

Watershed Roundtable Meeting Summary

Lake Worth/Eagle Mountain Lake and Lake Bridgeport Watersheds (State Highway 170 Corridor Pilot Area)

February 17, 2010

2 p.m. to 4 p.m.

Meeting Location: City of Azle Public Library, 333 West Main Street, Azle, Texas 76020

Attendees: Darrel Andrews (TRWD), Joe Barrows (Half Associates), Elizabeth Beck-Johnson (NCTCOG), Erin Blackman (NCTCOG), Paul Bounds (City of Fort Worth), Sam Brush (NCTCOG), George Conley (Parker County), Tamara Cook (NCTCOG), Ed Cowley (City of Chico), Clair Davis (City of Fort Worth), Chad Edwards (NCTCOG), Mark Ernst (TRWD), Dick Fish (Save Eagle Mountain Lake), Eric Fladager (City of Fort Worth), Bill Flanigan (TXI), Stephanie Griffin (Freese and Nichols), Ron Hager (TXI-Bridgeport), Coit Harris (City of Chico), James Keith (CDM), Russell Killen (Half Associates), Mark Krey (City of Springtown), Mike Lattimore (Fort Worth Boat Club), T. Lynn Lovell (Half Associates), Scott Miller (NCTCOG), Jack Mobley (USACE), John Mummert (TCEQ), John Promise (NCTCOG), John Propse (City of Azle), Philip Schutts (Fort Worth Boat Club), Earl Smith (City of Decatur), Jack Stevens (TRWD), Rick White (City of Azle), and Clint Wolfe (Texas AgriLife)

Meeting Materials:

1. Agenda handout
2. 21 Regional Watershed Map handout
3. Regional Ecosystem Framework for North Texas handout
4. Lake Worth/Eagle Mountain Lake and Lake Bridgeport Watersheds Vital Ecosystem Information Layers (VEIL) poster
5. State Highway 170 Pilot Area VEIL poster
6. State Highway 170 Pilot Area Texas Ecological Assessment Protocol (TEAP) poster

Agenda:

1. Welcome and Goals

John Promise, NCTCOG, welcomed everyone and thanked them for coming to the meeting. John asked everyone to introduce themselves and state what agency they were representing.

John began the presentation and outlined the four main goals for today's meeting: Learn about local experiences in the watersheds; encourage more cooperation around watershed/subwatershed geographies; help us craft a long-range watershed protection strategy for water supply reservoirs; and help us develop a framework to guide the implementation of an ecosystem approach to mitigate the effects of infrastructure (such as transportation) projects.

2. Overview of Regional Ecosystem Framework/Valuing Our Watersheds

John then introduced the Regional Ecosystem Framework (REF), which NCTCOG is establishing for North Texas. It is "based on a collaboratively developed vision of desired future conditions that integrates ecological, economic, and social factors" (*Eco-Logical*). REF was conceived by several federal and state agencies and is further outlined in the *Eco-Logical* document—a guide to making infrastructure more sensitive to wildlife and ecosystems through greater interagency cooperative conservation. NCTCOG's geographic boundaries for conservation and cooperation are at the watershed/subwatershed level. In doing so, NCTCOG has clustered more than 300 12-digit hydrologic unit codes (HUCs) delineated by the U.S. Department of Agriculture-Natural Resources Conservation Service into 21 "Regional Watersheds" for the 12-county metropolitan planning area.

John directed attendees to the 21 Regional Watershed Map handout, and explained that these regional watersheds have been further organized into watersheds that drain to the Trinity River from the urban area (identified as the orange colored group on the map), drain to water supply lakes of the Upper Trinity River Basin (identified as the tan colored group on the map), or drain to lakes or rivers surrounding the Upper Trinity River Basin (identified as the multi-colored group on the map). Today's meeting is for the Lake Worth/Eagle Mountain Lake and Lake Bridgeport watersheds, which drain to water supply lakes (Lake Worth, Eagle Mountain Lake, and Lake Bridgeport) of the Upper Trinity River Basin. Several of these subwatersheds have been clustered to make up the State Highway 170 Pilot Area, which is part of the work being done among NCTCOG's Environment and Development and Transportation departments on a Federal Highway Administration grant/state match. This will be discussed later in this presentation.

