 tree seedlings.

The focus of the Asset Management tree planting program is concentrated inside Beltway 8 on smaller channels located in well-developed areas. The tree planting plan will be implemented over a 4-year period planting approximately 20,000 trees each year. The District will re-evaluate the tree planting plan later this year.

Property rights is always a concern for the District. Any time a piece of real property is transferred