

Village Creek-Lake Arlington WPP

Meeting Minutes

Burleson University Room, City Service Center
725 SE John Jones Drive, Burleson TX
December 10, 2015

Meeting Overview and Introductions

- Overview of today's presentation content
- Introductions
 - Name/location/affiliation
 - What do you expect to learn today?
- Presented website and provided information about funding sources
- Reviewed basic ground rules for discussion periods
 - Limit discussion to 5 minutes per person
 - Any additional questions may be answered during the open discussion period at the end
 - Please be respectful of others' time and points of view

Evolving into a Watershed Protection Plan

- Need for protection of Lake Arlington for:
 - Drinking water quality
 - Recreation
 - Fishing and wildlife
- Possible focus areas for evaluation:
 - Natural gas well drilling
 - Standards for docks/piers
 - Dredging
- Not taking action now could lead to increased water treatment costs in the future
- Creation of Lake Arlington Master Plan (LAMP) with the purpose of:
 - Water quality protection
 - Use as a short and long term planning tool
 - Optimizing recreational use
 - Ecosystem management
 - Identifying impacts of future development
- Relating the Lake to the watershed
 - Must protect the watershed to protect the Lake
 - Main tributary (Village Creek) is listed as impaired for bacteria by TCEQ
 - Village Creek watershed is mostly outside of Arlington's purview – partnerships with other entities necessary to protect the Lake
- WPP is preferred protection method
 - Voluntary, non-regulatory approach
 - Grant-funded and stakeholder-driven
 - Opens door for additional funding opportunities

Building a Watershed Protection Plan

- NPS Program History
 - Developed in 1987 as a means of managing non-point source pollution
 - Prioritizes funding for watershed-based plans for impaired waterbodies
- Federal funding split between two state entities
 - Source: Clean Water Act (CWA) Section 319 Grant
 - TSSWCB – silviculture/agriculture-centric projects (50%)
 - TCEQ – urban and rural projects not related to silvicultural or agricultural activities (50%)
- Project funding
 - 60% of project funding provided by EPA, other 40% must be match from non-federal sources
 - Must have a WPP in place to be eligible for most CWA Section 319 Grant funds
- Nine Key Elements of a WPP
 - Find sources – some known, others discovered through monitoring
 - Monitoring is typically routine, some through Clean Rivers Program
 - Also useful for tracking best management practice (BMP) effectiveness
 - Load reductions – how much needs to be removed to attain the water quality standard?
 - Identify BMPs and resources needed to implement them
 - **CWA 319 funds cannot be used to fund MS4 projects, but can be used to fund actions above and beyond those covered by the MS4 for stormwater activities**
 - Resources – what do we need to successfully implement the plan?
 - Education – find knowledge gaps
 - How to identify malfunctioning septic systems
 - Schedule for Action
 - Agree on needed actions, when to implement, and the responsible party for each
 - When will funding become available?
 - Engage educators – opportunities for student projects
 - Milestones
 - Criteria for success
 - Monitoring progress
 - Did water quality improve at index sites?
 - Were education/outreach activities successful?
 - Were project milestones reached?
- Adaptive Management
 - WPP can and should be adaptive, revised to meet needs of project
 - Sustainable stakeholder group is critical to successful plan implementation
 - Reconvene with group to revise strategies, modify plan
 - CWA Section 319 funds should be seen as “seed funding” to jumpstart additional projects
 - Identify other funding sources that don’t require matching funds

Water Quality in the Lake Arlington/Village Creek Watershed

- Watershed overview – length: 28 river miles, area: 143 square miles
 - water supply for City of Arlington & portions of Tarrant County
 - receives water imported from Cedar Creek and Richland-Chambers Reservoirs
 - “Unclassified” waterbody – associated with a “classified” segment because they share a watershed, but needs to be evaluated separately from the main body of the segment
 - 6 permitted domestic sewage dischargers, all less than 1 MGD
 - 1 permitted wastewater discharger, more than 1 MGD

- TCEQ Integrated Report
 - Overview of uses, standards, and screening levels for Lake Arlington and Village Creek
 - Village Creek: non-support for contact recreation
 - Cause: exceeds standard for bacteria (25 samples, 302.36 MPN/100 mL geomean; 126 MPN/100 mL is standard)
 -
 - Lake Arlington: screening level concern for general use
 - Causes: chlorophyll-a & nitrate level exceedances at various stations throughout the lake
 - *note: screening level concerns are ***not*** impairments*
- Bacteria (*E. coli*)
 - Found in the intestines of all warm-blooded animals
 - Most are harmless to humans
 - Used to indicate the presence of pathogenic strains
 - High bacteria counts when flow is highest – indicates non-point sources (ex: runoff) as most likely sources
- Nitrate (NO₃)
 - Common source: fertilizers
 - Screening level concern likely arose from “transition area” closer to the creek mouth
- Chlorophyll-a
 - Surrogate for algal growth – easier to measure this instead of counting algae
 - Algal blooms can lead to water quality issues
 - Aesthetics, taste, odor
 - Low dissolved oxygen (DO) – can negatively affect aquatic life
 - Levels highest in Lake in “transition area,” levels decline closer to dam
 - Higher in Lake than in Creek – due to residence time
 - More info in 2015 Basin Report (link provided in presentation)

Q: Will we be addressing anything other than bacteria?

A: The focus of the WPP is the bacteria impairment, but activities targeted toward reducing bacteria loads will undoubtedly reduce loads from other parameters as well. Ultimately, this is a stakeholder-driven plan, so if the group feels strongly about a particular concern for the watershed, it's very likely that activities associated with addressing that concern could be included, provided that appropriate justification is laid out in the plan.