John further explained that the REF is being accomplished on a watershed basis by connecting people, places, and programs. The REF is the "umbrella" framework for a variety of regional initiatives that NCTCOG is facilitating. The REF is intended to embody this quote from the U.S. Fish and Wildlife Service, which states, "One conservation framework, endless possibilities for partnerships." As described on the REF for North Texas handout, NCTCOG is in the business of connecting people, places, and programs.

3. Perspectives on the Watersheds

John began this section of the presentation by mentioning that this brief look at the Lake Worth/Eagle Mountain Lake and Lake Bridgeport watersheds is meant to help "tell the story" of the watersheds. Nineteen cities, three census designated places, and three counties are part of the Lake Worth/Eagle Mountain Lake watershed (either partially or completely) and four cities and two counties are part of the Lake Bridgeport watershed (either partially or completely). Only those communities that are within NCTCOG's 12-county metropolitan planning area (MPA) are included. The majority of the Lake Bridgeport watershed is outside the MPA. The communities are listed based on the percentage that that community is contained within the watersheds. John also directed attendees to the VEIL poster of the watersheds that map several layers (e.g. land use) to, again, help tell the story of the watersheds.

John explained that another aspect of telling the story of the watersheds involves understanding the history. Doug Anthony, NCTCOG, has been designated "watershed story teller" and put together a couple important pieces of history for these watersheds. For example, coal was discovered in Bridgeport in the later part of the 19th Century and was once a staple of Bridgeport's economy. In addition, the Sand Hill Community, east of Lake Bridgeport in the Lake Worth/Eagle Mountain Lake watershed, was a center of pioneer culture in North Texas.

In order to protect the watersheds' water quality, John indicated that it's important to know what issues have been past and/or are current problems. Some problems identified in these watersheds were past concerns for excessive algal growth, depressed dissolved oxygen, and phosphorus in Eagle Mountain Lake as well as a 1997 fish kill in Lake Bridgeport due to low dissolved oxygen. There are several efforts going on in the Lake Worth/Eagle Mountain Lake and Lake Bridgeport watersheds to help protect water quality. For instance, the City of Fort Worth is involved in several Lake Worth watershed protection efforts.

4. Local Program Presentation

John turned the floor over to Paul Bounds, City of Fort Worth, to describe their Lake Worth watershed protection efforts. Paul discussed the Lake Worth Vision Plan, Comprehensive Management Plan, storm water incentives, and dredging projects.

The four principles of the Lake Worth Vision Plan are to: protect and enhance Lake Worth's water quality, natural beauty, and recreational character; develop Model Sustainable Communities in the Lake Worth area that create desirable places to live and work while enhancing livability of existing communities; create Lake Worth Regional Park, a linear park that encompasses the lake

and provides high-quality recreational amenities and cultural hubs; and connect communities, resources, and amenities with parkways, greenways, and trails.

The goals of the Comprehensive Management Plan are to: minimize pollutants at the source by creating a Lake Worth Watershed Regional Committee, promoting low-impact development, adopting storm water management best practices, and promoting incentive programs for storm water best management practices; and establish and maintain collection points at discharge into Lake Worth through riparian buffers, sedimentation basins, and catch basins.

The types of storm water incentives include: developer incentives—providing additional flexibility or other benefits that occur at the time of development—and storm water credits—reductions in monthly storm water utility fees that accrue to property owners after development. Brewer High School is a good example of “green” best management practices/infrastructure. For instance, there is a detention pond and some permeable parking areas.

Finally, Paul discussed the cost/benefit analysis for dredging Lake Worth. The goal of dredging would be to improve water quality and restore recreational opportunities at Lake Worth. A decline in the cost/benefit ratio after four feet lake depth for water quality and six feet for recreational activities was found. Dredging those areas less than six feet deep to six feet in depth would be the optimal solution.

A question was asked about what pollutants are coming from the Interstate 820 Bridge crossing Lake Worth. Paul indicated that they are primarily oil-based products.

The presentation ended with John asking attendees for positive aspects of Fort Worth’s efforts as well as some of the challenges. Attendees indicated that catch basins upstream of Lake Worth, increasing recreation, and the trail system were positive features; however, pollution from the Lockheed Martin plant and determining the measure of success were challenges.

