OEQ NEWS

Wetland Preservation

Volume 2, Issue 2

February 2008

Trinity Wetlands

by Bryan Kilburn, Storm Water Management

The Trinity River Corridor Project (TRCP) and the United States Army Corps of Engineers (USACE) are constructing a 4 mile, 190 acre, chain of wetlands in the Great Trinity Forest (GTF) that will serve the dual purposes of flood protection and habitat creation as well as provide a future economic stimulus for South Dallas.

Natural wetlands provide for long and short term water storage and the dissipation of floodwaters. The Dallas Floodway Extension (DFE) Chain of Wetlands will provide new reservoirs for water storage and a secondary flowage path for flood waters along the west side of the Trinity River from Corinth to Loop 12 at the old Sleepy Hollow Golf Course. This secondary flowage path for floodwaters will come into use about twice a year when river leaves its banks and will lower flood elevations by about one foot across the entire Trinity River flood plain in Dallas. The DFE wetlands also represent a cost savings to the over all TRCP, City of Dallas, and USACE efforts to raise our existing and construct new levees. The soil excavated for the chain will be used for construction of the Lamar and Cadillac Heights Levees.

Instead of the normal flood water swale that holds water and allows it to gradually infiltrate the soil or be removed by evaporation or pumping, the USACE is going through the additional effort to create artificial, yet fully functional wetlands. Each cell of the chain of wetlands will be kept full of water year round by reusing purified waste water. A defined center channel and a control structure on each cell will allow the City of Dallas raise or lower the level of water mimicking the natural, seasonal variations in water levels as well as create a gentle flow through the cell (a feature important for keeping the mosquito population in check). The wetlands are also tiered allowing the importation of suitable soil for wetland plants. The USACE are in the second phase of their test planting on our first completed cell at Overton and Interstate 45. When established in each of the cells, these plants will provide the foundation for a natural food chain and allow the wetlands to provide habitat for fish, reptiles, amphibians, mammals, and birds. Dallas is in the path of several major yearly bird migrations. The habitat created by this project will make the DFE wetlands an important layover for many species, and, in the near future, with the Trinity Spine Trails, and the Trinity River Audubon Center (opening Fall 2008), a place where birding enthusiasts from across the United States (maybe the world) will come to enjoy their hobby making Eco Tourism an important part of the future economy of South Dallas.

Wetlands by Meghna Tare

Wetlands are generally defined as land areas in which saturation with water is the primary feature which determines the type of soil development and the kinds of flora and fauna living within and on the surface of that soil. There are many types of wetlands including marshes (wetlands frequently or continually inundated with water), swamps (wetlands dominated by woody plants such as trees), bogs (characterized by peat deposits) and fens (peat-forming wetlands receiving water from non-precipitation sources).

Wetlands house some of the most complex and diverse ecosystems on earth. They host an immense variety of plant life and provide habitat for many animal species for all or part of their life cycles. Commercial and game fish, resident and migratory water fowl, along with well-known mammals such as beavers, otters, black bears, raccoons and deer depend on wetlands for life-sustaining benefits. The maintenance of good water quality is another beneficial function of wetlands. Much of the water found in wetlands comes from runoff. Runoff is the water that passes through the wetland from higher ground on its way to large bodies of surface water such as rivers and oceans. Wetlands purify this water by filtering out pollutants from agricultural production, sewage and other sources. This is a kind of natural sewage treatment which is being successfully utilized in lieu of conventional sewage treatment plants in some areas.

February Training Schedule

Spill Prevention Control and Countermeasure (SPCC, TK201)

Date: February 5, 2008

Time: 2-3 pm

Location: L1FN Conference Room C

Proper Spill Response

Date: February 7, 2008

Time: 2-3 pm

Location: L1FN Conference Room C

Right to know (RTK 101)

Date: February 12, 2008

Time: 2-3 pm

Location: L1FN Conference Room B

Designing a Training Program (EMS106)

Date: February 14, 2008

Time: 2-3 pm

Location: L1FN Conference Room B

For more information about training classes please contact Meghna Tare at (214)-670-1200 or at meghna.tare@dallascityhall.com .

UST-Equipment

Date: February 19, 2008

Time: 2-3 pm

Location: L1FN Conference Room B

Stage I and II (TK103)

Date: February 21, 2008

Time: 2-3 pm

Location: L1FN Conference Room C

Greenhouse Gas Emissions/Global Warming

Date: February 26, 2008

Time: 2-3 pm

Location: L1FN Conference Room B

Tier II Reporting (RTK201)

Date: February 28, 2008

Time: 2-4 pm

Location: L1FN Conference Room C

Class descriptions are also located on the OEQ Intranet site.

Wetlands cont.

Some of the water inundating wetlands is soaked up as if by a sponge. The water may then go into the soil where it replenishes ground water. Other portions of this water may be stored in the wetland during periods of high water flow in the adjoining channel, such as a river. This function serves to prevent or mitigate the destructive effects of flooding. Wetlands thereby become an important tool in flood control and protection.

Wetlands have been disappearing from the lower 48 states to an alarming degree since the 1600s. Human activities such as drainage, excess chemical contamination and the construction of various structures to control flooding and facilitate navigation have combined to reduce that acreage by about 50%. These measures must be successfully challenged in order for wetlands to be maintained and restored to their natural levels of abundance and for their full benefits to be realized.

The hydrology of a wetland is such that the area is permanently or periodically inundated or saturated at the soil surface for a period of time during the growing season. The presence or absence of water is not necessarily a good method for identifying wetlands because the amount of water generally fluctuates depending on such things as rainfall patterns, snow melt, dry seasons, and longer droughts. Often the same wetland can appear to be an open body of water some times, and a dry field at other times due to significant fluctuations in water levels. Therefore is it very difficult to know if you are on a wetland and destructing or interfering with the pristine habitat and its delicate ecosystem balance.

Green Tip!

Don't be a drip! Did you know U. S. office workers use enough water every day to fill 17,000 Olympic-sized swimming pools?

Unfortunately, much of this water comes from leaky faucets. A leaky faucet that fills a coffee cup in ten minutes will waste an estimated 3,000 gallons of water a year. These leaks not only waste water but cost companies a lot of money!

8 ways to protect your water supply

1. Dispose of used oil responsibly—recycle it!
2. Dispose of household hazardous waste properly. Use non-toxic alternatives.
3. Practice Xeriscaping in your yard! Call 214–670-3155 for more information.

4. Use pesticides and fertilizers properly. Use a natural alternative if possible.
5. Do not leave your yard clippings in the street. It will clog up storm drains!

6. Wash your vehicle at a commercial car wash. They have drains that are tied into the sanitary system.
7. Correct erosion problems. Don't let your top soil wash away, your plants need it!

OEQ

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OEQ NEWS

Earth Day Every Day

OEQ

The Office of Environmental Quality (OEQ) was formed by the City Council in February 2004 to serve as an internal resource to City of Dallas staff on environmental issues. These issues range from compliance with regulatory requirements to conduct public outreach events and raising awareness related to our environment.

OEQ currently supports the Key Focus Areas of " Staff Accountability" and "Economic Development" in the City of Dallas structure with three services: Environmental Management System, Inspections and Spills, and Outreach and Training.

Go With The Flow