Q: Where do we think the *E. coli* is coming from?

A: Probable sources for this watershed include: a) animals (includes native wildlife, invasive species (hogs), and domestic pets), b) “urban camps” under bridges, c) avian populations (waterfowl and bridge dwellers), d) failing infrastructure, and e) failing septic systems.

Q: Will bacterial source tracking (BST) be used to identify sources?

A: There is no funding for BST in the current budget. If the stakeholders agree that BST needs to take place, it would have to be identified as a need in the WPP and sources of funding would have to be identified.

Stakeholder Involvement

- A stakeholder is anyone who:
 - Makes/implements decisions

- Is affected by those decisions
- Participates in the planning process (either by assisting or impeding)
- **Don't have to be a watershed resident to be a stakeholder**
- Stakeholder involvement is key to developing an effective WPP
 - If stakeholders don't like the plan, they won't follow it
 - Requires well-distributed stakeholder representation
 - Amongst users with varying needs
 - Spatially throughout the watershed
 - Local knowledge – what's worked here in the past, what hasn't?
- Increase awareness by holding informational meetings and providing outreach materials
- Encourage participation in group meetings, steering committees, and through public feedback
- **GOAL - develop a plan that will drive implementation**
 - IMPROVE water quality in Village Creek
 - PROTECT water quality in Lake Arlington
- Group structure
 - Watershed stakeholders – anyone, regardless of activity level or involvement
 - Steering Committee – voting body of group
 - Technical Advisory Group – resource agency staff, non-voting group
- Steering Committee
 - Decides what solutions will go into the plan, as well as the components that are most likely to achieve those solutions
 - Will be asked to approve and abide by a set of ground rules
 - Will meet more frequently than the general group – schedule to be self-established once Committee is formed
 - Participation expected for duration of project, through August 2018

Tentative Monitoring Approach

- Overview of Counties, municipalities, and SWCDs in watershed
- Introduction of sampling team members
- Sampling goal: identify parameter loadings
 - Collect flow and water quality samples
 - Loading = Parameter concentration X Flow
 - Overview of parameters included in sampling plan
- Sampling to begin in May 2016
 - One year of monthly routine samples
 - Four flow-biased samples (two high flow, two low flow)
 - 10 sites: bacteria; 4 sites: bacteria + nutrients
- Sampling sites located in public areas at road crossings
 - One site west of Lake, one to the east
 - Five sites on Village Creek main stem
 - Three sites on named tributaries
- Two sites have historical data for comparison (approximately 15 years, monthly/semi-annual data)
- New monitoring will establish baseline knowledge of water quality
 - May show temporal trends
 - Areas of concern
- Use the data to promote group discussion
 - Provide basis for informed decisions

- Denote focus areas for specific BMPs
- Ultimately drive decisions that will become part of the WPP

Q: What are the most recent data for Village Creek showing?

A: The data appear to indicate a decreasing trend for bacteria, but more samples will be needed to confirm this.

Q: Will you be monitoring for effects due to fracking/drilling?

A: Unfortunately, Clean Rivers Program is not equipped to address emergency response sampling needs like those presented by oil/gas issues, and this monitoring effort only has limited funding, specifically targeted to addressing a bacteria issue. We are monitoring for TDS – it is possible to use this as a surrogate for oil/gas monitoring.

Q: What about heavy metals?

A: Possibly, but would need to have a goal and specific question to answer outlined in the WPP. Cadmium, lead, zinc, and Chromium-III are the most likely ones to be analyzed.

Q: What about surfactants or other fracking fluid parameters?

A: This is outside the scope and budget of both CRP and this project, but monitoring for surfactants is a component of an existing special project.

Q: Will you be conducting storm sampling?

A: Storm sampling would certainly be a benefit to the project, but it is unlikely due to budget constraints. Flow samples will be taken in conjunction with grab samples for parameters, and a USGS station does exist at the Rendon Road site, which records continuous flow measurements. Some load extrapolation could be conducted using this data, if needed.

Q: Have any “hot spots” already been identified?

A: Not yet. We are hoping to obtain that sort of information from stakeholders.

Q: Will you be sampling upstream of bridges to avoid capturing direct avian bacteria inputs that occur immediately downstream of bridge crossings?

A: When possible, yes. This will depend on personal safety concerns, but flow may also be taken downstream if it is determined that flow conditions are best at that location.

Upcoming Events and Path Forward

- Texas Watershed Steward Workshop
 - Group recommendation: March 10, 2016
- Official name and logo
 - Group selected logo #1 (see presentation)
 - Agreed that group name should place “Village Creek” in front of “Lake Arlington” to reflect the need for a watershed approach
- Future meeting times – group agreed that Thursday afternoons were best for public meetings
 - NCTCOG and Burleson offered their facilities for future public meetings
 - Kennedale offered their facilities for Steering Committee/special workgroup meetings

Open Discussion

Q: If I sit on the Steering Committee, my City Council will likely want to hold a hearing before I'm allowed to vote on decision points that will require a commitment from a municipality – won't this seriously derail the WPP, since staff don't have the power to make decisions directly?

A: At this stage, there will be no commitments from participating entities – that will come during the implementation phase. We are still in the planning phase, so we will instead be voting on including the activities that are likely to be most successful in the watershed, along with specific chapters of the WPP. Chapters may be reviewed and approved by the Steering Committee as much as a year before TCEQ or EPA even reviews them, so there will be ample time to amend them as needed to ensure the majority of stakeholders are in support of the plan.

Q: How was the Lake Arlington Master Plan voted on by the City?

A: The Master Plan was adopted by the City of Arlington through a resolution. By extension, some of the provisions of the plan were adopted by the City of Fort Worth, which have since been codified.