5. NCTCOG Program Presentation

For the final portion of the meeting’s presentation, John discussed “integrating transportation, environment, and development planning on a watershed basis to achieve sustainable communities and region.” In June 2009, the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and U.S. Environmental Protection Agency entered into an interagency partnership for sustainable communities. The objective is to advance development patterns that achieve improved economic prosperity, environmental sustainability, and social equity in metropolitan regions.

This partnership sets a very important example as NCTCOG works to make the North Central Texas region more sustainable through its REF initiative. NCTCOG received American Recovery and Reinvestment Act (ARRA) stimulus funds to support the development of three tools that will integrate a watershed protection strategy into a larger ecosystem framework. These tools include: an assessment of opportunities and challenges to protecting the reservoirs from future development, the “greenprinting” of several priority watersheds, and the development of a long-range watershed protection strategy to 2035.

NCTCOG is also working to integrate transportation, environment, and development through a Federal Highway Administration (FHWA) grant/state match to encourage a more robust consideration of environmental impacts and to develop mitigation strategies during the long-range transportation planning process, through the development of a conceptual framework for integrating environmental and infrastructure plans across agency and geographic boundaries.

NCTCOG is looking at three pilot areas in greatest detail—Lake Lavon Rail Corridor, State Highway 170 Corridor, and State Highway 360 Corridor. The focus of this portion of the presentation is on the State Highway (SH) 170 Corridor. All of the subwatersheds that appear to

be impacted by the proposed transportation networks, in this case SH 170 between Interstate Highway 35-West in Fort Worth and SH 199 west of Azle, were chosen and mostly located within the Lake Worth/Eagle Mountain Lake watershed. This corridor is expected to cross Eagle Mountain Lake.

This initiative is one of many under the REF umbrella seeking to connect people, places, and programs. Today's focus is specifically on connecting places. In doing so, John presented a series of maps that identify some of the "vital ecosystems" related to water, biological, socioeconomic, historical, and archeological resources in the SH 170 Corridor. These maps were also overlaid with the proposed railways and roadways based on the region's metropolitan transportation plan. The next step in the process would be to consider these vital ecosystems to rank or give value to the subwatersheds as well as to define strategies that avoid, preserve, restore, enhance, and/or mitigate for. John asked a couple rhetorical questions—Is there a way to value each subwatershed? How do we place value? What's the plan, protection or development?

6. Discussion/Feedback Exercise

John then asked attendees to record any challenges and opportunities that exist for protecting the Lake Worth/Eagle Mountain Lake and Lake Bridgeport watersheds on the yellow post-it (or "sticky") notes placed at each table. NCTCOG staff would walk around the room to collect this feedback and place them on one of two boards, titled "challenges" or "opportunities." The feedback gathered during this exercise will be compiled and considered in the development of the long-range strategy for protecting the region's major water supply reservoirs.

A short discussion took place as attendees were recording their challenges and opportunities. It was noted by an attendee that expanding SH 114 rather than building SH 170 over Eagle Mountain Lake would be the preferred option. In addition, another attendee indicated that the goals for the subwatersheds may be different and so it would be difficult to consider the entire watershed in protection efforts. John indicated that the intent of "valuing our watersheds" would not be to standardize subwatersheds.

The post-it note comments received are as follows:

Challenges

- Integrating all stakeholders' concerns.
- Understanding development needs/wants in upper basin areas.
- Define success; measure success.
- Complete Eagle Mountain Lake Watershed Protection Plan.
- Limiting growth.
- More inter-agency cooperation regarding future planning.
- Smaller, semi-rural communities funding the design and construction of storm water drainage/collection systems.
- Divergent goals.
- More and better communication between Tarrant Regional Water District and lake residents.
- Reducing pollution.
- Where is the science in the process?
- Greenprinting on a large scale in western part of metroplex. Conflicts with future roadways/development.
- Capturing the broad range of issues in extremely diverse watersheds.
- Maintain Eagle Mountain closer to normal pool (Additional water from Oklahoma might be a partial solution).
- Coordinate Lake Bridgeport interests with those downstream.
- County jurisdictions and differences in needs.
- What is pay back to Feds for taking stimulus money?

- All efforts to control runoff, reduce fertilizer, reduce trash, subdue oil/grease will have positive impacts but how do you quantify to make sure money is spent in the most efficient way or effort is not wasted on frivolous efforts (i.e. no phosphorus fertilizer in watershed when phosphorus is not a problem).
- How to prevent an urban vs. rural (or lakeside vs. upstream) divide from developing in the Eagle Mountain Lake watershed when it comes to proposing ideas and solutions to lake water quality.
- Communication.
- Enforcement.
- Coordination of multiple agencies with existing programs under various stages of development. Some targeted at the same goal, some more diverse.
- Different groups have different desires from each lake: swimming? Fishing? Drinking water? Waterfowl? Boating? Nature? Can all goals be met with one plan?
- Don't we need more lakes for the future growth of all the people that are coming our way?
- Agree with bridge "somewhere" across Eagle Mountain Lake (should be able to incorporate water quality controls).
- Funding the selected projects and programs.
- What is the goal of the plan and what is the litmus test to see if it is met (i.e. cleaner water goal, test – more swimmers? Secchi depth?).
- Funding mechanisms for cities to implement changes using limited funds.
- Implementation of suggested actions in areas with no entity that has jurisdiction to enforce.
- Sustaining quality surface water in lakes that are major recreation centers as well as being highly developed.
- Improve water quality on north end of Eagle Mountain Lake.
- Some of the lake watersheds extend into counties outside the NCTCOG. How do you bring those areas into the process?
- Challenge in allowing public access to the resource and controlling their impact on the resource ~ public education.
- Achieving a consensus among stakeholders regarding public access to shoreline (balancing lakeshore residents interested against the broader community's interests).
- Maintaining growth for the area while controlling quality of life.
- Ensuring all users are represented, e.g. water allotments from Bridgeport Lake.
- Time.
- Special interest swaying things in a negative direction.
- Get buy-in for regulations on rural development (new) that benefit or solve problems for urban areas.
- Use caution not to impose such burdens on the "rural" watersheds that could effectively remove growth opportunities (i.e. impose new regulations).
- Engage both urban and rural landowners in the watershed-wide goals and their implementation.
- Coordinate an entire Texas watershed (Lake Worth) with a reasonable Master Plan.

Opportunities

- The greatest opportunity is to manage sustainable development for future generations. It's up to us, working together, to ensure this happens.
- Trail system along old railroad and road right of ways around Lake Bridgeport.
- I like the idea of having watershed protection committees. The committees should include a variety of interest, such as municipalities, small business, industry, environment, public, etc.- whatever is appropriate for the given watershed.
- Growth is coming whether it's wanted or not. Proper planning by cooperating cities/ agencies/ environmental groups will determine the outcome. More networking is necessary. This should be seen as an opportunity.

- Opportunity and Challenge: Engage both urban and rural landowners in the watershed-wide goals and their implementation.
- Incorporate improved lifestyle into growth areas via iSWM measures.
- If you pump water across the state lake to lake then everyone has a stake in it.
- Capturing new concepts for protection as land use changes.
- Involve industry in developing effective watershed management plans.
- Coordinate an entire Texas watershed (Lake Worth) with a reasonable Master Plan (Challenge too).
- Choose Lake Worth as focused study area, can build on work already done through Lake Worth Vision Plans.
- Need for science-based tools to assist in making decisions; maps and committee votes cannot effectively correct problems.
- Develop specific watershed-based plans (instead of generic one-size fits all) that people can get excited about and support.
- Promote sustainable new development.
- Use federal and private (i.e. gas revenue) to protect and enhance water quality, supply, flood control, etc.
- Use of tools such as adaptive management.
- Adopt common standards for storm water discharge quality.
- To combine runoff, pollution, and flood control.
- To control pollution and food loss for years to come.
- Adopt "full bore" iSWM in the Lake Worth watershed (a pilot for City of Fort Worth?). This would be step for the city toward full implementation.
- Understanding development needs/wants in upper basin areas.
- Have state legislature pass enabling legislation empowering watershed districts with authority.
- Create regional watershed managements authority.
- Public education and understanding of need for watershed management.
- Better access to environmental corridors.
- Proper utilization of public use properties.
- Eagle Mountain is an exceptional water resource next to a large metroplex.
- Eagle Mountain and GP have a huge dependable water supply for the area to drink.
- Consider a watershed council structure in pilot watersheds with potential for future constellation of watershed councils across the region.
- The opportunity to have a stick that compels local governmental leaders to address local storm water issues.
- Reroute SH 170 to SH 114 loop.
- Agree with bridge "somewhere" across Eagle Mountain Lake (should be able to incorporate water quality controls).